

Price and quality across English care homes: Evidence from a secret shopper survey

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A report commissioned by the Live-in Care Hub*

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Executive Summary

This report analyses the findings of a secret shopper survey of care homes in England. 1,022 care homes were called with details of a potential self-funding resident, with three levels of condition used for the various homes (a bit muddled and arthritis; dementia and arthritis; dementia, arthritis and a stoma).

The care home representative was asked questions about: (Basic) weekly cost, (any) extra costs on top of basic price, extra costs if health deteriorates, charges for medical appointments, if residents can go for walk outside grounds, are pets allowed, can pets visit, does the home welcome people to visit, will the potential resident have to move if their health deteriorates, and each home's CQC rating. Some homes were also asked about if there were charges for medical appointments. Finally, a subjective quality measure assessed whether the representative who took the call was friendly and approachable.

The stratified sample of care and nursing homes chosen was representative of the clientele that live-in care providers currently support, based on their CQC registrations. This does mean that nursing homes were significantly underrepresented in the sample (21% of homes compared to 37% nationally). The homes were generally representative of region and quality, with small differences that are unlikely to have influenced the findings.

There was a wide distribution of quality according to the indicators gathered in the survey. Virtually all homes welcomed visits, and the majority of these stated that these could happen at any time. Nearly half of care homes allowed pets, whilst almost nine in ten homes allowed pets to visit. A quarter of homes stated that residents could not go for a walk outside the grounds. Three quarters of homes stated that residents could go for a walk outside the grounds at least sometimes.

There was a split as to whether the relative would have to move if their condition deteriorated: 40% of homes said yes, 40% no and 20% stated maybe. A high proportion of residential, non-dementia homes were amongst those reporting that the client would not have to move. A majority of these homes also reported that costs would not increase if health deteriorates. This could indicate a lack of openness, but regression analysis confirmed that homes where the resident would remain permanently are significantly more expensive, which is consistent with supporting greater needs levels over time.

Just over one third of homes' representatives were reported to have been very friendly on the phone, with a small proportion (8%) being reported as unfriendly. Of the quality measures, only this subjective friendliness indicator had any correlation with CQC quality rating. This could indicate a bias in the measure or that the friendliness of the staff is a good proxy for overall care home quality.

Care homes were generally receptive on giving information about price – 96.3% provided price details. In those cases where price information was not forthcoming this was usually because it was stated that price would be dependent on an assessment of the potential resident.

Most care homes (85%) reported that there were extra costs on top of the price reported. This was predominantly for hair, chiropody, newspapers, etc. A hundred and twenty homes were asked if they charged extra for medical visits, and of these, 42 (a third) said that there were charges for medical appointments (usually the cost of the carer accompanying the person needing to go to hospital/ doctor). Only twenty-nine of those homes which were not asked about costs of medical visits said that they charged for visits.

A majority of care homes (60%) reported that there would be extra costs to be paid if the clients' health deteriorated.

Three weekly price measures were estimated based on the price data gathered: a basic, middle and high weekly price. The estimated average prices found were generally lower than that reported by the Competition & Markets Authority in a recent study of the care homes market. Given the sampling and estimation procedures, the estimated prices from this report are likely to be biased downwards as and will generally represent a lower bound.

There was a wide distribution of prices reported across the country: from £313 to £2,500 per week. Overall average price ranged from £711-£776pw, depending on the price measure used.

The 10th percentile price ranged from £500-£525pw depending on the price measure used. The ranges for median and 90th percentile price were £680-£750pw and £950-£1,050pw, respectively.

For each condition the respective ranges were: £661-£704pw for 'a bit muddled and arthritis'; £703-£763pw for 'dementia and arthritis'; and £828-£949pw for 'dementia and a stoma'. There are significant price differences across the three conditions, although regression analysis showed no significant difference in price between conditions 1 and 2.

Prices varied a great deal between and within regions, with homes in the South East and London being the most expensive on average and homes in the North East, North West and Yorkshire and Humber being the cheapest. All regions had prices in the £500 to £800pw range, with only the North East not having any prices in excess of £1000pw.

Descriptive analysis showed that there were significant differences in price according to the quality indicators. There were significant differences in price according to CQC quality rating, although the difference is not significant when looking at a binary indicator of CQC quality ratings.

Care homes which allowed pets had significantly higher prices than homes that did not, as did care homes which allowed pets to visit. There was some indication of lower prices for homes where residents can go for a walk outside the grounds. Of those asked, homes that charged for medical visits charged significantly higher prices than those that did not.

Care home prices nationally were significantly cheaper than live-in care provider prices for almost all conditions. However, care homes that could be seen to have traits that are most similar to live-in care are relatively rare (7.7% of homes). For the top quarter of care home prices there was some indication that care home prices are consistent with, or greater than, average live-in care price for all conditions.

There is some tentative evidence which suggests that care homes with comparable quality to live-in care also have similar prices, but further work would be required to confirm this. The comparability of care home price to live-in care varies by region, i.e. South East and London will generally have more care homes charging prices consistent with live-in care, whilst North East and North West England will have very few. Nonetheless, virtually all regions will have some care homes that charge prices which are comparable to live-in care for each condition.

Regression analysis confirmed that a lot of the quality differences are reflected in the price paid. Having a pet costs £38pw, whilst being able to go for a walk (£36pw) and having to move home if the condition of the resident deteriorates (£25pw) significantly reduces the price of a place in a care home. The regression analysis did not control for certain care home aspects (e.g. size, sector) or local level needs, demand and supply factors, all of which may play some part in care home price.

Introduction

Care homes market

The English care homes market for older people consists of over 11,000 care homes that are registered with the Care Quality Commission (CQC), the national health and social care regulator, to provide services for older people and/or for those living with dementia. These homes come in a wide range of sizes (from a handful to over one hundred beds), types (e.g. nursing, residential), and may also serve other conditions (e.g. learning disability, mental health). Prices and quality are therefore likely to vary greatly between homes. Only a little is known about prices in general (e.g. Competition & Markets Authority, 2017) and there is very little information on price for specific conditions. Quality-wise the only measure available nationally is CQC's quality rating for homes. Therefore it is of interest to develop the base of knowledge on pricing and quality factors within the English care homes market.

Secret shopper survey

The Live-in Care Hub performed a secret shopper survey of a stratified sample of residential and nursing homes in March and April 2018. The sampling of each type of home (care homes without a dementia registration, care homes with a dementia registration and nursing homes) was in proportion with the number of each type of home in a particular region, and in proportion with the conditions found with live-in care.¹

Through a phone call they asked for details of how much a care home place would cost for a female relative who had a certain level of conditions that would fit with the care home called. This relative would be self-funding. The callers also asked about certain elements of the care home that could be linked to quality. Details of the relative that was looking for a place and the questions asked in the survey are provided in Box 1 and Box 2, respectively. 1,022 care homes were called with the survey to be representative of the clients that providers of live-in care support. 519 Calls were made for clients described to have Condition 1 (50.8 per cent), 286 calls for clients described by Condition 2 (28.0 per cent) and 217 by Condition 3 (21.23 per cent).

The rest of the report is as follows. First, the representativeness of the care home sample is assessed. An analysis of the quality of care homes and of the variation of price between care homes follows. This analysis looks to see if there are indications of what may cause price differences between care homes, according to type, condition, region, quality rating, and other indicators of quality. The difference between care home price and live-in care provider prices is assessed, and finally a regression analysis of price is also performed to examine correlations with price when controlling for other factors.

Representativeness

The representativeness of the sample can be assessed based on care home type (nursing/residential), region, and quality rating. We compare this to the CQC's monthly database of their national register of care homes for 1 May 2018.

¹ Most live-in care providers from the Live-in Care Hub are registered with CQC under the following headings: Dementia, Personal care, Physical disabilities, Sensory impairments, Caring for adults under 65 years, Caring for adults over 65 Years. Therefore the sample of care and nursing homes selected also had these registrations.

Box 1 Client conditions

Client Condition 1 (Residential care homes, with and without dementia registration)

A bit muddled and arthritis. Having some home help a couple of hours a day (help getting dressed, washing & preparing food). Very social and enjoys going for walks.

Client condition 2 (Residential care homes, dementia registered)

Dementia and arthritis. Having some home help a couple of hours a day (help getting dressed, with medication, washing & preparing food), living with dementia which is getting worse. Enjoys going for walks.

Client condition 3 (Care homes with nursing)

Dementia, arthritis and a stoma. Having some home help a couple of hours a day (help getting dressed, with medication, washing & preparing food), living with dementia which is getting worse and has a stoma. Enjoys going for walks.

Care home type

As outlined above, care homes were selected to be representative of the client conditions that live-in care providers are more likely to serve. Nursing homes were called about clients described by Condition 3 and residential homes that are not registered to support those living with dementia were called about clients described by Condition 1. Given that around 40 per cent of live-in care clients do not currently live with dementia, residential homes registered to support those living with dementia were allocated to be called with clients described by both Condition 1 and Condition 2. Given the stratified sampling procedure described, nursing homes are significantly underrepresented (21.2 per cent compared to 36.7 per cent nationally), whilst the other two care home types are slightly overrepresented: 46.6 per cent of homes were residential and dementia registered (compared to 39.5 per cent nationally) and 28.0 per cent were residential homes compared to 23.8 per cent nationally.

Region

Table 1 shows how care homes are split by region for the random sample of care homes surveyed. Care homes in the East of England (10.8 per cent nationally) and East Midlands (9.9 per cent) are significantly overrepresented (at 1% and 10% significance, respectively) in the survey compared to all care homes nationally as of 1st May 2018, whilst the South East (19.1 per cent) and South West (13.7 per cent) are significantly underrepresented (at 10% significance). This could have a (likely small) influence on how representative the analysis that follows is at a national level.

Box 2 Details gathered in interviews

(Basic) weekly cost.
Extra costs on top of basic price? If yes, what are they for?
Are there extra costs if someone's health deteriorates?
Charges for medical appointments?
Can residents go for walk outside grounds?
Are pets allowed?
Can pets visit?
Does the home welcome people to visit?
Strict visiting times?
If health deteriorates, would she have to move?
CQC rating.
Was the person taking the call friendly and approachable?

Table 1: Surveyed care homes by region

Region	Number of homes	% of homes
East	153	14.97%
East Midlands	116	11.35%
London	65	6.36%
North East	47	4.60%
North West	143	13.99%
South East	177	17.32%
South West	124	12.13%
West Midlands	105	10.27%
Yorkshire & Humberside	92	9.00%
England	1,022	100.00

Quality ratings

Table 2 presents the care home quality ratings of the surveyed homes. Care homes are rated by CQC as either Inadequate, Requires Improvement, Good, or Outstanding, with the underlying basis of the ratings being the Mum test (CQC, 2017). Nationally, most care homes are rated as either Requires Improvement (22.9 per cent as of 1 May 2018) or Good (72.7 per cent), with a small minority rated as Inadequate (2.3 per cent) or Outstanding (2.1 per cent). Care homes cannot remain as inadequate, once rated as this they will be moved in to special measures and re-inspected at a later date. If the care home wants to continue operating then their quality rating will improve or else CQC will look to take enforcement action which can lead to closure and, in extreme circumstances, imprisonment.

Of the surveyed homes, thirteen (1.3 per cent) were rated as Inadequate, 231 (22.9%) as Requires Improvement, 736 (72.9 per cent) as Good and 30 (3.0%) as Outstanding.² Twelve of the surveyed homes had yet to be rated. Outstanding homes are therefore slightly overrepresented and inadequate homes underrepresented, but the likelihood that this affects the findings is minimal given the numbers of homes this represents.³

Care home quality

This section assesses indicators of quality across the care homes surveyed to give a picture of what differences care homes have in terms of quality. In addition to care home ratings, care homes were asked about the following potential indicators of quality: whether they allowed pets (Y/N); whether or not pets could visit (Y/N), whether residents could leave the grounds to go for a walk (Y/N); whether visiting could take place (Y/N), and at any time (Y/N)⁴; whether the relative would have to move if their condition deteriorated (Y/N)⁵; and a subjective scale of how (un)friendly the manager/person on the phone was in their discussion with the caller (1 = Unfriendly, 2 = OK, 3 = Friendly).

Table 2: CQC quality ratings

CQC rating	Number of homes	% of homes
Inadequate	13	1.29%
Requires Improvement	231	22.87%
Good	736	72.87%
Outstanding	30	2.97%
England	1,010	100.00

Figure 1 reports areas of quality for care homes which would be important if deciding between live-in care or receiving residential/nursing care. The vast majority of care homes were very open to answering questions. Just under half of care homes stated that pets are allowed, with almost nine out of ten homes stating that pets could visit. Most care homes stated that residents could walk outside the grounds, although for a small proportion (13.3 per cent) this was only stated as sometimes being allowed.

In general, the vast majority of care homes reported that visiting could take place at any time (99.7 per cent). This was then further broken down by details from responses and 14.0 per cent of homes stated to avoid meal times and/or to ring first. 40 per cent of care homes reported that the relative would have to move if their condition got worse, whilst 20 per cent stated that the client may have to move. There were some interesting findings for this question by care home type. 133 (43.9 per cent) residential homes not registered to support those living with dementia reported that the potential client would not have to move, with 56 (18.5 per cent) saying they may have to move. One

² Given the small number of homes rated as Inadequate or Outstanding, much of the analysis that follows uses a 0/1 indicator of quality: 0 for homes rated as Inadequate or Requires Improvement and 1 for homes rated as Good or Outstanding.

³ Eight extra homes rated as Outstanding and ten fewer homes rated as Inadequate are included in the survey compared to if the survey was nationally representative by quality ratings. This represents less than one per cent of the sample as a whole in each case.

⁴ This question was derived from detailed responses around the visiting question.

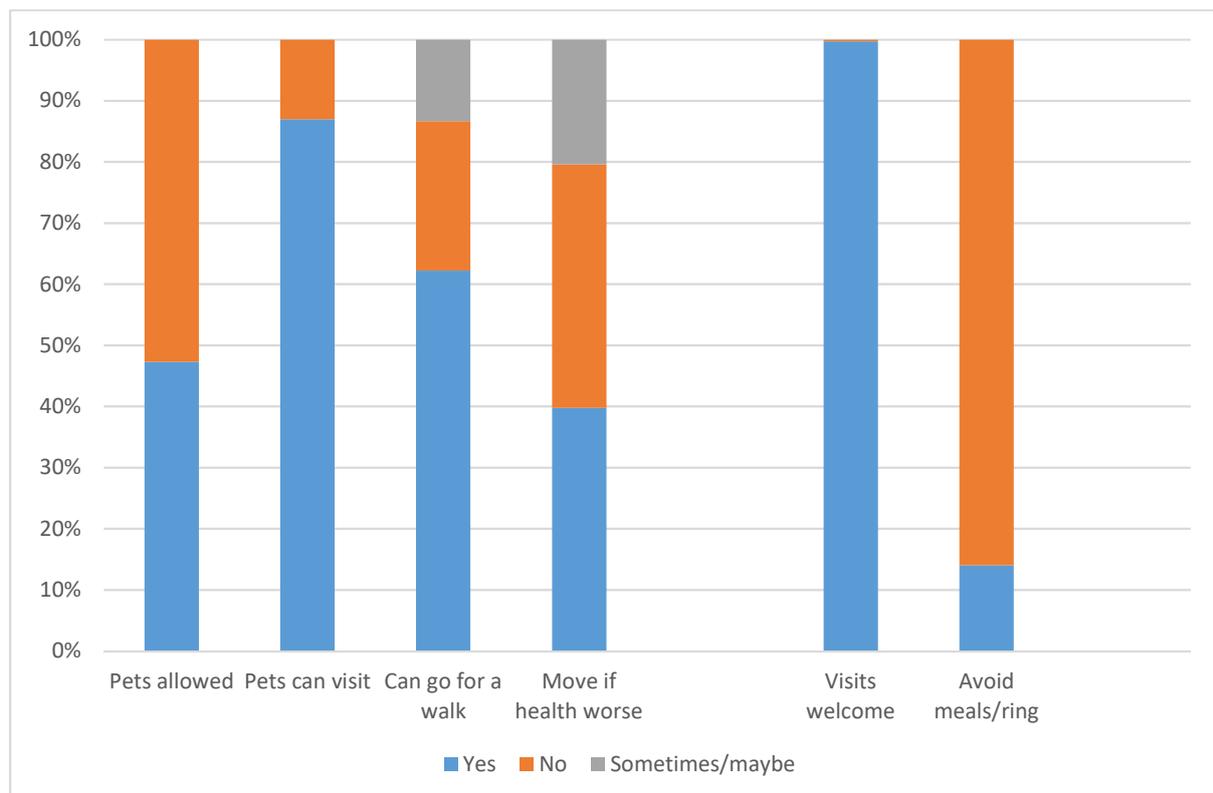
⁵ Moving care homes can cause distress (e.g. Jolley and Holder, 2012).

potential explanation for this is that these homes are not being completely open in their answers to these questions, but it could potentially also reflect that residential homes are increasingly looking after more frail residents with greater levels of needs (Lievesley et al., 2011). If so, this could be expected to be reflected in price, i.e. homes would need to allow for possible increased costs as a resident’s health deteriorated, something which is explored further below.

The final measure of quality that was included in the survey data was a subjective measure of how (un)friendly the call recipient was, as judged by the secret shopper. Data on this, as well as more detailed information on the other measures discussed above, are presented in Table 3. Just over a third of care homes were reported to have had a very friendly and engaging person who discussed the potential client and the home, whilst only a very small percentage were reported as unfriendly. Interestingly, there is a positive pairwise correlation between this subjective measure of friendliness and CQC quality rating which is significant at the 1% level.⁶ This could indicate one of two things: a (subconscious) bias on the part of the secret shoppers based on home rating or that the friendliness of the home staff could be an interesting and simple indicator of care home quality. No other indicator of quality was significantly correlated with CQC quality rating, but all had the expected sign.

Looking across the quality measures, 79 homes (7.7 per cent) reported that they allowed pets, pets to visit, walking outside grounds when the resident wanted, that it would be unlikely that the resident would have to move if their condition deteriorated, and were very friendly and engaging on the phone. These traits are likely to be consistent with live-in care.

Figure 1: Questions on indicators of quality



⁶ A pairwise correlation between the subjective friendliness measure and the 0/1 measure of quality is equal to 0.060 and is significant at the 10% level.

Table 3: Quality of care home statistics

Question	N	Yes (%)	No (%)	Other category	Correlation with CQC rating
Pets allowed?	988	467 (47.3%)	521 (52.7%)		0.033 ^{NS}
Pets can visit?	990	861 (87.0%)	129 (13.0%)		0.017 ^{NS}
				Sometimes	
Walk outside grounds?	990	616 (62.2%)	242 (24.4%)	132 (13.3%)	0.012 ^{NS}
Welcome look around?	997	994 (99.7%)	3 (0.3%)		N/A
Avoid meals/ring first?	1,022	143 (14.0%)	879 (86.0%)		0.012 ^{NS}
				Maybe	
Relative move if condition deteriorates?	936	372 (39.7%)	373 (39.9%)	191 (20.4%)	N/A
		Unfriendly (%)	OK (%)	Friendly (%)	
How friendly were they?	1,021	85 (8.3%)	576 (56.4%)	360 (35.3%)	0.106 ^{***}

Notes: ^{NS}, *, ** and *** indicate not significant and significance at 10%, 5% and 1% level, respectively.

Care home prices

The previous section has shown that there are a large variety of care homes in terms of quality, and this is also likely to then be reflected in price. Figure 2 presents details on the questions asked about price in the call. In addition to how much the stay would cost per week, care homes were also asked if there were extra costs on top of the basic price (Y/N), if costs would increase if their relative's condition deteriorated (Y/N), and a proportion of the homes were asked if there were extra costs for medical visits (Y/N). In general, care homes were very open around prices. Only 38 homes (3.7 per cent) did not provide any information on price, although nineteen of these homes stated that price was based on an assessment of the potential resident's care needs.⁷ The majority of homes have extra costs on top of the basic price, usually for luxuries such as hair and feet care. Some nursing homes mentioned the funded nursing care contribution that comes from the NHS. Of the small proportion of homes asked, just over a third reported that there were charges for medical appointment visits.⁸

A large percentage of care homes (60 per cent) reported that there would not be any extra costs if the client's condition deteriorated. Of the non-dementia registered residential homes that said the client would not have to move if their health deteriorated, 84.0 per cent of these also reported that there would not be any extra costs if the health of the client deteriorated. Again there are two potential explanations. First, this would further confirm the earlier possibility that some care homes are not as open as would seem on price and quality. The second possibility is that these care homes charge a higher price above that necessary in clients' initial time in the home given their conditions so that this covers the higher costs that clients' increasing levels of needs require in later periods of their stays.⁹

⁷ Perhaps unsurprisingly, only three (7.9%) of these homes' representatives on the phone call were said to be friendly, with seventeen (44.7%) said to be unfriendly. The results of the friendliness measure reported in the previous section do not change when removing these homes from the analysis.

⁸ 29 homes voluntarily stated that there were extra charges for medical appointments.

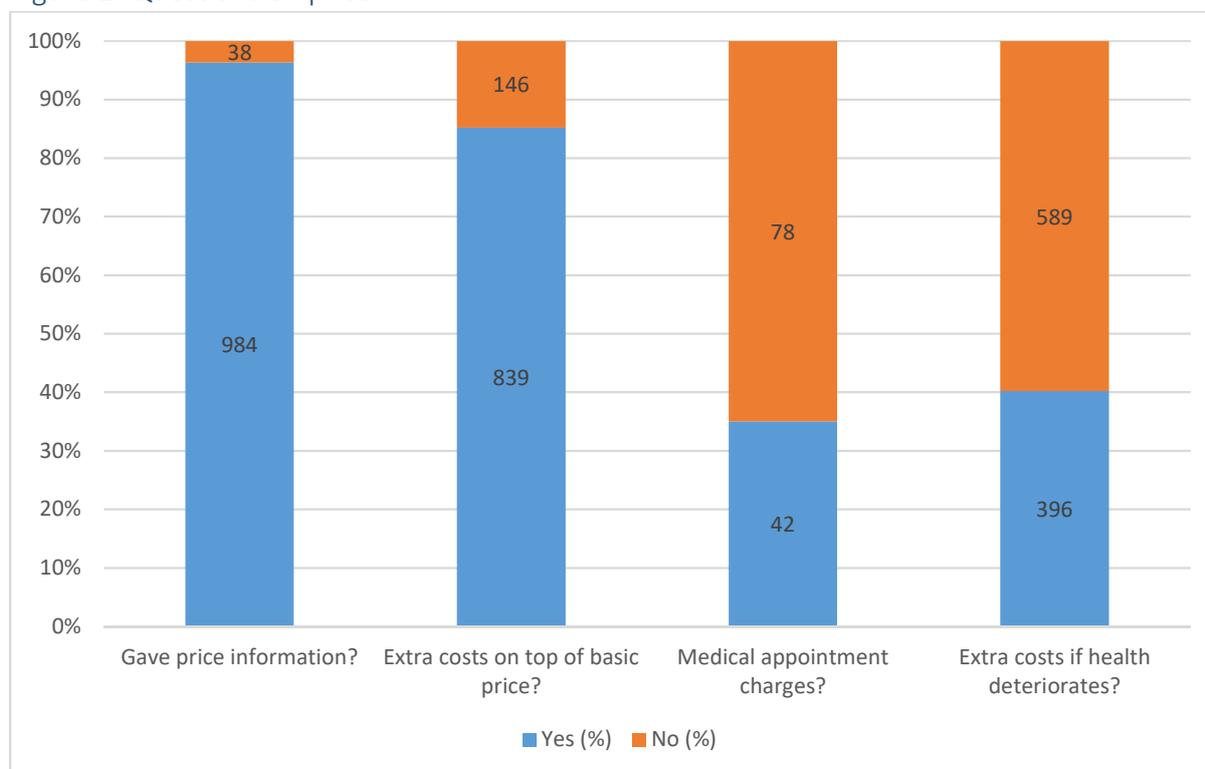
⁹ A similar argument is made as to why self-funders are charged more than public-funding residents, i.e. to cover for a potential spend down of assets (Troyer, 2002).

Price distribution

Homes either reported a basic price that may be added to depending on needs, or reported a price range that the price would fall in to for the female relative if they were to become a resident. Therefore, a number of different prices are estimated from the data. First, **Basic weekly** is the lower estimate and is the basic price if given by care homes or the lower end of the price range if this was reported instead. Second, **Middle weekly** is the mid-range price and is the mid-point of the price range if this was reported or the basic price if not. Finally, **High weekly** is the highest estimated price and is equal to the highest price if a price range was reported or the basic weekly price if not. These estimated prices give equal weight to the price of each care home in the sample and, given the estimation process, are likely to represent a lower bound to the basic, middle, and high prices available across care homes.

Nationally, a recent Competition and Markets Authority (CMA) study found the average weekly price for a self-funder places in England of £851 (Competition & Markets Authority, 2017). Unfortunately, the report did not provide a residential/nursing home split of this average self-funder price. Table 4 reports the range of prices observed nationally and by client condition from the secret shopper survey. Given nursing homes are (deliberately) underrepresented in the sample of care homes included in this survey, and given the methods used to estimate the prices described above, it is highly likely that the prices reported nationally and by region are likely to be underestimated to a certain extent compared to the CMA report. However, they do provide a snapshot of what care home prices are like across the country for specific conditions.

Figure 2: Questions on price



Mean price nationally is in the range of £711-£776 per week depending on the price measure utilised. As expected, the price reported by care homes varies greatly by client condition, from £661-

£704 for client condition 1, £702-762 for client condition 2, and £828-949 for client condition 3. All price differences between the client conditions are significant at the 1% level for all three measures of price.

Table 4: Price per week overall and by client condition

Price	N	Mean	Std. Dev.	Min.	Max.
Overall					
Basic weekly	984	£710.95	£204.88	£313	£2,500
Middle weekly	984	£743.57	£209.80	£334	£2,500
High weekly	984	£776.19	£229.79	£337	£2,500
Client condition 1					
Basic weekly	431	£661.16	£172.47	£327	£2,500
Middle weekly	431	£682.53	£176.45	£334	£2,500
High weekly	431	£703.89	£188.51	£337	£2,500
Client condition 2					
Basic weekly	346	£702.94	£176.83	£400	£1,450
Middle weekly	346	£732.78	£184.47	£400	£1,575
High weekly	346	£762.61	£203.99	£400	£1,700
Client condition 3					
Basic weekly	207	£828.01	£258.44	£313	£1,603
Middle weekly	207	£888.73	£242.67	£395	£1,603
High weekly	207	£949.44	£258.25	£432	£1,603

The standard deviation of the weekly prices and the respective minima and maxima prices suggest that there is a wide range of prices available to care home clients. Table 5 further explores this by reporting weekly price by decile for the three measures of price. As would be expected with prices, all three weekly price measures are positively skewed with a median lower than the mean. Prices range from as low as £500 per week at the 10th percentile to around £1000 per week at the 90th percentile.

Table 5: Overall prices by decile

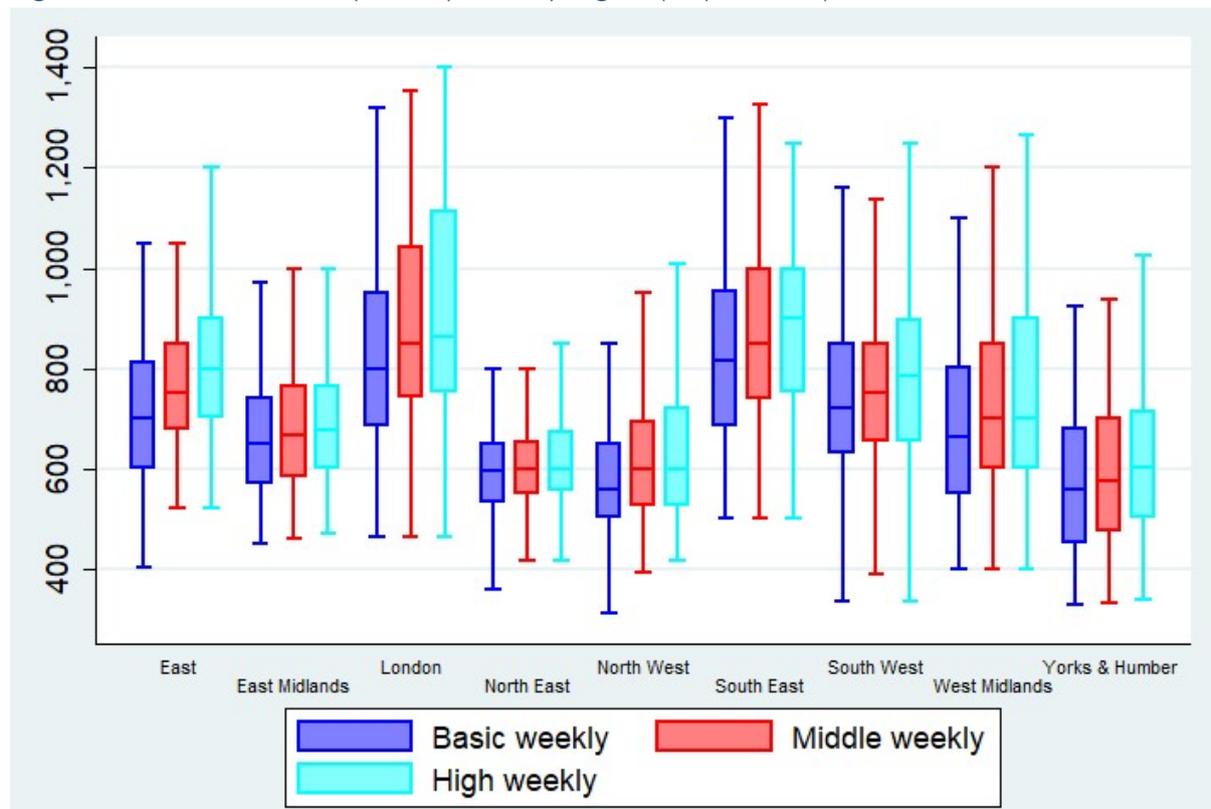
Percentile	Basic weekly (95% CI)	Middle Weekly (95% CI)	High weekly (95% CI)
10 th	£500 (485-500)	£517 (500-530)	£525 (500-544)
20 th	£550 (540-560)	£575 (560-590)	£595 (575-600)
30 th	£600 (582-600)	£620 (600-645)	£650 (620-650)
40 th	£645 (620-650)	£675 (653-685)	£700 (685-700)
Median	£680 (657-700)	£704 (700-725)	£750 (730-750)
60 th	£720 (700-750)	£750 (750-775)	£800 (780-800)
70 th	£780 (750-800)	£808 (800-830)	£850 (850-880)
80 th	£850 (840-870)	£885 (850-900)	£925 (900-950)
90 th	£950 (925-990)	£1000 (971-1,050)	£1,050 (1,000-1,113)
Number of homes	984	984	984

Notes: 95% CI is the confidence interval in which the nth percentile will lie with 95% confidence.

Figure 3 and Table 6 present information on prices by region. We note first the representativeness issues raised previously for some of the regions which may have some (likely small) effect on the findings. Figure 3 is a box-and-whisker plot of the three different estimated prices which shows the

interquartile range of prices (the box) and adjacent values (the 'whiskers') excluding outliers.¹⁰ Perhaps slightly surprisingly, the South East has the same or higher median price as London, but London has higher 75th percentiles in general and has fewer outliers in the data. Alongside these two regions, the South West and West Midlands also have a wide distribution of prices. Cheaper prices below £600p.w. are in general available across all regions. North West, North East and Yorkshire & Humber have the lowest price by the interquartile range.

Figure 3: Box-and-whisker plot of prices by region (£s per week)



As Table 6 further highlights, the regions with prices from highest to lowest are as follows: South East, London, South West, East, West Midlands, East Midlands, North West, North East, Yorkshire & Humber. Average prices in the East are significantly higher than the average price in West Midlands for all three prices ($p < 0.05$), whilst the same is true for prices in the West Midlands compared to prices in the East with the exception of average Basic weekly price ($p = 0.11$). There is therefore strong evidence of a north/south split in prices. Further, the regions could be split in to the following groups based on price: 1) Very high prices – South East/London; 2) High prices – South West/East 3) Medium prices – West Midlands/East Midlands; 4) Low prices – North West/North East/Yorkshire & Humber.

¹⁰ Outliers are defined here as any value 1.5 times the interquartile range (IQR) above (below) the 75th (25th) percentile according to Tukey (1977). East Midlands, North West, South East and South West have three or more outliers for each estimated price (only one for the South West for Middle Weekly is 1.5*IQR below the 25th percentile), whilst London, North East and Yorkshire & Humber have one or no outliers for each estimated price.

Table 6: Prices statistics by region

Price	N	Mean	Std. Dev.	Min.	Max.
East					
Basic weekly	144	£711.88	£132.82	£404	£1,050
Middle weekly	144	£762.52	£120.58	£520	£1,050
High weekly	144	£813.15	£148.19	£520	£1,400
East Midlands					
Basic weekly	112	£668.47	£141.89	£450	£1,350
Middle weekly	112	£683.56	£147.87	£460	£1,350
High weekly	112	£698.65	£159.53	£470	£1,350
London					
Basic weekly	64	£840.18	£209.25	£465	£1,355
Middle weekly	64	£881.18	£207.76	£465	£1,355
High weekly	64	£922.19	£232.27	£465	£1,400
North East					
Basic weekly	46	£594.17	£103.36	£360	£850
Middle weekly	46	£603.72	£98.69	£418	£850
High weekly	46	£613.28	£100.54	£418	£850
North West					
Basic weekly	141	£599.42	£203.21	£313	£2,500
Middle weekly	141	£633.36	£211.12	£395	£2,500
High weekly	141	£667.30	£242.59	£415	£2,500
South East					
Basic weekly	172	£862.93	£234.88	£500	£1,603
Middle weekly	172	£901.29	£233.80	£500	£1,603
High weekly	172	£939.65	£243.67	£500	£1,700
South West					
Basic weekly	121	£748.35	£183.33	£337	£1,350
Middle weekly	121	£777.32	£199.44	£337	£1,350
High weekly	121	£806.29	£227.30	£337	£1,550
West Midlands					
Basic weekly	104	£691.39	£172.85	£400	£1,264
Middle weekly	104	£722.43	£169.69	£400	£1,264
High weekly	104	£753.46	£181.08	£400	£1,264
Yorkshire & Humber					
Basic weekly	80	£571.21	£140.37	£327	£925
Middle weekly	80	£595.41	£150.04	£334	£1,093
High weekly	80	£619.60	£169.50	£340	£1,345

Price by type of home is presented in Table 7. Given the sampling procedure, the distribution of prices for nursing homes is identical to that of Condition 3. All price differences between care home types are significant at the 5% level for all three measures of price.

Similarly, within dementia registered residential homes, the average price is significantly higher at the 5% level for a potential resident with Condition 2 compared to Condition 1 for all prices. For condition 1 between the two types of residential care homes, Basic weekly price is significantly more expensive in dementia registered homes at 10% significance ($\rho=0.052$), but there is no significant difference between the middle and high weekly prices across the two residential home types ($\rho=0.61$ and $\rho=0.14$, respectively). Any difference in price across the care homes could reflect differences in levels of care, or other aspects of quality. However, these findings could also tentatively suggest that residential care homes are not charging a higher price than necessary at lower levels of needs to offset future cost rises as needs levels increase (or to cross-subsidise existing higher needs residents).

Table 7: Prices by care home type

	N	Mean	Std. Dev.	Min.	Max.
Nursing homes					
Basic weekly	207	£828.01	£258.44	£313	£1,603
Middle weekly	207	£888.73	£242.67	£395	£1,603
High weekly	207	£949.44	£258.25	£432	£1,603
Residential, dementia registered					
Basic weekly	517	£693.49	£167.75	£337	£1,450
Middle weekly	517	£717.33	£174.68	£337	£1,575
High weekly	517	£741.16	£191.82	£337	£1,700
Residential, non-dementia registered					
Basic weekly	260	£652.48	£187.45	£327	£2,500
Middle weekly	260	£680.20	£192.82	£334	£2,500
High weekly	260	£707.91	£207.21	£340	£2,500
Residential, dementia registered					
Condition 1					
Basic weekly	171	£674.36	£146.33	£337	£1,245
Middle weekly	171	£686.07	£148.61	£337	£1,323
High weekly	171	£697.77	£156.22	£337	£1,400
Condition 2					
Basic weekly	346	£702.94	£176.81	£400	£1,450
Middle weekly	346	£732.78	£184.47	£400	£1,575
High weekly	346	£762.61	£203.99	£400	£1,700

Table 8 presents the number of care homes charging a middle weekly price of £1000 or more per week. Generally regions have a very small proportion of residential homes charging a price of £1000pw or more, irrespective of condition, although for London and the South East (the latter for Condition 2 only) just under one in four residential homes charge these prices. For condition 3 a price of 1000pw or greater is much more common: nationally around one in three nursing homes charge this price. This varies by region, from one in twenty nursing homes in the East to nearly two out of every three nursing homes in the South East. The proportion of high prices could be an indication of higher costs (e.g. wages), and it could also reflect quality differences, which the next section goes on to analyse.

Table 8: Care homes charging £1,000 a week or more, by region

Region	N	Number homes middle price >= £1,000 per week	% Homes with middle price >= £1,000 per week
East			
Condition 1	66	2	3%
Condition 2	43	1	2%
Condition 3	35	2	6%
East Midlands			
Condition 1	56	1	2%
Condition 2	33	0	0%
Condition 3	23	5	22%
London			
Condition 1	25	6	24%
Condition 2	23	5	22%
Condition 3	16	8	50%
North East			
Condition 1	30	0	0%
Condition 2	16	0	0%
Condition 3	0	N/A	N/A
North West			
Condition 1	51	1	2%
Condition 2	53	0	0%
Condition 3	37	4	11%
South East			
Condition 1	66	3	5%
Condition 2	62	14	23%
Condition 3	44	28	64%
South West			
Condition 1	53	0	0%
Condition 2	43	1	2%
Condition 3	25	13	52%
West Midlands			
Condition 1	40	1	3%
Condition 2	37	1	3%
Condition 3	27	5	19%
Yorkshire & Humber			
Condition 1	44	1	2%
Condition 2	36	0	0%
Condition 3	0	N/A	N/A
England			
Condition 1	431	15	3%
Condition 2	346	22	6%
Condition 3	207	65	31%

Price difference by quality

Figures 4-10 and Table 9 present the differences in price according to the indicators of quality included in the survey. Table 9 in particular presents the price distribution for Middle weekly estimated price. Any differences between this estimated price and the two other estimated prices are outlined in the discussion. Figures 4 and 5 show mean estimated weekly price according to CQC ratings. There does seem to be a difference in price when looking at CQC quality ratings. The difference does not look as stark when looking at a 0/1 indicator of CQC rating, and indeed the difference is not significant (Table 9). There are significant differences in price according to whether you can keep a pet or not (Figure 6). Those homes where you can keep pets are significantly more

expensive than homes where you are unable to, although there is not much difference at the lower end of the distribution of prices (Table 8). Middle weekly price is also significantly greater for homes where pets can visit compared to those where they cannot (Table 9). Homes where the residents can go for a walk outside the grounds have cheaper mean estimated prices (Figure 7), although the difference is not apparent across the price distribution and is also not significant (Table 9). Friendliness of the manager/call taker is also reflected in price differences. Homes where the call recipient was rated as very friendly have a much higher price than those rated as OK or unfriendly (Figure 8). As Table 9 shows, this difference in price is significant.

For the care homes that were asked about medical visit charging, those homes that charge for medical visits are significantly more expensive than homes that do not charge. Those homes that reported that there would be extra costs if the potential resident’s health deteriorated have similar prices to those that did not. However, the mean price is significantly higher for homes that say costs will increase only for High weekly price ($\rho < 0.01$). There are significantly higher prices for homes that state that residents will not have to move home if their condition gets worse. The significant difference also exists for residential non-dementia registered homes ($\rho < 0.05$). This supports the argument that homes are open about how likely residents are to move home. Those homes that state that residents will not have to move are charging a higher price on entry to offset the potential extra costs that may face the home if the residents’ condition deteriorates in the future.

Finally, the average price for the 79 homes that reported allowing pets, pets to visit, walks at anytime, unlikely the resident would have to move if conditions deteriorated and were very friendly and engaging on the phone was £904 with over one third of these homes having a price of £1000pw or more.

Figure 4: Mean estimated weekly price by CQC quality rating

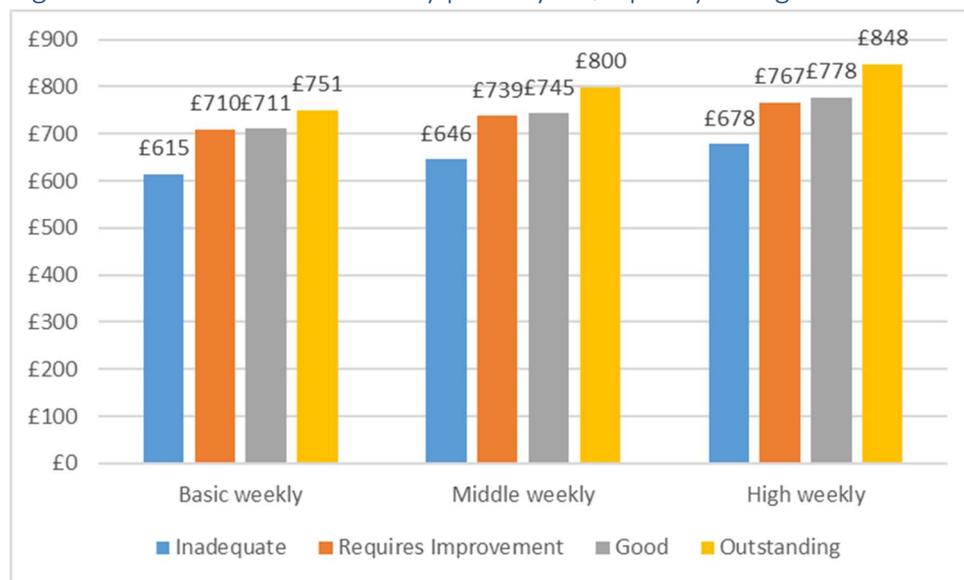


Figure 5: Mean estimated weekly price by aggregated CQC quality rating

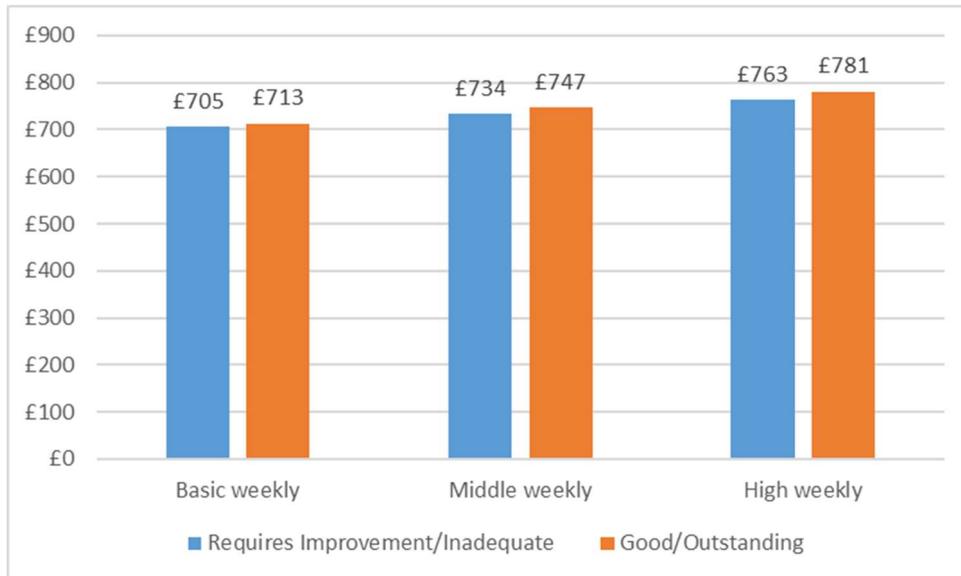


Figure 6: Mean estimated weekly price by whether care home allows pets

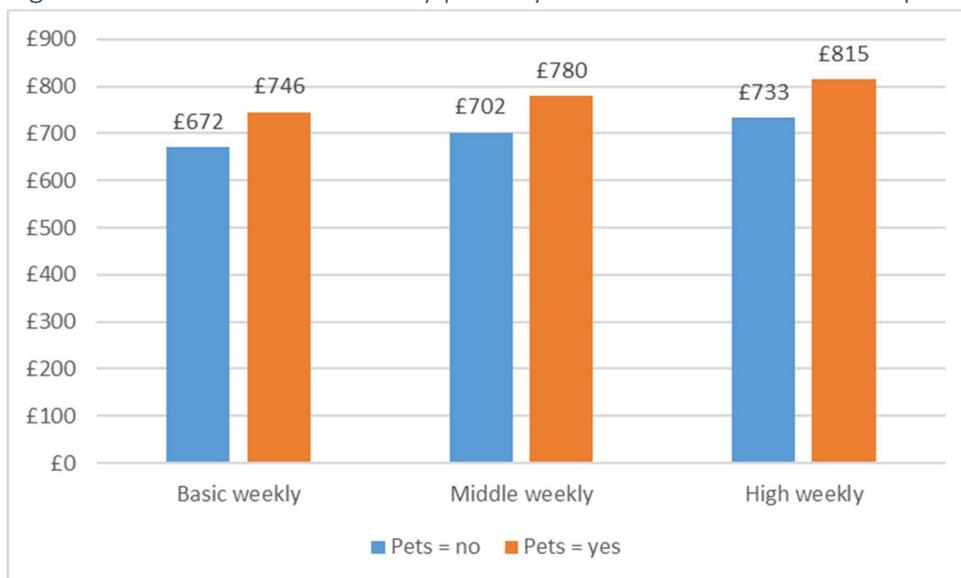


Figure 7: Mean estimated weekly price by whether care home allows pets to visit



Figure 8: Mean estimated weekly price by friendliness of call recipient

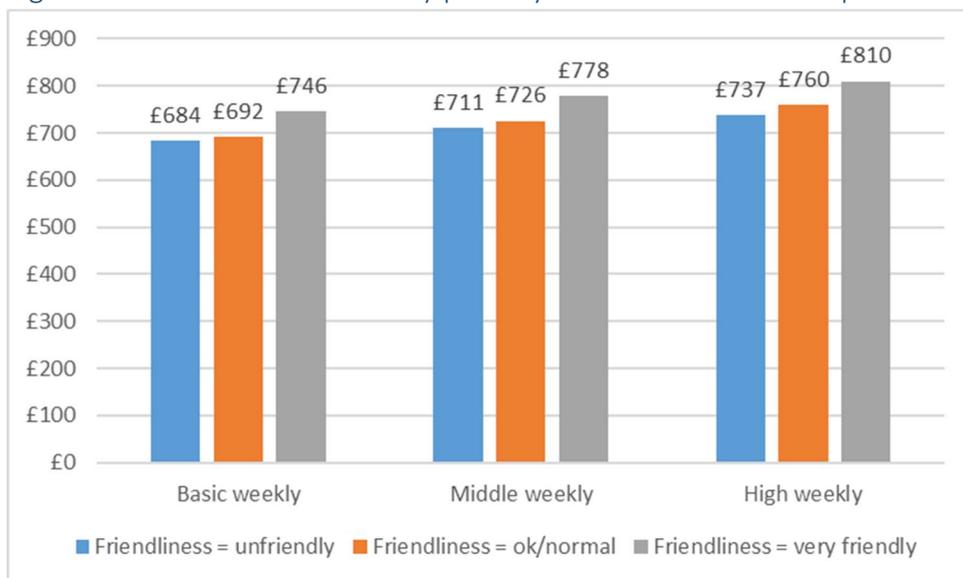


Figure 9: Mean estimated weekly price by extra costs for health deterioration

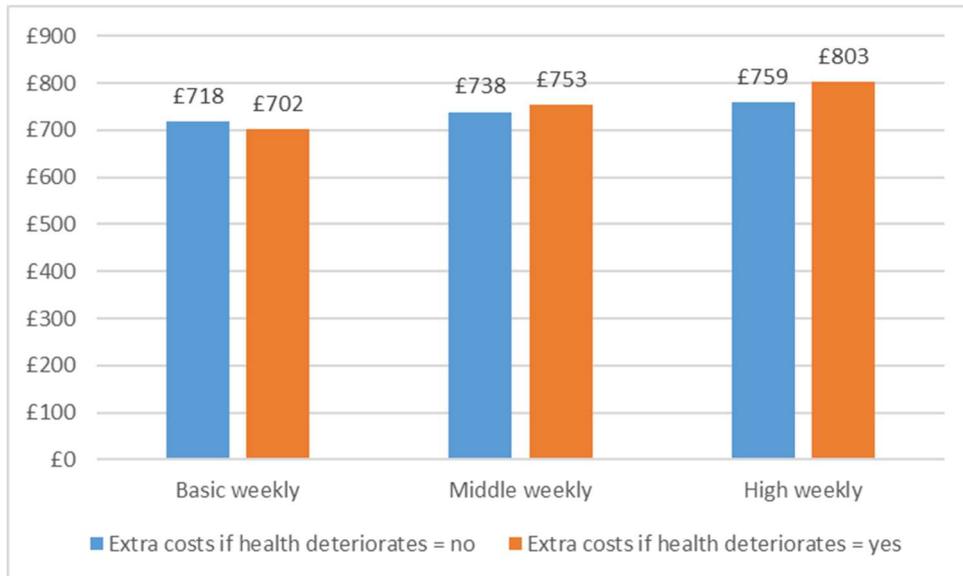


Figure 10: Mean estimated weekly price by have to move care home if health deteriorates

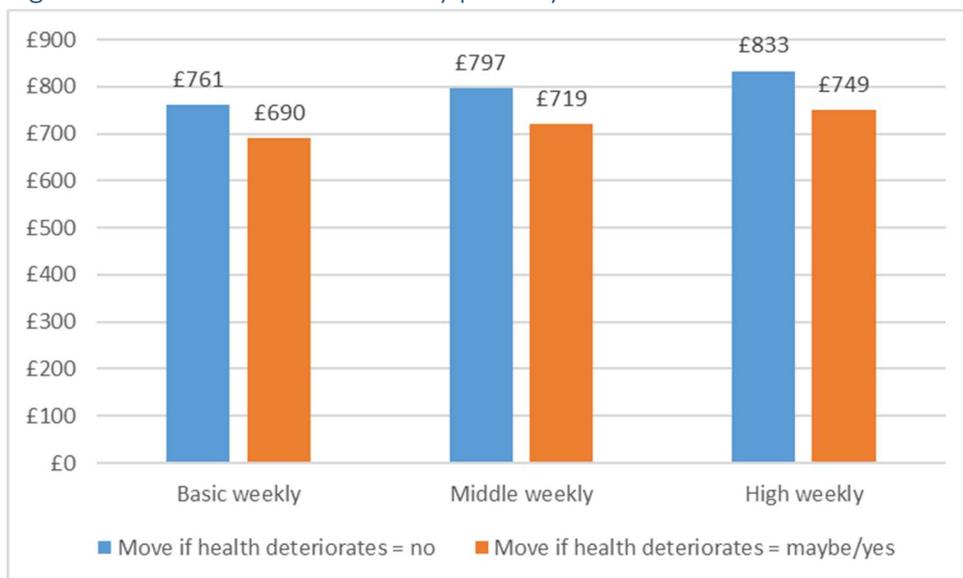


Table 9: Middle weekly price by quality measure

Price	N	25 th pc	Median	75 th pc	Mean	t-test means
CQC rating						
Inadequate/RI	233	£575	£695	£845	£733.87	
Good/Outstanding	740	£600	£720	£850	£746.88	-0.83 ^{NS}
Pets						
No	450	£588	£700	£800	£702.23	
Yes	519	£600	£750	£900	£780.28	-5.85 ^{***}
Pets visit						
No	116	£504	£650	£750	£612.04	
Yes	853	£580	£720	£850	£725.47	-4.08 ^{***}
Go for a walk						
No	233	£610	£713	£845	£760.10	
Sometimes/Yes	738	£600	£704	£850	£739.21	1.32 ^{NS}
Friendly						
Unfriendly/OK	626	£590	£700	£825	£724.27	
Friendly	357	£620	£742	£881	£777.70	-3.87 ^{***}
Medical visits charge						
No	77	£550	£643	£731	£668.75	
Yes	71	£650	£800	£900	£821.99	-5.31 ^{***}
Extra costs if health worse						
No	586	£600	£700	£830	£738.32	
Yes	381	£600	£725	£860	£752.83	-1.05 ^{NS}
Move home if worse						
No	370	£600	£750	£825	£761.40	
Maybe/Yes	549	£600	£700	£800	£689.56	5.23 ^{***}

Notes: 25th pc is 25th percentile and 75th pc is 75th percentile. Column t-test means shows the t-statistic of the t-test of the equality of the two mean prices for each quality indicator. ^{NS}, *, ** and *** indicate not significant and significance at 10%, 5% and 1% level, respectively.

Price difference between care homes and live-in care

The mean estimated weekly care home prices by condition can also be compared with the price of live-in care. Live-in care is a form of home care where a person who requires care can receive 24-hour care whilst remaining in their own home. It is therefore an alternative to moving in to a care home. A hub of eight live-in care providers supplied information on the price that they would quote to offer support to somebody in their own home with the three levels of condition used in the care home secret shopper survey. The average price to offer live-in support for a person with a level of needs consistent with Condition 1 is £983 per week. The same figures for Conditions 2 and 3 are £1,080 and £1,072, respectively. The average introductory price given by live-in care providers is £799, £879 and £879 per week for each condition, respectively. Table 10 presents tests of equality between each weekly price and live-in care prices for each condition. Live-in care prices are significantly higher in almost all cases. However, the average introductory price for live-in care is significantly lower than the High weekly price for a person with a level of needs consistent with Condition 3 (and there is no significant difference between this introductory price and Middle weekly price for Condition 3 as well).

Table 10: Price difference between care homes and live-in care

Condition	N	Mean price	Std. Dev.	Live-in care mean price	t-stat	Intro live-in care mean price	t-stat intro
Condition 1							
Basic weekly	431	£661.16	172.47	£983	-38.74***	£799	-16.59***
Middle weekly	431	£682.53	176.45	£983	-35.35***	£799	-13.70***
High weekly	431	£733.51	188.51	£983	-30.74***	£799	-10.47***
Condition 2							
Basic weekly	346	£702.94	176.81	£1,080	-39.67***	£879	-18.52***
Middle weekly	346	£732.78	184.47	£1,080	-35.01***	£879	-14.74***
High weekly	346	£724.00	203.99	£1,080	-28.94***	£879	-10.61***
Condition 3							
Basic weekly	207	£828.01	258.44	£1,072	-13.58***	£879	-2.84***
Middle weekly	207	£888.73	242.67	£1,072	-10.87***	£879	0.58 ^{NS}
High weekly	207	£949.44	258.25	£1,072	-6.83***	£879	3.92***

Notes: t-stat and t-stat intro provide the test statistic of the t-test that mean weekly price is equal to mean live-in care price and mean introductory live-in care price, respectively. NS, *, ** and *** indicate not significant and significance at 10%, 5% and 1% level, respectively.

The above compares prices for care homes across all price (and quality) ranges to live-in care, which may be unrealistic when comparing support in care homes to receiving care in your own home. Table 11 presents formal tests of the equality of care home price means for the top quartile of care homes by price for each condition compared to average live-in care price. The results show that for Condition 1 live-in care is not significantly different in price compared to the top quartile of High weekly prices in care homes. For Condition 3 (i.e. nursing homes), live-in care is significantly cheaper than support in a care home which is in the top quartile of price for each estimated price. When comparing to the introductory live-in care mean price, average care home prices for the top quartile of homes by price for each condition are always significantly more expensive or not significantly different (i.e. the t-stat becomes positive in all instances bar one, for Basic weekly price and condition 2).

We can also assess the difference in live-in care price to those care homes that may be the most comparable in quality compared to being supported by live-in care in your own home. Table 12 shows the results of t-tests of the equality of mean Middle weekly price to the average live-in care price for condition 1 (£983pw) and condition 2 (£1,080pw) for care homes with the following quality traits: rated as outstanding, allow pets, allow pets to visit and allow the residents to go for a walk outside grounds. There are very few of these homes and so this creates large confidence intervals in which average care home price will lie. Only in the case of Condition 2 can we reject that average Middle weekly price for these care homes is equal to the average live-in care price.¹¹ So there are certainly indications that similar levels of quality in care homes are comparable in price to live-in care, particularly for lower levels of need.

¹¹ There were not enough nursing homes that had those quality traits (n=2). Changing the CQC rating inclusion criteria to Good or Outstanding increases the sample of nursing homes (n=60) and a t-test of equality of Middle weekly price to average live-in care price rejects the null hypothesis ($p < 0.01$). Similar t-tests for condition 1 and condition 2 also reject the null hypothesis that average care home price equals average live-in care price.

Table 11: Price differences between top quartile priced care homes and live-in care

Condition (Price)	n	75 th pc price	Mean price	Std. Dev.	t-stat	t-stat intro
Condition 1					= £983pw	= £799pw
Basic	124	£765	£921.11	204.54	-3.72***	6.65***
Middle	137	£800	£937.26	204.50	-2.62***	7.91***
High	125	£850	£997.02	217.40	0.72 ^{NS}	10.18***
Condition 2					= 1,080pw	= £879pw
Basic	90	£750	£838.67	89.90	-25.47***	-4.26***
Middle	74	£800	£888.89	92.15	-17.84***	0.92 ^{NS}
High	71	£827.50	£947.20	116.23	-9.63***	4.94***
Condition 3					= 1,072pw	= £879pw
Basic	52	£995	£1,178.39	135.92	5.64***	15.88***
Middle	56	£1,050	£1,208.64	128.32	7.97***	19.22***
High	53	£1,150	£1,302.47	129.03	13.00***	23.89***

Notes: t-stat provides the test statistic of the t-test that mean High weekly price is equal to mean live-in care price and mean introductory live-in care price, respectively. NS, *, ** and *** indicate not significant and significance at 10%, 5% and 1% level, respectively.

Table 12: Price difference between high quality care homes and live-in care

Condition	n	Middle weekly Mean price	Std. Dev.	t-stat
Condition 1	7	£859.00	198.64	-1.65 ^{NS}
Condition 2	5	£818.10	190.88	-3.07**

Notes: t-stat provides the test statistic of the t-test that mean Middle weekly price is equal to mean live-in care price. NS, *, ** and *** indicate not significant and significance at 10%, 5% and 1% level, respectively.

The findings with regard to live-in care price are also likely to vary by region. Table 13 presents for each region the percentage of care homes that will have a Middle weekly price that is greater or equal to the average live-in care price for each condition. This necessarily assumes that live-in care prices are consistent across regions. For example, for the East and condition 1 the 95% confidence interval for 90th percentile of middle weekly care home price includes the average live-in care price of £983 per week. Therefore, we cannot rule out that up to 10% of care homes in the East have a price which is greater than or equal to the average live-in care price. As expected given the general north/south price divide, a greater proportion of care homes in London and the South East have high weekly prices which are likely to be equal to or greater than average live-in care price, but virtually all regions will have at least some care homes charging prices in the general range of average live-in care price for each condition.

Table 13: Care home prices compared to average live-in care price, by region

Region	N	75 th pc Middle weekly price	% homes with MW price >= LIC price	% of homes with MW price >= Intro LIC price
East				
Condition 1	66	£825	10%	53%
Condition 2	43	£885	0%	40%
Condition 3	35	£832	0%	32%
East Midlands				
Condition 1	56	£724	7%	19%
Condition 2	33	£774	0%	13%
Condition 3	23	£900	29%	46%
London				
Condition 1	25	£988	44%	68%
Condition 2	23	£975	30%	56%
Condition 3	16	£1,225	67%	93%
North East				
Condition 1	30	£676	0%	22%
Condition 2	16	£618	0%	0%
Condition 3	0	N/A	N/A	N/A
North West				
Condition 1	51	£650	10%	12%
Condition 2	53	£707	0%	11%
Condition 3	37	£753	16%	31%
South East				
Condition 1	66	£850	11%	56%
Condition 2	62	£979	26%	63%
Condition 3	44	£1,232	68%	89%
South West				
Condition 1	53	£750	0%	20%
Condition 2	43	£850	10%	27%
Condition 3	25	£1,188	63%	94%
West Midlands				
Condition 1	40	£742	10%	34%
Condition 2	37	£788	0%	18%
Condition 3	27	£975	37%	62%
Yorkshire & Humber				
Condition 1	44	£699	11%	18%
Condition 2	36	£719	0%	0%
Condition 3	0	N/A	N/A	N/A
England				
Condition 1	431	£775	5%	26%
Condition 2	346	£825	6%	22%
Condition 3	207	£1,050	30%	54%

Price regression

The differences in price described above are basic comparisons and show a relationship between price and quality, but they do not show how these relationships all work together. Regression analysis shows how the quality measures influence price when taking all the other quality indicators in to account. The regression can show a formal relationship between each estimated weekly price and a variable, holding other variables equal. However, regression analysis of this (cross-sectional) survey data cannot formally outline a direct causation. Table 13 presents the regression analysis for the Middle weekly estimated price, and again any differences between the regression models for each estimated price are discussed. The R^2 indicates that the independent variables explain 38% of

the variation in price. There is some indication of misspecification in the estimated model so the results must be seen with caution. Future analysis would need to assess this more carefully. The results confirm that homes in London and the South East have significantly higher weekly prices than elsewhere. For example, homes in the South East are £109 per week more expensive than homes in the East of England. The North East, North West, Yorkshire & Humber, East Midlands and West Midlands all have significantly cheaper prices than the East of England.

Table 14: Regression of Middle weekly estimated price

Variable	Coefficient	Robust S.E.	95% Lower CI	95% Upper CI
CQC rating: Good/Outstanding	20.42	15.26	-9.53	50.37
Pets (Yes)	37.76**	14.76	8.79	66.74
Pets visit (yes)	78.95***	21.38	36.99	120.90
Go for a walk (sometimes/yes)	-35.88**	15.53	-65.90	-5.38
Visit anytime (yes)	-15.96	13.58	-42.62	10.69
Friendly (very)	1.80	12.39	-22.52	26.12
Condition (cf. muddled/arthritis)				
Dementia and arthritis	16.98	14.04	-10.58	44.54
Dementia and stoma	186.29***	20.29	146.46	226.12
Extra costs health worse (yes)	-9.49	13.13	-35.26	16.27
Move home (maybe/yes)	-24.65*	13.92	-51.96	2.66
Region (cf. East)				
East Midlands	-94.09***	20.40	-134.12	-54.05
London	88.21***	28.11	33.05	143.38
North East	-146.69***	20.66	-187.24	-106.15
North West	-145.01***	21.79	-187.77	-102.25
South East	108.71***	20.63	68.21	149.21
South West	2.35	18.42	-33.80	38.49
West Midlands	-83.10***	18.98	-120.35	-45.86
Yorkshire & Humber	-113.33***	22.73	-157.94	-68.73
n		893		
R²		0.381		
Specification test		1.86*		

Notes: ^{NS}, *, ** and *** indicate not significant and significance at 10%, 5% and 1% level, respectively.

In terms of quality indicators, CQC rating does not significantly influence Middle weekly price. It does have a significant effect on High weekly price ($p=0.078$): homes rated as Good or Outstanding have High weekly prices that are £29 per week more expensive compared to homes rated as Inadequate or Requires Improvement. Care homes that allow pets charge significantly higher prices than those that do not. Having a pet allowed to stay costs £38 per week extra. There is also a significant difference in price between homes that allow pets to visit and those that do not, with the former being £79 per week more expensive than the latter. This variable may be acting as a proxy, e.g. it could be indicative of care homes that are more involved with their community, inviting entertainment, putting on events etc. Homes where a resident is free to go for a walk outside the grounds are significantly cheaper (£36pw) than homes where a resident cannot (only at 10% significance for High weekly price). This could reflect that residents have lower needs in the former homes compared to the latter and/or be related to amount of staff time required to look after residents. The general needs level of the (potential) resident has been controlled for, but

nonetheless there may be an element of (self) selection taking place. Finally, for quality indicators, the indicator of friendliness has no significant impact on the price.

There is no significant difference in the price per week between potential residents with levels of need outlined by Conditions 1 and 2. A place for a resident with dementia and a stoma would be £186pw more expensive. Including variables to indicate nursing homes (cf. residential) and dementia homes (cf. non-dementia registered) in place of conditions finds very similar results: nursing homes are £172pw more expensive ($p < 0.001$) and dementia registered homes are £23pw more expensive than non-dementia registered homes, but the difference is not significant ($p = 0.14$). Care homes where residents may have to pay extra if their health deteriorates have no significant difference in price. For Basic weekly price there is a significant difference ($p < 0.01$): homes where costs will increase if health gets worse are £34pw cheaper. This would be the expected direction of effect, i.e. homes where costs will not change if health gets worse will charge a higher price to begin with. Similarly, homes where residents may or will have to move if their condition deteriorates are significantly cheaper (£25pw). This effect is significant at 10% level for Basic weekly price but not significant for High weekly price ($p = 0.075$ & $p = 0.11$, respectively). Care homes where the resident is expected to stay permanently will be more expensive to begin with.

Conclusion

This work has presented the findings from a national secret shopper survey of care homes in England. Information was collected on measures of quality and price for a potential self-funding resident from 1,022 care homes. The findings highlight that there is a wide distribution of care homes both in terms of quality and price. Descriptive analysis showed that prices do reflect differences in quality, and these results were also found when using regression analysis.

Care home prices are lower in general than the average price for live-in care. However, Care homes that have quality traits similar to live-in care are relatively rare and for the top quarter of care homes (by price) their price is generally no different, or even more expensive, than average live-in care price. There are also early indications that the highest quality care homes are also comparable in price to live-in care. Further work would be required to assess this fully however.

Importantly, these results are based on a secret shopper survey and so the validity of the reported figures for each care home, particularly price, cannot be completely verified. Further, the regression analysis also does not control for other factors that are likely to be important to care home price, e.g. care home-level (e.g. number of beds, sector) and local area-level (e.g. indicators of needs, demand and supply) factors. Nonetheless, the findings are of extreme interest in an area where little is known about care home quality and price for specific conditions nationally, and how care home prices compare to live-in care.

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