PRELARE

Informing Policy with Evidence

Understanding Domiciliary Care in England

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Contents:

Key messages:

- The availability of national data on home care is poor. This work combined quantitative analysis with qualitative research but all results need to be interpreted alongside this relative lack of good quality data.

- The market for home care exhibits several key differences to most other health and social care markets and these differences are important to note when interpreting the results of this research. In particular:

    - Home care markets have few barriers to entry or exit, with very limited fixed costs;
    - While most health and care markets are labour-intensive, home care is particularly so with only transport costs (especially in rural areas) possibly significant as variable non-labour costs;
    - Unlike other health and care markets, home care services are delivered by a workforce with relatively low levels of formal qualifications and training, which means that home care employers are competing with the wider economy, often for staff at or near the minimum wage. The ease with which home care providers can recruit depends on local labour markets for these low-paid staff. This has the advantage of being able to draw on a large potential workforce, but the disadvantage of directly exposing providers to competition with the wider economy for this group of staff.

- Perhaps unsurprisingly, both the quantitative and qualitative research emphasises the importance of these local labour market issues:

    - Lower pay in the wider economy appears to improve supply of home care workers, as does higher employment deprivation. In areas where recruitment is relatively easy, this may give employers an incentive to set effective pay rates at or even below the minimum wage;
    - Rurality has a negative effect on home care supply and this is likely to reflect a smaller workforce to draw from and higher transport costs for staff which may not be fully refunded.

- The research also looked at Delayed Transfers of Care (DTOC) arising from difficulties in the home care market. Perhaps perversely, areas with higher fees seem to have worse supply and DTOC. This may suggest that Local Authorities (LAs) in areas of weaker supply have already been forced to respond by raising fees. In this case, higher fees do not reflect moves by LAs to proactively raise quality. Instead, they reflect an inability of local providers to sustain a workforce at rates as low as those in some urban areas. This was confirmed in interviews where LAs that

were paying relatively high fees also tended to identify local supply issues as the key cause, and were forced to pay more to secure an adequate supply.

- The system of commissioning and provision of publicly funded home care is showing signs of strain in terms of quality:

    - There is a high turnover of staff.
    - Providers, including larger providers, are exiting because of safety concerns and high levels of market entry and exit more generally.
    - A growing proportion of hours delivered are additional to those contracted for.

- Despite these signs of fragility, many local authorities were still confident of being able to secure sufficient supply, as exits were offset by new entrants. Where supply issues were apparent, e.g. in rural areas, some authorities have already responded by raising fees. With a sector so reliant on competition and a wider economy for relatively low paid staff with rapid turnover, there remains a risk that this competition could quickly result in a more generalised shortage of staff and upward pressure on wages and consequently fees. However, in the absence of any generalised shock, the apparent high elasticity of supply of staff near the bottom of the wage distribution may mean that relatively modest increases in pay (and fees) would result in a significant increase in supply.

- There are clear 'quick-wins' to be made in considering the relationship between community nursing and home care. Interviewees consistently point to an overlap of tasks between the two groups (related to the growing complexity of patients being cared for at home): home care workers are carrying out low level clinical tasks and district nurses are carrying out personal and social tasks.

- The sensitivity of home care markets to local labour markets may mean that blunt, national mechanisms are unlikely to prove equal to the task of realising better supplied and better quality local home care markets. On the other hand, a focus on procurement-driven, time-and-task commissioning may struggle to deliver improvements in quality or establish any contingency against labour market shocks. The development of longer term relationships between commissioners and providers may be beneficial, but challenging to achieve in the current environment.

1. Purpose

Concerns about the inadequate quantity and quality in supply of home care have been reported by central government and directors of local authority social care departments, as well as managers in acute hospital settings, where access to home care packages is essential for timely discharge of older and disabled patients.

The objectives of our research, and this report, are to better understand the mechanisms of purchasing and delivery of home care, including the current state of supply and demand and key drivers of current market dynamics.

2. Methods

2.1. Literature review

To provide context for our research, a literature review of reports, articles and reviews published in the last five years relating to the home care market was undertaken. Databases searched included CINAHL, EMBASE, Health Business Elite, The King's Fund Information and Knowledge Services Database, Medline, NHS Evidence Search and Social Care Online.

2.2. National data analysis

We conducted an analysis of nationally available data on home care in order to establish a contextual background to our research and establish any limits to national data collection. Samples of labour force data were supplied by Skills for Care from the National Minimum Data Set for Social Care (NMDS-SC), and data on registered providers of care was collected from CQC, along with data on expenditure and activity from NHS Digital. Where it is referenced, the NMDS-SC data is from March 2016.

Other data sources included the Relative Needs Formula (RNF) for adult social care, (which estimates need, to guide local funding allocations), data on delayed transfers of care (DTOC) from the NHS, care provider quality ratings from the Care Quality Commission, data on fees paid by Local Authorities from NHS Digital and the United Kingdom Homecare Association (UKHCA) and contextual data from the Indices of Deprivation (specifically the employment deprivation domain and the Income Deprivation Affecting Older People Index) and the Annual Survey of Hours and Earnings (ASHE).

To characterise local markets for home care services quantitatively, and explore hypotheses raised in the qualitative interviews, we created two statistical models, and explored other relationships. To look at areas where supply and demand appear mismatched, and to examine potential predictors of difference, we used a rank of areas' Relative Needs Formula as a proxy for demand, and home care hours worked as a proxy for supply.

We then used regression models to identify predictors of difference between the two. We also used data on DTOC as an alternative measure of mismatch of demand for and supply of home care, and examined predictors of DTOC. Finally, we identified 'problem' areas, those with high DTOC rates and supply that is less than would be expected given levels of demand, and compared them with contrasting areas (those with low DTOCs and relative supply apparently exceeding relative demand), identifying predictors of 'problem' areas. It is important to note, however, that variations in DTOC may occur for more reasons than supply issues in Local Authority funded home care, also there are long-standing concerns over data quality (particularly when used in cross-sectional analysis). The full results of the statistical modelling are presented at Annex A.

2.3. Limitations

Changes to the way in which data on social care activity are collected makes it difficult to ascertain the amount of home care currently being supplied in England to an accurate standard. Following the results of the Zero-based Review in 2014, the data published by NHS Digital on social care activity does not allow the number of home care visits provided/paid for to be monitored on an annual basis.

Furthermore, the voluntary nature of the NMDS-SC collection means that it does not provide a complete or consistent picture of the labour market in home care without further analysis on most fields, and for some variables (for example, the source of recruitment and reason for leaving), the data is considered unreliable. Overall coverage of Skills for Care worker data in 2016 was 56%, but this varies between Local Authority areas from 20% to 85%. This level of missing data creates a clear risk of bias, and all findings are tentative.

The nature of the data being used, and the analysis being attempted, means that we were unable to prescribe a single, universally applicable model to estimate the level of supply in a home care market, relative to demand. There are several reasons for this that we will investigate in more detail later in this report, from the definitions and quality of the data, to the geographical regions used (which are based on administrative areas, rather than local labour markets. As a result, some LAs have segmented their geographies into different sectors in order to better reflect local market conditions, but we do not have access to data based on these geographies).

2.4. Qualitative research

Alongside our analysis of national data, we used qualitative interviews to gather data on what is happening in different parts of the country from the perspective of providers and commissioners, and to give context to the quantitative findings. A purposive sampling framework was employed to approach local authority commissioners and providers from six different locations across England, targeting a diverse range of authority areas. Both small local and large national providers were interviewed to engage with a range of perspectives. We also interviewed a number of national stakeholders, including senior staff from the regulator of registered home care services in the UK, the CQC, as well as a number of other national bodies.

In total, 20 interviews were conducted either by telephone or face-to-face, each lasting approximately one hour. Interviews were semi-structured in nature using pre-defined topic guides to ensure that key topics, informed by the literature and national data, were covered during the interview. All interviews were digitally recorded and transcribed verbatim for analysis.

Three researchers conducted interviews and data analysis, with consultation and discussion throughout between all co-authors to aid interpretation and the development of a thematic framework. Data were managed using NVivo 10 qualitative analysis software (QSR International Pty Ltd. Version 10, 2012) and the principles of Framework Analysis were employed. Following familiarisation with the data through reading and re-reading transcripts and interview notes, data were sorted into emerging themes and relationships between themes were explored. Findings are contextualised using quotations throughout.

The research project had ethical approval from the Department of Health Sciences Research Governance Committee, University of York.

This report also draws on related research with local authorities on the key factors determining local authority commissioning of adult social care.[1] In that project, Local Authorities (LAs) were targeted to participate in qualitative interviews through a sampling strategy which sought to generate variation in the following characteristics:

- Home care fees (in each quartile of the national distribution, over-sampling below the UKHCA recommended threshold)
- Residential care fees (above or below the LaingBuisson recommended threshold, adjusted for housing costs)
- Spending power (in each quartile of the national distribution)

Four national stakeholders were also interviewed.

This generated a further 23 participants from 20 organisations (Local Authorities and national stakeholders). The findings from this research are covered here only to the extent that they specifically referred to home care. This further research[1] also had ethical approval from the Department of Health Sciences Research Governance Committee, University of York.

[1] Jefferson L, Cream J, Birks Y, Bloor K and Murray R. Adult social care local authority commissioning behaviours. University of York; PREPARE Report, 2017.

3. Findings

A number of common themes arose in interviews with providers, commissioners and national stakeholders, reflecting the pressures that were being faced in the domiciliary care market, largely as a result of financial constraints over successive years.

These pressures were categorised as:

- Supply issues: relating in particular to difficulties regarding recruiting and retaining staff and the impact of place - rurality, diversity and deprivation
- Market instability: in particular relating to forms of market exit
- Commissioning challenges: moving beyond time and task and difficulties around fee setting
- Quality: concerns arising as commissioning practices become increasingly pressured and providers struggle to recruit appropriate workforce
- Relationship with the NHS: approaches to integration and issues with communication

These issues are discussed in detail below, with excerpts from interviews, to provide greater context alongside the national data analysis.

3.1. Supply

Securing an adequate workforce is one of the greatest challenges facing domiciliary care, commented on by all interviewees. This relates to difficulties in recruiting and retaining an adequate workforce, fuelled by a perceived unattractiveness and low status of care work, alongside relatively low pay levels and poor job security.

The impact of place on supply was also highlighted in the interviews, including the effect of rurality on provider (and care worker) supply, as well as difficulties that providers face as a result of diversity and deprivation.

Our statistical models of predictors of differences between demand and supply of home care (see Annex A) revealed three significant predictors, which partially reinforce the concerns expressed by interviewees about labour markets and the home care workforce:

- Vacancy rates: vacancy rates were higher in areas where supply of home care was higher than expected given the demand;

- Time that workers were employed in their current job: longer lengths of employment were associated with higher supply relative to demand;
- Additional (non-contracted) hours worked: higher additional non-contracted hours were associated with lower supply relative to demand.

Considering particularly areas where DTOCs are high and supply of home care low relative to demand, we identified five predictors, some of which relate to the workforce, and all of which may interact. Specifically, in 'problem' areas:

- Providers were smaller (they had lower numbers of employees).
- The number of contracted hours per employee was lower.
- Fee rates were significantly higher (which may imply that local authorities are aware of problems and are attempting to stimulate supply with higher payments).
- Levels of employment deprivation were higher (this is not entirely intuitive, it might be expected that where unemployment was higher it would be more feasible to employ home care workers).
- Levels of income deprivation (as measured by the index of income deprivation affecting older people, IDAOPI) were lower.
- Areas were more likely to be rural.

3.2. Recruitment and retention of staff

All interviewees commented on providers' ability to recruit and retain appropriate staff as being a central driver in local domiciliary care markets, with one large national provider reporting staff turnover as high as 48%. Meanwhile, our analysis of national data from the NMDS-SC found that some local authority areas have an average turnover rate of over 40% over the three years of data obtained (with some as low as 10%).

Competition both within and outside the health and care sector were key issues, largely because of low pay but also due to the poor public perceptions of care work. The following quotations describe how carers were attracted to work in residential homes or the NHS due to greater security in contracted hours, less anti-social hours and the reluctance to travel as the weather worsens. Meanwhile, other low-pay sectors, such as supermarket chains, can offer higher wages and greater predictability.

> *"A combination of people being able to earn more money in other sectors, including the health sector, and the scarcity of labour in the rural areas has been a major issue and has meant that effectively the contract is in real trouble."*
>
> *Local Authority*

"As it gets a bit colder, there is evidence that people go and take jobs 'cause the pay is virtually the same. You know, you're not outside knocking about from door-to-door. All these things are a factor. The competition is really very, very difficult."

Local Authority

"If a supermarket opens up [locally] everybody wants to become a till operator because they can say, you've got work between 6am and 3pm and 3pm and 10pm. So, they can sit in one location, they've got one venue and they get paid a slightly higher rate than care work."

Local provider

Meanwhile, several commissioners described competition within the domiciliary care sector, with even small fluctuations in pay rates drawing employees to work for competing firms:

"Because what you find quite pivotal is that carers will move to another provider for pennies, literally. It's that kind of a market. You could walk out of one agency and go to another one in the afternoon. Call it fickle, but that's the way we are, that's the way it works."

Local Authority

Though there has been much attention on problems in the home care market, the importance of local labour market conditions means that many commissioners in urban and deprived areas largely remain confident that providers, often new market entrants, will respond to their tenders, despite the advertised rate being lower than even the most conservative estimates of the costs of delivering good care.

While it might be supposed there is a clear link between fees and wages, some Local Authorities were sceptical about the translation of higher fees into higher wages for staff or more widely, into better quality.

"Research we've been doing…has highlighted actually how little of the extra investment that goes into providers actually translates into either more people on the ground or more pay in people's pockets…I don't think we have much confidence that if we paid higher rates it would do anything other than increase profit margins."

Local Authority

"It's a bit cynical but…essentially to put 10p an hour on somebody's pay packet will cost me 30p an hour to the provider"

Local Authority

In one instance, a local authority had built a requirement on pay into their retender process to ensure an increase in fees led to an increase in wages for home care staff.

3.3. Low pay, travel time and mileage payments

Providers all suggested that supply problems are fuelled by low pay, and suggested that this was a necessity due to low fees obtained from Local Authorities. Our research revealed concerns that rates of pay in some parts of the home care industry are below the minimums set by the by the National Living Wage (or National Minimum Wage for worked aged below 25 years). Interviews highlighted the complexity of care worker payments, in particular payments for travel time, which can create confusion and at least the potential for workers' pay to fall below minimum levels.[2]

One commissioner (and some providers when talking about competitors) also raised concerns that as low fees lead to low wages, there may be an increasing risk of illegality:

> *"In terms of whether the providers were doing the right checks? I think you get a lot of it…it's very difficult to ensure from a commissioner's perspective… This isn't just here, it's happened in other local authorities where the right to work is really difficult to establish."*
>
> *Local Authority*

A further complication was payment for mileage costs. Some providers paid these per mile or per visit, but rates varied and some required workers to offset additional costs against their annual tax allowance.[3]

> *"If somebody's got ten visits on a shift - that might be mornings and lunches, five morning calls and five lunch calls - that travelling in between those properties isn't paid for. Now, yes, the government does provide mileage that you can claim back at the end of the year [from tax allowance]. It still doesn't help staff today putting petrol in their cars, paying their insurance monthly, weekly, whatever it is."*
>
> *Local provider*

3.4. Job insecurity

Providers also reported difficulties in meeting the needs of the workforce in terms of the number of contracted hours. At one end of the scale, providers that were still contracting on a zero-hours basis had

[2] Overall, workers must receive at least the National Living (or Minimum) Wage (at time of interview, this was £7.20 for workers aged over 25 years, now £7.83) for all working time, including their travel between appointments (although not to and from the worker's home). Compliance with the legislation is judged on the average over a specified 'pay reference period', which reflects the frequency that the worker is paid or one month, whichever is the shorter. In practice, this typically means either paying the minimum wage for all hours or paying a rate above the national minimum wage only for the time spent with clients, while ensuring the average pay for all working time is at or above the minimum legal level. This latter method requires employers and employees to check compliance over the pay reference period.

[3] Reimbursement of mileage costs is not a requirement of the National Minimum Wage regulations, but where employers do not make a reasonable reimbursement of these costs and other out-of-pocket expenses, HMRC can take this into account when assessing total pay.

placed restrictions on the number of hours employees could work, as some employees were known to work 80-90 hours per week to increase their income. According to national data from the NMDS-SC, approximately 13% of all staff in direct care roles were working more than 37.5 hours each week (average across all 3 years). Interviewees identified concerns around safety if employees were working high numbers of hours per week, and also discussed greater costs associated with staff sickness that may arise due to poor work/life balance. Indeed, NMDS-SC data shows that almost 7% of all staff in direct care roles took over 20 days off sick per year on average (March 2015 and 2016).

> *"You will find staff that are reliant on quite a number of high hours a week, just to pay the bills, because the wage isn't the greatest."*
>
> *National provider*

Meanwhile, at the other end of the scale, employees limited their hours to below 16 hours per week in order to maintain entitlement to certain benefits. This led to higher costs for these providers due to employing greater numbers of carers, but also concerns around continuity of care. According to the NMDS-SC data, approximately 7% of all direct care staff work less than 16 hours per week (average across all 3 years of data).

> *"It's drummed into you: consistency, continuity of care. You can't do that if you've got a workforce that only works 16 hours a week because they lose benefits if they don't."*
>
> *Local provider*

3.5. The impact of place – rurality, diversity and deprivation

Rurality was identified in the statistical models as a predictor of problems relating to home care supply and DTOC. Looking specifically at rural areas compared with more urban areas, we found that home care providers were smaller but higher quality (a higher proportion were rated good or outstanding by CQC). They received higher fee rates from local authorities, and paid higher hourly rates to their workers (both of which may reflect supply challenges and/or the higher costs of care workers' travel time and mileage). Employees had on average been in their role for less time, and took more sick leave than in urban areas. Contextually, these areas have in general lower rates of unemployment and lower rates of income deprivation affecting older people.

Rural issues were confirmed in qualitative interviews. Commissioners whose administrative areas covered both rural and urban areas spoke about the difficulty of contracting for these different markets and factoring the costs of rural provision into the pricing structure.

> *"In rural and urban areas, supply of labour's very different. Qualifications are very different. Turnover's very different. The other thing is the rural urban space we have, again big, big problems getting coverage in rural areas."*
>
> *Local Authority*

The rurality of a provider's location creates financial pressure on domiciliary care companies because of the additional travel time required. There were concerns that some companies did not, as required by law, ensure that workers were properly paid for this time. In some instances, non-drivers were employed, but these workers can be difficult to place and providers described how taxis were sometimes being used to move carers into rural villages to provide care to numerous service users in one locality. In one instance a provider described the lengths some care workers are willing to go to in order to provide care in rural areas, despite significant personal financial cost. Although this care worker may be in the minority as many providers described an unwillingness to travel without sufficient remuneration, it is an example of how providers need to carefully consider access to rural areas when logistically planning routes, and how this may impact on staff income:

> *"We have a member of staff who lives [in the city]. She doesn't drive... she works Sunday mornings. There is no bus service on a Sunday morning, she gets a taxi to [a rural town]. She spends £22 on a Sunday on taxis. She doesn't even earn that on the morning run… she pays it herself, she doesn't claim that back… it's all to keep the work what she's got during the week."*
>
> *Local provider*

In some instances providers had deliberately moved out of rural locations due to the unsustainable costs associated with paying staff travel time which was not sufficiently reimbursed by LA contracts:

> *"I think consciously we've, sort of, moved away from some of the more rural locations… clearly when you get into rural locations and you're having to pay disproportionately more for non-contact time, as it were, then that creates that whole issue in terms of viability again that, you know, when you're paying a lot for travelling time, but you're not recovering that from the commissioner, it's difficult"*
>
> *National provider*

Providers described how ethnically diverse areas created pressure financially and strategically as there was a need to either provide translators or bilingual carers. In addition, at times it could be difficult to place these types of carers on other calls if their level of English was insufficient:

> *"[It] is a very multicultural area… We don't have the means to provide services for some of that population... they may be non-English speaking, they may need care staff from the same cultures, social background. To a company such as ours, that means that we may have to employ staff to meet that person's cultural need, as in the language. What we have to be careful of is that that person is not going to be employed only to go to people from that background. They're still going to have to go into your average white British person. So, their communication needs to be bilingual at least, good reading, writing, understanding of English"*
>
> *Local provider*

In deprived areas and areas with high crime, multiple carers may be required for appointments. This adds to the cost of providing care but also has implications for managing resource as it can be more difficult to plan visits if the two carers are not required for the next visit, which leaves a surplus of unused staff or may reduce staff wages, which may already be lower because of deprivation and unemployment in an area. The costs of sending two care workers (for safety reasons) may not necessarily be borne by the commissioner of the service, where the service user's care does not require two workers to be present.

> *"The challenges that we find round here is we have some really, really rough areas... there's gangs of youths with drug use and everything… care workers refuse because of safety reasons… The main thing that we do round here is we'd put it to a two-carer package, so that there's two carers going to that client. We wouldn't allow them to go on a single call… and we supply the carers with alarms and everything, attack alarms."*
>
> *National provider*

Furthermore, deprived areas may be associated with higher costs of providing care as a result of more complex needs, as one provider explains:

> *"[There is] a higher proportion of comorbidities in lower income areas, because people haven't been living healthy lives and things like that, and so what you're seeing is by the time they get to 50, 60, you've got that accumulation of issues."*
>
> *National provider*

3.6. Market instability

When discussing issues of supply in their local markets, there was a variation in how commissioners responded. Some commissioners worried about the viability of the home care market, while others were less worried about supply, confident that new market entrants would respond to any tendering exercise.

> *"We had to give them a rate which they could sustain their business. So that's what we tried to do in this new tender. We had 52 bids which was really, really good when we only needed 12 providers on our main framework."*
>
> *Local Authority*

All six commissioners in the first group of interviews, however, were concerned about larger, national providers handing back work. In all the areas we interviewed, national chains exiting the publicly funded market had affected them. No interviewees described this as having a significant impact on supply, but most were worried that it represented a trend.

"They handed us back about four million quid's worth of work, which is getting on for about four per cent of the market. So it's not catastrophic, but it is significant, especially because they had a high geographical concentration"

Local Authority

Providers and national stakeholders also discussed market exit, in three varying forms: 1) withdrawing from rural locations; 2) withdrawing from certain local authority contracts and 3) not pursuing the private paying (self-funder) market. In terms of withdrawing from rural locations, some providers discussed how they had made strategic decisions to do this when tendering for local authority business as a result of the increased costs associated with contributing payments towards travel time, which they felt were not sufficiently covered by local authority rates:

"[The business has] moved away from some of the more rural locations, because, you know, because of that whole travelling time issue… the way some of these things are commissioned is very much on the basis that we'll pay you X pounds per hour and that's it. Now, you know, clearly when you get into rural locations and you're having to pay disproportionately more for non-contact time, as it were, then that creates that whole issue in terms of viability again that, you know, when you're paying a lot for travelling time, but you're not recovering that from the commissioner"

National provider

For other providers, the tenders agreed with Local Authorities were not sustainable, as one provider spoke openly about their own experience:

"We handed back the preferred provider status... if you were the preferred provider for a region you had to accept every single bit of business that came from Social Services to you. And you had anywhere between one day and three days to provide the service… So we have a continuous programme of recruitment and we recruited a number of people but you get to a stage whereby there is no more capacity"

Local provider

It should be noted, nevertheless, that local authorities are still successfully procuring home care, often with a high level of response to tenders from providers. While market exit and instability is a concern for some, it does not appear to have driven a wholesale change in commissioning. Some areas facing shortages in supply appear to have responded by raising fees, but these tend to be in specific local areas, most noticeably in some rural areas.

3.7. Commissioning challenges

In order to meet the challenges of supply and market instability, commissioners discussed how they had needed to adapt over the past six or seven years, in light of budget restrictions. Commissioners often commented on the need to manage demand for adult social care services – including the importance of

'promoting independence' as well as reducing the number and intensity of individual packages. In addition, commissioners discussed the possibility of handing over aspects of care management (including assessment and review), from social workers to care agencies.

All six local authority areas in the first group of interviews were undertaking, or were about to undertake, re-commissioning exercises in domiciliary care (tendering, or amending existing contractual arrangements). They hoped that this would consolidate fragmented provision by establishing and maintaining a single contractual framework for home care, but the fragility and shifting nature of the market made these tasks difficult. In many cases commissioners had found these frameworks quickly proved inadequate and they had to rely on 'spot purchasing', that is, negotiating individual packages of care with providers outside of a framework or contract.

In some instances providers were forced to subcontract work to other local providers if they did not have capacity during times of unpredictably high demand. This increased risk and financial burden on providers, but could also be challenging if subcontractors were also at maximum capacity:

> *"There is no more capacity, no more carers around that are experienced enough to provide the service… so all your sub-contractors are full, all your preferred providers are full."*
>
> *Local provider*

3.8. Moving beyond 'time-and-task'

All six commissioners in the first group of interviews recognised that purchasing time, with strictly defined and task-orientated plans, had reduced costs in the system, but some commissioners thought that this approach had also contributed to the current fragility in the home care market, particularly in areas reliant on local authority funding.

> *"We've commissioned on a time-and-task basis and in many ways, that's contributed to the significant problems we've had. We've been very successful using that model to drive down what home care costs us. But that's also then got us to a point in the market which is flat. We just can't place work and we've got an increase in the level of unmet need."*
>
> *Local Authority*

Providers also described being frustrated with being commissioned on a time and task basis, with little emphasis on measuring longer term costs or outcomes:

> *"How many hospital bed days per year does provider A end up with versus provider B? What percentage of provider A's residents end up in residential care? It's not difficult. But not one of [the LAs] actually measures… They measure their cost per hour, but surely you should measure what impact…compare your providers on the ability to reduce long term care costs."*
>
> *National provider*

There was a desire amongst most interviewees (both commissioners and providers in the first group of interviews) to develop more 'outcomes-focused' contracting or to make use of Individual Service Funds, establishing a notional amount to meet the needs of each individual service user and paying this directly to the provider, either in full or making part of the payment conditional on an outcome. This notional amount would then be used to fund a flexible package which is negotiated with the service user and their family. In most cases, however, this approach was newly adopted or at a piloting stage. Adopting new approaches was also challenging where some local authority teams had either shrunk or been part of organisational change. Problems were seen to stem from failures in the system, e.g. social workers still reviewing users on a time and task basis rather than an outcome basis. In some instances, commissioners have introduced a system that allows for monitoring of some basic quality markers (e.g. timeliness, continuity of staff and trained staff holding a Care Certificate) with providers receiving higher fees if they met these standards. Despite this, some commissioners doubted whether providers had sufficient infrastructure to implement any more complex outcomes-based payment system.

For providers, Individual Service Funds offered an opportunity to reduce the administrative burden associated with time and task commissioning and the ability to control a larger budget, which could enable greater strategic planning as well as security for staff:

> *"It's another frustration that all of these individual tasks that we do at the moment end up with an invoice, thousands of invoices… in [location]… we are just given a budget per service user…the administration burden is hugely reduced. So we went from 13,500 invoices in a quarter to one."*
>
> *National provider*

> *"So rather than it be like, we get paid on an hourly rate per client… the local authority gives us an annual budget… for this zoned area, this is the budget that you're allocated, and how you distribute those hours. So, as a provider, it gives you a bit more control [to plan visits and workforce]… by giving us an annual budget, it gives us a bit more stability on the money that's coming in, so then we can offer staff a bit more stability, because it is difficult for the staff, just things like annual leave"*
>
> *National provider*

Although this may reduce providers' administrative burdens, it requires local authorities to collect and monitor outcomes data to support this potentially substantial shift in approach to commissioning. There is also an additional cost of providers of increased assessment and care planning as people's needs change, which should be recognised by commissioners.

Unpredictability was a key issue discussed by providers – contractual arrangements with councils often dictated that they must deliver care within 72 hours of being notified, but supply-side issues meant that companies often lacked the capacity to provide this care:

"To recruit somebody takes anywhere between 8 and 12 weeks to recruit. So, when the hospitals or the local authority turn up the demand, unless you've got spare capacity sitting there doing nothing you cannot react"

Local provider

"What we don't get from the NHS is any certainty in terms of when this individual will be coming back home or back into the community, but there is an expectation of when the NHS pushes the button that it will happen tomorrow, which, again, from our perspective is almost impossible…from our perspective, we recruit [carers] and pay them and say just hang about and we'll just hang about on the belief that, you know, this care package will come along, if the care package doesn't come along then we might have to make you redundant."

National provider

While some national providers had taken the decision to create a pool of reserve staff, this was only possible where providers had the scale of resources to enable this, or could draw in staff from outside a region to cover unpredictably high levels of demand. For others, low margins made it difficult to carry the excess (unpaid) capacity this required.

"Let's say, you had a member of staff who was given 40 hours a week and you wanted to keep eight hours in reserve to be responsive, the risk for places is that they are paying the individual that but they're not getting anything to cover that cost... margins are already razor-thin, you don't really have an opportunity to build in that redundancy."

National provider

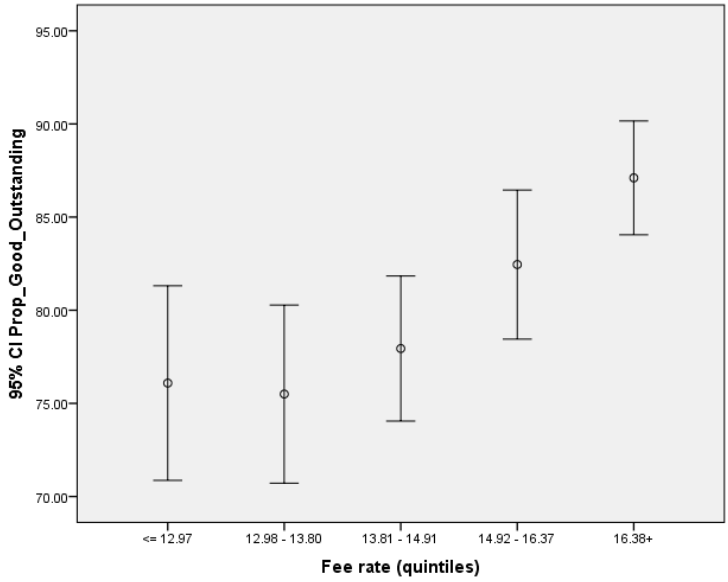
"As a provider there is no incentive for you to have too much capacity because you don't know whether you're going to get … the demand coming in"

Local provider

3.9. Fees, delayed transfers of care and care quality

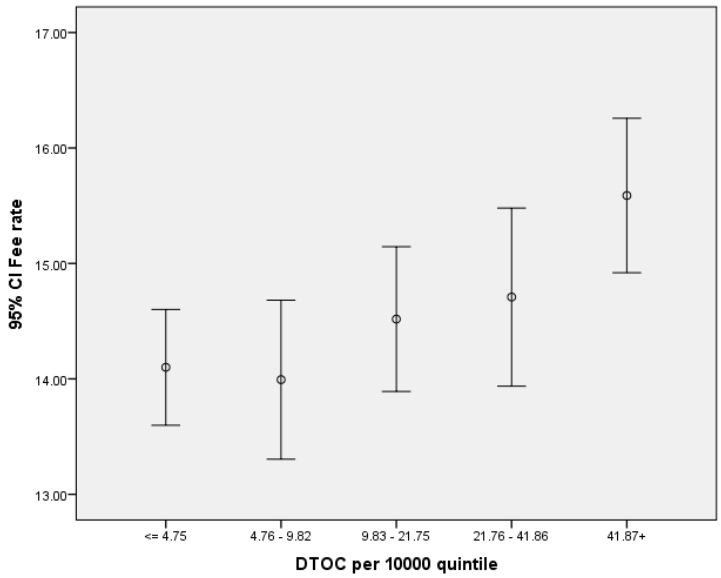
Relationships between fee rates, quality of care (as measured by CQC) and DTOC are not entirely straightforward. Figure 1 shows a positive relationship between fee rates and quality (as measured by the percentage of providers rated good or outstanding by CQC), but Figure 2 shows that as fee rates increase, DTOCs also increase. This may imply that commissioners are responding to DTOC problems by increasing fees.

Figure 1: Relationship between fee rate and quality



Fee rate and quality are positively correlated (r=0.324, p<0.001)

Figure 2: Relationship between DTOC and fee rates



DTOC and fee rate are positive correlated (r=0.266, p=0.001))

3.10. Fee setting – commissioners and providers

In interviews, most commissioners discussed the challenges of establishing a clear pricing framework which could be agreed with providers, and they described the tense negotiating atmosphere that resulted. Fees, particularly when being set at a fixed amount by the authority, tended to dominate conversations between commissioners and providers.

Providers commonly felt that they were being placed under greater pressure as a result of what they considered to be 'unrealistic' fees set out in contracts with Local Authorities. Many providers discussed

the minimum hourly recommended cost of care that had been set out by the UKHCA, which at the time of our interviews was £16.70 per hour,[4] (currently £17.86 per hour) which few Councils had adopted. Providers reported fees ranging from £12.50 to £15.60 and the impact this had on the businesses is summarised by one large national provider below:

Interviewee: *"How is it that [commissioning below the UKHCA recommended rate is] allowed and nobody challenges those councils to say… there's a model out here from the UKHCA that says £16.70 is the minimum, how is it that you believe that £12.50 is acceptable here in [location]?*

Interviewer: *Well, how is it that providers are able to operate under…*

Interviewee: *By operating illegally… Not pay travel time, so you've only got two choices really. You either breach living wage regulation by not paying staff travel time - that happens in great regularity. Or you do pay care workers travel time, but in that case by saying that 30-minute visit ain't going to be a 30 minute visit; you need to be out of there in 20 minutes, mate. Because that's your travel time. And it's as simple as that."*

National provider

Providers described how other companies bid for contracts on a lowest-fee basis, but then exited the local market when they found they could not deliver care under these tight margins, which left remaining providers struggling to continue on already unrealistic council fees:

"It's absolutely a race to the bottom [price] with a number of local authorities… [commissioning is] still far too skewed towards price, massively towards price."

National provider

Many providers suggested that councils had not increased fees following the introduction of the National Living Wage, resulting in providers' margins being squeezed or needing them to react by changing their business strategy. For example, some described limiting call outs to a minimum length of time, in order to protect already tight gross margins as longer call times balanced the proportion of call time to travel time, which was a hidden cost not paid by LAs:

"What we have done to try and compensate the increase in labour cost is that we've gone around and said we no longer do 15-minute calls and, in actual fact, we shouldn't do half an hour calls, our minimum call out should be for an hour. And at the moment if you do the calls at an hour then that's still okay for us, but if you go to 30 minutes it's very hit and miss whether you should stay in business and continue providing the service"

Local provider

[4] UKHCA (2015). A minimum price for homecare, Version 3.1, November 2015. UKHCA: Wallington, UK.

There are some important differences between commissioner and provider views. This includes over what constitutes a fair fee, with many arguing that the UKHCA rate is too high for their area.

> *"We think there's some double counting… our accountants don't agree with the UKHCA formula and we also think it's got a bit of a bias of more, kind of, southern authorities, rather than, kind of, northern metropolitan [areas]… we would base it on [local] factors really."*
>
> *Local Authority*

> *"I think they're just a campaigning organisation… it's under a thin veneer of outcomes for individuals, but for me the focus is about profit... I don't feel like they are a genuinely campaigning organisation focussed on people. I think they're focussed on business."*
>
> *Local Authority*

One national stakeholder also argued that the responsibility for including sustainable prices in tenders lay with providers. This is consistent with some local authorities arguing they paid acceptable fees as they benchmarked them against other areas – i.e. in many areas providers are, as a group, submitting bids at very low rates. On a related issue, it should be noted although some providers argued that (other) providers could only be surviving by offering effective pay rates below the minimum wage, the legal responsibility to comply with National Minimum Wage regulations lies with providers, not commissioners. Indeed, it would be difficult for commissioners to monitor the actual pay received by home care staff, although they could ask providers to demonstrate their pricing assumptions as part of their tender responses.

> *"The focus used to be on high fees, and a drive for low unit costs. Now the problem is really that providers are bidding too low. Providers say that commissioners are paying for care that's too low – but we'd argue that the way to correct the market is for providers to not put in tenders that can't be delivered – they'll do anything to say they can meet the spec - that's the only way to change*."
>
> *National Stakeholder*

Where Local Authorities were paying higher fees, most argued that this was due to a local shortage of supply. It was neither desirable (in their view) nor a proactive attempt to manage quality in the market.

Recognising the importance of recruitment and retention in home care, many commissioners were offering support to providers other than through fees, for example, by the provision of free training. Some commented on differential uptake amongst providers, as staff shortages prevent some releasing staff for training. Nevertheless, where these arrangements are in place, fees may be a poor reflection of local authority investment in home care.

> *"For home care, we support those seven providers quite heavily in terms of safeguarding advice, training, you know, customer complaints handling areas that…you know, recruitment and*

retention and retention with Skills for Care. We work with them quite closely and with our in-borough kind of recruitment job fair…We're looking at supporting them again with, where we can, with some of the leisure passes and travel concessions that council staff benefit from".

Local Authority

3.11. Quality

While commissioners had made necessary changes to their commissioning practices amidst financial constraints over successive years, both providers and commissioners held concerns about the effect that practices had had on quality of domiciliary care provision. While several providers felt that councils had supported the increasing call durations that arose from the Care Act, some providers were still being commissioned to deliver 15-minute calls and described this as "not viable." To further reduce costs, providers suggested that commissioners had reassessed service users' needs, described by commissioners as 'demand management', and this also led to concerns around quality. Meanwhile, concerns were also raised that that the working conditions in domiciliary care (e.g. low wages, job insecurity) could lead to an unskilled and unmotivated workforce, with resulting quality implications.

"The quality has certainly deteriorated. Again, in 2009 we were providing visits at, say, 45 minutes to somebody, by 2012 that had been cut back to 30 minutes and in some lunch time calls they were eliminated, so if you had a morning call, a lunch time call, an evening call and a night call the lunch time calls were generally done away with. And as part of your morning call you were asked to put a glass of water and make a sandwich ready for lunch time. So that's, again, how the local authority has managed to cut their budgets in going through it but they've just had six years… seven years of doing that and there's no more fat left and demand has increased"

Local provider

"Clearly resources are always an issue, so when you've got an unskilled, poorly qualified workforce, when you can't retain your registered managers, when you're zero hour contracting people it doesn't help quality. It just doesn't help quality."

Local Authority

Many local authorities did not accept the premise of a direct relationship between fees and quality, commenting on the variation in levels of providers' CQC quality ratings despite similar or equal fee rates. While Figure 1 illustrates a positive association between fees and CQC ratings, this view is consistent with their doubts that fee rises necessarily led to pay rises for staff and the tendency to offer training and other forms of support rather than increase fees.

3.12. Working with the NHS

In response to questions about integrated commissioning between health and social care, interviewees described wide variation in joint working practices with the NHS. While some had worked closely with colleagues from Clinical Commissioning Groups (CCGs) to share a contracting framework, others had not been in contact at all with NHS colleagues when proposing commissioning arrangements. In some areas, commissioners talked about developing a new arrangement with NHS colleagues, either by attempting to establish an integrated community service with input from nurses, or seeking a contribution from CCG commissioners for the additional cost of home care agencies carrying out clinical tasks.

> *"We're… trying to promote with the local NHS, a sort of nurse-led model of home care that actually you would have in an integrated or pooled joint commissioning of community services that the authority would commission and contract with a number of domiciliary care providers for a particular geography. The model would be a multi-disciplinary team with community nurses, having oversight of all the inputs, including the home care and providing that clinical overview. That is a way of trying to create a safer and more integrated provision and I think in time should lead to the creation of new more hybrid roles offering a greater skill set and potential career pathway for some of the individuals who might be interested."*
>
> *Local Authority*

Others expressed concern about the extension of NHS commissioning to social care, both in terms of the impact this can have on the ability of commissioners from councils to compete on price, and in terms of the ethos NHS commissioners would bring to the purchasing of services, feeling that they would be driven by an inflexible medical model of provision, with which they are unable to compete:

> *"It's difficult as well because the NHS providers, the Acute [Hospital Trusts], are increasingly looking to buy community services at rates that are way beyond anything that's in my gift. So they're trying to develop new kind of home from hospital, discharge services. So that makes it difficult because there's only one pool of labour out there and they're threatening to soak it."*
>
> *Local Authority*

Despite moves towards greater integration, providers described a lack of communication between the sectors. This related to both day-to-day communication breakdown regarding what was required at a patient-level, but also wider system issues in how these health tasks should be funded and commissioned:

> *"[District nurses and care workers] are going in, in silos, there's very little communication. If there is, it's just written notes and the expectation that the next team of people will read and understand said notes and follow them but without any real [communication]… it's a huge lost opportunity"*
>
> *National provider*

"District nurses have got a big argument with us that we should be [applying cream to open wounds]... From our point of view… we can't do it because of insurance. If anything goes wrong, that wound becomes more infected, then we shouldn't have done it. So the nurses are not happy with us, but we're just following procedure... the local authority [say] we shouldn't be doing it because of funding, they class it as a health-related task…. this stems from what is happening now where the councils are trying to save money and pass on what is a health-related task. So we're in a transition period really… and we're in the middle"

Local provider

At times providers felt that patients were being discharged from hospital too quickly, resulting in insufficient care provision through domiciliary services and greater pressure being placed on the system:

"We'd get a lot of unsafe discharges where somebody would come home, that they would deem was being at their base level, but they'd come home and they wouldn't have any mobility, and would be needing equipment. And, it would be a case of, they hadn't thought to inform us, or had the assessment in place"

National provider

"We've had a number of instances where the hospitals have discharged service users too soon and within a day or two they've gone back in again"

Local provider

Another provider described how the local hospital occasionally used 'reset days' which created unpredictable levels of demand and potentially unsafe discharges:

"They have a periodic time where somebody is deciding, I'm not sure as to the criteria, but where beds are being blocked, so they'll have a reset day to get as many people out as is humanly possible. It creates huge peaks and troughs for us, but the problem is they're not necessarily resolving the issue, they're just moving the problem, and what there is, it's not necessarily the care in the home, it's the ambulance service is pushed, what is a safe discharge?"

National provider

3.13. Greater health role in domiciliary care

Difficulties arising as a result of changing population demographics and a decline in NHS services were raised as these had caused care needs provided through domiciliary care to increase as a result of reduced supply of community nursing and access to primary care. This has resulted in some low level clinical tasks being built into the work of care workers, which seems to be viewed differently by providers and commissioners. Several commissioners saw this as a positive step to fund work that home carers were already undertaking through NHS Continuing Health Care funds, and to ease pressure on

nursing staff and meet their local integration agendas. Providers were, however, concerned about the practicalities of how this level of care could be achieved, particularly given the short times commissioned for each home care visit. This also creates the additional financial burden of having to train staff in wider health roles, which could be particularly onerous for businesses owing to the high turnover of staff. One local commissioner raised the need for greater clinical oversight to ensure patient safety:

> *"When I first was running a home help service, what the home helps were doing then is absolutely nothing compared to what the tasks are now. I don't think that journey's got much further [than] it can safely go without being built into the whole structure of this much greater clinical oversight at least. Now some of our agencies are starting to talk about employing their own nurses."*
>
> *Local Authority*

In addition, providers suggested that home carers were not being sufficiently remunerated for such responsibilities and there was a need to elevate the professional status of domiciliary care to reflect these greater expectations on the role. This may be particularly necessary as some providers described a lack of respect from other health professionals:

> *"Working with district nurses, I find often they look down on us… it comes to how people view care staff, and often it's the case, not always, but often it's the case that district nurses, they will just talk down to you… we get it sometimes with paramedics, sometimes with doctors...some attitudes can vary quite a lot, so patronising and condescending, it's just not good"*
>
> *Local provider*

4. Discussion

The concept of the 'the home care market' is misleading, and it is probably more accurate to talk about 'home care markets'. Heterogeneous markets operate within and across the administrative boundaries of local authorities and clinical commissioning groups and reflect the local balance between the demand for, and supply of, the home care workforce. The state of local markets reflects a situation where home care providers are in competition with other employers for a low paid, often low status workforce, and markets are further shaped by the National Minimum Wage (and the National Living Wage) and interactions with the benefits system.

The use of plans based on time-and-task alongside competitive tendering has been a way for Local Authorities to drive down fees in home care. Given the financial constraints under which Local Authorities have recently operated, this may have increased the total amount of home care that Authorities were able to purchase for their population. It has also led to most Authorities paying lower fees than the rate that the UKHCA has estimated as the minimum price for sustainable care services.[5]

The market is clearly showing signs of stress, with increased numbers of providers exiting and many providers arguing that fees are unsustainably low. To a large extent, however, these exits have so far been offset by new entrants, reducing the impact on Local Authorities and those receiving care.

This appears to have led to a market where, in many areas, both home care fees and wages for staff are as low as possible, with the national minimum wage regulations providing a floor, at least on pay. In some areas, the inability of providers to recruit and retain sufficient staff at these pay rates has led Local Authorities to raise fees; this is most noticeable in, but not limited to, rural areas. Areas paying higher fees pointed to these supply problems – i.e. Local Authorities were forced to raise fees rather than choosing proactively to do so as part of wider management of the market, and/or concerns over quality. In some cases, both commissioners and providers raised issues of underpayment for travel time, suggesting that, at least in some areas, employers could still recruit and retain staff at effective pay rates below the legal minimum wage.

It is important to consider why providers continue to tender at rates that either may be inconsistent with minimum wage legislation or that are unsustainable, leading them to exit the market. Aside from straightforward mistakes, the low barriers to entry and exit in this market may encourage 'optimistic' bids (bids with a risk of failure, but still with a positive expected rate of return). A number of these contracts subsequently fail, potentially where local labour markets tighten or the employer faces unexpectedly high staff turnover. In a market with highly price-sensitive commissioners, this may be the most effective pricing strategy for providers.

[5] See https://www.ukhca.co.uk/rates/

This approach to the market for domiciliary care clearly has disadvantages, despite its ability to reduce unit costs. Possible downsides include:

- Turnover, both of providers and staff. This has negative impacts on continuity of care, and potentially wider effects on care quality. CQC quality ratings do not suggest that urban areas have higher quality of care, despite the relative ease with which they can replace providers who exit the market;
- Providers have little flexibility to protect them against fluctuations in demand (which may influence DTOC), or against relatively small changes in their own staffing or in the conditions in the local labour market;
- Any tightening of labour markets for relatively unskilled staff will be likely to create a rapid need to increase fees.

Simply raising fees in areas where this is not already dictated by current market forces may be a blunt tool on its own if providers can already attract sufficient staff at low pay. To work, this may require greater collection and monitoring of quality and outcome indicators in contracts, which is not straightforward and could incur significant administrative costs.

There may be other ways to improve the functioning of the home care market. Possible improvements could include:

- Better co-ordination with NHS commissioners and providers;
- New contracting methods such as Individual Service Funds;
- Continued use of non-fee methods to improve working lives of staff or reduce provider costs e.g. free training;
- Better relationships – and possibly longer-term relationships – with providers that support open book exercises and a more strategic approach to market management;
- Zoning contract areas to reduce care workers' travel time relative to the length of visits;
- Providing people with fewer, but longer, visits where this is safe and agreed by the individual;
- Reducing unnecessary bureaucracy from contracts, while retaining those elements which genuinely contribute to people's safety and wellbeing;
- Reconsidering the use of block contract arrangements to provide predictable revenue and encourage investment.

Evidence supporting such changes is, however, limited, and improvements are hampered by continued financial constraints faced by Local Authorities.

Annex: Quantitative Analyses

Contents

Data sources

Relative Needs Formula (RNF) data:
2017/18 New RNF shares (65+ only) with area cost adjustment, sparsity and low income adjustments disabled

Skills for Care worker data:
Coverage overall in 2016 was 55.6% but this ranged from 20% to 85% between LAs
This was filtered to include only direct care workers (jobgroup=1) and only include adult domiciliary care (mainsergp1 = 3).
Total number of hours worked = sum of contracted and additional hours
Pay per hour
Number of employees
Number of providers
Time in job (months)
Vacancy rate
Number of staff leaving in 12 months
(*Data were filtered for appropriate variables as per Skills for Care detailed guidance notes*)

UKHCA data:
Data provided by UKHCA (obtained from a freedom of information request). Prices paid by councils in England – used average price. Where data was unavailable the fee rates collected by NHS Digital were used instead.

Rurality indicator:
Originally eight categories, Large Urban, Major Urban, Other Urban, Predominantly Rural, Predominantly Urban, Rural-50, Rural-80, Significant Rural**.** This was collapsed into three categories, urban (large/major), other urban (other/predominantly urban) and rural.

Index of Multiple Deprivation (IMD):
The **Employment Deprivation** Domain measures the proportion of the working-age population in an area involuntarily excluded from the labour market. This includes people who would like to work but are unable to do so due to unemployment, sickness or disability, or caring responsibilities. The average score was used.
The **Income Deprivation Affecting Older People Index** (IDAOPI) measures the proportion of all those aged 60 or over who experience income deprivation. It is a subset of the Income Deprivation Domain which measures the proportion of the population in an area experiencing deprivation relating to low income. The definition of low income used includes both those people that are out-of-work, and those that are in work but who have low earnings (and who satisfy the respective means tests).

Delayed Transfers of Care (DTOC): Total number of days delayed in Q3 2016/17 due to care package (Both NHS and social care).

Annual Survey of Hours and Earnings (ASHE): The median wage level for each area (all jobs)

Care Quality Commission (CQC) ratings: Overall ratings from January 2017.

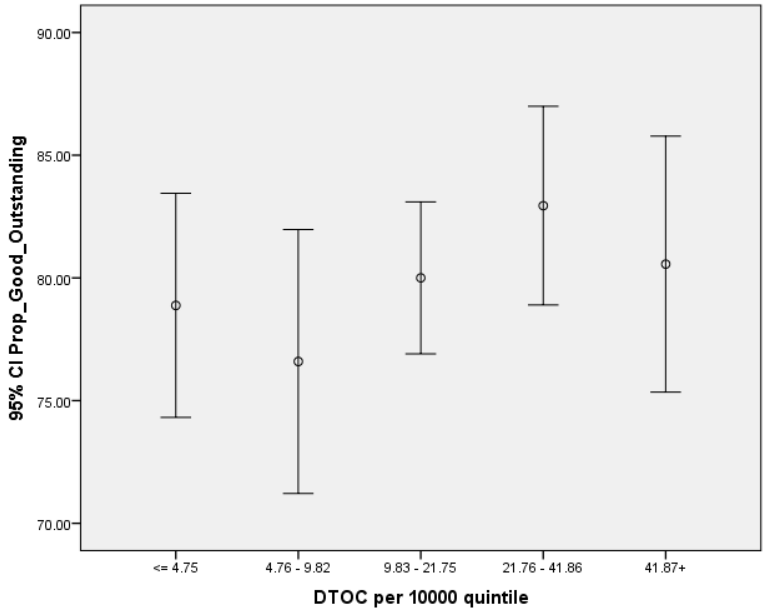
Relationship between quality, fee rates and DTOC rates

The aim of this analysis is to explore the relationship between quality, as measured by CQC ratings, fee rates and delayed transfers of care (DTOC due to care package). CQC ratings were from January 2017. Fee rates were taken from the UKHCA data (sample week 18-24 April 2016). This dataset was generated from a freedom of information request and was not complete (139/151). Missing values were imputed from NHS Digital data. DTOC data was the total number of days delayed in Q3 2016/17 due to care package (relating both to NHS and social care).

Table 1: DTOC Summary

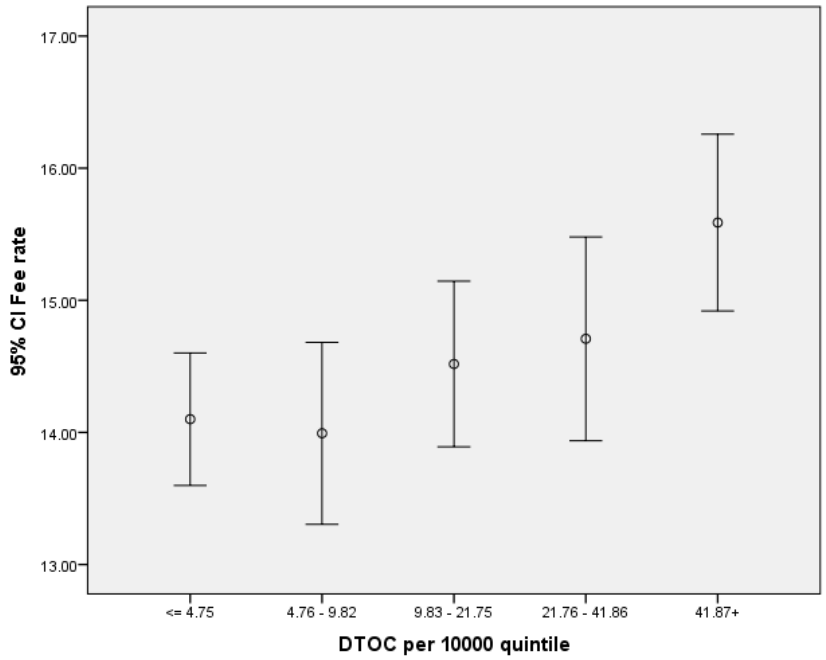
			Fee rate		Proportion Good/Outstanding ratings	
		N	Mean	Standard Deviation	Mean	Standard Deviation
DTOC per 10000 quintile	Q1 (<= 4.75)	31	14.10	1.37	78.88	12.45
	Q2 (4.76 - 9.82)	29	13.99	1.81	76.59	14.13
	Q3 (9.83 - 21.75)	31	14.52	1.71	80.00	8.44
	Q4 (21.76 - 41.86)	29	14.71	2.03	82.94	10.64
	Q 5 (41.87+)	31	15.59	1.82	80.56	14.22
	Total	151	14.59	1.82	79.80	12.18

Figure 1: Relationship between DTOC and Quality



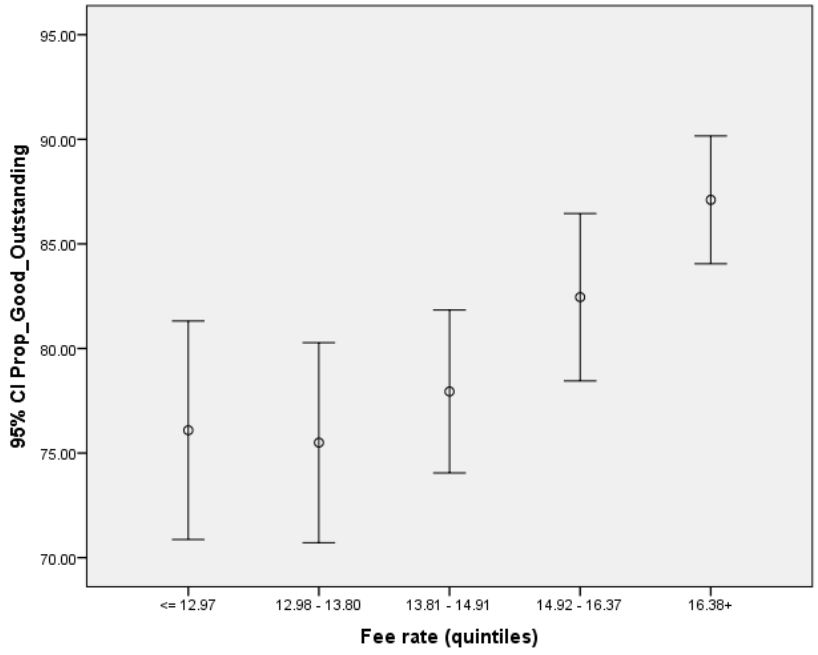
DTOC and the proportion of good/outstanding CQC ratings are not significantly correlated (r=0.088 p =0.288) (DTOC was logged to check for correlation as data is skewed)

Figure 2: Relationship between DTOC and Fee rates



DTOC and fee rates are positively correlated, (r=0.266, p=0.001))

Figure 3: Relationship between Fee rate and Quality



Fee rate and quality are positively correlated (r=0.324, p<0.001)

Statistical Models

Methods

Skills for Care data were summarised by Upper Tier Local Authorities (UTLA). In total 151 were used. As the data were skewed, median values were taken for the number of contracted hours, number of additional hours and hourly rate. The total number of hours was calculated for each UTLA. For all the UTLAs, the overall total number of hours was calculated. For each UTLA the proportion of this total, compared to the national total was calculated. For all the UTLAs the 2017/18 New RNF shares (65+ only) with ACA, Sparsity and Low Income Adjustments disabled was used.

The aim was to see if the proportion of demand by UTLA, as measured by RNF, was different from the proportion of supply, as measured by hours worked, and what factors predicted a difference.

Table 2: Potential Predictors

Hourly pay	Rurality
Contracted hours	Contract Length
Additional hours	Vacancy rate
Fee rate	Local average hourly rate
Employment deprivation (from ID2015)	Quality – CQC
Income Deprivation Affecting Older People Index (IDAOPI, from ID2015)	Average number of employees per provider
Number of direct care staff leaving in previous 12 months	

A linear regression model was used to examine the significance of the potential predictors.

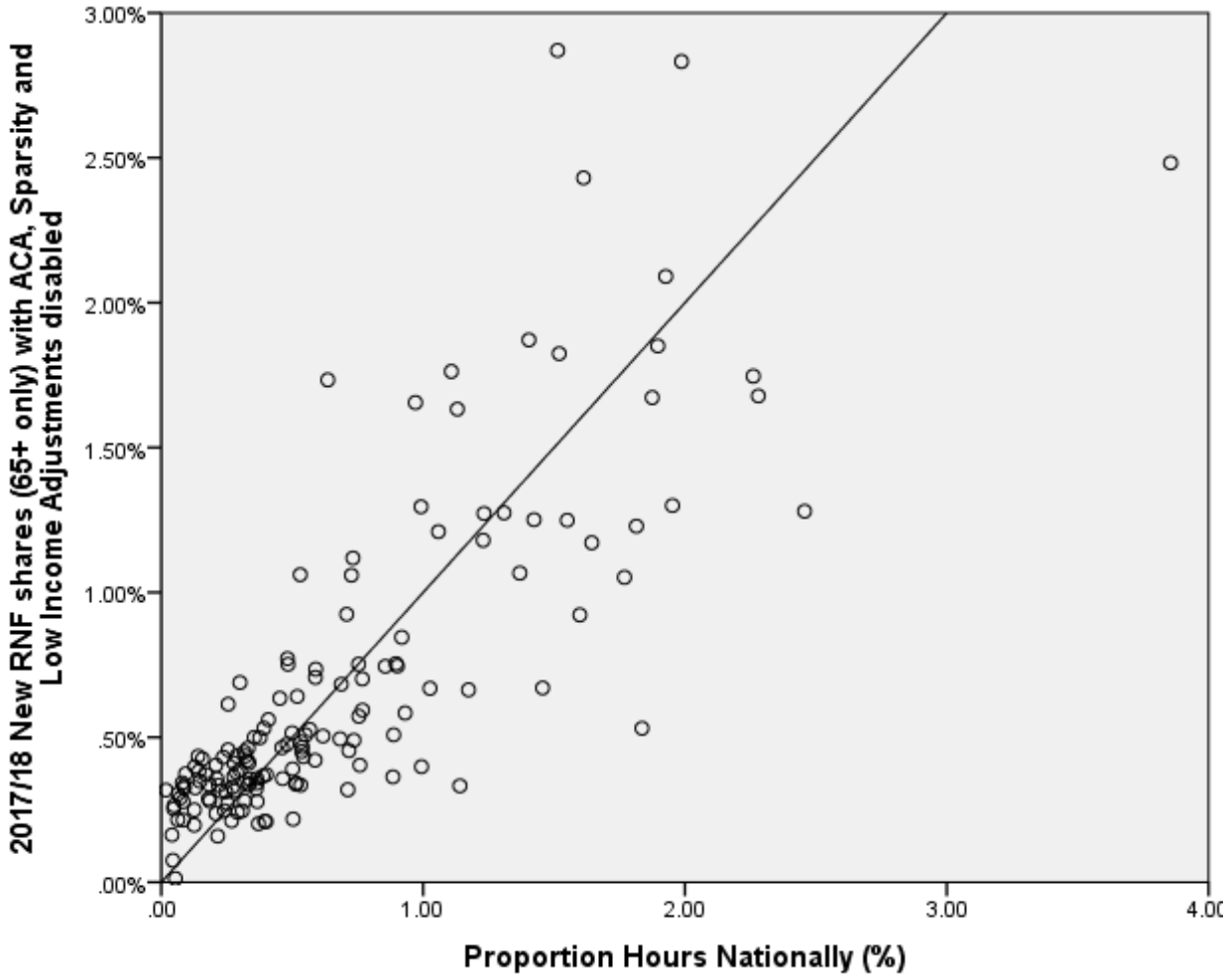
Variables were checked for multicollinearity using the variance inflation factor (VIF), none of the values warranted concern. All models were checked for goodness of fit, these were all considered satisfactory. DTOC data was skewed, so this was transformed for use in the model.

Supply/Demand Difference Model

Outcome measure

The outcome variable is supply – demand. If the proportion of supply matches the proportion of demand then supply – demand = 0.

Figure 4: Supply and Demand



Proportion of demand vs proportion of supply. Reference line (demand =supply), below the line supply > demand and above the line supply < demand. The mean difference is 0.0061 (sd =0.367), with a minimum of -1.6 and a maximum of 1.37.

Table 3: Model Parameter Estimates

Parameter	β	Std. Error	t	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Intercept	.324	1.351	.240	.811	-2.348	2.996
Rural	-.290	.161	-1.807	.073	-.608	.028
Other Urban	-.078	.151	-.517	.606	-.377	.221
Large Major urban	0[b]	.	.	.	.	.
Hourly rate	-.024	.139	-.174	.862	-.299	.250
Contracted Hours	.009	.007	1.196	.234	-.006	.023
Additional hours	-.020	.009	-2.161	.032	-.038	-.002
Fee 2016	-.039	.035	-1.107	.270	-.109	.031
Employment Average score	.258	2.782	.093	.926	-5.245	5.760
IDAOPI	-1.171	1.253	-.934	.352	-3.650	1.308
Months in job	.013	.006	2.216	.028	.001	.025
Vacancy rate	.043	.016	2.636	.009	.011	.076
Prop/Good Outstanding CQC	.005	.004	1.184	.238	-.004	.014
Number of employees per provider	.004	.002	1.659	.099	-.001	.008
Local hourly wage	-.066	.042	-1.592	.114	-.149	.016
Number of employees leaving	-3.448E-5	5.789E-5	-.596	.552	.000	8.002E-5

**Weighted by SFC coverage*

A positive parameter estimate (B) indicates supply > demand
A negative parameter estimate indicates supply < demand

Significant predictor variables

There were three significant predictors of supply-demand (as identified by yellow highlighting): average length of time workers were in their current job, vacancy rates, and additional hours worked (beyond contracted hours).

- In areas where workers had been employed for longer, supply was likely to be greater than expected demand.
- In areas with higher vacancy rates, supply was likely to be greater than expected demand.
- In areas with more additional hours worked, demand was likely to be greater than supply.

DTOC model

The same predictor variables were used to predict DTOC rates.

Table 4: Model Parameter Estimates

Parameter	B	Std. Error	t	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Intercept	8.506	2.644	3.217	.002	3.275	13.736
Rural	.007	.314	.021	.983	-.615	.629
Other Urban	-.363	.296	-1.227	.222	-.948	.222
Large Major Urban	0[b]	.	.	.	.	.
Hourly rate	-.322	.277	-1.165	.246	-.870	.225
Contracted Hours	.010	.014	.718	.474	-.018	.039
Additional hours	.012	.018	.676	.500	-.024	.048
Fee 2016	.120	.069	1.736	.085	-.017	.258
Employment Average score	-12.946	5.446	-2.377	.019	-23.719	-2.173
IDAOPI	-2.315	2.453	-.944	.347	-7.167	2.536
Months in job	.020	.012	1.751	.082	-.003	.044
Vacancy rate	-.060	.032	-1.860	.065	-.124	.004
Prop/Good Outstanding CQC	-.014	.009	-1.621	.107	-.031	.003
Number of employees per provider	-.003	.004	-.622	.535	-.012	.006
Local hourly wage	-.227	.083	-2.743	.007	-.391	-.063
Number of employees leaving	.000	.000	1.163	.247	-9.230E-5	.000

**Weighted by SFC coverage*

Two significant predictors of DTOC were identified. These were local hourly wage and employment (IMD).

- In areas with higher local wages, the number of DTOCs is lower
- In areas with higher employment deprivation scores the number of DTOCs is lower.

Table 5: DTOC rates (DTOCs per 10,000 population (Quintiles))

	1 (<= 4.75)		2 (4.76 - 9.82)		3 (9.83 - 21.75)		4 (21.76 - 41.86)		4 (41.87+)	
	Mean	St Dev	Mean	St Dev	Mean	St Dev	Mean	St Dev	Mean	St Dev
IDAOPI	.236	.082	.203	.066	.165	.057	.179	.062	.142	.037
IMD Employment	.137	.037	.137	.040	.124	.046	.132	.043	.105	.027
Hourly rate (2016)	7.60	.60	7.51	.42	7.56	.50	7.64	.58	7.74	.40
Local Wage (Hourly)	14.00	3.00	13.00	3.00	12.00	2.00	12.00	1.00	12.00	1.00
Fee rate	14.01	1.31	13.82	1.72	14.49	1.70	14.63	2.01	15.58	1.80
Vacancy rate	5.58	3.54	4.35	2.87	5.27	3.31	4.48	2.29	3.93	1.25
Months in job	43.49	11.04	45.77	8.46	43.65	8.30	47.98	12.58	45.90	7.72
% employees taking sick leave	25.54	11.97	31.53	11.35	34.86	14.79	38.50	11.70	38.33	9.67
% Good/Outstanding	79.15	11.92	76.72	14.01	79.79	8.48	83.18	10.24	80.14	14.61
Provider size	67.13	33.58	56.81	20.42	52.24	30.47	45.59	15.79	46.58	13.54
Additional hours	3.20	6.44	2.78	5.38	4.79	7.04	3.70	6.17	2.53	5.06
Contracted hours	25.66	9.54	26.32	7.09	23.87	9.23	26.23	4.80	26.77	5.82
Rurality (%)										
Rural	10.5		7.4		33.0		36.4		64.0	
Other urban	17.6		13.6		27.7		17.2		2.9	
Large/major urban	71.9		78.9		39.3		46.5		33.1	
Staff starting	772.89	484.98	882.75	405.62	2076.84	1310.62	2140.09	1437.36	2041.36	986.02
Staff leaving in last year	611.20	498.50	692.26	373.94	1587.93	969.51	1678.18	1140.10	1687.96	810.67
SFC coverage (%)	52.4	12.9	52.3	12.9	59.3	10.5	56.3	6.6	57.4	8.0

The DTOC data was split into quintiles to examine the relationships between the individual variables. The following patterns were observed:

- Deprivation is lower in areas with high DTOC rates
- Hourly home care pay is higher in areas with higher DTOC rates
- Local average pay is lower in areas with higher DTOC rates
- High DTOC areas have the highest fee rates
- High DTOC areas have lowest vacancy rates
- Higher DTOC areas have a higher proportion of employees taking sick leave
- Higher DTOC areas have larger number of total jobs (all sectors)
- Higher DTOC areas have the smallest providers
- Higher DTOC areas have higher number of leavers and new starters

Table 6: Differences between relative demand and supply (Quintile)

	Supply Demand Difference									
	<-0.3 N=16		-0.3 - <-0.1 N=45		-0.1 to 0.1 N=46		0.1 to 0.3 N=22		>0.3 N=22	
	Mean	St Dev	Mean	St Dev	Mean	St Dev	Mean	St Dev	Mean	St Dev
IDAOPI - average score	.144	.060	.198	.069	.178	.077	.187	.051	.188	.067
Employment deprivation (av. score)	.104	.029	.128	.039	.118	.039	.140	.045	.140	.040
Hourly rate	7.76	0.48	7.53	0.49	7.76	0.55	7.54	0.53	7.46	0.38
Local Wage Hourly	12	2	13	2	13	3	12	2	12	1
Fee rate	15.64	1.67	14.36	1.82	14.65	1.88	14.13	1.68	14.28	1.69
Vacancy rate	4.10	2.07	5.01	2.89	5.15	3.55	3.79	1.53	4.63	2.16
Months in job	42.22	7.57	43.32	9.01	46.53	12.46	48.57	6.53	46.03	8.38
% employees taking sick leave	37.81	10.72	27.42	12.99	38.51	14.52	33.08	9.42	35.69	7.34
% Good/Outstanding	80.80	8.47	76.65	13.19	81.89	11.95	78.75	13.34	82.50	10.05
Average provider size	47.22	14.23	53.02	31.32	48.53	21.08	55.36	22.08	66.59	23.65
Additional hours	3.51	4.49	4.42	6.90	3.51	6.13	1.57	3.93	2.90	6.65
Contracted hours	26.71	5.44	23.81	9.39	25.36	5.95	27.63	5.58	27.94	8.37
Rurality (%)										
Rural	76.8		24.1		23.9		23.0		36.6	
Other Urban	13.8		13.7		22.3		15.1		9.2	
Large/major urban	9.4		62.2		53.8		61.8		54.2	
Staff starting	2402.13	1259.35	712.20	644.35	714.04	501.37	819.36	497.64	1582.64	944.96
Staff leaving in last year	1777.81	946.53	546.16	530.97	558.52	454.36	680.00	475.06	1325.68	809.47
SFC coverage (%)	53.5	8.8	56.2	12.8	55.3	10.9	54.7	10.5	57.2	6.9

The data were split into five groups to examine the relationships between the individual variables. The mid category -0.1 to 0.1 represents the category where the proportion of expected demand is equal to the proportion of supply. The following patterns were observed:

- In areas where supply was greater than demand, employment deprivation was higher compared with areas where demand was greater than supply.
- In areas where supply was greater than demand, the local wage was lower compared with areas where demand was greater than supply.
- In areas where supply was greater than demand, employees had on average, been in their job for longer compared with areas where demand was greater than supply.
- In areas where supply was greater than demand, providers were on average larger, employing a larger number of employees compared with areas where demand was greater than supply.
- In areas where supply was greater the average number of non-contracted hours worked was less compared with areas where demand was greater than supply.
- In areas where supply was greater the average number of non-contracted hours worked was higher compared with areas where demand was greater than supply.
- A lower proportion of areas where supply was greater than demand were rural.

Comparison of 'mismatched' areas

Areas with high DTOC and Supply < Demand, and low DTOC and Supply > Demand

Table 7: Identifying 'mismatched' areas

		DTOC per 10000 quintile					Total
		<= 4.75	4.76 - 9.82	9.83 - 21.75	21.76 - 41.86	41.87+	
Supply Demand Difference	<-0.3	1	0	3	6	6	16
	-0.3 - <-0.1	12	10	10	7	6	45
	-0.1 to 0.1	8	10	12	10	6	46
	0.1 to 0.3	5	4	3	4	6	22
	>0.3	5	5	3	2	7	22
Total		31	29	31	29	31	151

There were 25 UTLAs in the *high DTOC and supply < demand* group and 19 UTLAs in the *low DTOC and supply> demand* group. Comparisons were made between these two groups.

Table 8: Predictors of 'mismatch'

	LA with high DTOC and Supply <Demand		LA with low DTOC and Supply > Demand		Difference	
	Mean	Std Dev	Mean	Std Dev	Mean	95% CI
IDAOPI	0.16	0.06	0.22	0.06	-0.07	(-0.10, -0.03)*
IMD employment	0.11	0.03	0.16	0.04	-0.05	(-0.07, -0.03)*
Hourly rate	7.67	0.43	7.42	0.42	0.26	(-0.01, 0.52)
Local Wage	11.98	1.22	11.89	1.51	0.09	(-0.74, 0.92)
Fee Rate	15.62	2.04	13.61	1.55	2.01	(0.88, 3.15)*
Vacancy Rate	4.29	1.94	4.51	2.42	-0.22	(-1.54, 1.11)
Month in Job	43.84	7.79	45.95	8.96	-2.11	(-7.21, 3.00)
Proportion employees taking sick leave	38.24	11.25	33.55	9.30	4.70	(-1.73, 11.12)
Proportion good Outstanding	80.48	13.38	80.82	12.58	-0.33	(-8.34, 7.68)
Provider size	41.47	13.03	70.18	29.02	-28.71	(-41.85, -15.56)*
Additional hours	4.90	6.30	2.84	6.57	2.06	(-1.88, 6.00)
Contracted Hours	26.04	5.93	29.76	6.14	-3.72	(-7.42, -0.02)*
Rurality	N	%	N	%		P=0.002
Rural	16	64.0	2	10.5		
Other Urban	2	8.0	3	15.8		
Large/major urban	7	28.0	14	73.7		

- Problem areas had higher IDAOPI score and higher employment deprivation
- Fee rates were significantly higher in problem areas
- Providers had lower number of employees in problem areas
- The number of contracted hours was lower in problem areas
- Problems areas were more likely to be rural

Relationship between Supply, Demand and DTOC rates

Table 9: Correlation between total hours worked (supply), DTOC rates and supply-demand differences

		DTOC (days) (logged)	Total Hours (Supply)	2017/18 New RNF shares (65+ only) (Demand)
DTOC (days) (logged)	Pearson Correlation		0.266	0.321
	Sig. (2-tailed)		<0.001	<0.001
Total Hours (Supply)	Pearson Correlation			0.806
	Sig. (2-tailed)			<0.001
Difference supply-demand	Pearson Correlation	-0.036	0.461	-0.154
	Sig. (2-tailed)	0.663	<0.001	0.059

The supply and demand are highly correlated, whereas, although a significant correlation was identified the strength of the correlation between DTOC and supply and demand is smaller. Only the total number of hours (supply) is significantly correlated with the difference between supply and demand.

Figure 5: Correlation between hours worked and DTOC Rates

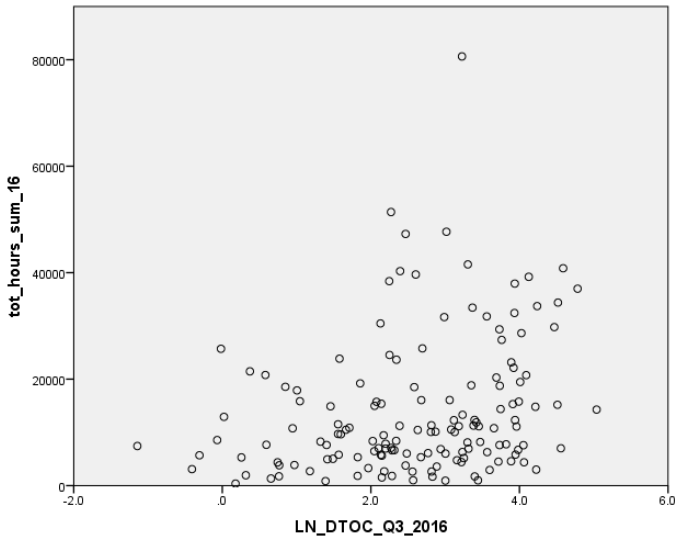


Figure 6: Correlation between expected demand and DTOC Rates

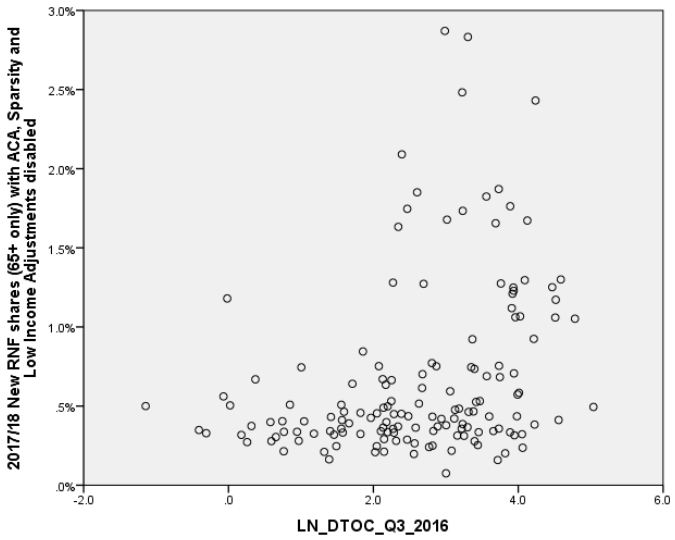
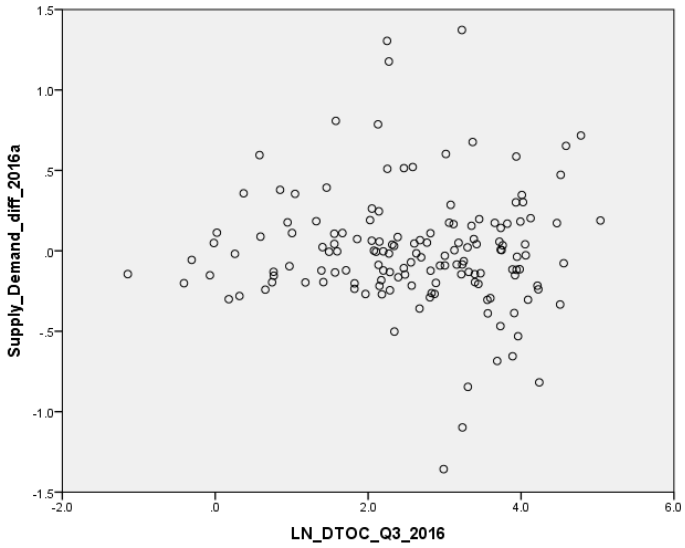


Figure 7: Correlation between supply-demand differences and DTOC Rates



Exploring rurality

Table 10

	Rurality Group					
	Rural		Other urban		Large/major urban	
	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
Income Deprivation Affecting Older People	0.129	0.025	0.174	0.042	0.218	0.074
IMD Employment	0.104	0.028	0.134	0.042	0.137	0.041
Hourly rate (£)	7.68	0.40	7.51	0.45	7.60	0.58
Local Hourly Wage	11.92	1.16	12.00	1.83	13.00	2.79
Fee rate (£)	15.68	1.80	14.41	1.75	13.90	1.53
Vacancy Rate (%)	4.79	3.01	4.66	2.72	4.70	2.75
Months in job	43.25	7.64	45.19	9.49	46.60	10.92
Proportion employees taking sick leave (%)	39.13	10.35	35.71	13.82	30.24	12.90
Proportion Good/Outstanding CQC (%)	86.09	8.14	78.63	10.83	76.52	13.16
Number of employees per provider	47.21	17.45	49.40	14.57	58.39	30.31
Additional Hours	3.04	5.41	4.63	7.48	3.27	6.02
Contracted Hours	26.35	4.30	23.43	9.13	26.09	8.47
Supply - Demand	-0.10	0.48	-0.01	0.23	0.06	0.32
DTOC	37.62	25.34	16.77	13.81	19.17	26.15

In relation to rurality, the following patterns were observed:

- Providers were smaller in rural areas, they had less employees than in urban areas
- There were a higher proportion of providers rated good/outstanding by CQC in rural areas compared to urban areas.
- Rural areas had a higher proportion of employees taking sick leave compared to urban areas
- Employees in rural areas had been in their job roles for less time than those in urban areas
- Rural areas had higher fee rates paid by local authorities than urban areas
- Rural areas had higher hourly rates than urban areas.
- Rural areas have lower deprivation affecting older people than urban areas
- Rural areas have less employment deprivation than urban areas

Changes over time

Table 11: Exploring changes over time (2014-2016)

		March 2014	March 2015	March 2016
From employee dataset	Contracted Hours			
	0**	21.7%	17.1%	14.9%
	>0-10	3.6%	2.9%	3.3%
	>10-16	8.8%	9.2%	9.1%
	>16 -37	43.8%	51.7%	52.6%
	37+	22.0%	19.2%	20.1%
	Additional Hours			
	0	61.8%	62.7%	64.4%
	>0-10	10.4%	10.6%	10.8%
	>10-16	6.2%	5.7%	5.5%
	>16 -37	16.2%	15.7%	14.4%
	37+	5.4%	5.3%	4.9%
	Pay per hour*	7.15	7.40	7.50
	Median IQR (25%, 75%)	(6.75,7.95)	(6.95, 8.25)	(7.02, 8.37)
	Employees/provider			
	(median)	31	28	28
	IQR (25%, 75%)	(14,64)	(11,60)	(13,59)
From provider dataset	Vacancy Rates			
	0%	78.6%	77.6%	76.3%
	0-10%	9.0%	9.2%	9.7%
	>10%-20%	6.4%	7.0%	7.3%
	>20%	6.0%	6.2%	6.8%
	Vacancies	41	49	52
		(21, 80)	(23, 93)	(27,101)
	New starters median	343	369	399
	(IQR)	(219, 530)	(236, 584)	(240, 603)
	Leavers median (IQR)	272	293	301
		(174, 416)	(183, 428)	(180, 457)

Over time the number of employees reporting to have no contracted hours decreased, the pay per hour has increased and so have the vacancy rates and turnover.

* *Advice from Skills For Care was that any wage less than the minimum wage at that time is likely to be incorrect*

** *Number of no contracted hours may differ from skills for care zero hours contract due to differing inclusion criteria.*

Companies entering and leaving the market

Data were obtained from Companies' House in January 2017, and linked with January 2017 CQC data using the company number.

The CQC file was filtered for for Carehome = 'N', service type - Domiciliary care service ='Y' and location Primary Inspection Category = 'Community based adult social care services'

Differences between 1 January 2016 and January 2017

1757 organisations were present in January 2016 CQC directory but not listed in January 2017

We were unable to link Companies' House data to 312 companies (unknown organisation=172 and company = 140) (17.8%). 77 were listed as not active/Proposal to strike off in Companies House data.

Table 12: Company Status

Company Status	Company Type				Total
	Unknown	Company	Charity	Council	
No Companies' House data	172	140	12	52	376
Active	0	1304	0	0	1304
Active - Proposal to Strike off	0	26	0	0	26
In Administration	0	6	0	0	6
Liquidation	0	42	0	0	42
Voluntary Arrangement	0	3	0	0	3
Total	172	1521	12	52	1757

Table 13: CQC rating as at 1 January 2016

CQC Rating		Company Status			Total
		Active	Warning	Not Active	
Unknown (no rating available)	N	1062	18	33	1113
	%	81.4%	69.2%	64.7%	80.6%
Good/Outstanding	N	138	2	3	143
	%	10.6%	7.7%	5.9%	10.4%
Inadequate/Requires Improvement	N	104	6	15	125
	%	8.0%	23.1%	29.4%	9.1%
Total	N	1304	26	51	1381

A higher proportion of those in the active category had no current rating available indicating that they had not been inspected recently and a higher proportion had good/outstanding than those issued with a warning or were not active and lower proportion that required improvement.

Overall Summary

Limitations

Data relating to domiciliary care is sparse, so we used information from a variety of sources. Much of the data used were from Skills for Care, which has partial coverage. Overall coverage in 2016 was 55.6% but this ranged from 20% to 85% between LAs. There is a risk of bias with so much missing data. The initial findings from our analysis are necessarily tentative. Data for measuring supply and demand directly were not available, so proxy measures were used.

Findings

Examining the relationship between quality, fee rates and DTOC found that DTOC and the proportion of good/outstanding CQC ratings were not significantly correlated, DTOC and fee rate were positively correlated and fee rate and CQC quality were positively correlated.

Two statistical models were developed to examine potential predictors of the difference between supply and demand and DTOC rates. There were three significant predictors of supply-demand: time in current job, vacancy rate and any additional hours worked. Two significant predictors of DTOC were identified: local hourly wage and employment deprivation. No consistent predictors were identified across both of the two models.

Examining the DTOC rates from each local authority did reveal differences between areas with high and low DTOC rates. Areas with higher DTOC rates had lower deprivation, lower local average pay, lower vacancy rates and suppliers with the lowest number of employees. The same areas had higher domiciliary care pay, highest fee rates, higher number of leavers and starters and a higher proportion of employees taking sick leave. Areas with high DTOC rates were also more likely to be rural.

The difference between supply and demand was also examined by local authority. The supply demand difference was split into five groups, two representing demand greater than supply, two where supply was less than demand and a group where they were approximately equal. In areas where demand was greater than supply, employment deprivation was lower, and on average, employees had been in their job for less time, providers were smaller, and the number of non-contracted hours worked was higher. Of areas where demand was greater than supply, a higher proportion were rural.

Combining the difference in supply-demand and DTOC rates, 'mis-matched' areas were identified. 'Problem' areas had high DTOC rates and demand was greater than supply. 'Good' areas had low DTOC rates and good supply of domiciliary care workers. Comparing the two groups, problem areas had higher IDAOPI scores and higher employment deprivation, higher fee rates, lower numbers of contracted hours and a lower number of employees per providers. Problem areas were also more likely to be rural.

Examining relationships between supply, demand and DTOC rates found that supply and demand were highly correlated, and DTOC rates were related to both supply and demand but the strength of the relationship was much weaker.

Comparing rural and urban areas, providers were smaller in rural areas, and had higher fee rates, higher hourly rates and employees had been in their job roles for less time. A higher proportion of employees in rural areas were taking sick leave. There was a higher proportion of CQC rated good/outstanding in rural areas. Rural areas

have lower deprivation affecting older people than urban areas and rural areas have less employment deprivation than urban areas.

Over time the number of employees reporting to have no contracted hours decreased, the pay per hour has increased and so have the vacancy rates.

Companies' House data were combined with CQC data to explore the relationship between quality and those providers exiting the market. A higher proportion of those in the active category had no current rating available indicating that they had not been inspected recently and a higher proportion had good/outstanding than those issued with a warning or were not active and lower proportion that required improvement.

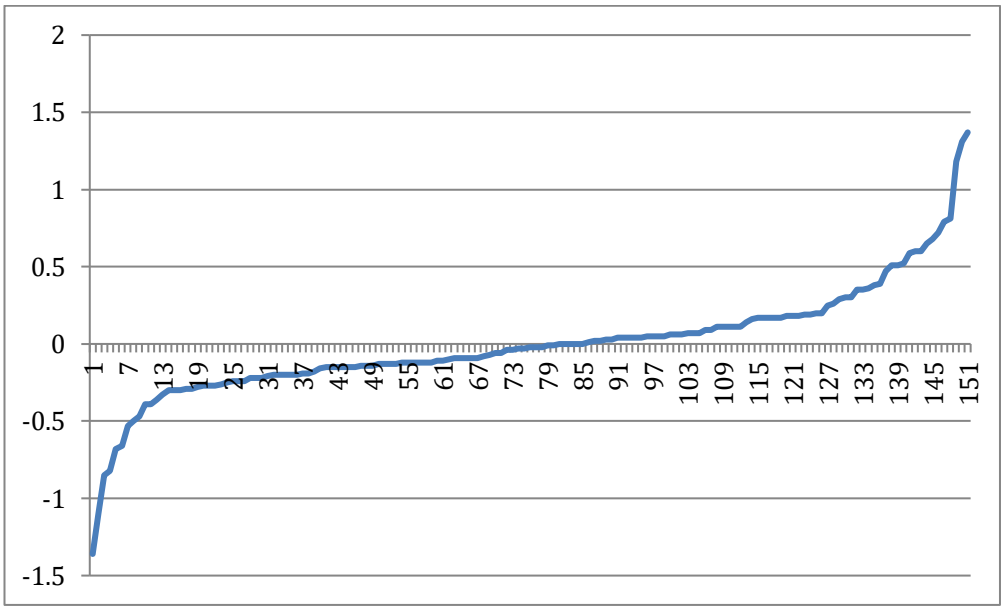
Appendix – descriptive statistics

Additional Information

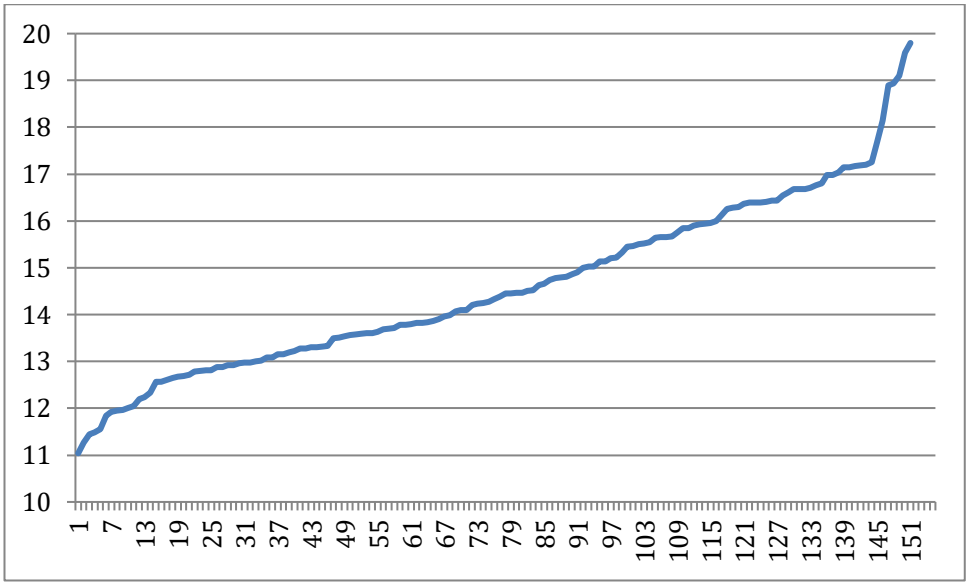
By UTLA (N= 151)

	Mean	Median	Standard Deviation	Percentile 25	Percentile 75
Supply – Demand	.00	-.02	.36	-.19	.16
Fee rate	14.59	14.33	1.82	13.15	15.94
DTOC per 10000	24.30	14.56	25.82	6.18	35.34
Proportion Good or Outstanding CQC ratings	79.80	81.82	12.18	72.41	88.00

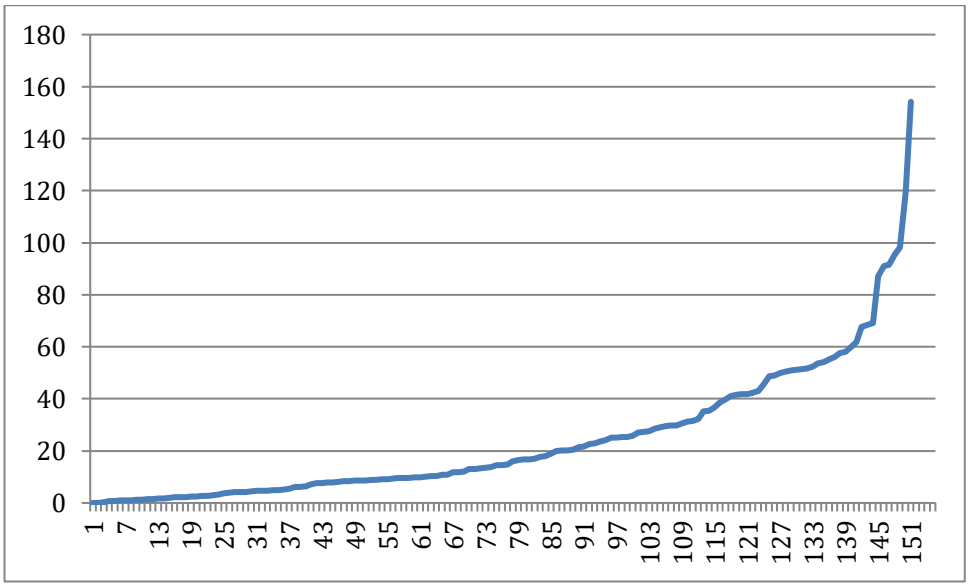
Supply - Demand



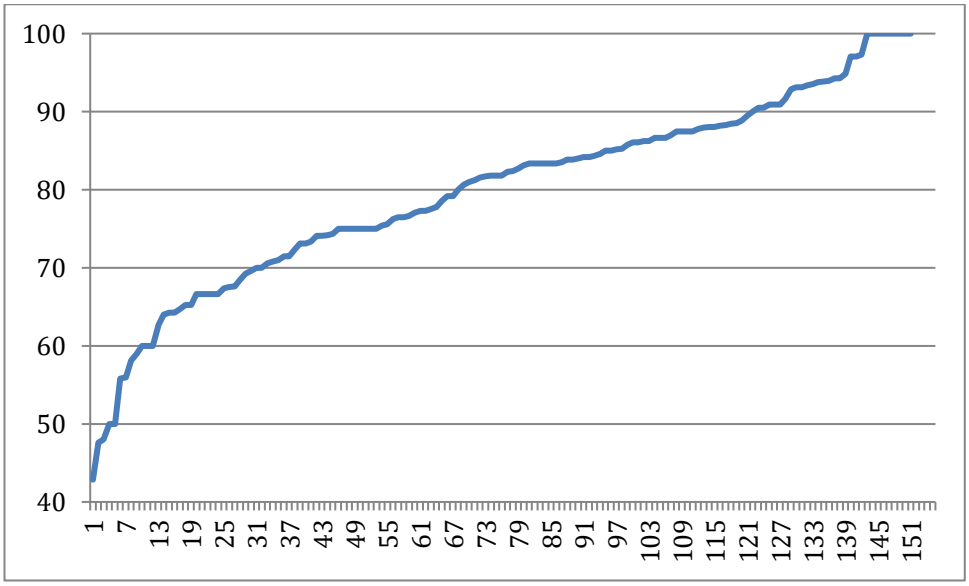
Fee rate



DTOC per 10000



CQC rating (Proportion with good/outstanding ratings)

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