Unmet social care needs in England

A scoping study for evaluating support models for older people with low and moderate needs

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EXECUTIVE SUMMARY

INTRODUCTION

- There is little quantitative evidence which enables us to interpret the nature of recent changes in social care levels of provision, and the extent to which they indicate the success of local strategies for promoting independence amongst the older population and thus reducing the need for ongoing social care support, or whether they highlight "retrenchment" of state funded social care. There is even less evidence about the consequences of those changes on the quality of life of people with social care needs and their carers, and their wider impact on other parts of the welfare system such as the NHS and the benefit system.

- The aim of this scoping study is to consider how to design a possible "main study" that would evaluate the consequences on outcomes for older people with social care needs, their carers and the wider care system of recent changes in the support offered by councils, focusing on older people at the edges of current eligibility criteria (referred to in the report as older people with low/moderate needs).

EVALUATION APPROACHES CONSIDERED

- The study has considered a number of methodological approaches for designing the main study, including the use of existing publicly available data sources and the collection of primary data.

- Our analysis has found that it would not be possible to base the main study on data from existing national surveys or on administrative data records, because of data shortfalls such as insufficiently large samples of people with social care needs in national surveys, lack of comparable data across local administrative systems and lack of evidence regarding care outcomes and the use of universal services, which are key in the new support models for people with low/moderate needs.

- This scoping study has focussed therefore on the methodology for conducting a survey of older people and their carers, collecting data prospectively. We have explored the potential for examining the impact of recent changes in social care support by exploiting the local variability in the type and intensity of support provided.

- As a result, the objective of this report became how to evaluate the consequences on costs and outcomes of different models for supporting older people with low/moderate needs in England.

SCOPING STUDY METHODS

- The scoping study has used a number of data sources and research methods, including a rapid review of the literature, a review of local authority systems, statistical analyses and interviews with key local stakeholders.

IDENTIFYING LOCAL SOCIAL CARE MODELS FOR SUPPORTING OLDER PEOPLE WITH LOW/MODERATE NEEDS

- A detailed understanding of the different local care systems and approaches will be essential to maximise the impact of the main study as it will inform the transferability of its findings.

- Some information on care systems is publicly available. For instance, most authorities have online assessment forms and provide website information about their assessment process. However, online information describing local arrangements for processing requests for social care support is limited. To gain a thorough understanding of local care processes we expect that a qualitative process evaluation will be necessary, including interviews with key stakeholders and a document review.

- Local authorities used web-based interfaces to provide information and advice and signpost individuals to services in the community. To some extent, these strategies are intended to help manage social care demand. The main study might want to explore variations in the use of web-based tools across localities, how these interact with

the multi-stage assessment process, their likely impact on the volume and types of contacts made with the local authority and on the targeting of care and support for people with low/moderate needs.

- The main study will want to discuss with the local authorities participating in the research ways to capture information about the full range of individuals contacting the council for social care support, including those that are signposted to other services after reading the online advice provided by the council.

- A variety of models exist for assessing the needs of individuals approaching local councils. It seems likely that these models may themselves have an impact on the effectiveness and the targeting of care and support for people with low/moderate needs. The main study will want to collect information regarding the local assessment processes used in order to explore their impact on the targeting of support and on outcomes for service users and their carers.

SEQUELS FOLLOWING CONTACT WITH SERVICES FOR PEOPLE WITH LOW/MODERATE NEEDS

- The core "service offer" to people with low/moderate needs is relatively consistent across councils, and includes information and advice, signposting to voluntary sector services and short-term targeted interventions, including reablement, equipment, telecare and adaptations. However, the coverage of these types of support varies across authorities. Understanding the role of these services in supporting people with low/moderate needs will be of central importance to the main study.

- There seems to be great variability in the availability of innovative and voluntary

sector schemes across local authorities. The extent and effectiveness of such schemes will be critical to the impact of signposting activities by local authorities. It will be important, but challenging, to map and record these more innovative and variable 'services' in the main study.

- Low-level services are also important for people with low/moderate needs. They are likely to be offered in different ways by local authorities and this variation as well as the use of these services should be mapped and recorded in the main study.

DATA COLLECTED BY LOCAL AUTHORITIES ABOUT PEOPLE CONTACTING THEM

- It will be important for the main study to ascertain whether authorities involved in the study collect data about those who contact their website. This is important because a potentially large proportion of

older people with low/moderate needs might just receive advice from the council by visiting the authority's website.

- Most authorities collect data about individuals who make contact with the first contact team. However, this data might not contain the information necessary for the triaging of cases into the main study, and therefore additional information collection by the council at the point of first contact would need to be agreed with the participating areas in the study.

- Individual-level information regarding the utilisation of certain services is collected by councils, and might complement any primary data collection by the main study. The main study should think about how to collect and use this information in the quantitative evaluation.

IDENTIFYING TYPOLOGIES OF SUPPORT MODELS

- It would be useful to identify a number of typologies of support models to structure the main evaluation. In the absence of a theoretical framework for grouping local authorities in England into care models, a statistical approach could be used to identify typologies of broad care models. These typologies could inform the selection of authorities into the main study.

- A number of indicators exist for all authorities in England that describe aspects of the coverage and intensity of social care support. These indicators can be used to describe differences in local social care practice. It is important, however, that these indicators are standardised to control for variations simply linked to differences in social care need and service prices.

- Statistical techniques such as latent class analysis can then be applied to derive typologies of local authorities, which in turn can inform the sampling of authorities into the main study.

- Given the lack of indicators of social care support looking specifically at people with low/moderate needs, the analysis of LA typologies using the approach outlined above should be complemented with further evidence about local care practice collected from local document/policies and direct discussions with local authority professionals.

SURVEY CONTENT

The scoping study has explored which information about needs, services and outcomes should be collected by the main study evaluation.

Indicators of need

- Activities of Daily Living (ADLs) and Instrumental Activities of Daily Living (IADLs) are the most frequently used measures of care need and are useful measures for distinguishing the degree and type of care needs. The main study should consider using IADLs and ADLs to capture low/moderate needs.

- Both literature review and interviews highlight the limitations of focusing solely on ADLs/IADLs to establish care needs, particularly in areas such as social participation. The main study will want to consider indicators covering care and support needs in this area.

- Indicators of living arrangements have been found to be useful for predicting care needs. The main study will want to collect indicators of living arrangements.

- Frailty is an important factor leading to ADL disability. A number of risk factors have been identified as having strong predictive evidence of frailty. The main study should explore collecting some of these indicators to standardise for frailty risk among older people.

- There is overlap between risk factors for falls and frailty. Key need indicators of risk of falls include those related to physical weakness, cognitive deficits, clinical conditions and previous history of falls. This supports the value in including a measure of frailty in the main study.

- The importance of environmental hazards as risk factors for falls is notable and given the relationship between the environment and functional ability, it seems important for the main study to consider measuring this aspect.

- The indicators used by local authorities to measure these care and support needs, however, are hugely variable. These data are therefore very unlikely to be comparable across areas in the main study.

- Local administrative records could however be used to explore the representativeness of the achieved sample for the main study.

Service indicators

- Standardised sets of questions for capturing the amount and nature of social care provision for older people are available and included for instance in surveys such as ELSA and HSE. These question sets could form the basis of a module for capturing data on services and unmet needs in the main study, but they would need to be complemented to ensure all services relevant to people with low/moderate needs were captured.

- Specifically, it would be important for the main study to capture additional services such as (hours of) reablement, equipment, telecare (e.g. alarms) and some minor adaptations provided. Batteries of questions exist to capture some of the more common low-level services including (hours of and frequency of use) of day centre provision.

- The current questions available to capture support from the voluntary sector are unlikely to be adequate. We did not find any standard questions for measuring provision of information, advice and signposting services. The main study will need to develop and test questions to capture information, advice and signposting inputs and the nature of intensity of more innovative forms of support from the voluntary sector.

Outcome indicators

- There is evidence to suggest that the ASCOT measure will be sensitive to outcomes among older people with low/moderate needs and should be considered as the primary outcome for older people in the main study. An alternative primary outcome measure is the ICECAP-O, but it has not yet been used to evaluate services for older people with low/moderate needs in England.

- Secondary outcome measures should be considered for older people in the main study, including the EQ-5D and measures of psychological wellbeing such as the WEMWEBS or GHQ-12, which may be particularly important where services have rehabilitative or more health-oriented aims.

- The ASCOT-Carer and CES may be appropriate measures for estimating the impact of care interventions for older people with low/moderate needs on their carers, but neither of these measures have yet been used extensively in research. For the main study the research team may want to supplement these measures with more widely used measures of carer burden or broader health-related quality of life and wellbeing measures (e.g. EQ-5D and WEMWEBS).

- Intermediate outcomes measures, for example measures of the use of healthcare services, are likely to be important indicators for the main study. It would be important to explore the potential for data linkage to health and social care administrative records via NHS numbers. Indicators of re-contacts with the local authority should also be considered for the main study. The research team should take steps to ensure data linkage with local authority records is possible.

- There is little evidence to support decisions about appropriate follow-up intervals. Studies commonly have used follow-ups at a year, but discussions with local authorities seemed to suggest that shortened periods may be more appropriate for this group of older people. For the main study, 6-month, 18-month and possibly 30-month follow-ups should be considered. However, the number of follow-ups will affect very significantly the costs of the main study.

SAMPLE SIZES

- The number of 'care models' to be compared will need to be kept to a minimum for the study to have a realistic chance to achieve adequate power to detect outcome differences between models. The statistical analyses carried out suggested three care models could be defined. Sample sizes reported therefore correspond to the samples required to detect differences between three groups. To compare more than three care models, larger samples will be required.

- Due to the variability in care receipt between care users and the cost of larger study samples, it is unlikely that the main study will be powered to detect even a 10% difference in costs between care models at the 5% confidence level.

- It is unlikely that the main study will be powered to detect a 5% difference in the ASCOT-Carer measure at the 5% confidence level, as only a proportion of older people – we estimate around three-fifths to two-thirds – are likely to have a carer. Larger differences in the ASCOT-Carer measure are likely to be detectable.

- The power calculations assume simple methods of analysis, and regression-based methods would have greater power to detect differences. However, subgroup analyses would reduce significantly the power of statistical analyses.

- The lack of clinically meaningful differences in key social care outcomes complicates the calculation of sample sizes. Detecting a 0.03 difference in ASCOT scale at the 5% confidence level, assuming three care models would require approximately 2,200 interviews at follow-up. Assuming a 75% follow-up rate, this implies 3,000 baseline interviews.

REQUIRED NUMBER OF AUTHORITIES FOR THE MAIN STUDY

- The number of authorities required to participate in the main study will depend on the total number of interviews sought, the timescales for data collection, the rate of cases approaching authorities for support with their social care needs, and the success of the study in recruiting those cases into the study.

- Achieving the large number of interviews required to power the study is likely to need that a significant number of authorities (approximately 20) are involved in the study, and that the recruitment phase is extended over at least 6 months.

- Authorities able to achieve 150 interviews over 6 months are well distributed across most local characteristics, including the three local classes associated with different care models.

- The one exemption are London authorities, which due to their small size would need to be oversampled in order to contribute sufficient cases to the study.

PRACTICALITIES OF THE IMPLEMENTATION OF THE MAIN STUDY

Analytical approach

- The study should use a combination of quantitative and qualitative analytical methods to ensure that estimates of the costs and outcomes of the different care models can be obtained, gain an in-depth understanding of the factors explaining such differences, and draw lessons about how to structure support services for people with low/moderate needs across all English authorities.

- Given the unlikely availability of experimental data, the study should use statistical methods such as matching techniques and multivariate regression models in order to control for potential differences in the samples of older people from the different care models evaluated.

- A process evaluation should be carried out to examine the appropriateness of the statistically-led grouping of authorities into care models, the nature of the differences between local arrangements for supporting people with low/moderate needs, and to support the

specification of hypotheses for, and the interpretation of results from, the quantitative analyses of costs and outcomes.

Recruitment of study participants

■ The proposed recruitment method relies on members of the First Contact Team within each local authority inviting older people and their carers to take part in the study.

■ The study would therefore involve all older people who contact the local authorities in the study seeking social care support over a specified period as its sampling frame. The study would follow older people with low/moderate social care needs who have both gone on and not gone on to receive long-term social care support, but it would exclude people who do not approach the local authority and arrange care privately or carry on managing without formal support.

■ The recruitment of a representative sample of consistently defined older people and their carers into the study is important for its success, as it will affect the comparability of the findings across care models. The study should use eligibility criteria for the recruitment of older people with low needs that are based on a clearly defined needs profile and ensure that they are applied consistently across all local authority sites.

■ The evaluation should attempt to cover all mechanisms involved in the first point of contact process (e.g. web-based tools for triaging cases) and all agencies with delegated responsibility from the council for handling first contact.

■ Carers could be defined as people providing social care support on an unpaid and informal or semi-formal basis to someone with whom they have a pre-existing relationship, e.g. because they are family, friends or neighbours. When multiple carers exist for the same person, we suggest that only the main carer, defined as the person providing the greatest number of hours of care per week, should be invited to participate in the study.

■ Carers will be recruited into the study by fieldworkers via contact with the older person.

Management of the fieldwork

■ The research team will need to be aware of the effects of slow recruitment into the study and ensure that the fieldwork is managed appropriately. The research team will need to explore carefully how best to meet ethical and legal requirements regarding informed consent in the context of this study.

■ To ensure that the baseline interviews capture the situation at the time the person contacts their council, the time between contact with the local authority and the baseline interview will need to be kept to a minimum. The fieldwork companies interviewed felt that the minimum time between recruitment into the study and baseline interview was likely to be between four to six weeks.

■ The research team may need to consider whether to place a restriction on the time to baseline interview, bearing in mind the consequences this is likely to have on the sample size and the quality of the information gathered.

■ We recommend that interviews should be administered using computer-assisted personal interviewing software. They should involve face to face interviews with people with social care needs, but telephone interviews might be used for interviews with carers.

Timing of interview waves

■ A baseline and first follow-up waves will be essential, as without them the study will be unable to explore any of the causal effects on outcomes and costs of the different care models investigated.

■ A first follow-up of 6 months was suggested by local authority professionals involved with the first point of contact systems.

■ Longer follow-up periods (e.g. 18 and 30 months) would be important as they would enable the study to explore differences in longer-term outcomes. It might be advisable to assess the suitability of funding waves 3 and 4

depending on whether sufficient numbers of interviews were achieved at wave 2 and that the quality of the evidence emerging was high.

- It is likely that a stream of outputs would be produced throughout the life of the project, coinciding with the availability of additional waves of data.

Response rates and attrition

- The cost of the fieldwork will depend heavily on achieved response rates for each wave.

- The survey companies contacted have used assumptions based on previous studies with similar populations and with similar gaps between waves of fieldwork. The consensus view, however, was that the likely response rates at each stage of the survey were difficult to predict and would benefit from testing in the field using a pilot.

- The survey companies suggested recruitment to interview conversion rates of between two-thirds to three-quarters, with the lower of these estimates being closest to the conversion rate achieved (69%) for a recent study of social care users and the middle estimate being closest to the conversion rate for carers (76%).

- Our assumptions about attrition rates between data collection waves are based on the experience of survey companies with longitudinal surveys for similar populations and similar gaps between the fieldwork stages. The rates of attrition suggested by survey companies were broadly similar – in the region of one-third to a quarter of cases lost at each stage.

- It will be important for the research team to consider multiple strategies to maximise response rates to each wave, including for instance incentives for study participants; ensuring accessibility and attractiveness of advance materials; strategies to build a rapport between interviewer and participants; and activities designed to keep in touch between waves to provide the research team with a means of identifying possible changes of address or circumstances.

Questionnaires and their mode of administration

- Based on previous experience we expect each questionnaire to take between 45 mins to 1 hr to administer.

- We recommend that the research team use face-to-face interviews as the primary mode of data collection due primarily to the length of the interview, but also to build rapport between the interviewers and participants which is important for a multi-wave study.

- The research team may want to consider using telephone interviews for carers, particularly for follow-up waves of the study. They may also want to consider options for ensuring interviews can be conducted in private where necessary.

- We would recommend that the research team include some capacity and resources for testing and developing questions in the budget.

Data representativeness

- The representativeness of the main study and the transferability of its results will be affected by the representativeness of the sample of participants relative to the population of older people with low/moderate needs; the representativeness of the care models the local authorities in the study and the inclusion of a broad range of councils.

- The study should attempt to collect evidence about the representativeness of the sample of users interviewed relative to the population of older people with low/moderate needs contacting authorities for support. This information could be used subsequently to identify possible biases in the sample of cases interviewed, and to reweight the samples obtained during the analysis in order to attempt to correct for any such biases.

- The typologies of local care models developed statistical methods, combined with information about local characteristics (e.g. LA type) should allow the reweighting of the study sample to English-level patterns.

The role of a pilot

- Given the uncertainties in the design of the main study, the research team may want to consider a pilot study which would (i) inform the research team about likely recruitment and response rates, the proportion of older people who are likely to have a main carer who is co-resident or extra-resident, and the proportion who are happy to be contacted again at six months, (ii) examine ways of maximising recruitment and response rates for both older people and carers, looking at options for processes and screening and recruitment materials, and (iii) refine in partnership with local authority professionals the definition of the criteria to be applied across collaborating authorities for selecting cases into the study.

- The pilot should also help specify the detailed arrangements between the research team (including fieldwork organisation) and the local authority for processing participants.

Costs of the study

- Broadly, it would not be possible to deliver the fieldwork for a baseline sample of much more than a 1,000 older people for under £1m (including VAT)

assuming three follow-up waves of data collection. Even assuming two follow-up waves of data collection a baseline sample of 1,500 older people will cost in the region of £1.1m to £1.5m (including VAT). Further follow-up waves could increase costs to between £1.5 and £1.9m (including VAT). A baseline sample of 3,000 older people, which would have the greatest power to detect differences between groups of people receiving different care models, especially given likely rates of attrition, would cost in the region of £2m (including VAT) for a study with 2 follow-up waves and significantly over £2m for three follow-up waves. The fairly wide variability in costs depends on the assumptions applied about the likely recruitment, conversion and attrition rates for older people and their carers.

- In addition to the fieldwork costs, the evaluation will incur other significant costs, including in particular the analysis costs, any incentives that might be offered to increase local authority participation and individuals' recruitment rates into the study and the costs of purchasing any linked data.

- The costs of a pilot would be a fraction of the costs of the main survey

SUMMARY OF EXPECTED OUTCOMES FROM THE MAIN STUDY

Key study outputs will include:

- A detailed picture of the characteristics of people with low/moderate care needs approaching their local council for support and their carers.

- A detailed understanding of the nature of different care models for supporting individuals with low/moderate social care needs.

- A comparative analysis of the costs and outcomes of alternative care models.

- An analysis of differences in the cost-effectiveness of specific services for different individuals with low/moderate care needs.

- An analysis of the likely effects of recent changes in social care provision.

- Evidence to support the development of recommendations about the most cost-effective strategy for supporting older people with low/moderate care needs.

Other uses of the main study evidence include the analysis of:

- Changes in the needs profile of people with low/moderate needs over time, and rates of transition between disability states.

- Lifetime patterns of care costs.

- The causal relationship between needs, services and outcomes, including of the interdependencies between formal health and social care.

- The interrelationship through time between formal and unpaid care.

- The causal relationship between formal care services and outcomes for unpaid carers

- The quantification of unmet needs.

- The appropriateness of different measures for capturing service outcomes for older people with low/moderate care needs.

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1   INTRODUCTION

1.1   STUDY BACKGROUND

Local authority returns indicate a significant drop over the last ten years in the proportion of older people receiving local authority (LA) social care (Fernandez, Snell and Wistow, 2013). These reductions in coverage, which appear to have affected in particular older people with relatively low needs, reflect important changes in the type of social care support offered by LAs as well as changes in the needs eligibility for social care.

LAs' approach to demand management is changing. Increasingly, LAs are implementing 'front doors' aimed at diverting people to other forms of support, e.g. voluntary services contracted by councils to provide information and advice and a wide variety of services, including if needed referral back to the council for formal care. Social work is also being

refocused to help people live independently for longer, and short periods of intensive care (reablement) are being offered to reduce longer term care needs, for instance following hospital discharge.

At the same time as services are being reconfigured, social care expenditure and the numbers of care packages provided to older people in England have not kept up with the growth in social care demand. This has resulted in a significant drop in the proportion of older people with social care needs receiving state-brokered care (Fernandez, Snell and Wistow, 2013).

There is little quantitative evidence which enables us to interpret the nature of recent changes in social care activity, and the extent to which they indicate the success of local strategies for maintaining independence and thus reducing the need for ongoing social care support, or whether they highlight 'retrenchment' of state funded social care. There is even less evidence about the consequences of those changes on the quality of life of people with social care needs and their carers, and their wider impact on other parts of the welfare system such as the NHS and the benefit system.

The aim of this study is to inform a possible research strategy for developing this evidence.

> **KEY DEFINITIONS**
>
> **Low/moderate needs:** we use this expression in the report to refer to older people at the edges of the social care eligibility criteria.
>
> **Scoping study vs. main study:** we refer to the scoping study as the present study, which aims to explore key strategies and methodologies for a possible main study evaluating the consequences on outcomes and costs of different models for supporting older people with low/moderate needs.

1.2   STUDY OBJECTIVES

The aim of this *scoping study* is to consider how to design a possible '*main study*' that would evaluate the consequences on outcomes for older people with social care needs, their carers and the wider care

system of recent changes in the support offered by councils, focusing on older people at the edges of current eligibility criteria (this group will be referred to hereafter as older people with

FIGURE 1: SUMMARY OF THE STEPS INVOLVED IN THE RECEIPT OF CARE AND SUPPORT
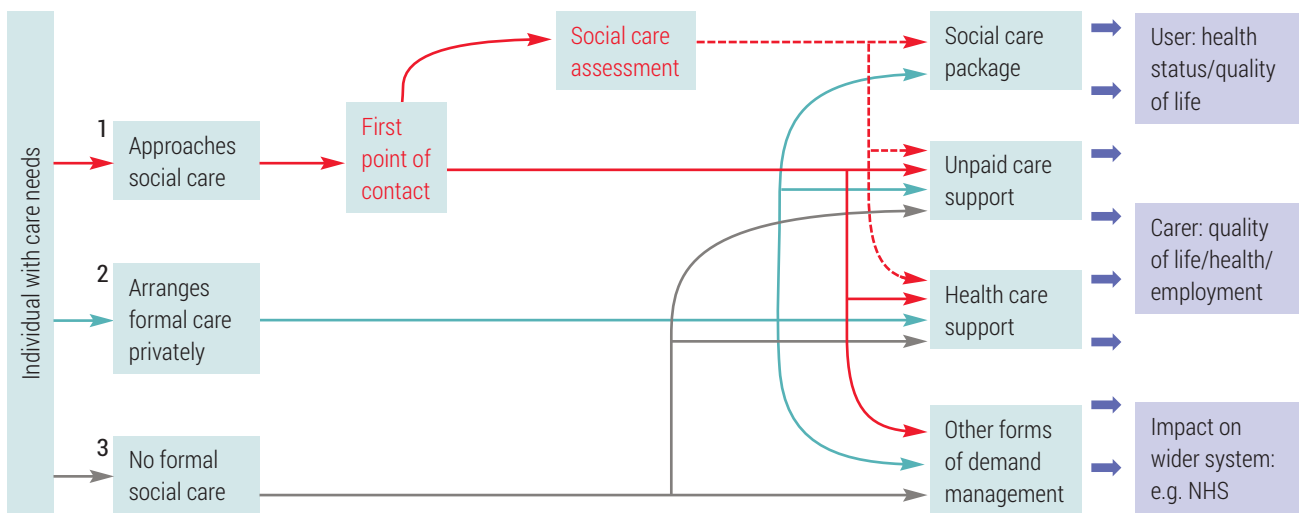
low/moderate needs[1]). In terms of Figure 1, the main study would evaluate changes in the care and support system once older people with social care needs contact their councils, and therefore would focus on the relationships indicated in red.

This scoping study discusses a number of alternatives for evaluation, and the advantages and limitations of each of them, in particular in terms of the specific policy questions they might address most effectively, their cost, duration and the likely breadth and robustness of the evidence produced.

The specific aims of this scoping study are to:

> Consider the different strategies that the main study could use to identify and recruit into the evaluation older people with low/moderate needs who contact their local authority for support.

Consider alternative survey methods for collecting data for the main study, including:

- the pros and cons of different strategies for the design and administration of questionnaires

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[1] Our use of the term is unrelated to the formal definitions used in the Fair Access to Care Services regulations.

- the choice of key indicators of needs, services and outcomes required for the evaluation Particular emphasis will be placed on the impact on the health and wellbeing of the individuals with care needs, of their family/carers, and on the impact on the demand across the care system (NHS services, longer term trend of need for social care services)

- the length of follow-up required to observe meaningful changes in wellbeing and resource use

- choices about the frequency of measurement given expected drop-out rates

- methods to maximise participation by harder to reach groups

- implications on numbers and sample representativeness of data linkages.

Estimate statistical power, to illustrate the likely sample sizes required to identify with a given statistical confidence meaningful differences in the outcomes of interest.

Identify candidate authorities for the evaluation, for instance in terms of their different care models for supporting people with low/moderate needs, and their capacity to track individuals through time and across health and social care information systems. The aim here, rather than recruiting specific areas for the subsequent study, was to scope care model options for evaluation, and to assess broad membership of different areas to these models.

Because it focusses on people once they approach councils for social care support, the scoping study does not consider how to include into the main study people who never approach the system, or address questions related to the reasons why some individuals contact LAs for support as opposed to arranging their care privately, relying on informal care, or going without any care. These are important policy questions, but they lie outside of the remit of the scoping study and could not be addressed on the basis of the approach proposed below.

2   EVALUATION APPROACHES CONSIDERED

Ideally, the evaluation of the recent changes in social care support would compare past evidence about care needs, care use and associated outcomes against similar evidence relating to the present. This comparison could be based on:

- Evidence from the literature describing the social care system at different points in time.
- Evidence from national surveys covering older people with social care needs over the recent past.
- Longitudinal evidence produced from within the social care system.

Previous discussions and a rapid review of evidence identified a lack of detailed published quantitative evidence on the nature and consequences of the changes in support for older people with social care needs. It was therefore agreed with the Department of Health and Social Care that an evidence synthesis approach would be ruled out from the start.

We have considered whether it would be possible to carry out the main study using data from national surveys such as the English Longitudinal Study of Ageing (ELSA), the Health Survey for England (HSE) and Understanding Society (US). These surveys contain indicators of social care needs and care use for representative samples of older people over a number of years, and have been used for the analysis of broad patterns of unmet social care needs (NatCen Social Research and Ipsos MORI, 2017). However, basing the main study exclusively on these data sources was considered to be unfeasible because of:

- The limited number of cases with social care needs, which would not allow a detailed analysis of changes in support for different groups of individuals. Multi-

purpose surveys tend to boast large overall sample sizes and in certain instances (such as Understanding Society) allow for authority-level analysis. However, adults with social care needs tend to make up only a very small proportion of the total sample: within the latest wave of Understanding Society, only 630 older people with three or more ADL difficulties were identified, before stratifying by informal care receipt and geographical identifier. Sample sizes for similar groups (3+ ADLs; regardless of informal care receipt) in the latest available waves of ELSA and HSE were 369 and 152, respectively (see Table 1 for further information about sample sizes in key national surveys). The limited number of relevant cases per local authority would be a further limiting factors for the main study, in terms of its potential to compare the costs and outcomes of different local support models.

- The lack of information in these surveys regarding access to universal services (e.g. support services organised by the voluntary sector), which are a key component of the new support models for people with low/moderate needs.

- The cross-sectional nature of some of the surveys (e.g. HSE) which limits the analysis of causal relationships between needs, services and outcomes.

- The lack of information in these surveys describing whether, when and how individuals approach their councils for social care support.

The administrative data held by local authorities was also identified early on as insufficient for addressing the aims of the main study (see Fernandez and Zigante (2017) for a description of key strengths and limitations of LA administrative data). Key limitations of local administrative

TABLE 1: SAMPLE SIZES STRATIFIED BY NUMBERS OF ADL DIFFICULTIES AND INFORMAL CARE RECEIPT (OLDER PEOPLE)

	0 ADLs	1 ADL	2 ADLs	3+ ADLs
English Longitudinal Study of Ageing 2015				
No informal care	3958	308	93	104
Informal care	408	256	196	265
Understanding Society 2015-17				
No informal care	6,163	231	51	101
Informal care	1,164	380	216	529
Health Survey for England 2015				
No informal care	979	40	15	37
Informal care	126	78	48	115

systems for the main study include the lack of information about quality-of-life outcomes for service users and carers, the limited information collected about the needs of individuals at first point of contact with the council, and the lack of information about the support received by those that do not go on to receive core social care packages. These limitations were confirmed during our discussions with local authorities in the context of this scoping study.

The limitations of national surveys and administrative records outlined above suggest that some form of new data collection would be required to address the research questions of the main study. This scoping study focussed therefore on the methodology for conducting a survey of older people and their carers.

The need for primary data collection meant that the main study would have to rely on prospective evidence, and therefore that it could not evaluate the consequences of recent changes in the social care system by comparing past and present data. Instead, we have explored the potential for carrying out such evaluation by exploiting the significant variability in the type and intensity of support provided in different local authorities in England. These variations could be used in order to 'mimic' the impact of the changes in care for people with low and moderate care needs that have taken place in recent years.

A key aim of this scoping study was therefore to understand the variability in local support models, and to attempt to reduce this variability into a simple 'typology' of authorities that could subsequently be used in the main study. Local variations in intensity, type and coverage of local support and a possible typology of local councils are explored in Section 3.4.

Implicitly, the objective of the study became therefore to evaluate the consequences on costs and outcomes of different models for supporting older people with low/moderate needs. Relative to a 'narrow' evaluation of the impact of recent changes in social care support, this research question has the advantage that the main study would inform the development of future systems for supporting older people with low/moderate needs, as well as exploring the likely consequences of recent shifts in the care and support models for this group.

The remainder of this report therefore focusses on evaluation options involving the comparison of patterns of support, costs and care outcomes across different local care models, assuming that some primary data collection from users and carers would be required. We explore in addition how other data sources (e.g. national surveys and local administrative records) could complement this evidence in order to address issues of data reliability and representativeness.

2.1 SCOPING STUDY METHODS

The scoping study has used a number of data sources and research methods, including:

- A rapid review of the literature, to collect evidence about methodologies and data collection instruments used in previous relevant social care evaluations, and evidence to use in the calculation of sample sizes.

- A review of local authority systems, including policy documentation, information in local authority websites, and local authority assessment materials.

- Statistical methods to explore local variations in support models (including the derivation of a typology of authorities) and to calculate the statistical power associated with different sample sizes.

- Interviews with key local stakeholders that might collaborate in the evaluation and in particular with LA professionals. As noted above, the evaluation is likely to involve the collaboration of local authorities to identify cases at the first point of contact.

- Interviews with fieldwork organisations (IPSOS/MORI, GfK and Natcen) to obtain estimates of costs of data collection for different survey methods (e.g. face to face; telephone), and to discuss some of the practicalities of the main study.

2.2 ETHICAL CONSIDERATIONS

The project received approval by the Association of Directors of Adult Social Services (ADASS). The LSE Research Ethics Review Checklist and Data Management Plan were completed in accordance with The LSE Research Ethics Committee's requirements. After completing the review checklist, it was deemed that adequate safeguards in relation to any ethical issues were in place and LSE information security guidance were followed. Written and verbal information about the study was given to the participants and written informed consent was obtained from all informants. All participants were asked for permission to record interviews and all agreed. The names of local authorities and interviewees were replaced by a code to protect their confidentiality.

3 IDENTIFYING LOCAL SOCIAL CARE MODELS FOR SUPPORTING OLDER PEOPLE WITH LOW/MODERATE NEEDS

At present, there is not an accepted typology of care models for individuals with low/moderate social care needs in England. In the absence of such classification, we have sought to:

• Understand the way in which local authorities design and organise their systems for identifying, assessing and supporting older people with low/moderate needs, the rationale for such systems, and the mechanics involved. Here we summarise our findings from the reviews of websites, academic literature, policy documents and interviews with key local stakeholders.

• Classify authorities into groups on the basis of their observed behaviour as revealed by indicators of expenditure and activity from local authority returns, conditional on their local need. Section 3.4 explores key observed patterns of local authority contacts, service receipt and expenditure for older people, and develops a possible typology of authorities that could guide the selection of sites in the main evaluation study.

Sections 3.1 and 6.2 describe respectively the local review strategy, and key characteristics of key experts interviewed for the study.

3.1 STRATEGY FOR REVIEWING LOCAL WEBSITES AND LOCAL POLICY DOCUMENTS

Local websites and assessment policies (where available) were examined in 22 local authorities. The councils included in the study covered key groups of authorities in England such as metropolitan, inner and outer London boroughs and non-metropolitan counties (see Table 2 for further details about the councils in the study). Local websites were searched to explore councils' first contact practices, assessment processes, eligibility documents and forms, local directory of services/providers, and any other documents and leaflets that may be related to the assessment of need and eligibility criteria. Moreover, for a sub-group of 6 local authorities, we examined in depth key local policy documents for descriptions of local approaches to prevention and early intervention strategies for people with low/moderate needs. The documents covered included: Health and Wellbeing Board Strategies (HWBS), Better Care Fund (BCF) documents, Sustainability and

Transformation Plans (STP), and other documents related to prevention and early intervention (e.g. prevention plans, or adult social care strategies if they included information on prevention and/or early intervention). Websites of other relevant organisations were also searched for information on needs assessment, eligibility and information on individuals with low/moderate needs.

Websites of other relevant organisations were also searched for information on needs assessments, eligibility and support models for individuals with low/moderate needs. We searched national organisational websites to explore whether and what guidelines and training for Local Authority staff were available regarding the implementation of national eligibility criteria and assessment processes, and for any other relevant information for assessment and care planning for people with low and moderate needs level. Search sites/engines

TABLE 2: LOCAL AUTHORITIES IN THE STUDY: RANK OF OBSERVED EXPENDITURE PER CAPITA – RELATIVE TO PREDICTED LEVELS GIVEN LOCAL CHARACTERISTICS

	Type of LA	2010	2013	2015
1	Non-metropolitan county	55	40	65
2	London borough	5	0	25
3	Non-metropolitan county	90	55	35
4	Non-metropolitan county	50	90	30
5	London borough (outer)	135	130	100
6	Non-metropolitan county	45	100	85
7	Non-metropolitan county	130	75	55
8	Non-metropolitan county	20	75	45
9	Non-metropolitan county	55	70	140
10	Unitary authority	85	80	95
11	Metropolitan borough	150	120	135
12	London borough	65	95	10
13	Unitary authority	75	70	50
14	London borough (outer)	70	30	50
15	London borough	135	100	70
16	Non-metropolitan borough	50	20	15
17	Non-metropolitan county	55	65	80
18	London borough (outer)	0	55	145
19	Non-metropolitan borough	30	20	90
20	Non-metropolitan borough	40	35	70
21	London borough (outer)	20	5	10
22	Non-metropolitan borough	70	110	40

Notes: figures are rounded to multiples of 5 to preserve the anonymity of the councils; Low rank indicates greater expenditure than expected in given year. The rankings were calculated on the basis of "standardised" measures of expenditure, which control for local levels of needs and prices, using the methods described in Section 3.4.2.

3.2 INTERVIEWS WITH KEY EXPERTS

Qualitative in-depth, semi-structured interviews with ten professionals were conducted between October 2017 and January 2018. Constrained by the availability of respondents within the narrow timeframe for data collection, we sought to capture a range of perspectives across all five councils which agreed to take part in the study. We conducted interviews with local prevention leads or equivalent service leads, with lead data analysts and members of the first point of contact team. The interviews enabled us to ask broad questions based on the research objectives, a question guide was used to ensure that all the areas of interest were covered in each interview, topics that participants found relevant were followed in depth whether they were in the question guide or not. Respondents were also asked at the end of each interview if they wanted to add any information to ensure that no issues were left uncovered that participants had felt were important. The full interview question guide is available from the authors.

Table 3 describes key characteristics of the informants in the study. To enhance the quality of collected interview data, all interviews were recorded, transcribed verbatim and material was analysed systematically by the authors across each council in case-study format by focusing on identification and reporting of patterns and themes across the interviews to interpret the material.

TABLE 3: SAMPLED LOCAL AUTHORITIES AND INFORMANTS' CHARACTERISTICS

LA1	Inner London borough	Respondent 1 – Data analyst
		Respondent 2 – Service manager for prevention
		Respondent 3 – Social worker
LA 2	Outer London borough	Respondent 1 – Service manager for prevention
		Respondent 2 – Data analyst
LA 3	Non-metropolitan county	Respondent 1 – Head of intelligence
		Respondent 2 – Customer experience manager
LA 4	Non-metropolitan county	Respondent 1 – Team manager, First point of contact team
LA 5	Unitary authority	Respondent 1 – Head of commissioning (prevention)
		Respondent 2 – Service manager

3.3 HOW DO LOCAL AUTHORITIES IDENTIFY AND SUPPORT PEOPLE WITH LOW NEEDS

3.3.1 LOCAL POLICIES TO SUPPORT PEOPLE WITH LOW/MODERATE NEEDS

Local policies frame the way in which councils identify and support people with low/moderate needs. Services for people with low/moderate needs are generally considered in terms of the councils' prevention and early intervention agenda and the Care Act duty of promoting wellbeing when exercising community care functions. While local authorities have all developed strategies for prevention, there is wide variation between them in how they have responded to this broad agenda.

Prevention and early intervention services are often described as belonging to one of three groups:

- **Primary prevention**, which might include services, facilities or resources designed to help a person avoid developing support needs by maintaining independence, good health and promoting wellbeing. A range of advice, information and services could fall within the remit of this approach, including services aimed at addressing accommodation problems, neighbourhood safety, social isolation and healthy and active living.

- **Secondary prevention** or early intervention, which includes more targeted interventions aimed at people who are at greater risk of developing support needs that aim to reduce deterioration in their circumstances. A wide range of services are included within this approach covering a range of areas of people's lives including falls prevention, adaptations, equipment, etc.

- **Tertiary prevention** includes interventions for people with established long-term conditions that are designed to minimise the effect of their disability on their wellbeing, slow deterioration and support people to regain skills and confidence where appropriate. Interventions associated with tertiary prevention include rehabilitation, reablement, equipment and adaptations, the provision of support (not necessarily personal care) within the person's home

to enable them to live in the community and services to support informal carers to manage and balance the demands of caring (e.g. day centres/lunch clubs, respite care, peer support groups).

While it is difficult to establish clear boundaries between primary, secondary and tertiary prevention, interventions aimed at individuals at the edge of the social care eligibility thresholds will generally fall within the latter two, given that considerable levels of dependency are required to access core social care services in England (Fernandez *et al.*, 2014).

The range of support available for people with low/moderate needs will depend on the local council's service offer, the availability of help from the local charitable and private sector, and the nature of services developed by NHS partners (including GPs and the acute sector) and by the Housing Departments and providers (e.g. Housing Associations and handyperson services). The extent to which local authorities have embraced their market management role, have experimented with new forms of provision (see for instance Shared Lives Plus, n.d.; Social Care Institute for Excellence, 2017, 2018) or have been successful in both stimulating and mapping local provision also has implications for the range and volume of services available for people with low/moderate needs.

The importance of prevention as a policy objective, and the variability in local approaches to prevention was evident from the review of local authority literature and websites. This review showed significant variability in the service offer and in how the options for support were communicated to people. For instance, while some local authorities provided detailed listings of services that are available across the council from a range of providers, often through their online service directories, other authorities gave only an overview of the types of support that might be available.

The importance of partnerships in delivering the prevention agenda was also clear from the review. Joint Health and Wellbeing Strategies (JHWS) tended to take a system-wide approach to prevention and early intervention, reflecting the fact that promoting wellbeing for people with low/moderate needs means in many cases addressing and overcoming deficiencies in accommodation, the local area and so on that create health risks, affect people's sense of safety, ability to get out and about and so on. For example, one area described a "housing delivery plan" that aimed to deliver early intervention, prevention and independence at home through services such as handyperson or aids and adaptations schemes.

Some local authorities had streams within their Sustainability and Transformation Plans (STPs) dedicated to 'ageing well' and addressing 'frailty' that described funding arrangements for reablement services, falls prevention services and schemes to reduce social isolation.

The Better Care Fund (BCF) plans we reviewed often included streams for services focused on promoting self-care, reablement, information and advice, falls prevention, preventing social isolation (e.g. befriending, lunch clubs, support groups), reducing frailty levels (e.g. through sports activities, clubs for older adults), social prescribing and telecare.

The role of these (JHWS, STP and BCF) plans in enabling partners from different sectors to come together was emphasised by interviewees from local authorities. Interviewees saw these plans as vehicles

for collaboration, and key to understanding the availability of services for people with low/moderate needs and to plan further service development and commissioning.

The prevention agenda in general and the Care Act in particular suggest a need to identify proactively, perhaps through screening activities, people who might benefit from prevention and early intervention services.

Based on the review of local authority literature and websites, it was unclear whether and how councils identify people at risk of developing needs, what risk assessment tools they employ (including for individuals with rapidly changing needs), and how they ensure that universal or preventative services reach people with low/moderate needs that do not (yet) meet eligibility criteria.

Interviews indicated that some councils do take active steps to identify people with low/moderate needs, through utilising voluntary sector and NHS organisations (e.g. by placing social care professionals in GP practices) and their involvement with the wider local population. This is not the case in all areas, however, and some interviewees did not identify active steps in their area to identify individuals with low/moderate needs that may benefit from preventative services or early intervention. Indeed, some interviewees highlighted that in the local authority they worked for, some of the first contact activity was designed specifically to divert people away from social services departments rather than to identify possible cases suitable for preventative interventions (see also Section 3.3.2).

Overall, interviewees tended to confirm findings in the literature that financial pressures pose a challenge to investment in low-level, early intervention and preventative services. This is apparent in the 2016 Budget Survey of the Association of Directors of Adult Social Services (ADASS), which despite emphasising the importance of prevention in reducing demand, reported that councils were reducing funding for prevention to meet the costs of core statutory duties (ADASS, 2017; see also Henwood, 2012; Humphries *et al.*, 2016). The extent to which this was the case varied across councils, and some

KEY MESSAGE

The support provided to older people with low/moderate social care needs can involve a complex network of local authority, voluntary and NHS organisations and professionals. The complex nature of the support models that are being implemented across English councils, and the involvement of multiple agencies in their design and provision, highlights the need for the main study to "map" a wide range of services, including services provided through the local council (including non-social care services such as support with housing) and through other health care and voluntary sector agencies. It also underlines the need for primary data collection, given the lack of existing sources of evidence that could be used to describe fully at the individual level the support received.

informants reported that investment in low-level services, early intervention and prevention had been a priority in their local authority, and that it was hoped that such investment would reduce demand and prevent, or at least delay, people's entry into mainstream statutory social care services. Investing in early intervention was also justified as the "right thing to do" to improve individuals' wellbeing.

3.3.2 FROM FIRST CONTACT WITH THE LOCAL AUTHORITY TO ASSESSMENT

A key aim of the main study will be to understand how the social care system interacts with potential social care recipients when they first approach the local authority.

All local authorities reviewed had first contact teams that responded to requests for support from local residents and served to 'triage' entry to adult social care services. These teams tended to be in-house, but some areas delegated this function to other organisations. One LA we spoke to noted that the independent organisation with responsibility for responding to requests for support would try to encourage people to access third party providers before accessing statutory services.

In general, local authorities made information available online explaining how to contact the authority (or delegated organisation) to discuss possible social care support. However, the available online information varied and was not always easy to find. The types of contact information provided included online contact forms, telephone numbers, email addresses, and fax numbers. We also found instances of text messages and Facebook being used for first contacts. Text messages were reported to be used more by people with sensory loss, and by younger clients; for them text was often the preferred method for communication (e.g. because of hearing problems) so text messages were used to follow up and to collect all necessary information. Contact information was not always provided directly on the website. In one authority, for example, all people making enquiries had first to complete an online self-assessment of social care needs, the outcome of which would determine whether they would receive further information about accessing social care services[2]. In other areas, online self-assessment forms were just one route with which to access social care, and telephone contact information was also provided.

Online self-assessment forms seem to be growing in use and were often linked to the authority's online service directory (ADASS LGA and Socitm, 2017). One authority we spoke to confirmed that they are in the process of developing an online self-assessment form and we found various examples in our web-searches whereby the responses the individual gave to the online self-assessment form were used to present a filtered list of appropriate service options from the online service directory. Despite investment in this area, some interviewees were sceptical about the ability to identify individuals' needs through online self-assessment forms. One interviewee noted that their authority would therefore always follow up online referrals with a phone call, regardless of the outcome of the online assessment. Interviewees also noted that many older people, particularly the oldest-old, were not always internet literate, and although the younger-old were reported to be more capable of using the online form, they were often confused by the questions asked and the information provided online.

The development of online self-assessment and care directories should be understood in the context of the increasing pressure on local resources. Interviewees explicitly talked about the directories and online self-assessment forms as fulfilling a demand management function – its purpose was to serve as an advice and information hub about various services available in the area, in order to reduce the numbers of people who would ask for social care assessment and services from the LA.

From the point of view of the main evaluation, the presence of online needs assessments acting as a gateway to full need-assessments and limiting access to the first point of contact team could be

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[2] Although presumably people could still call the local authority's main switchboard and be put through to the adult social care.

significant, as it might make it difficult for the study to identify and contact those individuals that seek support from the LA but that fail the online eligibility test.

Examination of websites in different authorities suggested that the practice of using web-based tools to divert people to voluntary organisations and alternative support options (e.g. advising people to do online shopping instead of receiving more conventional forms of assistance) was a fairly common approach. Local authority websites tended to navigate individuals to local independent and voluntary sector services rather than their first contact teams. Some websites indicated that residents should contact the local authority if they cannot find what they were looking for in the online service directory. It is not clear how successful these web-based tools are in diverting people away from social care, but one council reported that it undertook analyses of website hits and entry to other agencies' websites, indicating that it may be possible to explore activity on these sites in some areas.

We observed in this study a number of models of assessment following initial contact with the local authority. In general, the assessment involved a multi-stage process with triaging of cases at various points. The different approaches we found (which are unlikely to be exhaustive) are illustrated in Figure 2. In terms of the main study, recruitment would be attempted at the point individuals contacted the first of point of contact team (indicated in red).

FIGURE 2: STAGES OF ASSESSMENT PROCESS IN SAMPLED COUNCILS
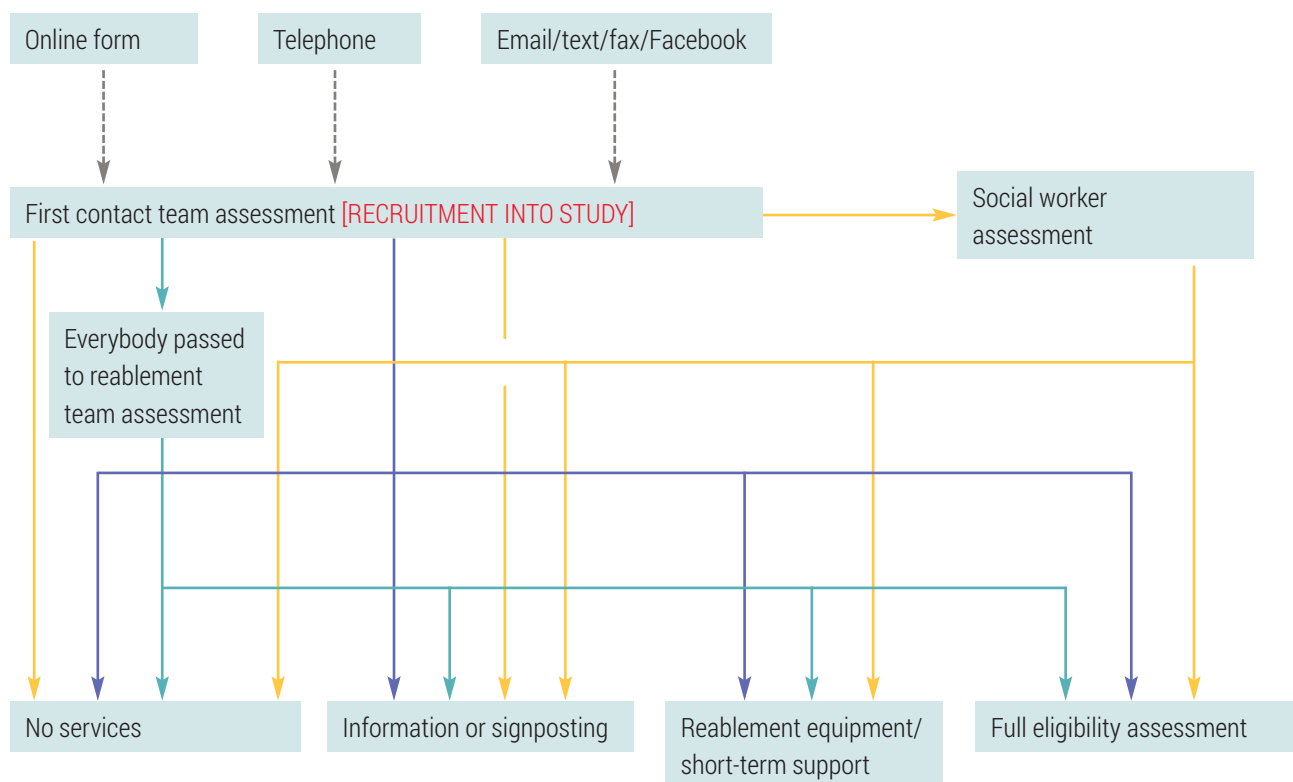
Green arrows: in this area, all individuals who contacted the local authority would be referred to the reablement team. This team would conduct an initial needs assessment where it would be decided whether and which services would be provided, or whether full eligibility assessment for a package of long-term support would be needed. Individuals who received reablement would be re-assessed after the reablement period to decide whether they required further assistance.

Purple arrows: in another local authority, the first contact team was reported to make the initial needs assessment and would make decisions regarding the provision of information and advice, signposting to other providers (e.g. voluntary sector), referral to other teams for support services (e.g. the equipment team), or referral to full social care needs eligibility assessment.

■ Yellow arrows: in other local authorities, first contact teams made certain decisions (e.g. regarding information and advice or signposting), but most cases would be passed to the duty care manager to make the initial needs assessment. In such cases, the care manager would make decisions regarding provision of information, signposting or short-term support, and if appropriate they would refer individuals for full social care needs eligibility assessment and long-term support decisions.

RECOMMENDATIONS: FIRST POINT OF CONTACT AND ASSESSMENT

■ Although most authorities had online assessment forms and provided some website information about the assessment process, online information describing local arrangements for processing requests for social care support was often limited. Interviews (and forms) received directly from respondents provided a better insight into local authorities' approaches. To gain a thorough understanding of local processes we expect that a qualitative strand of work will be necessary, including interviews with key stakeholders and a document review.

■ Local authorities used web-based interfaces to provide information and advice and signpost individuals to services in the community as a way of managing demand for social care resources. Although most councils used online assessments forms, it was not always felt these were entirely effective because a) older people were not always internet literate b) it was challenging to assess individuals' needs through an online form. The main study might want to explore variations in the use of web-based tools across localities, how these interact with the multi-stage assessment process, their likely impact on the volume and types of contacts made with the local authority and on the targeting of care and support for people with low/moderate needs.

■ The main study will want to discuss with the authority ways to capture information about the full range of individuals contacting the council for social care support, including those that are signposted to other services after reading the online advice provided by the council. This will be particularly important in areas in which online needs eligibility algorithms are used to restrict access to the telephone contact details of the first point of contact team.

■ A variety of models exist for assessing the needs of individuals approaching local councils. It seems likely that these models may themselves have an impact on the effectiveness and the targeting of care and support for people with low/moderate needs. The main study will want to collect information regarding the local assessment processes used in order to explore their impact on the targeting of support and on outcomes for service users and their carers.

3.3.3 SEQUELS FOLLOWING CONTACT WITH SERVICES FOR PEOPLE WITH LOW/MODERATE NEEDS

Outcomes following initial contact were relatively consistent across the authorities we spoke to. When asked about sequels to first contact for people with low/moderate needs, the 'services' most frequently mentioned by interviewees included information and advice, signposting to other agencies/services, reablement, community equipment, minor house adaptations and telecare. These 'services' are found in all authorities. Information and advice, often developed in partnership with third sector organisations, is also identified in the literature as a central component of the universal offer provided by local authorities (Henwood, 2012). Interventions such as reablement, equipment,

adaptations and telecare were considered by local authorities as "targeted universal services", and a core part of the offer to people whose needs were below eligibility thresholds but for whom there was a concern about the risk of deterioration in the absence of support.

Interviewees frequently highlighted that services provided by the voluntary sector were seen as paramount for supporting people with low/moderate needs and it was these services that people were signposted to. Key examples of these services include schemes targeting loneliness, such as befriending schemes and various community groups that are free of charge,

and chargeable schemes such as handyman services. Exemplifying the importance of the voluntary sector, one local authority reported that it had developed a strength-based community-led support model, whereby they supported and collaborated with numerous voluntary organisations to identify and support people with low needs:

> "we are looking at a far deeper level how we can engage with local people and communities and community leaders, to really explore the role of social action as a route to solve some quite deep problems around health and social care [the goal is] to support them [people with social care needs] to stay strong in their communities and seek community solutions …and connecting with more local social networks and agencies rather than coming into paid services"
>
> [LA5, R1]

Interviewees reported "innovative" approaches to supporting people with low/moderate needs and stressed the importance of evaluating their effectiveness. Services such as local area coordinators and social prescribing were seen as crucial to enabling access to the full range of local support options and to addressing low level non-medical needs. Other services mentioned included "family planning time", organised and supported by social care practitioners to support individuals with low/moderate needs to live more independently. This service involves a practitioner meeting the family, neighbours and/or unpaid carers to support them to plan how to meet the needs of an individual. We came across a number of other examples of innovative schemes on local authority websites, indicating significant variety in the offer for support across local authorities.

The academic literature review, review of local authority documents and website and the interviews also suggested that some local authorities continue to provide practical help, e.g. gardening, shopping or cleaning to some people with low/moderate needs. Some local authorities provide community transport and/or shop mobility schemes for older and disabled people to enable them to take part in activities available locally, health care visits or shopping, and other areas continue to offer laundry and other low-level services, although all of these services may involve user charges.

In addition, local authorities reported that there was help available for carers, often in the form of information and advice, and referral to community services.

RECOMMENDATIONS: SEQUELS TO CONTACT FOR PEOPLE WITH LOW NEEDS

■ The core service offer to people with low/moderate needs is relatively consistent across councils, and includes information and advice, signposting to voluntary sector services and short-term targeted interventions, including reablement, equipment, telecare and adaptations. Understanding the role of these services in supporting people with low/moderate needs will be of central importance to the main study.

■ There seems to be great variety in the availability of innovative and voluntary sector schemes across local authorities. The extent and effectiveness of such schemes will be critical to the effectiveness of signposting activities by local authorities. It will be important, but challenging, to map and record these more innovative and variable 'services' in the main study.

■ Low-level services that may previously have been considered 'home help', transport and housing support / maintenance services are also important for people with low/moderate needs. They are likely to be offered in different ways by local authorities and this variation as well as the use of these services should be mapped and recorded in the main study.

3.3.4 DATA COLLECTED BY LOCAL AUTHORITIES ABOUT PEOPLE CONTACTING THEM

The types of outcomes following an initial contact with the local social care system were relatively consistent across the authorities we spoke to, but the recording of these outcomes and the levels of provision of different types of support differed, reflecting the various assessment arrangements described in 3.3.2. For example, reablement services were more prevalent in areas that route individuals through these services as part of the initial assessment process. These variations in care models are reflected in national statistics (see analyses of local authority returns in Section 3.4).

The degree of information recorded was found to vary depending on the extent to which potential service users progressed through the various assessment levels and depending on whether the sequel to contact (and assessment) resulted in the receipt of a service or in referral away from social care services. All authorities reported to collect information about people who contacted them, although one informant noted that the information on person's needs, type of information and advice received, and signposting would not necessarily be recorded consistently. Other councils recorded a significant amount of information on individuals' needs. Most local authorities we spoke to reported to have standard procedures and forms to conduct the initial assessment and to provide staff with regular training to undertake initial assessments. In such cases, information about all contacts was recorded in the system with varying degrees of detail. Typically, initial contacts are recorded as a care episode, with subsequent, linked care episodes recorded when individual contacts again the authority at a later date. In one authority, respondents reported not to use a standardised form to conduct the initial assessment.

In terms of the evidence from the literature, earlier studies have reported that councils tend not to monitor what happens to individuals signposted to other services (CSCI, 2008; Henwood, 2012). Generally, respondents confirmed that councils were not able to track whether individuals were signposted to other services, and if they were, whether people followed the advice and indeed received any services in the community. However, one of the local authorities interviewed reported to record if and where an individual was signposted at the first point of contact, and if the same person came back to the council within 6 month-period they were able to link their records. The same council produced a monthly document reporting the percentage of people signposted to other providers who returned to the LA within six months of contact.

Central government has set detailed requirements for the recording of sequels to first contact, as part of the Short And Long-Term (SALT) data return. In addition, some authorities collect more detailed information than required for these returns. One of the local authorities we spoke to, for example, recorded the following information regarding sequel following first contact:

- No further action

- Information and advice only

- Signposted to health services

- Signposted to other external agencies

- Action required via Community Equipment Service

- Referral for assessment, which could lead to:
  - Full social care eligibility assessment
  - Signposted to other services
  - OT/Sensory needs assessment only
  - Housing and outreach assessment only
  - No services provided

Whereas councils reported to provide a range of interventions to support people with low and moderate needs, the collection and evaluation of data about these services are variable. For example, individuals who received reablement were often monitored to understand if they returned to social care within a short time-frame; similarly, information on equipment provided was also gathered. Data about residents re-directed to other services and voluntary organisations were however not always monitored. One authority reported to keep records of individuals with low level needs who were signposted to community services for two years. As a result, the council was able to track whether individuals returned within that time period.

However, the informant mentioned that although they record outcomes of an initial assessment (e.g. what information and advice was provided), it was "difficult to collect this information consistently... it is a little bit of free text..." (LA3, R1). In general, these data would not be sufficient to carry out an evaluation of the costs and benefits of the support provided to people with low and moderate social care needs. They might, however, provide a useful additional source of evidence to complement potential primary data collections.

Some of the sampled authorities monitored the volumes of customers classified as having low level needs coming from specific geographical areas and used that information to plan the commissioning of support. One council reported to conduct a survey among a subsample of individuals who contacted the LA, including those who were signposted to voluntary sector organisations, hence the council was able to track some of those individuals. Other informants reported to collect limited data on services and outcomes in relation to people with low-level needs, some reported to collaborate with a number of Universities in order to evaluate services such as local area collaborators or social prescribing. It was also noted that it is important to measure the impact of social care support for people with low level needs on health care resources such as hospital and A&E admissions, because older people tend to be intensive users of health services; however it was often noted that local data currently does not allow for such evaluations (partly because councils tend not to share data with health partners).

Some respondents mentioned that they collect NHS numbers at the first point of contact, other authorities however did not do so systematically (some collected NHS numbers only if the request for assessment came from a GP or hospital etc.). Overall, none of the sampled councils reported to evaluate the consequences of support for people with low level needs across health and social care.

RECOMMENDATIONS: DATA ABOUT PEOPLE WHO CONTACT LOCAL AUTHORITIES

■ It will be important for the main study to ascertain whether authorities involved in the study collect data about those who contact the website, even if as a result they are signposted away from the council.

■ Most authorities seemed to collect data about individuals who make contact with the first contact team (see Section 3.3.4 for some examples of the type collected). However, this data might not contain the information necessary for the triaging of cases into the main study, and therefore additional information collection by the council at the point of first contact would need to be agreed with the participating areas in the study.

■ Individual-level information regarding the utilisation of certain services is collected by councils, and might complement any primary data collection by the main study.

■ The study should aim to assess the impact of different sequels to contact for individuals and their carers. In some situations, e.g. where people are signposted to other services (including voluntary sector and health), local authorities do not track what happens to the individuals. This may make it challenging to assess outcomes for these individuals without collecting primary data directly from them.

3.4 IDENTIFYING SUPPORT MODEL TYPOLOGIES:
ANALYSIS OF LOCAL AUTHORITY CONTACTS, ACTIVITY AND SUPPORT PATTERNS

The aim of this section is to understand, using local authority-level data, the extent of differences in local types and levels of support for people with low/moderate needs. Its final objective is to assess whether differences in 'care models' could be used to define typologies which could guide the selection of authorities for the main study. The results of the analysis, and the extent to which they identify authorities with distinct approaches for supporting people with low/moderate needs would need to be confirmed with key local stakeholders in the authorities identified for inclusion in the study during the early stages of the selection process.

3.4.1   LOCAL SOCIAL CARE VARIABILITY

Though the increased concentration of resources over time on the neediest cases is common across English local authorities, patterns of provision vary substantially, as illustrated using 2015/16 data in Figure 3. This significant variability in service provision is important for the main study, as it means that different authorities might be identified to evaluate the consequences of alterative care models, and in so doing understand the implications of the changes in service provision observed across England overall. Specifically, it would be possible to compare patterns of support and care outcomes between more/less generous authorities, and between authorities with different strategies for supporting older people with low/moderate care needs, in order to understand the likely consequences on the social care system overall of the observed reductions in core social care packages.

As the main study will involve only a sample of the 152 CASSRs in England, the selection of authorities in the study should aim to illustrate a range models of support, for instance in terms of the proportion of the population that receives state-funded support. Ideally, the selection criteria for local authorities should reflect their current targeting of resources – how 'generous' they are in terms of care provision – but also the extent to which their provision has changed in recent years in response to demographic, political and fiscal pressures.

FIGURE 3: DISTRIBUTION OF LOCAL AUTHORITY CLIENT NUMBERS AND EXPENDITURE RELATIVE TO NATIONAL AVERAGE – RANKED INDEPENDENTLY BY LOCAL AUTHORITY (2015/16)
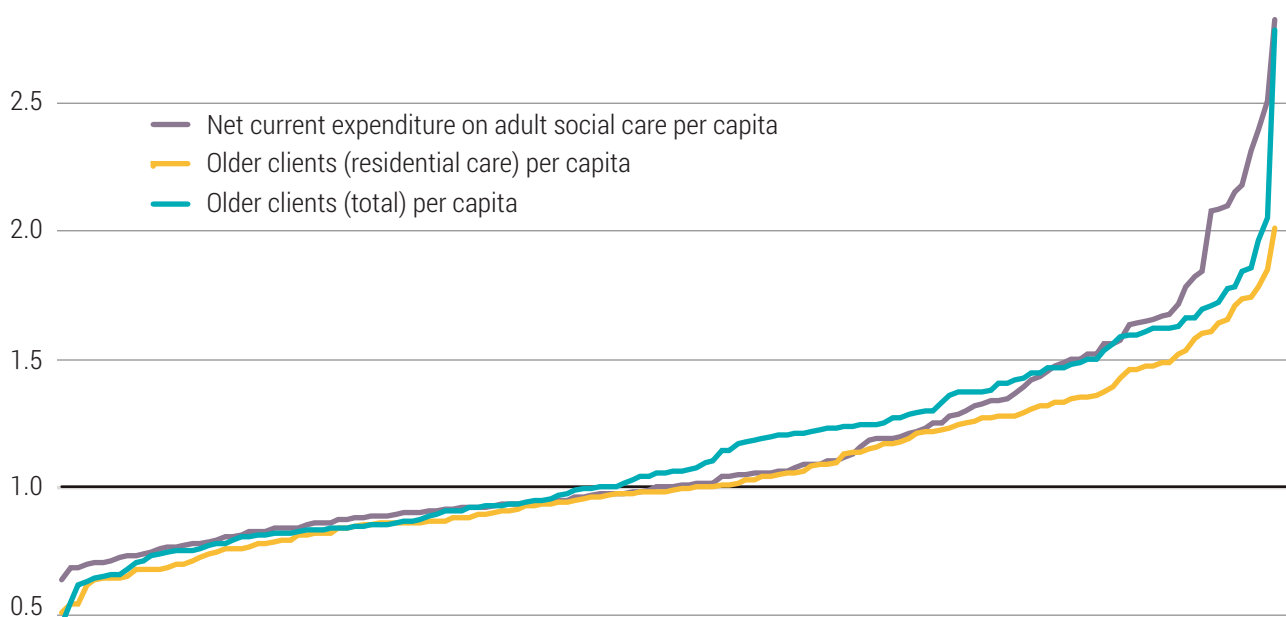
3.4.2 STANDARDISING INDICATORS OF SOCIAL CARE ACTIVITY

In addition to differences in 'care models', area variations in the numbers of people receiving support and local social care expenditure will reflect differences in levels of need and service prices. Previous analyses have shown that local characteristics such as age and gender profiles, unit costs of care, dependency, deprivation and informal care provision vary greatly between local authorities (Figure 4) and are significant correlates of provision and expenditure (Fernandez, Snell and Wistow, 2013). By controlling for such differences using multivariate regression methods, it is possible to derive a measure of the extent to which authorities' observed care provision is above or below what would be expected given their characteristics, and relative to the behaviour of all authorities in England.

FIGURE 4: DISTRIBUTION OF LOCAL AUTHORITY PROXIES OF SOCIAL CARE NEED AND DEPRIVATION RELATIVE TO NATIONAL AVERAGE – RANKED INDEPENDENTLY BY LOCAL AUTHORITY (2015/16)
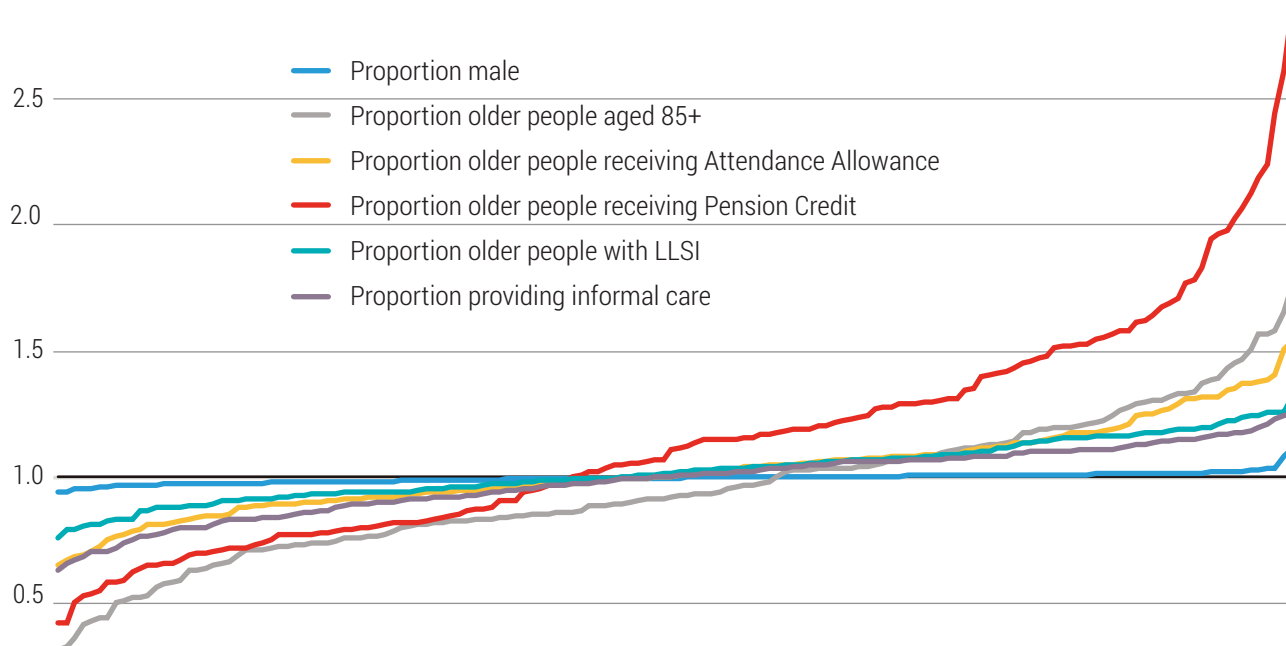
Proxies of local social care models: To identify local differences in social care models, a series of regression models were run to estimate, controlling for local demand and supply characteristics, differences in four proxy indicators describing different aspects of local social care activity:

1. Social care expenditure on older people per population aged 65 plus: this indicator reflects the intensity of support of local services, demand levels and service prices. The models for this indicator therefore controlled for differences in local prices and local needs.

2. Older clients per capita receiving care services: this indicator identifies the breath of coverage of the care system but does not reflect variations in the intensity of the care packages. Regression models were used to standardise the indicator for variations in local need.

3. Older clients per capita receiving residential or nursing care: this indicator is chosen as a proxy for the negative consequences of shortfalls in the support for people with low/moderate needs. The assumption is that, controlling for needs, authorities spending more on social care or covering a larger proportion of their population might place a smaller proportion of their population in residential care.

4. Requests for support per capita[3]: this indicator measures the extent to which local authorities "reach out" to a greater or smaller proportion of their population.

Capturing changes in local care models: Regression models were estimated separately for 2010/11 (before substantial reductions in social care expenditure and activity took place nationally) and for 2015/16. Since local authority returns underwent substantial changes with the introduction of SALT and ASC-FR in 2014/15, regression results for 2013/14 were also analysed to verify the consistency of results across years. Outputs are summarised in Tables 4 to 7.

TABLE 4: REGRESSION MODELS FOR NET CURRENT EXPENDITURE ON OLDER PEOPLE'S ADULT SOCIAL CARE, PER POPULATION AGED 65+

	2010/11		2013/14		2015/16	
Unit cost of residential care	0.0005304	**	0.0004379	**	0.0006016	**
Median wage	0.000015	**	0.0000158	**	0.0000114	*
House price	-0.000000102		8.18E-08		2.35E-07	
Proportion population LLSI	4.173519	**	4.366344	**	4.386856	**
Proportion of population male	-1.704743		0.2097169		2.31073	
Proportion of older population aged 85+	-12.19811	**	-8.4564	*	-6.740005	
Population density	0.0000297	**	7.88E-06		0.0000177	
SMR	-0.0005342		-0.0040826		0.0021084	
Disability-free life expectancy at age 65	-0.0085571		-0.0191312		-0.0120219	
Proportion of population providing informal care	-8.996526	**	-13.80297	**	-11.1654	**
Proportion older population receiving AA	1.361269	*	3.251779	**	1.724852	
Constant	0.3305711		-0.1272004		-1.934129	

* denotes P < 0.10; ** denotes P < 0.05; *** denotes P < 0.01

TABLE 5: REGRESSION MODELS FOR NUMBER OF OLDER PEOPLE RECEIVING ADULT SOCIAL CARE AT 31 MARCH, PER POPULATION AGED 65+

	2010/11		2013/14		2015/16	
Median wage	-0.0000102		3.34E-06		3.01E-06	
House price	-0.000000295		2.7E-07		-1.75E-07	
Proportion population LLSI	5.959413	**	5.531678	*	3.529332	**
Proportion of population male	-2.218893		-2.472114		-1.384933	
Proportion of older population aged 85+	-23.85585	**	-18.67556	*	-17.79045	**
Population density	0.0000183		0.0000231		0.0000397	**
SMR	-0.0059609		0.0014195		0.0028497	
Disability-free life expectancy at age 65	0.0002742		-0.0061272		-0.0059355	
Proportion of population providing informal care	-4.335683		-1.476689		-2.843293	
Proportion of older population receiving AA	0.1367244		-0.7196385		-0.3095681	
Constant	-0.739477		-2.247768		-2.756892	*

* denotes P < 0.10; ** denotes P < 0.05; *** denotes P < 0.01

TABLE 6: REGRESSION MODELS FOR NUMBER OF REQUESTS FOR SUPPORT AT 31 MARCH, PER POPULATION AGED 65+

	2015/16	
Median wage	3.68E-06	
House price	-1.56E-07	
Proportion pop LLSI	3.443115	**
Proportion of older population aged 85+	-17.54111	**
Population density	0.0000396	**
SMR	0.0032267	
Disability-free life expectancy at age 65	-0.0038021	
Proportion of population providing informal care	-2.821065	
Constant	-3.49789	**

* denotes P < 0.10; ** denotes P < 0.05; *** denotes P < 0.01

TABLE 7: REGRESSION MODELS FOR NUMBER OF OLDER PEOPLE IN RESIDENTIAL OR NURSING CARE AT 31 MARCH, PER POPULATION AGED 65+

	2010/11		2013/14		2015/16	
Median wage	-0.00000238		9.26E-07		4.07E-06	
House price	-0.000000433		-3.24E-07		-9.83E-08	
Proportion pop LLSI	7.05676	**	6.885921	**	5.871257	**
Proportion of older population aged 85+	-8.409454		-4.605904		-5.111056	
Pop density	0.00000292		3.18E-06		2.57E-06	
SMR	0.0024461		0.00615	*	0.0090616	**
Disability-free life expectancy at age 65	0.0028166		0.0149922		0.0170819	
Proportion of population providing informal care	-14.07065	**	-12.1217			
Constant	-3.727731	**	-4.685319	**	-5.37927	

* denotes P < 0.10; ** denotes P < 0.05; *** denotes P < 0.01

As expected, increased levels of limiting long-standing illness (LLSI) and high concentrations of older people aged 85 or above are significantly correlated with increased numbers of older clients per capita across all time points. Social care expenditure was also found to increase with unit costs (proxied by weekly costs of residential care), and median wage levels, while levels of informal care provision (using population-weighted Census figures) were negatively correlated with per-capita expenditure.

It is possible to define an indicator of the local authority proportional deviation in standardised social care activity as follows:

Equation 1

$$D_s^i = \frac{O_s^i - P_s^i}{P_s^i} - 1$$

where O_s^i represents the observed level of social care activity for authority i and social care activity indicator s and P_s^i represents the predicted level of social care activity for

authority i and social care activity indicator s, controlling for local characteristics. D therefore indicates the proportional excess (for positive values) or shortfall (for negative values) in social care activity relative to the average behaviour in England. The distributions of local authority proportional deviations in standardised

social care activity for the four social care indicators considered and using 2015/16 data are shown in Figure 5. The figure suggests significant local variability for the four indicators considered, even after standardising for variations in local needs and unit costs.
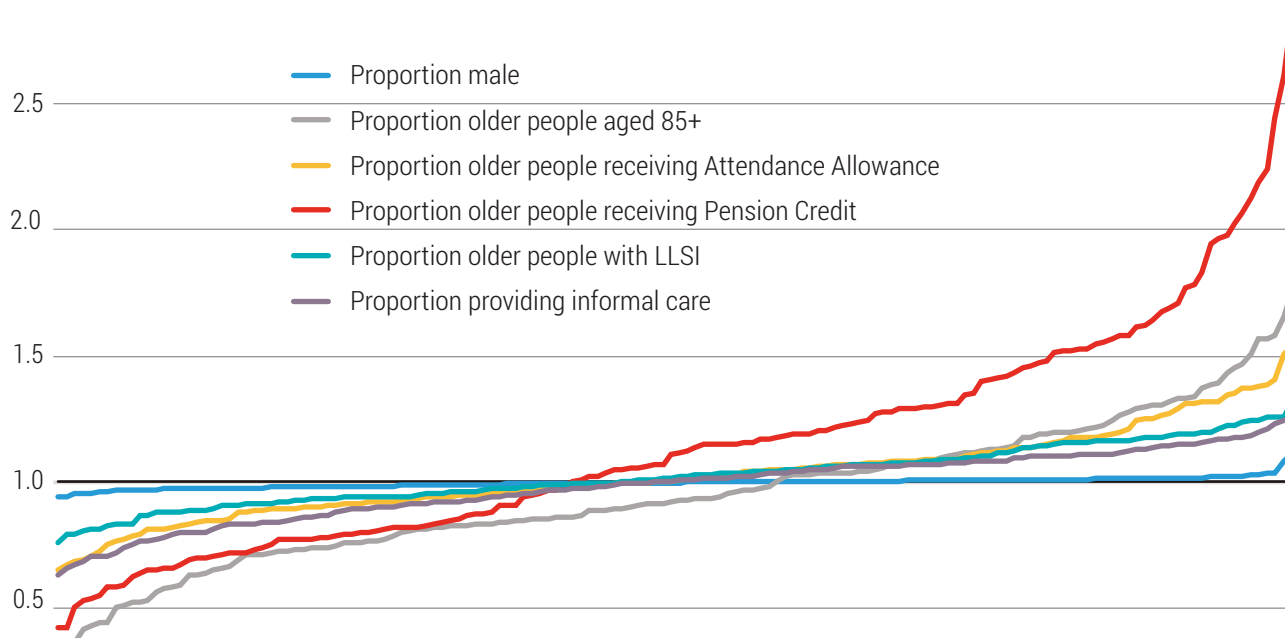
Note: Local authorities are ranked independently for each indicator.

An additional consideration that could be taken into account during the selection of authorities for the main study is the extent to which local authorities' activity has changed in recent years. Figure 6 reports authority-level values of in 2010/11, 2013/14 and 2015/16 for the indicator of net current expenditure (equivalent tables for the other three indicators in the analysis are included in Annex 1). Values of are colour-coded such that cells range from red (negative values, denoting lower-than-expected activity) to green (higher-than-expected activity).

Figure 6 splits authorities into two columns according to the absolute change in D between 2010/11 and 2015/16. The left-hand column shows the 50% of authorities with the smallest change in D (the most consistent deviations) over the period.

Authorities are ordered according to their mean value of D across years, such that authorities with consistently lower-than-expected expenditure (red) are located at the top of the distribution and those with consistently higher-than-expected expenditure (green) at the bottom. The right-hand column shows the 50% of authorities with the highest absolute change in D (the most variable deviations). Authorities in this column are ordered according to the difference in D between time points, whereby those at the top of the distribution move from lower- to higher-than-expected activity, and those at the bottom from higher- to lower-than expected activity. The circles in Figure 6 show how this approach could be used to identify different types of authorities taking both cross-sectional and longitudinal considerations into account.

FIGURE 6: RESIDUAL RELATIVE TO PREDICTED NET CURRENT EXPENDITURE PER CAPITA ON OLDER PEOPLE'S ADULT SOCIAL CARE, SELECTED YEARS

Left panel (Low–low / Mid–mid / High–high)

Authority	2010/11	2013/14	2015/16
Portsmouth	-0.30	-0.33	-0.21
Salford	-0.17	-0.36	0.24
Wigan	-0.27	-0.19	-0.10
Plymouth	-0.26	-0.22	-0.19
York	-0.17	-0.25	-0.22
Bexley	-0.21	-0.26	-0.15
Blackpool	-0.21	-0.13	-0.1?
Wolverhampton	-0.04	-0.30	-0.14
Wirral	-0.07	-0.20	-0.16
Sutton	-0.06	-0.24	-0.11
Sunderland	-0.22	-0.03	-0.15
Cornwall	-0.17	-0.04	-0.17
Windsor & Maidenhead	-0.10	-0.21	-0.04
Hampshire	-0.09	-0.15	-0.11
St Helens	-0.10	-0.11	-0.09
Wokingham	-0.14	-0.04	-0.07
Southampton	-0.16	-0.02	-0.07
North Yorkshire	-0.08	-0.10	-0.05
Barnet	-0.09	-0.12	-0.01
Islington	-0.07	-0.06	-0.08
Leicestershire	-0.08	-0.05	-0.07
Trafford	-0.07	-0.01	-0.11
Cumbria	-0.01	-0.09	-0.08
Halton	-0.09	-0.09	0.01
Bolton	-0.03	-0.06	-0.08
Wakefield	-0.07	-0.09	-0.01
Harrow	-0.07	-0.13	0.03
Northamptonshire	0.01	-0.11	-0.05
Westminster	-0.03	-0.03	-0.07
Telford & Wrekin	-0.09	0.06	-0.09
Swindon	-0.07	-0.01	-0.05
Havering	-0.10	-0.01	0.00
Essex	0.02	-0.05	-0.04
Lincolnshire	0.00	0.00	0.02
Bury	0.09	0.13	0.10
Merton	0.00	-0.03	-0.03
Gloucestershire	-0.09	0.04	0.01
Kirklees	0.00	-0.05	0.02
Hillingdon	0.04	-0.03	-0.04
Ealing	0.08	-0.15	0.06
North Somerset	-0.05	0.08	0.03
Wiltshire	0.02	0.00	0.04
Norfolk	-0.04	-0.09	-0.02
Dorset	0.04	-0.01	0.01
Lancashire	0.03	-0.06	0.08
Sandwell	0.03	0.03	0.01
North Lincolnshire	-0.03	0.12	-0.02
Brighton & Hove	0.04	0.06	0.02
Greenwich	0.07	0.07	-0.01
Poole	0.01	0.04	0.09
South Gloucestershire	0.12	0.01	0.01
Bournemouth	0.11	0.02	0.04
Darlington	0.04	0.12	0.03
Birmingham	0.03	0.11	0.05
Nottinghamshire	0.05	0.15	0.00
Rutland	-0.01	0.13	0.09
Middlesbrough	0.05	0.14	0.02
West Berkshire	0.04	0.09	0.09
Kingston Upon Thames	0.09	0.09	0.05
Bradford	0.15	0.04	0.04
Kingston Upon Hull	-0.05	0.39	-0.08
Barking & Dagenham	0.09	0.17	0.00
Redcar & Cleveland	0.18	-0.01	0.10
Central Bedfordshire	0.07	0.06	0.16
Camden	0.09	0.13	0.08
Herefordshire	0.11	0.15	0.08
Hertfordshire	0.07	0.23	0.10
Rotherham	0.16	0.20	0.11
Derbyshire	0.17	0.21	0.08
Tower Hamlets	0.13	0.24	0.13
Lewisham	0.17	0.22	0.17
Cheshire East	0.23	0.35	0.14
South Tyneside	0.24	0.17	0.11
Richmond Upon Thames	0.27	0.30	0.23

Right panel (High–low / Low–high)

Authority	2010/11	2013/14	2015/16
Hounslow	0.06	-0.06	-0.39
Oldham	0.41	0.00	0.03
Cambridgeshire	0.10	0.08	-0.24
Barnsley	-0.06	-0.17	-0.39
Croydon	-0.03	-0.19	-0.35
Thurrock	0.05	-0.02	-0.24
Bromley	0.04	0.03	-0.2?
North Tyneside	0.04	-0.16	-0.22
Coventry	0.06	-0.10	-0.18
North East Lincolnshire	0.22	-0.04	0.01
Worcestershire	0.12	0.20	-0.08
Leeds	0.08	0.02	-0.13
Staffordshire	0.07	0.02	-0.13
Warrington	0.06	0.11	-0.14
Hackney	0.22	0.15	0.04
East Sussex	0.25	0.04	0.07
Liverpool	-0.02	-0.13	-0.19
Rochdale	0.00	-0.10	-0.17
Manchester	-0.04	0.09	-0.20
Durham	0.11	0.00	-0.04
Newham	0.09	-0.11	-0.07
West Sussex	-0.03	0.19	-0.18
Oxfordshire	0.09	0.01	-0.06
Southwark	-0.03	-0.04	-0.17
Cheshire West & Chester	0.04	-0.26	-0.11
Stockport	0.01	-0.02	-0.14
Wandsworth	0.05	-0.06	-0.09
Lambeth	0.18	0.08	0.04
Northumberland	0.11	0.10	-0.03
Milton Keynes	0.03	0.05	-0.11
Calderdale	0.15	0.04	0.01
Waltham Forest	-0.03	-0.09	-0.17
Devon	-0.04	0.01	-0.17
Suffolk	0.06	0.05	-0.07
Southend-On-Sea	-0.05	-0.21	-0.18
Torbay	0.02	-0.07	-0.09
Medway	-0.11	-0.18	-0.23
Walsall	0.14	0.34	0.03
Kent	-0.06	-0.01	-0.16
Shropshire	-0.14	-0.24	-0.02
Brent	-0.21	-0.28	-0.10
East Riding Of Yorkshire	-0.14	-0.19	-0.02
Hammersmith & Fulham	0.15	0.05	0.27
Stockton-On-Tees	0.03	0.11	0.15
Dudley	-0.11	0.04	0.03
Sefton	-0.06	0.15	0.07
Nottingham	0.02	0.09	0.16
Reading	-0.06	-0.02	0.10
Kensington & Chelsea	-0.23	-0.06	-0.08
Warwickshire	-0.05	0.06	0.11
Gateshead	0.14	-0.16	0.32
Solihull	-0.10	-0.13	0.07
Luton	0.09	0.05	0.27
Enfield	-0.03	0.20	0.15
Sheffield	0.14	0.16	0.34
Haringey	-0.01	0.04	0.19
Newcastle Upon Tyne	-0.08	0.00	0.12
Bracknell Forest	-0.12	-0.05	0.09
Hartlepool	0.02	0.19	0.23
Surrey	-0.07	0.12	0.14
Redbridge	-0.14	-0.18	0.09
Bedford	0.04	0.09	0.27
Slough	0.02	0.12	0.24
Bristol	0.02	0.11	0.25
Blackburn With Darwen	0.12	-0.03	0.36
Peterborough	-0.20	-0.0?	0.05
Bath & N. E. Somerset	0.04	0.06	0.30
Buckinghamshire	-0.06	-0.09	0.1?
Tameside	-0.11	0.02	0.15
Doncaster	-0.06	0.02	0.21
Knowsley	-0.09	0.04	0.18
Leicester	-0.02	0.15	0.29
Somerset	-0.13	-0.09	0.2?
Derby	0.22	-0.03	0.22

Left panel groupings: Low – low; Mid – mid; High – high.
Right panel groupings: High – low; Low – high.

3.4.3 USING LATENT CLASS ANALYSIS TO DERIVE LOCAL TYPOLOGIES

We have used latent class analysis (LCA) to create typologies of authorities which synthesise information regarding local support models from the four social care activity indicators used in the analysis.

LCA is usually applied to identify unobserved groups (in this case of local authorities) based on commonalities across a range of categorical indicators. To achieve this, the values for each of the four indicators were collapsed into terciles – broadly classing authorities as 'lower than expected', 'similar to expected' or 'higher than expected' for each measure[4]. The latent class analysis was therefore conducted using categorical indicators which split local authorities into terciles for the following measures:

Using these indicators , three classes of local authority were derived, each comprising 50 councils (City of London and the Isles of Scilly were excluded because of insufficient sample sizes).

Table 8 summarises, for each of the service measures included in the LCA process, the mean rank within each class (whereby 1 – the minimum rank – denotes the authority with the lowest value relative to predicted and 150 – the maximum rank – the highest relative to predicted). Also shown are the mean differences in rank relative to 2010/11, whereby positive numbers denotes an increase in residual to expected values *relative to other authorities* and negative numbers a decrease.

D^i for net expenditure in year 2015/16

Difference in the ranking of D^i for net expenditure from 2010/11 to 2015/16

D^i for total clients in year 2015/16

Difference in the ranking of D^i for total clients from 2010/11 to 2015/16

D^i for institutional clients in year 2015/16

Difference in the ranking of D^i for institutional clients from 2010/11 to 2015/16

D^i for requests for support in year 2015/16

For the change indicators, we used LA ranks of the indicators rather than the indicators directly in order to address changes in the definition of the data between years.

TABLE 8: MEAN RANK OF RELATIVE TO PREDICTED VALUES FOR SELECTED SERVICE MEASURES (2015/16) AND CHANGE IN RANK FROM 2010/11 TO 2015/16

		Class 1	Class 2	Class 3
Expenditure	Mean rank 2015/16	59	65	101
	Mean change in rank 2010/11 to 2015/16	-4	-14	+18
Clients	Mean rank 2015/16	25	75	125
	Mean change in rank 2010/11 to 2015/16	-36	+1	+41
Residential clients	Mean rank 2015/16	49	77	100
	Mean change in rank 2010/11 to 2015/16	-16	+3	+13
Requests for support	Mean rank 2015/16	25	75	125

[4] Residual relative to predicted values were normally distributed for all measures, such that a residual of zero was closely aligned to the midpoint of the central tercile.

Table 8 and the corresponding histograms in Annex 1 show the composition of classes to reflect important differences across the four indicators of social care activity used in the analysis, but particularly in terms of the indicators of per capita numbers of clients and of numbers of requests for support. Accordingly, it would be possible to interpret the three classes of authorities as:

Class 1: Numbers of clients and requests for support LOWER than expected

Class 2: Numbers of clients and requests for support IN LINE WITH expectations

Class 3: Numbers of clients and requests for support HIGHER than expected

Table 9 shows the distribution of authorities in the three classes across local authority type and ONS family of authority, and Figure 7 depicts their geographical distribution across England. Overall, the evidence suggests that the three types of authorities are fairly well distributed geographically as well as across types of areas.

TABLE 9: CLASS MEMBERSHIP BY LOCAL AUTHORITY TYPE AND ONS FAMILY

		Class 1	Class 2	Class 3
Local authority type	Inner London	3	6	4
	Metropolitan district	15	10	11
	Outer London	5	8	6
	Shire County	12	11	6
	Unitary Authority	15	15	23
ONS family	Centres with Industry	6	7	5
	Coastal and Countryside	2	4	3
	Industrial Hinterlands	4	4	9
	London Centre	2	2	3
	London Cosmopolitan	1	4	2
	London Suburbs	2	5	5
	Manufacturing Towns	6	3	3
	New and Growing Towns	2	3	3
	Prospering Smaller Towns	12	10	9
	Prospering Southern England	5	3	2
	Regional Centres	5	3	5
Thriving London Periphery		3	2	1
Totals		50	50	50

FIGURE 7: MAP OF LOCAL AUTHORITIES BY CLASS MEMBERSHIP
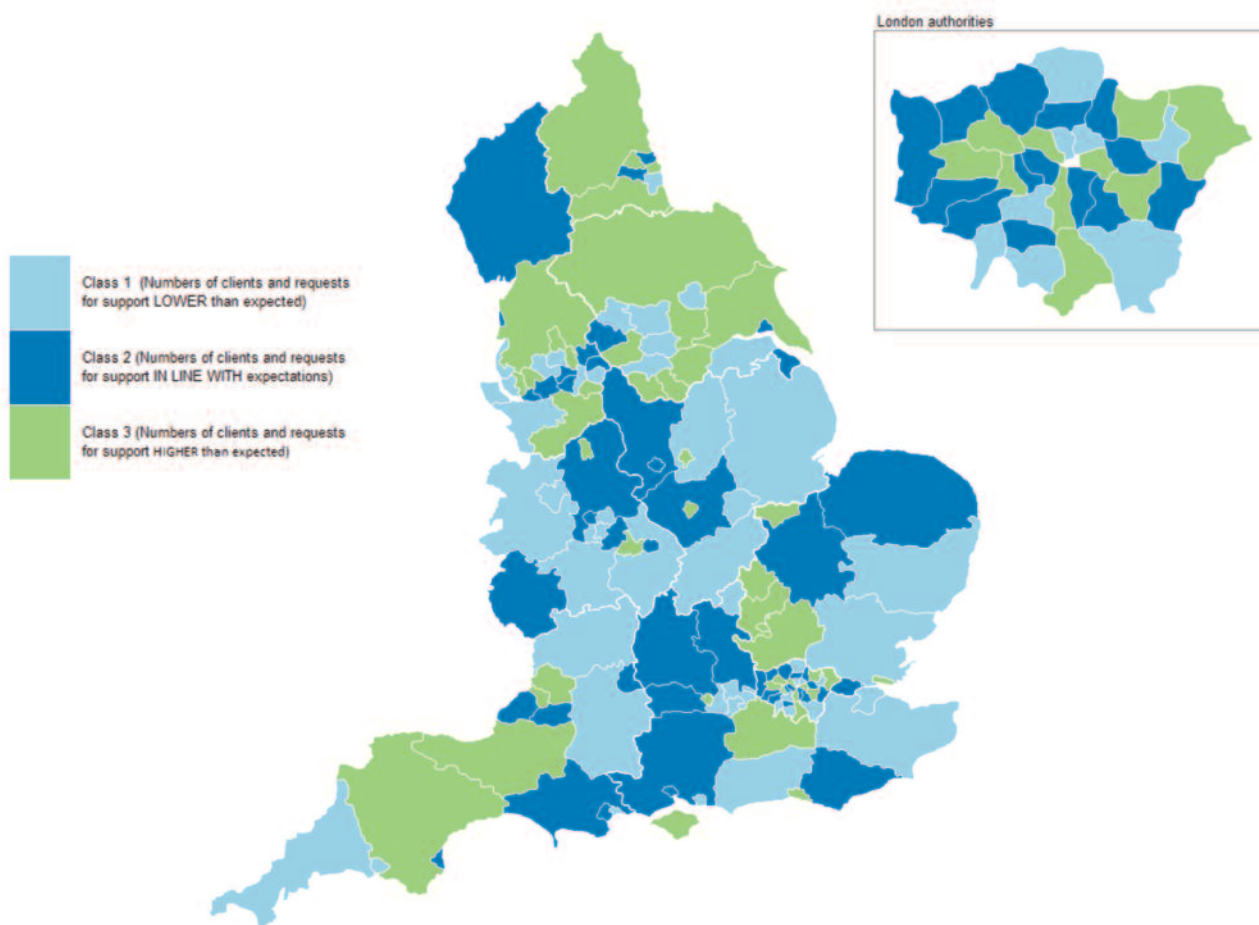
RECOMMENDATIONS: TYPOLOGIES OF CARE MODELS

■ In the absence of a theoretical framework for grouping local authorities in England into care models, a statistical approach could be used to identify typologies of authorities associated with broad care models. These typologies could inform the selection of authorities into the main study.

■ A number of indicators exist for all authorities in England that describe aspects of the coverage and intensity of social care support. These indicators can be used to describe differences in local social care practice. It is important, however, that these indicators are standardised to control for variations simply linked to differences in social care need and service prices.

■ Statistical techniques such as latent class analysis can then be applied to derive typologies of local authorities, which in turn can inform the sampling of authorities into the main study.

■ Given the lack of indicators of social care support looking specifically at people with low/moderate needs, the analysis of LA typologies using the approach outlined above should be complemented with further evidence about local care practice from local document/policies and direct discussions with staff from the local authorities.

4 SURVEY CONTENT

The previous section reviews key indicators which would need to be collected in the main study in order to evaluate the costs and benefits of different support models for people with low/moderate social care needs. The review covers indicators of need, services and outcomes for service users and outcomes. The discussion below is based on a review of key evaluations that have investigated similar groups of users to the proposed main study. Where relevant we have also included reflections on the suitability of different indicators provided by interviewees from local authorities.

4.1 RAPID REVIEW OF SOCIAL CARE EVALUATIONS AND FRAILTY LITERATURE

We conducted a rapid review of evaluations of the impact of social care services on individuals and carers using combinations of the following search terms: evaluation; social care; unmet need; low need; moderate need; long interval need; prevention; older people; eligibility; community care; little bit of help; low level support; informal care, unpaid care, care assessment, specific interventions (e.g. adaptations, reablement, information and advice, social isolation, falls). Additional searches were conducted at later stages to explore indicators of independence/ability to cope using the following search terms: independence, strength-based, asset-based approaches, house of care model, coping indicators, capability measurement, capacity building. Literature and evaluations around local area coordinators and capacity building were also explored.

The search sites used in the review included: Google Scholar, Google, ADASS, LGA, Age UK, Carers UK, Think Local Act Personal. The literature thus identified was complemented with researchers' professional knowledge of existing literature. A template was used to extract relevant data on study design, indicators of needs outcomes, services and costs, and methods of analyses. Overall, 13 relevant evaluation studies were explored using the template.

For the review of the frailty literature, Google scholar and PubMed were initially searched, followed by hand-searches of publications identified in the first place. Key words included: risk factors in frailty, frailty in older adults, risk factors for falls in the elderly/older adults, risk factors in functional status, risk factors for physical decline. Reviews of studies were searched for in the first instance, as they encompass and summarise evidence from a number of studies. Individual studies were searched for and added to the review to complement any findings from reviews. Twenty-seven papers, both reviews and individual studies on the topic were included in the final rapid review presented here.

4.2 KEY NEED-RELATED CHARACTERISTICS OF THE MAIN STUDY POPULATION

We approached the question of how best to measure low/moderate needs from a number of angles.

1. We reviewed the academic literature to understand how evaluations and research studies in England of community-based social care had conceptualised and measured social care need, and in particular we looked for evidence about how well these measures distinguished and identified care and support needs among people with low/moderate needs.

2. We reviewed the concept of frailty, given its relevance to the main study population, how this has been measured and its value for identifying low/moderate care needs.

3. examined the literature around falls, focusing particularly on risk factors for falls, given the importance of falls as a risk factor for entry into the social care system.

4. We reviewed local authority assessment forms to identify indicators used by social work professionals to assess and identify care and support needs.

Each of these reviews are discussed in turn below. We conclude this section with some recommendations for the measurement of low/moderate needs for the main study.

4.2.1 GENERAL INDICATORS OF NEED FOR CARE AND SUPPORT

Overall, evaluations and research studies of social care users tended to measure need in terms of functional ability, usually capturing functional ability in relation to specific Activities of Daily Living (ADLs, such as getting dressed, in/out of a chair, washing, eating and walking) and Instrumental Activities of Daily Living (IADLs, such as ability to manage finances, shopping and housekeeping) (Kennedy, 2001; Caiels *et al.*, 2010; Vlachantoni *et al.*, 2011, 2015; Thompson *et al.*, 2014; Dunatchik *et al.*, 2016; NatCen Social Research and Ipsos MORI, 2017).

Studies used different ways of measuring functional ability. Most studies used direct measures of problems with ADLs and IADLs (e.g. Katz ADLs, Townsend, Barthel). Some studies estimated dependency using Isaacs and Neville's interval measures, which measure the frequency and predictability of episodes of assistance with activities of daily living (Isaacs and Neville, 1975). The authors argue that this measure provides greater insight into the level of care needs than a count of limitations with (I)ADLs. The interval measure produces a tripartite scoring of dependency: low dependency (care less than daily), medium dependency (care at set times daily), high dependency (24-hour care) (Kingston *et al.*, 2017).

Measures of functional ability are good indicators of receipt of formal social care and informal support and the intensity of that support (Wittenberg and Hu, 2015). Vlachantoni *et al.* (2015) found that the number of ADLs and IADLs a person had difficulty with were the strongest predictors of receiving state supported social care and among people who had difficulty with four to six ADLs, the odds of receiving state support were three times the odds among people experiencing no such difficulty.

It is also the case that measures of functional ability can be used to differentiate types of care received. For example, studies have found that people who received state help were more likely to report difficulties with ADLs, whereas individuals with IADLs difficulties were more likely to receive privately paid help than those with ADLs (NatCen Social Research and Ipsos MORI, 2017; Vlachantoni *et al.*, 2011).

It was noted in the literature that reliance on ADL and IADLs for identifying care needs may exclude people who have needs for support around, for example, social interaction (NatCen Social Research and Ipsos MORI, 2017; see also West Sussex LINk, 2012). Interviews with local authority staff confirmed that needs for social interaction are important for older people

who do not receive statutory services and that therefore this is an important additional aspect of need to measure among people with low/moderate needs. Other indicators may be useful, and studies of social care users have also included questions designed to measure needs around safety and occupation. Additionally, research has indicated the value of measuring living arrangements for predicting needs for care and support — being single was more strongly associated with receiving state support than being married or widowed (Vlachantoni et al., 2015).

RECOMMENDATIONS: INDICATORS OF GENERAL NEED

■ In the absence of a theoretical framework for grouping local authorities in England into care models, a statistical approach could be used to identify typologies of authorities associated with broad care models. These typologies could inform the selection of authorities into the main study.

■ A number of indicators exist for all authorities in England that describe aspects of the coverage and intensity of social care support. These indicators can be used to describe differences in local social care practice. It is important, however, that these indicators are standardised to control for variations simply linked to differences in social care need and service prices.

■ Statistical techniques such as latent class analysis can then be applied to derive typologies of local authorities, which in turn can inform the sampling of authorities into the main study.

■ Given the lack of indicators of social care support looking specifically at people with low/moderate needs, the analysis of LA typologies using the approach outlined above should be complemented with further evidence about local care practice from local document/policies and direct discussions with staff from the local authorities.

4.2.2 THE CONCEPT OF FRAILTY AND ITS MEASUREMENT

Frailty is considered highly prevalent among the older population and is likely to be a key factor leading individuals to initiate a contact with their local council. It is therefore an important concept to measure in the main study. Below we provide a brief overview of the different frailty indicators which could be employed in a future study.

A recent study confirmed considerable differences in understandings of the concept of frailty among social care practitioners. For example, some practitioners consider dementia as 'mental frailty'. Conversely, the term 'frail' did not appear to be associated by social care professionals with alerts of risk of physical decline, which could have implications for assessment processes (Stevens et al., 2010; Manthorpe et al., 2018).

Although definitions of frailty are contested, overall the concept relates to fluctuated function with minor environmental disturbances (e.g. physical and psychosocial stresses), and risk of loss, or further loss, of function. A frail person is at a higher risk of compromised function from minor environmental changes, and therefore, disability and death (Ambrose, Paul and Hausdorff, 2013). As the interaction between the individual and the environment is vital to frailty, four essential components of frailty were suggested (Campbell and Buchner, 1997), for which measures were developed accordingly (Table 10).

One of the most validated frailty models (Alexandre et al., 2016) defined frailty as "biologic syndrome of decreased reserve and resistance to stressors, resulting from cumulative declines across multiple systems, causing vulnerability to adverse outcomes" (Espinoza and Fried, 2007). The model was cross-validated in a longitudinal study of older women (Bandeen-Roche et al., 2006) and by Woods et al. (2005), in which the definition was shown as strongly predictive of ADLs disability, hospitalisation/ nursing home entry and death.

TABLE 10: MEASURES OF THE COMPONENTS OF FRAILTY

Component	Measurement
Musculoskeletal function	Grip strength Chair stand (Guralnik *et al.*, 1994)
Aerobic capacity	Sub-maximal treadmill 6 min walk (Guyatt *et al.*, 1985)
Cognitive and integrative neurological function	Mini-Mental State Examination (Folstein, Folstein and McHugh, 1975) Static balance test (Guralnik *et al.*, 1994)
Nutritional reserve	Body mass index Arm muscle area (Campbell *et al.*, 1990)

Source: Campbell and Buchner (1997).

Another common measure is the frailty index developed by Rockwood et al (2005). Rockwood *et al.* (2007) compared this phenotype-based definition to another common definition of frailty, based on a frailty index (FI) score. Operationally, in this model individuals are identified as being frail if they meet more than two of the following criteria (Fried *et al.*, 2001; Xue, 2011):

- Unintentional weight loss (no less than 10 lbs or 5% of body weight in past year)
- Self-reported exhaustion
- Weakness (abnormal grip strength)
- Slow walking speed (TUG − Time Up and Go test >19 s)
- Low physical activity (unable to walk or needs help to walk)

Instead of setting a single threshold for frailty identification, a proxy measure of frailty (FI) has been proposed defined around health status, and based on the count of accumulated deficiencies such as symptoms and clinical impairments (Mitnitski, Mogilner and Rockwood, 2001). The two measures above have been found to correlate moderately well with each other (and with measures of function) (Rockwood, Andrew and Mitnitski, 2007).

De Vries *et al.* (2011) focused on the physical, psychological and social domains of frailty considering the following factors, which were assessed with frailty instruments: Nutritional status, Physical activity, Mobility, Energy, Strength, Cognition, Mood, Social relations / social support. By scoring the eight frailty factors in three dimensions as listed above, De Vries et al assessed twenty frailty instruments including the frailty phenotype (Fried *et al.*, 2001) and FI (Rockwood, Andrew and Mitnitski, 2007; De Vries *et al.*, 2011). Clinical Global Impression of Change in Physical Frailty (CGIC-PF) included all factors except for the cognition component (Studenski *et al.*, 2004). This instrument involves clinical judgement on 13 items (mobility, strength, social status, ADL, emotional status, perceived health, neuromotor, stamina, nutrition, balance, medical complexity, healthcare utilization, appearance) in multiple dimensions (De Vries *et al.*, 2011).

There are several risk factors for functional decline in older people apart from ageing, e.g. obesity, alcohol consumption, social isolation, low physical activity (Stuck *et al.*, 1999). It has been shown that incidence and determinants of the components of frailty are different between genders in older adults. For example, unintentional weight loss and slowness were the biggest causes of frailty development for men up to 74 years old; however, for women of all age groups, exhaustion and low activity were the most important factors (Alexandre *et al.*, 2016).

Stuck *et al.* (1999) compiled 14 domains of risk factors for frailty and stratified them by strength of evidence. Table 11 illustrates

specific risk factors – those associated with highest evidentiary strength are highlighted in bold. The risk factors are believed not to be independent, but interactive. For example, compared to single hearing or visual impairment, multi-sensory impairment could result in a larger impact on people's functional status in their later life (Stuck *et al.*, 1999). Falls were not identified as a significant risk factors for frailty by Stuck *et al.* (1999), other studies showed that only a history of frequent falls, rather than a single fall, was predictive of physical decline (Dunn *et al.*, 1992; Wolinsky, Johnson and Fitzgerald, 1992).

TABLE 11: DOMAINS OF RISK FACTORS FOR FRAILTY

Domain	Specific definitions
Affect	Anxiety
	Depression)
Alcohol	Heavy alcohol consumption (compared to moderate consumption)
	No alcohol consumption (compared to moderate consumption)
Cognitive	Cognitive impairment
Falls	Falls
Functional limitation	Decline in function (observed and self-reported) *lower extremity functional limitation
	Reduced observed lower extremity performance
	Reduced observed upper extremity performance
	Poor self-reported lower extremity function
	Poor self-reported upper extremity function
Hearing	Decline in hearing function
	Reduced measured hearing
	Poor self-reported hearing
Medication	High medication use
Nutrition	High body mass index
	Low body mass index
	Weight loss
Physical activity	Low physical activity
Self-rated health	Poor self-rated health
Smoking	Smoking
Social	Low level of social activity
	Low frequency of social contact
	Low level of social support
Vision	Decline in visual function
	Reduced measured visual acuity
	Poor self-reported vision

Source: Campbell and Buchner (1997)

4.2.3   RISK FACTORS ASSOCIATED WITH FALLS

As noted above, history of falls can be predictive of frailty and physical decline among the older population. Overall, the academic literature highlighted that falls were characterised by multiple risk factors, and that both person-specific (intrinsic) and environmental (extrinsic) factors played a significant role, with the risk of falling increasing with the number of risk factors present and with age (Ambrose, Paul and Hausdorff, 2013). The risk factors are summarised in Table 12.

TABLE 12: RISK FACTORS FOR FALLS AMONG OLDER PEOPLE

Risk factor	Evidence
Demographic factors	Age, gender and race are all identified as relevant to the risk of falling (Xue, 2011; Ambrose, Paul and Hausdorff, 2013; Pfortmueller, Lindner and Exadaktylos, 2014).
	The likelihood of falling increases with age due to physical decline and pathological changes. US data shows that the rate of fall-related injuries for adults aged 85 and over was almost four times that for adults aged 65–74 (Iinattiniemi, Jokelainen and Luukinen, 2009; Prevention, 2010).
	In addition, men (relative to women) and white women (relative to other groups) had higher fatal injuries (Ambrose, Paul and Hausdorff, 2013).
Physical weakness: gait balance, muscle weakness	Physical weakness has been recognised as one of the most consistent, clinically important and strongest risk factors for falls in older people (Rubenstein, 2006; Xue, 2011; Ambrose, Paul and Hausdorff, 2013). It is usually characterised with, but not limited to, gait/balance disorders and lower extremity/muscle weakness.
	The presence of neurological gait abnormalities in older people, particularly unsteady and/or neuropathic gait, is a significant predictor of the risk of falls (Ambrose, Paul and Hausdorff, 2013).
Cognitive deficits	Cognitive deficits, namely confusion, dizziness and depression, have also been widely recognised as a risk factor for falls (Stuck *et al.*, 1999; Rubenstein, 2006; Xue, 2011; Ambrose, Paul and Hausdorff, 2013; Pfortmueller, Lindner and Exadaktylos, 2014). These symptoms can reflect diverse and often chronic clinical conditions such as dementia, cardiovascular disorders and certain medications and/or their side effects.

TABLE 12 (CONTINUED): RISK FACTORS FOR FALLS AMONG OLDER PEOPLE

Risk factor	Evidence
Clinical conditions	Multimorbidity, hypertension and COPD may be considered as particular warning signs for increased risk of falls (Pfortmueller, Lindner and Exadaktylos, 2014).
	Additional risk factors include vision deficits, postural hypotension and vitamin D deficiency (Rubenstein, 2006; Ambrose, Paul and Hausdorff, 2013; Pfortmueller, Lindner and Exadaktylos, 2014).
History of falls, and walking devices	Prior history of falls is a further risk factor as is use of a walking aid or assistive device (Rubenstein, 2006; Ambrose, Paul and Hausdorff, 2013; Pfortmueller, Lindner and Exadaktylos, 2014).
Environmental falls hazards	Environmental fall hazards include house hazards such as poor fitting footwear, slippery floor or loose rugs, tripping hazards, lack of stair railings or grab bars, unstable furniture, obstructed walkways and inadequate lighting.
	Shoes with heels higher than 2.5cm were associated with a higher risk of falling compared to canvas shoes with an odds ratio of 1.9 (Ambrose, Paul and Hausdorff, 2013).

RECOMMENDATIONS: RISK FACTORS FOR FALLS

■ There is overlap between risk factors for falls and frailty.

■ Key need indicators include those related to physical weakness, cognitive deficits, clinical conditions and previous history of falls. This supports the value in including a measure of frailty in the main study.

■ The importance of environmental hazards as risk factors for falls is notable and given the relationship between the environment and functional ability, it seems important for the main study to consider measuring this aspect.

4.2.4   ASSESSMENT OF CARE AND SUPPORT NEEDS BY SOCIAL WORK PROFESSIONALS

In general, local authorities use standardised forms to assess the care and support needs and to identify desired outcomes of people approaching social care departments for support. We reviewed single assessment process (SAP) forms and assessment forms that were made available to us, including online self-assessment forms, first contact/initial assessment forms received from interviewees, and the full social care eligibility assessment forms, to explore the indicators that local authorities used to assess care and support needs. This review has two purposes: (i) it provides some indication of data collected by local authorities' on low/moderate care and support needs, which could be used as a source of data for the main study; and (ii) it

provides further insight into the types of indicators that are relevant for identifying low/moderate care and support needs.

Table 13 summarises the range of areas of needs included across the assessment forms reviewed for this scoping study. Overall, the need information covered in various forms across sampled councils varied considerably. Recent full eligibility assessment forms as well as some online and first contact assessment forms closely reflected dimensions of outcomes included in the national eligibility criteria. For example, one sampled council in their first contact assessment form included questions on: ability to carry out activities of daily living such as washing/dressing; shopping; meals; housework; laundry. The

form also included questions on medical history, ability to self-medicate, property characteristics (e.g. bungalow, stairs, bathroom upstairs/downstairs), walking aids used, transfers (bed, chair, toilet), sensory impairments, and other services involved in their care (e.g. district nurse, falls team etc). Other initial assessment forms incorporated questions on ability to carry out everyday tasks, mobility, nutrition, health conditions, medication, sensory (particularly vision and hearing) and history of falls.

Initial assessment forms tended to cover a subsection of outcomes based on social care eligibility regulations. Questions around personal care, nutrition and being able to use the adult's home safely (mobility, access questions) were more prevalent in the first assessment process relative to these regarding, for example, maintenance of personal relationships or making use of necessary facilities in the community.

Table 13 suggests that in some councils at least, the assessment process involves the collection of many of the relevant indicators of need for the main study. However, differences in the assessment tools means that these data would be difficult to aggregate across areas in the study.

TABLE 13: AREAS OF NEEDS COVERED IN ASSESSMENT FORMS

Domain of need/life	Indicators collected
Everyday tasks	Food preparation, cooking Finances (e.g. managing/paying bills; social benefits uptake) Shopping Care of home/housework/laundry
Personal care	Dressing Bathing and showering Personal hygiene (washing, shaving, hair washing) Dental and oral hygiene Eating and drinking, swallowing
Falls risk assessment	A history of any fall in the previous year Four or more medications per day A diagnosis of stroke or Parkinson's Disease Problems with balance? Gait problems Ability to rise from a chair of knee height Low blood pressure If risks identified in following areas: alcohol, vision, hearing, mobility, environmental hazards
Mobility	From independent (with equipment) to full time wheelchair user Transfers (bed, chair, toilet) Moving items around the house Use of stairs Access to property (get in and out of property) Mobility outside of house (e.g. getting into/out of car, short/long walks
Home environment/ living conditions	Overall accommodation (e.g. appropriate, unsuitable) Poor lighting Inappropriate floor surface i.e., thick carpet with hoist Restricted space/obstacles/access difficult Bed or chair either too high or too low Cold, hot or humid conditions, heating, water, gas, electricity Safety and risk (anything in your home that you worry about)

TABLE 13 (CONTINUED): AREAS OF NEEDS COVERED IN ASSESSMENT FORMS

Domain of need/life	Indicators collected
Activities and access to amenities/ contribution to society	Use of community facilities/travelling to them Shopping Cultural and spiritual needs
Senses	Hearing Communication (including English skills on a form in a LA with high ethnic diversity). Sight
Physical wellbeing	Breathing Pain Medication (collecting and taking/medication risk assessment) Allergies Sleep pattern Foot care (needs prompting/assistance etc). Continence Skin care (e.g. skin conditions/wounds) Seizures/epilepsy Oral/gum problems
Health	Smoking Drinking Drugs (illicit) Exercise Blood pressure Flu inoculation Cancer screening Nutrition screening (weight loss/gain etc) Multiple conditions Brain injury Other health conditions
Mental health and emotional wellbeing	Behaviour (e.g. agitated, resistive to intervention) Memory/cognition Decision making/insight (on some forms this is part of "control over daily life")- making decisions independently Mood Motivation Psychotic symptoms Loneliness /risk of isolation Maintaining and/or developing family and other personal relationships (e.g. I am able/unable to maintain/develop family/other relationships with/without assistance etc) Accessing and engaging in work, education, training and recreation (forms based on national eligibility criteria): Skills, hobbies, interests, voluntary or paid work.

4.3   SERVICE INDICATORS

In general, evaluations of social care interventions in the community have tended to capture information about unpaid care and receipt of 'standard' social care services, including (but not limited to) home care/home help/personal assistant, voluntary worker, reablement/intermediate care team, hospital services, nurse care, physiotherapist, cleaner, and handyman (Vlachantoni *et al.*, 2011; Dunatchik *et al.*, 2016). Where these studies are based on the analysis of national surveys (notably the Health Survey for England and the English Longitudinal Study of Ageing) the social care data is often collected using the social care questions for over 65s module (King *et al.*, 2011). This module has also been used to evaluate social care initiatives (Forder *et al.*, 2016).

A particular characteristic of the social care questions module is the fact that in it receipt of care and support is linked to functional need, and as a result the data collected clearly identifies who provides support for which functional limitations. Certain types of support are more difficult to capture using this approach, and for instance community-based support (e.g. day centres), social work and use of equipment are collected through a separate set of questions, i.e., use of these services is not linked to a particular functional limitation or other needs. These areas can

be important forms of support for the target population of the main study. The literature has identified the following prevalence levels for adaptations and mobility aids among people aged 50 plus (Dunatchik *et al.*, 2016):

- Common home adaptations: e.g. bath or shower seat (~10–13%); alarm that can call for help (~7–12%); stair lift (~5%); toilet equipment or commode (~6–7%); bed lever or bed rail (~3–4%).

- Common mobility aid use: e.g. cane or walking stick (~22–24%); zimmer frame or walker (~5–6%); manual wheelchair (~4%).

Evaluations of care and support for people with low/moderate needs have also sought to collect more detailed data on the nature of services provided to this group:

- For help-at-home schemes, Bauer et al (2017) collected hours provided by staff and volunteers and number of people using the scheme.

- For evaluation of low level services, focusing primarily on day centres, Caiels et al. (2010) captured information about activities in day care centres, such as nail cutting, hairdressing, lunch, activities (such as dancing, cards, bingo), bathing and cooking lessons. They also collected intensity of use and frequency of visits.

- Glendinning et al (2010) in their evaluation of re-ablement services, captured the use of re-ablement and other social care services, including the frequency and intensity of each service received.

An important challenge in terms of the identification of the support used by people in the community is how to account for support through direct payments. Although it is relatively straightforward to quantify the value of the direct payment received, it is often difficult to identify precisely the nature of the support commissioned, and there is a risk of biases in the quantification of the support received if the value of the direct payment is counted in addition to that of services commissioned through it.

We found few studies that included costs and assessed cost-effectiveness. Where studies attempted to cost provision they tended to focus on the overall cost of the service being studied or the total cost of the care package (Bauer *et al.* 2017; Caiels *et al.*, 2010; Glendinning *et al.*, 2010; Windle *et al.*, 2009).

RECOMMENDATIONS: INDICATORS OF SERVICES

■ Standardised sets of questions for capturing the amount and nature social care provision for older people are available; however, these question sets capture the most common types of services and especially those provided as part of ongoing care packages for people who meet social care needs eligibility criteria. These question sets could form the basis of a module for capturing data on services and unmet needs in the main study, but they would need to be complemented to ensure all services relevant to people with low/moderate needs were captured.

■ Specifically, it would be important for the main study to capture additional services such as (hours of) reablement, equipment, telecare (e.g. alarms) and some minor adaptations provided. Batteries of questions exist to capture some of the more common low-level services including (hours of and frequency of use) of day centre provision.

■ The current questions available to capture support from the voluntary sector are unlikely to be adequate. We did not find any standard questions for measuring provision of information, advice and signposting services. The main study will need to develop and test questions to capture information, advice and signposting inputs and the nature of intensity of more innovative forms of support from the voluntary sector.

4.4 OUTCOME INDICATORS

We have reviewed social care evaluations and research studies in order to provide an overview of the types of indicators considered in previous research with similar populations and the likely periods over which it would be appropriate to explore the impact of care interventions. The intention has been to inform (i) the selection of outcome indicators for the main study, (ii) the timing of outcome measurement and (iii) the power calculations, discussed in Section 5.1. Since we expect the main study to explore both outcomes for older people and carers we separate the discussion below for the two groups.

4.4.1 OUTCOMES FOR OLDER PEOPLE WITH LOW/MODERATE NEEDS

Local authority interviewees highlighted the importance of collecting wellbeing and quality of life measures to evaluate the impact of services on older people. We consider here the relative benefits of quality of life measures that have been validated for use with older people and used among populations with low/moderate needs. Given the concern around the potential for unmet needs among the population of people with low/moderate needs we also look here at wellbeing indicators that have been used to explore the consequences of unmet needs.

A popular measure of outcomes where people are in receipt of social care and support services is the Adult Social Care Outcomes Toolkit (ASCOT), a multi-attribute utility measure with a number of versions for use in different settings and with different user groups (Netten *et al.*, 2012). This measure has been recommended for use in economic evaluations of social care interventions by the National Institute for Health and Care Excellence (2014) and a number of studies have validated and recommended its use among community-dwelling older people (Malley *et al.*, 2012; Roalfe *et al.*, 2012; Makai *et al.*, 2014; Bulamu, Kaambwa and Ratcliffe, 2015; Hackert, Exel and Brouwer, 2017). ASCOT has also been used in a number of social care evaluations to measure impact of social care services on people's quality of life (Glendinning *et al.*, 2008; Forder *et al.*, 2016).

Importantly, ASCOT has been used in a research study evaluating the outcomes of low-level services (Caiels *et al.*, 2010). Alongside ASCOT[5], the study collected two alternative well-being measures: the EQ-5D-3L[6], which is a measure of health-related quality of life that is frequently used to measure health benefits from interventions in QALYs, and the GHQ 12[7], a measure of psychological wellbeing.

Although the analysis showed that the EQ-5D-3L and GHQ12 are sensitive to the effects of low-level services, overall ASCOT was a more sensitive measure for this population consistently measuring greater degrees of impact from low-level services on well-being than the EQ-5D-3L (Caiels *et al.*, 2010).

The effectiveness of reablement was found to be stronger when measured by EQ-5D compared with using ASCOT (Glendinning *et al.*, 2010).

Another quality of life measure that has been validated for use with community-dwelling older people is the ICECAP-O (Grewal *et al.*, 2006; Coast *et al.*, 2008; Kaambwa *et al.*, 2008; Makai *et al.*, 2014; Bulamu, Kaambwa and Ratcliffe, 2015; Hackert, Exel and Brouwer, 2017). ICECAP-O is a capability-based instrument that defines wellbeing in terms of an individuals' ability to 'do' and to 'be' the things that are important for a person. A set of index values are available making the measure suitable for use in economic evaluation. ICECAP-O has been used in studies to assess the quality of life of older people (Flynn *et al.*, 2011; Davis *et al.*, 2013).

Of particular relevance to this study, the ICECAP-O was used by Davies et al (2013) in a Falls Prevention Clinical Setting for older people in Canada. Davis et al (2013) compared ICECAP-O[8] and the EQ-5D and concluded that both indicators provide complementary (rather than substitute) information in this setting. The mean (SD) age of the studied cohort was 79.3 (6.2) years (n=215). Most individuals were at moderate risk for falling as indicated by a PPA score of 1.7 (±1.2).

Few studies have so far directly evaluated the impact of unmet need on older people's wellbeing. The existing studies have used data from national surveys and have therefore used the quality of life measures collected in these surveys. A NatCen *et al.*

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[5] The ASCOT measure in the particular study included nine domains. An overall score was calculated by adding up the ratings in the nine domains with each level weighted for relative importance.

[6] EQ-5D-3L domains are: mobility; self-care, usual activities (such as work, study, housework, family or leisure activities), pain or discomfort, anxiety or depression. Each domain has three levels ranging from no problems to extreme problems.

[7] The GHQ includes 12 questions: (1) been able to concentrate on whatever you're doing? (2) lost much sleep over worry? (3) felt you were playing a useful part in things? (4) felt capable of making decisions about things? (5) felt constantly under strain? (6) felt you couldn't overcome your difficulties? (7) been able to enjoy your normal day-to-day activities? (8) been able to face up to your problems? (9) been feeling unhappy and depressed? (10) been losing confidence in yourself? (11) been thinking of yourself as a worthless person? (12) been feeling reasonably happy, all things considered? The health survey also asks people, on a yes-no scale, "Are you basically satisfied with your life?" and "Do you feel happy most of the time?".

[8] ICECAP-O is a measure of capability, specifically developed for the older population for use in economic evaluation. It focusses on capability rather than functioning in the five domains of stability, attachment, achievement, autonomy and enjoyment. For each attribute, people are asked to rate their experience on a four-point scale from no capability to full capability.

TABLE 14: WELL-BEING MEASURES, ELSA W6 AND HSE 2011–2013, ADULTS AGED 65 AND OVER

Well-being measures	Mean	Standard deviation	Minimum	Maximum
CASP-15 (ELSA)	47.80	8.14	2	60
WEMWBS (HSE)	52.39	8.74	14	70

Source: (Dunatchik et al., 2016).

study (2017) employed the CASP-15[9] to evaluate the impact of unmet need on service users' well-being. The measure was combined with the Warwick-Edinburgh Mental Well-being Scale (WEMWBS)[10]. The distribution of well-being was similar across the two datasets using the different measures, poor well-being was defined as having a well-being score that was at least 1 standard deviation below the mean well-being score for older people without any care needs.

The analysis based on CASP-15 also showed that the way in which well-being changed over a ten-year period was determined more by ageing, financial situation and the extent of care needs and not by unmet needs (Dunatchik et al., 2016; NatCen Social Research and Ipsos MORI, 2017).

Many of the studies discussed here also used a range of other measures as secondary outcomes indicators, including:

• Perceived quality of life (a seven-point scale). Categories ranging from 'so good, it could not be better' to 'so bad, it could not be worse'. A higher score indicates better perceived quality of life (Caiels et al., 2010; Glendinning et al., 2010; Forder et al., 2012)

• A single (global) self-perceived health measure using a five-point scale from 'very good' to 'very bad' (Bowling, Grundy and Farquhar, 1997; Caiels et al., 2010; Glendinning et al., 2010).

• Subjective well being scale based on the measure used by ONS in the Integrated Household Survey (IHS). The measure consists of five questions[11] using an eleven-point scale ranging from zero to ten (Forder et al. 2012).

Given the relatively low needs of the participants in the main study (who theoretically would not meet the national social care minimum eligibility criteria), it would be important for the main study to consider including indicators of the extent to which individuals feel in control of their health problems and associated social care needs.

The COPE is a widely used multidimensional self-report checklist to measure different ways in which individuals cope with stressful situations (coping strategies). It has been used in health care research evaluating coping strategies of individuals with cancer, dealing with pain, heart conditions, injuries, psychological stress and many others (Monzani et al., 2015). The items measured focus on different aspects of coping, including conceptually different aspects of problem-focused coping (active coping, planning, suppression of competing activities, restraint coping, seeking of instrumental social support); aspects of emotion-focused coping (seeking of emotional

[9] CASP-15 is a subjective quality of life measure specifically developed for older people measuring control, autonomy, pleasure and self-realisation.

[10] The Warwick-Edinburgh Mental Well-being scale was developed to enable the monitoring of mental wellbeing in the general population. WEMWBS is either a 7 or 14 item scale with five response categories (from 'none of the time' to 'all of the time') which overall measure 'feeling good and functioning well' aspects of wellbeing. The specific items include e.g. I've been feeling optimistic about the future' or 'I've been feeling cheerful'.

[11] The questions include: Overall, how satisfied are you with your life? Overall, how happy did you feel yesterday? Overall, how worried did you feel yesterday? Overall, how satisfied are you with your health? Overall, how worried are you about your health?

social support, positive reinterpretation, acceptance, denial, turning to religion); as well as measuring coping responses that may be less useful (focus on and venting of emotions, behavioural disengagement, mental disengagement)[12] (Donoghue, 2004).

Patient activation measures (PAM) is a scale of patient activation based on their responses to questions about knowledge, beliefs, confidence and self-efficacy to managing their own health and care. The resulting score places a patient at one of four levels of activation:

1. Disengaged and overwhelmed;

2. Becoming aware, but still struggling;

3. Taking action;

4. Maintaining behaviours and pushing further.

PAM is commonly used as a tailoring tool

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[12] The COPE items are scored on a four-point scale, with scores ranging from 1 (I don't do this at all) to 4 (I do this a great deal) for the situational form, and from 1 (I usually don't do this at all) to 4 (I usually do this a great dea)l for the dispositional form. Items are summed to produce scale scores, with higher scores reflecting greater use of a particular coping strategy.

at individual patient level in health care settings[13], as a means of ensuring patients are receiving the most appropriate types of support for their level of activation although the potential for PAM to be used as a combination of both an outcome measure and a tailoring tool within the same service or intervention appears to be growing (Armstrong *et al.*, 2017). Research suggests that improvements in patient activation levels are associated with better self-management and lower use of healthcare services (Kinney *et al.*, 2015).

Finally, it would be important for the main study to collect evidence regarding loneliness, which has been found to affect significant wellbeing and physical and mental health of dependent older people (Luanaigh and Lawlor, 2008; Golden *et al.*, 2009; Theeke and Mallow, 2013). Although there is significant controversy surrounding how best to measure loneliness among older people, a commonly used measure is the UCLA loneliness scale (Russell, Peplau and Cutrona, 1980).

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[13] PAM has been mostly used in the USA for patients with long-term conditions, recently the tool has been validated for use in the UK and piloted by the NHS.

4.4.2   CARERS

There are few validated measures that capture carers' wellbeing and those that are available are relatively new. Historically, measures for carers have tended to focus on the more negative aspects of caring, for example indicators of caregiver burden (Kosberg and Cairl, 1986; Molyneuxa *et al.*, 2008). These types of measures have been used previously in evaluations of community care services for older people (Davies, Fernández and Nomer, 2000). Since caregiving (and indeed services) can have positive impacts, it is arguably more appropriate to focus on wellbeing.

We discuss two new measures that have been developed and validated on UK populations and are designed to be appropriate for economic evaluation.

The ASCOT-carer measure is designed to capture the impact of social care on carers' quality of life. It has been validated for use with carers of people using social care services (Leeuwen *et al.*, 2015; Rand *et al.*, 2015). A set of index values are available making the measure suitable for use in economic evaluation are currently in development[14]. It has been used in a study of carers of community-dwelling people receiving social care inputs that included carers of older people and has sensitivity to the health condition, behaviours and disability level of the social care user (Forder *et al.*, 2016).

The Carer Experience Scale (CES) is a measure of the caring experience that is

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[14] See www.excelc.eu

suitable for use in economic evaluation (Al-Janabi, Flynn and Coast, 2011). The CES comprises six attributes with three levels[15]

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[15] The CES six attributes include:

1. Activities outside caring (a) you can do most of the other things you want to do outside caring (b) some (c) few;

2. Support from family and friends (a) You get a lot of support (b) some (c) little;

3. Assistance from organizations and the government (a) a lot of assistance (b) some assistance (c) little assistance;

4. Fulfilment from caring (a) mostly find caring fulfilling (b) sometimes (c) rarely;

5. Control over the caring (a) You are in control of most aspects (b) some aspects (c) few aspects;

6. Getting on with the person you care for (a) mostly get on (b) sometimes (c) rarely.

and has been validated for use on a sample of 730 informal carers (mostly female carers (62.5 %), below the age of 65 (74 %), caring for older people (75.8%) (Goranitis, Coast and Al-Janabi, 2014). So far there are no results available from studies using this measure.

It will also be important for the study to measure employment related outcomes, in terms of employment status of the carer, and potentially also including indicators of quality of employment (e.g. salary, employment conditions), and of the extent to which the observed employment status might be the result of the presence/absence of support with caring duties.

4.4.3 INTERMEDIATE OUTCOMES

The main study should collect evidence about the intermediate outcomes of different support models. These indicators should cover 'destinational' outcomes as well as information about intensity of health and social care use following initial contact with social care department.

Destinational outcomes could be defined in terms of:

• Institutionalisation (admission to care home; nursing home)

• Hospitalisation (planned/unplanned)

• Length of time with/without social care support following initial contact with social care departments.

Collecting data on service use about all

forms of support that might be accessed by users and carers, including for instance services run by the voluntary sector, would require primary data collection from users and carers in the study. However, it will be important for the main study to explore with the councils and NHS organisations in the study areas the possibility of matching data from the administrative records to the data collected by the study. Administrative data could provide a detailed and continuous picture of patterns of service use for a subset of the services accessed by study participants.

The main study should therefore ensure that the appropriate permissions for linking the study data to administrative records is gained from study participants.

4.4.4 APPROPRIATE TIME INTERVALS FOR CAPTURING EFFECTS OF SUPPORT SERVICES

Several respondents noted the importance of tracking people's journey over time to understand how the service inputs shape health and wellbeing trajectories. Previous evaluations of health and care interventions for similar groups of people have used 12-month follow-up periods (Glendinning *et al.*, 2008; Forder *et al.*, 2012). While interviewees felt such a follow-up period would be appropriate, they also mentioned that for this group of people the effectiveness of the intervention, particularly advice, information and

signposting, is often apparent very quickly. One interviewee reported that people frequently re-contacted them after very short time periods if the options presented were not working out for them. This same interviewee mentioned that to assess the effectiveness of what they are doing for this older people with low/moderate needs they are looking at whether people re-contact the local authority for help within six months. Interviewees also mentioned that understanding the contribution of specific services to outcomes becomes

increasingly difficult to measure over longer time horizons as many other external factors determine longer term outcomes.

Notwithstanding these considerations, the relatively low needs of the target population for the main study means that it would take some time for certain outcomes to be observed for significant numbers in the study sample (e.g. hospitalisation, deterioration in needs). The study would therefore need to follow cases beyond six months and is likely to benefit from having a number of follow-up periods (e.g. 6 months, 18 months and possibly 30 months).

RECOMMENDATIONS: MEASURING SERVICE USER AND CARER OUTCOMES

■ There is evidence to suggest that the ASCOT measure will be sensitive to outcomes among older people with low/moderate needs and should be considered as the primary outcome for older people in the main study. An alternative primary outcome measure is the ICECAP-O, but this has not yet been used to evaluate services for older people with low/moderate needs in England.

■ Secondary outcome measures should be considered for older people in the main study, including the EQ-5D and measures of psychological wellbeing such as the WEMWEBS or GHQ-12, which may be particularly important where services have rehabilitative or more health-oriented aims.

■ The ASCOT-Carer and CES may be appropriate measures for estimating the impact of care interventions for older people with low/moderate needs on their carers, but neither of these measures have yet been used extensively in such research. For the main study the research team may want to supplement these measures with more widely used measures of carer burden or broader health-related quality of life and wellbeing measures (e.g. EQ-5D and WEMWEBS).

■ Intermediate outcomes measures, for example, measures of the use of healthcare services are likely to be important indicators for the main study. It would be important to explore the potential for data linkage via NHS numbers. Indicators of re-contacts with the local authority should also be considered for the main study. The research team should take steps to ensure data linkage with local authority records is possible.

■ There is little evidence to support decisions about appropriate follow-up intervals. Studies commonly have used follow-ups at a year, but discussions with local authorities seemed to suggest that shorter periods may be more appropriate for this group of older people. For the main study a 6-month, 18-month and possibly 30-month follow-ups should be considered.

5   SAMPLE SIZES

The previous section has reviewed important indicators to be collected in the main study, including outcome indicators for older people with low/moderate needs and their carers. The aim of this section is to assess the sample sizes that would be required to enable the study to detect with reasonable precision outcome differences between different care models. Following the analysis in Section 3.4, we assume that three care models would be compared in the main study.

5.1   POWER CALCULATIONS

The aim of the power calculations is to determine an appropriate range for the sample size of the study given the chosen outcome measure(s). For power calculations to be useful they need to be based on evidence from previous studies with similar populations. Studies were identified from the literature, and their relevance was assessed based on the inclusion criteria for the study and the level of disability of the study population. The common outcome measures used across the studies identified from this process for people presenting with social care needs

were: ASCOT (Netten et al 2012; Malley et al 2012), EQ5D (The EuroQol Group, 1990), GHQ-12 (Goldberg, 1992), ICECAP-O (Coast *et al.*, 2008) and health or social care costs. For carers of people with social care needs, common outcome measures were: the ASCOT- Carer (Rand, Malley and Netten, 2012; Rand *et al.*, 2015) and a developmental version of the ASCOT-Carer used in the biennial National English Carer Experience Survey – the carer social care related quality of life measure (Fox, Holder and Netten, 2010).

5.1.1   METHOD FOR POWER CALCULATION

Sample size calculations were made for each relevant outcome measure in each paper reviewed. The calculation assumed a two-sided test of means across three independent samples (each representing a different 'care model'). A power of 0.80 and a significance level of 0.05 were used in the calculations, in line with normal practice. Each of the papers listed above were reviewed and the mean and standard deviation on each outcome measure included available noted. If the study was an evaluation of an intervention, the control group mean and standard deviation on the outcome measure was used. These values were used in the sample size calculation as estimates of the 'standard' or 'control' population.

The next key parameter in the sample size calculation is the size of the difference between the mean of the standard population and the mean of a comparator group which is deemed clinically important. A literature search was conducted to determine if clinically important differences had been identified in the literature for each of the outcome measures. Forder *et al.* (2012) used a 0.03 difference on the ASCOT scale, based on results from the IBSEN study (Glendinning *et al.*, 2008), for their sample size calculation. No clinically important difference was identified in the literature for EQ5D, GHQ-12 or ICECAP for this population. For health or social care costs there is no standard for determining what constitutes an important difference. Therefore, in addition to the estimate of the

minimum important difference for the ASCOT measure from Forder et al (2012) and to facilitate comparison across indicators, the sample size calculations were also conducted for each indicator assuming the goal was to detect a 5%, 10% and 15% difference from the 'standard' mean.

5.1.2 ESTIMATED REQUIRED SAMPLE SIZE

The results of the power calculations for the costs and the various outcome indicators identified from the literature review are shown in Tables 16 to 18. Since the estimates are based on evidence from studies where the target population were similar to the target population of the main study the evidence for a number of the outcomes indicators is fairly limited. As described above, the results are presented using different assumptions about the size of a minimally clinically important difference (MCID).

The sample size at follow-up (when outcomes would be measured) required to detect a difference in the indicator score between groups increases as the standard deviation of a population or sample increases (Table 15 reports the mean and

TABLE 15: ESTIMATES OF MEAN AND STANDARD DEVIATIONS (IN BRACKETS) OF USER AND CARER OUTCOMES AND COSTS USED IN SAMPLE SIZE CALCULATIONS

Source	Sample characteristics	Ascot	EQ5D	GHQ-12	SCRQoL	ICECAP-O QoL	Costs
Bauer *et al.* (2017)	Mixed (age 55+)	0.73 (0.19)					
Forder *et al.* (2016)	Mixed	0.74 (0.21)					137.66 (220.53) (SC/week)
Forder *et al.* (2012)	Mixed (PHB eligible)	0.61 (0.23)	0.549 (0.265)	15.55 (7.27)			15,800 (21,800) (HSC/year)
Caiels *et al.* (2010)	Mixed (age 65+)	0.74 (0.20)	0.41 (0.35)				
Glendinning *et al.* (2010)	Mixed (reablement recipients)	0.77 (0.20*)	0.77 (0.30*)				
Glendinning *et al.* (2010)	Mixed (home care recipients)	0.76 (0.20*)	0.76 (0.30*)				
Windle *et al.* (2009)	Older adults (age 65+)		0.553 (0.33)				
Glendinning *et al.* (2008)	Mixed (eligible for IBs)			13.80 (6.85)			296 (300*) (SC/week)
Flynn *et al.* (2011)	Older adults (age 65+)					0.832 (0.123)	
Davis et al (2013)	Older adults (age 65+) (falls prevention intervention)		0.701 (0.291)			0.815 (0.177)	
Forder *et al.* (2016)	Carers	13.43 (4.7)			8.55 (2.56)		

* Assumed figure as no SD given.

SC = social care; HSC = health and social care

TABLE 16: REQUIRED SAMPLE SIZE AT FIRST FOLLOW-UP FOR PRECISION OF VARIOUS OUTCOME INDICATORS UNDER DIFFERENT ASSUMPTIONS REGARDING THE DETECTABLE DIFFERENCE

	MCID			
Indicator	0.03 Average (range)	5% Average (range)	10% Average (range)	15% Average (range)
ASCOT	2,208 (1,890; 2,769)	1,672 (1,272; 2,679)	410 (318;669)	179 (141;297)
EQ-5D	n/a	6,124 (2,859; 13,728)	1,531 (714; 3,432)	680 (318; 1,524)
GHQ-12	n/a	4,379 (4,116; 4,641)	1,095 (1,029; 1,161)	486 (456; 516)
ICECAP-O	n/a	650 (411; 888)	162 (102; 222)	72 (45; 99)

Notes: Alpha = 0.05; power = 0.80; three independent samples; equal sample sizes. Sample size shown is total across three groups.

standard deviations used in the analysis, by source). As shown in Table 16, of the outcome measures considered, the estimated required sample size is smallest for the ICECAP-O as it had on average the smallest standard deviation relative to the mean. The EQ5D and GHQ-12 had the greatest ratio of standard deviation to mean and therefore required a much larger sample to detect a clinically important difference. The estimated required sample size for the ACSOT measure, the main quality of life outcome indicator for social care evaluations, falls between these two extremes. For the ASCOT measure we also calculated the required sample size based on a clinically important difference of 0.03 on the ASCOT scale, following Forder *et al.* (2012). Using the most conservative estimate from the literature based on a

standard deviation of 0.23 (from Forder *et al.* 2012), we find that 2,769 subjects would be the required sample size (i.e., three groups of 923 subjects). On average across the studies considered, we find that a sample of 2,208 users in total (approximately 740 users per group) would be required to identify a difference of 0.03 in the ASCOT score.

Data for the two carer outcome measures also came from Forder *et al.* (2016). The estimate of the required sample size was of the same order of magnitude across the two measures (see Table 17) and similar to the sample size required for the ASCOT instruments for the older people. Achieving the 2,300 carer interviews required to identify 5% in ASCOT-carer, however, would require a significantly greater number of

TABLE 17: REQUIRED SAMPLE SIZE AT FOLLOW-UP FOR PRECISION OF CARER OUTCOME INDICATORS UNDER DIFFERENT ASSUMPTIONS REGARDING THE MCID AND DETECTABLE PERCENTAGE DIFFERENCES

	MCID		
Measure	5%	10%	15%
ASCOT-carer	2,307	576	255
SCRQoL	1,689	423	189

Notes: Alpha = 0.05; power = 0.80; three independent samples; equal sample sizes. Sample size shown is total across three groups.

TABLE 18: REQUIRED SAMPLE SIZE AT FOLLOW-UP FOR PRECISION OF COSTS UNDER DIFFERENT ASSUMPTIONS REGARDING THE MCID

Indicator	MCID		
	5% Average (range)	10% Average (range)	15% Average (range)
Costs	34,519 (19,350; 48,345)	8,629 (4,836; 12,087)	3,836 (2,151; 5,373)

Notes: Alpha = 0.05; power = 0.80; three independent samples; equal sample sizes. Sample size shown is total across three groups.

user interviews because only a proportion of them would have a carer. The similar sample requirements between the two carer indicators are not surprising given that the SCRQoL indicator is an earlier version of the ASCOT-Carer measure.

As expected, the required sample size based on health or social care costs far exceeds that calculated for the quality-of-life measures (see Table 18). This is largely due to the wide variation in service use costs across surveyed individuals.

RECOMMENDATIONS: REQUIRED SAMPLE SIZE

The following conclusions can be drawn from the results of the power calculations:

■ The number of "care models" to be compared will need to be kept to a minimum for the study to have a realistic chance to achieve adequate power to detect outcome differences between models. The sample sizes reported are the samples required to detect differences between three groups. To compare more than three care models, larger samples will be required.

■ Due to the variability in care receipt between care users and the cost of larger study samples, it is unlikely that the main study will be powered to detect even a 10% difference in costs between care models at the 5% confidence level.

■ It is unlikely that the main study will be powered to detect a 5% difference in the ASCOT-Carer measure at the 5% confidence level, as only a proportion of older people – we estimate around three-fifths to two-thirds – are likely to have a carer. Larger differences in the ASCOT-Carer measure are likely to be detectable.

■ The power calculations assume simple methods of analysis, and regression-based methods would have greater power to detect differences. However, subgroup analyses would reduce significantly the power of statistical analyses.

■ The lack of clinically meaningful differences in key social care outcomes complicates the calculation of sample sizes. Detecting a 0.03 difference in ASCOT scale at the 5% confidence level, assuming three care models would require approximately 2,200 interviews at follow-up. Detecting a 5% difference in ASCOT would require approximately 1,700 interviews at follow-up.

■ Large samples are required in order to have precision in the statistical tests, but this has implications for costs of the fieldwork (see Section 7) and for the number of authorities, as we now turn to discuss.

5.2 REQUIRED NUMBER OF AUTHORITIES FOR THE MAIN STUDY

The number of authorities required to participate in the main study will depend on the total number of interviews sought, the timescales for data collection, the rate of cases approaching authorities for support with their social care needs, and the success of the study in recruiting those cases into the study. The aim of this section is to assess the likely number of councils that might be required to ensure that sufficient cases are recruited into the study within a reasonable timeframe.

5.2.1 RECRUITMENT RATES FOR OLDER PEOPLE

A majority of older people approached will not want to participate in the study, so we should expect only a fraction of those who are eligible to actually participate. The research team will have limited control over recruitment of older people, as this will be carried out by members of the First Contact Team within local authorities (or delegated agencies). As this method for recruitment has not been used previously, there is uncertainty over the recruitment rate for the study.

From experience we would anticipate that recruitment rates for older people will vary across case study sites depending upon the commitment and engagement of key local authority staff. Our assumption of 10% recruitment is based on previous experience with similar populations, albeit using a different approach to recruitment (Forder et al 2016). Although this rate seems fairly low, this level of recruitment may not be achieved where local authority staff are not fully engaged with and

supportive of the study. The commitment of staff may depend on the burden of complying with the study requirements; equally their compliance with the study requirements may be affected by their commitment to the study.

It will be important for the research team to spend time engaging with local authority staff, building trust and developing a shared understanding of the study to maximise recruitment rates.

In line with the analysis in Section 5.1, we assume that the target sample at follow-up would be either 1,500 users (assuming two care models would be compared) or 2,250 users (assuming three care models). Assuming a 25% drop out between baseline and follow-up interviews, these figures would imply 2,000 and 3,000 interviews at baseline (see Section 5.2 for further discussion of the likely referrals, recruitment, conversion and follow-up rates for older people and their carers).

5.2.2 RECRUITMENT RATES FOR CARERS OF OLDER PEOPLE

The proposed approach to the study suggests recruiting informal carers into the study via older people. Previous experience using this method of recruitment suggests that it is a feasible method, but it can be particularly challenging to recruit extra-resident carers. Our experience suggests that setting a target for carer interviews may bias the sample towards co-resident carers who are easier to interview, so we would advise against such a strategy (Forder *et al.* 2016). The research team will need to consider appropriate methods for maximising the recruitment of carers and may wish to explore methods for doing so in a pilot.

Recruitment rates for carers are a key parameter in determining the costs of fieldwork, and costs are likely to be higher for extra-resident carers on the basis that fewer of these interviews could be conducted at the same time as the co-resident carer interviews. Our analysis in Section 5 suggests that we might expect around 60% to 66.6% of older people to have a carer, of which around 50% could be co-resident carers. There is, however, some uncertainty around these estimates. As for older people it is unlikely that all (main) carers of older people recruited to the study will want to participate. Based on recruitment rates for a previous study that used this method for recruiting carers we

might expect a recruitment rate of around 70%, but this is likely to be higher for co-resident carers and lower for extra-resident carers (Forder et al 2016). Estimates of likely recruitment rates for both groups of carers and the potential for conducting interviews of older people and carers at the same time are therefore important for providing indicative costs of the fieldwork.

The research team may wish to explore likely recruitment rates and how to maximise them in a pilot to fine-tune the methods for the main stage of the study.

5.2.3 POTENTIAL NUMBER OF CASES AVAILABLE FOR RECRUITMENT INTO THE MAIN STUDY

An indication of the numbers of older clients with low needs contacting local authorities can be derived from SALT return STS001, which provides authority-level information on requests for support over the course of each financial year according to the sequel to request.

To estimate the number of older people with relatively low needs (the target group for the main study), we excluded from the total numbers of contacts recorded with local authorities in England:

- older people recorded as going on to receive institutional care (residential or nursing care),

- 60% of long-term community clients, assumed to meet social care needs eligibility criteria (based on an analysis of the need distributions of older social care recipients from by the PSSRU aggregate model)

- those receiving end-of-life care

- individuals to whom no service or signposting was provided, on the assumption that contacts with councils related to the need for social care support would at least receive information or signposting even if not eligible for ongoing care services.

A conservative recruitment rate of 10% of targeted clients was assumed.

Table 19 summarises the assumptions described above regarding the bombardment rates of cases to authorities and the likely recruitment rates. To cover the eventuality that interviews are not secured for all clients recruited to the study, a 75% recruitment-to-interview 'conversion rate' was assumed on the basis of previous similar studies; this means that 4,000 recruitments would be required to secure 3,000 baseline interviews, and 2,700 recruitments would be required to achieve 2,000 interviews.

TABLE 19: PROPORTIONS OF NEW REQUESTS FOR SUPPORT ASSUMED TO MEET CLIENT PROFILE REQUIREMENTS, BY SEQUEL TO REQUEST

Sequel to request for support (and support setting)	Proportion targeted	Proportion recruited
Short-term support to maximise independence	100%	10%
Long-term support (nursing care)	0%	0%
Long-term support (residential care)	0%	0%
Long-term support (community services)	40%	4%
End of life	0%	0%
Ongoing low-level support	100%	10%
Short-term support (other)	100%	10%
Universal services/signposted to other services	100%	10%
No services provided – any reason	0%	0%

5.2.4 ESTIMATED LOCAL AUTHORITY RECRUITMENT RATES

On the basis of 2016/17 SALT data and the assumptions outlined in Table 19, a total of 869,000 relevant requests for support among older people were recorded across England during the financial year. Assuming no seasonal effects, this equates to 72,260 clients per month, or an average of 475 potential clients per local authority. Applying a 10% recruitment rate, it is assumed that 48 recruitments per month would be achieved on average per English local authority (this would be expected to translate into 36 interviews per authority, assuming a 75% conversion rate).

Based on average local authority client numbers in England, a total of 3,000 interviews between 20 authorities (or 1,500 interviews between 10 local authorities) could be achieved within four months. Realistically, however, the skew in the size of local councils and therefore in their potential throughput of new cases means that few authorities would be able to recruit 48 new cases per month.

Figure 8 illustrates the distribution of local authorities ranked according to their expected number of monthly recruitments (using the assumptions in Table 19). The figure also includes three horizontal lines, which signal the target monthly recruitment required to achieve 3,000 interviews across 20 local authorities (or 1,500 interviews across 10 local authorities) within 4, 6 and 8 months recruitment periods. Equivalent thresholds assuming 300 interviews per authority (e.g. 3,000 interviews across 10 authorities) are shown in Figure 9.

Figures 8 and 9 suggest that achieving 3,000 baseline interviews would require involving approximately 20 authorities in the study and extending the recruitment period over at least 6 to 8 months. This would require an average of 150 interviews per authority over the recruitment period. Reducing the number of authorities or the recruitment period would be feasible only by concentrating the main study on very large authorities and would undermine significantly the range of local care systems explored.

FIGURE 8: LOCAL AUTHORITIES RANKED BY EXPECTED MONTHLY RECRUITMENTS, (2016/17-BASED ESTIMATES) AND TARGETS ASSOCIATED WITH 3,000 INTERVIEWS IN 20 LOCAL AUTHORITIES OR 1,500 INTERVIEWS ON 10 LOCAL AUTHORITIES
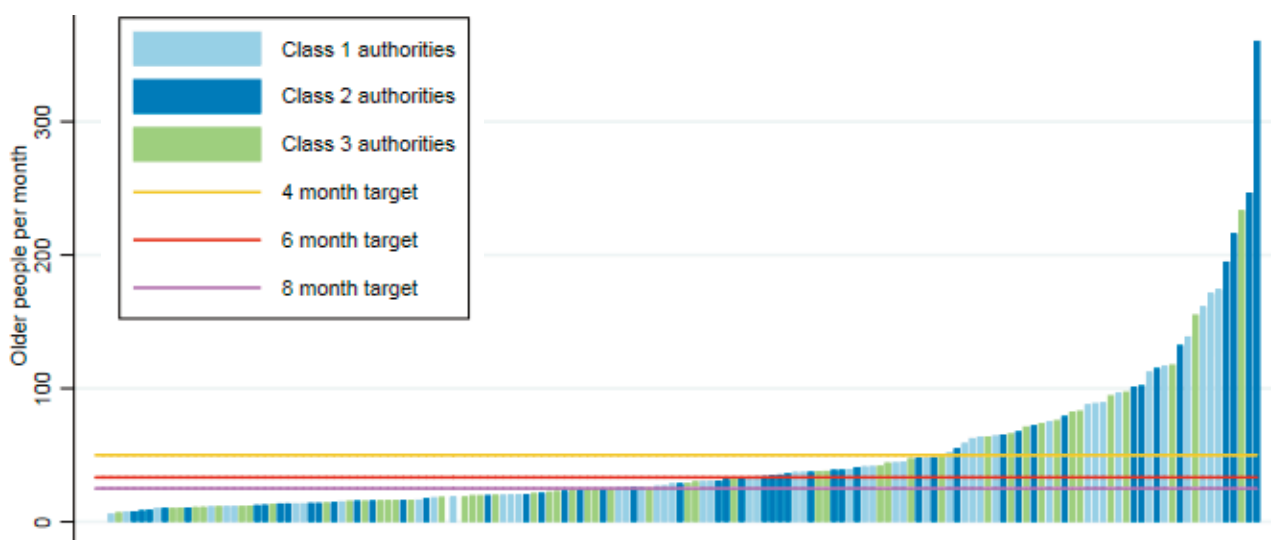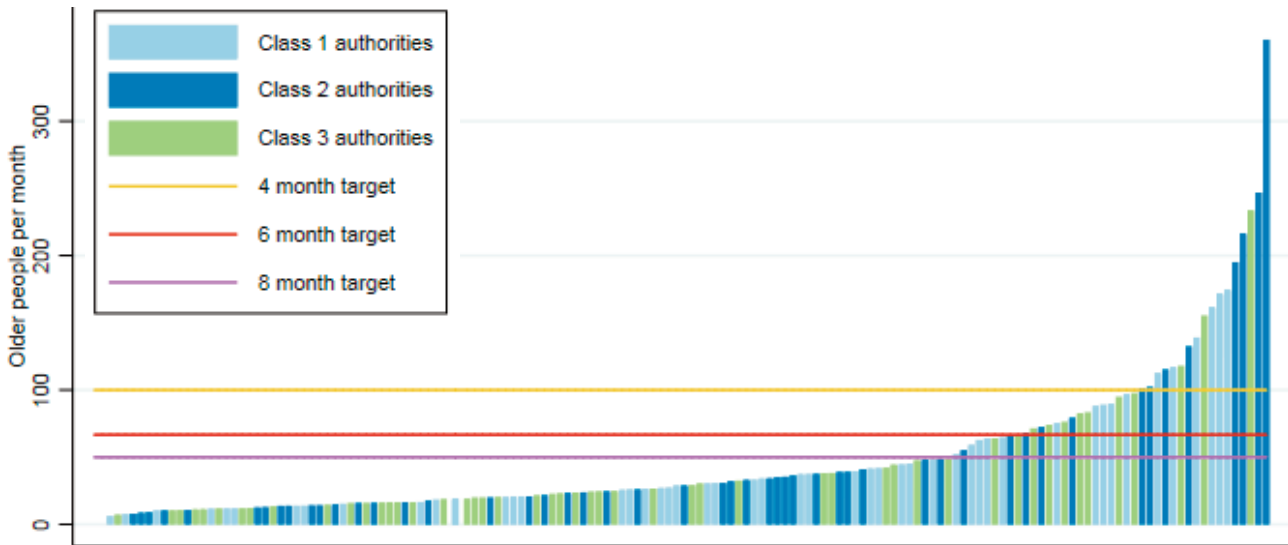
Recruitment targets over 4-, 6- and 8-month periods, associated with 3,000 baseline interviews across 20 local authorities or 1,500 baseline interviews across 10 local authorities.

Recruitment targets over 4-, 6- and 8-month periods, associated with 3,000 baseline interviews across 10 local authorities.

Tables 20 and 21 provide further details of the likely feasibility of achieving 150 and 300 interviews over six months for different authorities, assuming different recruitment to interview conversion rates. Assuming 75% of recruited clients are interviewed, only 44% of authorities in England would be expected to achieve 150 interviews over a six-month period. However, these seem to be distributed fairly evenly across different authority types, including across the three authority classes identified in the analyses above. The exception are the London authorities, almost none of which could be expected to achieve the recruitment target of 150 interviews over six months.

Assuming interview conversion rates of 65% and 85% results in 37% and 49% of authorities in England achieving their required monthly targets, respectively. Equivalent figures assuming 300 interviews per authority are shown in Table 21. As would be expected, requiring a 300-interview recruitment target per authority reduces very significantly the number of authorities that could be involved in the study.

TABLE 20: NUMBER AND PROPORTION OF AUTHORITIES EXPECTED TO ACHIEVE 150 INTERVIEWS OVER SIX MONTHS BY LOCAL AUTHORITY TYPE AND RECRUITMENT-TO-INTERVIEW CONVERSION RATE

	65% interview conversion rate			75% interview conversion rate			85% interview conversion rate		
	LAs achieving target	LAs not achieving target	% LAs successful	LAs achieving target	LAs not achieving target	% LAs successfu	LAs achieving target	LAs not achieving target	% LAs successfu
Latent class									
Class 1	22	28	44%	25	25	50%	28	22	56%
Class 2	18	32	36%	23	27	46%	26	24	52%
Class 3	16	34	32%	18	32	36%	20	30	40%
Local authority type									
Inner London	0	13	0%	0	13	0%	1	12	8%
Metropolitan district	21	15	58%	25	11	69%	25	11	69%
Outer London	1	18	5%	1	18	5%	5	14	26%
Shire County	25	6	81%	26	5	84%	27	4	87%
Unitary Authority	9	44	17%	14	39	26%	16	37	30%
ONS family									
Centres with Industry	9	9	50%	11	7	61%	12	6	67%
Coastal and Countryside	6	3	67%	7	2	78%	7	2	78%
Industrial Hinterlands	7	10	41%	8	9	47%	9	8	53%
London Centre	0	7	0%	0	7	0%	0	7	0%
London Cosmopolitan	0	7	0%	0	7	0%	2	5	29%
London Suburbs	1	11	8%	1	11	8%	2	10	17%
Manufacturing Towns	8	4	67%	8	4	67%	8	4	67%
New and Growing Towns	2	6	25%	3	5	38%	4	4	50%
Prospering Smaller Towns	15	18	45%	17	16	52%	18	15	55%
Prospering Southern England	5	5	50%	5	5	50%	5	5	50%
Regional Centres	3	10	23%	6	7	46%	7	6	54%
Thriving London Periphery	0	6	0%	0	6	0%	0	6	0%
Total	56	94	37%	66	84	44%	74	76	49%

Note: City of London and the Isles of Scilly excluded on the basis of insufficient sample size.

TABLE 21: NUMBER AND PROPORTION OF AUTHORITIES EXPECTED TO ACHIEVE 300 INTERVIEWS OVER SIX MONTHS BY LOCAL AUTHORITY TYPE AND RECRUITMENT-TO-INTERVIEW CONVERSION RATE

	65% interview conversion rate			75% interview conversion rate			85% interview conversion rate		
	LAs achieving target	LAs not achieving target	% LAs successful	LAs achieving target	LAs not achieving target	% LAs successfu	LAs achieving target	LAs not achieving target	% LAs successfu
Latent class									
Class 1	10	40	20%	11	39	22%	15	35	30%
Class 2	9	41	18%	11	39	22%	12	38	24%
Class 3	7	43	14%	10	40	20%	12	38	24%
Local authority type									
Inner London	0	13	0%	0	13	0%	0	13	0%
Metropolitan district	6	30	17%	7	29	19%	12	24	33%
Outer London	0	19	0%	0	19	0%	1	18	5%
Shire County	18	11	62%	21	8	72%	21	8	72%
Unitary Authority	2	51	4%	4	49	8%	5	48	9%
ONS family									
Centres with Industry	3	15	17%	3	15	17%	7	11	39%
Coastal and Countryside	4	4	50%	6	2	75%	6	2	75%
Industrial Hinterlands	0	17	0%	2	15	12%	3	14	18%
London Centre	0	7	0%	0	7	0%	0	7	0%
London Cosmopolitan	0	7	0%	0	7	0%	0	7	0%
London Suburbs	0	12	0%	0	12	0%	1	11	8%
Manufacturing Towns	4	8	33%	5	7	42%	6	6	50%
New and Growing Towns	0	8	0%	0	8	0%	0	8	0%
Prospering Smaller Towns	9	22	29%	9	22	29%	9	22	29%
Prospering Southern England	3	7	30%	4	6	40%	4	6	40%
Regional Centres	3	10	23%	3	10	23%	3	10	23%
Thriving London Periphery	0	6	0%	0	6	0%	0	6	0%
Total	26	124	17%	32	118	21%	39	111	26%

Note: City of London and the Isles of Scilly excluded on the basis of insufficient sample size.

5.2.5 RECRUITING AUTHORITIES INTO THE STUDY

We expect that the research team will have responsibility for recruiting sites into the study.

The analysis above indicates that many authorities in England would struggle to recruit the number of cases per month required to power the study, assuming a six-month fieldwork period. These conclusions depend on a number of critical factors, and in particular on the recruitment rate achieved, which we have assumed (on the basis of previous studies) to be 10%.

The research team will need to consider from the outset how to maximise the diversity of participating local authorities, and in particular to ensure that important authority types (e.g. London boroughs) are not excluded because of their size.

Several options could be considered to include smaller local authorities, but these all bring additional complications. One option would be to include smaller authorities and have a lower target for these authorities or to extend the capture period for these authorities to make it

possible to meet the target sample. The low numbers being recruited on a weekly basis, however, would make these authorities very expensive sites for data collection. Extending the capture period would have consequences for comparability and fieldwork costs (as the study would go on for longer). It would also mean that six-month follow-ups would be happening at the same time as the baseline interviews in some cases, which would increase the complexity of managing the survey.

To ensure that a diverse range of authority types are represented, it may be necessary to include a number of authorities that do not meet the average monthly interview thresholds. This is likely to be particularly relevant to London boroughs, which are by definition much smaller than other English councils.

Table 22 shows the average number of recruitments per local authority required to achieve 3,000 interviews overall, according to recruitment timescales and numbers of participating authorities.

TABLE 22: AVERAGE NUMBER OF MONTHLY RECRUITMENTS PER LOCAL AUTHORITY REQUIRED TO ACHIEVE A TOTAL OF 3,000 BASELINE INTERVIEWS, BY NUMBER OF PARTICIPATING AUTHORITIES AND LENGTH OF DATA COLLECTION PERIOD

Number of months	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
12	333	167	111	83	67	56	48	42	37	33	30	28	26	24	22	21	20	19	18	17
11	364	182	121	91	73	61	52	45	40	36	33	30	28	26	24	23	21	20	19	18
10	400	200	133	100	80	67	57	50	44	40	36	33	31	29	27	25	24	22	21	20
9	444	222	148	111	89	74	63	56	49	44	40	37	34	32	30	28	26	25	23	22
8	500	250	167	125	100	83	71	63	56	50	45	42	38	36	33	31	29	28	26	25
7	571	286	190	143	114	95	82	71	63	57	52	48	44	41	38	36	34	32	30	29
6	667	333	222	167	133	111	95	83	74	67	61	56	51	48	44	42	39	37	35	33
5	800	400	267	200	160	133	114	100	89	80	73	67	62	57	53	50	47	44	42	40
4	1000	500	333	250	200	167	143	125	111	100	91	83	77	71	67	63	59	56	53	50
3	1333	667	444	333	267	222	190	167	148	133	121	111	103	95	89	83	78	74	70	67
2	2000	1000	667	500	400	333	286	250	222	200	182	167	154	143	133	125	118	111	105	100
1	4000	2000	1333	1000	800	667	571	500	444	400	364	333	308	286	267	250	235	222	211	200
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

Number of authorities

Note: Total of 4,000 recruitments required assuming 75% of those recruited are interviewed (see Tables 24 and 25).

Figure 10 illustrates the required monthly recruitment targets associated with different combinations of recruitment timescales, number of participating authorities assuming a 3,000 overall interview target.

FIGURE 10: ILLUSTRATION OF MINIMUM THRESHOLDS FOR NUMBERS OF PARTICIPATING AUTHORITIES, LENGTH OF DATA COLLECTION PERIOD AND AVERAGE NUMBER OF MONTHLY RECRUITMENTS REQUIRED TO ACHIEVE A TOTAL OF 3,000 BASELINE INTERVIEWS
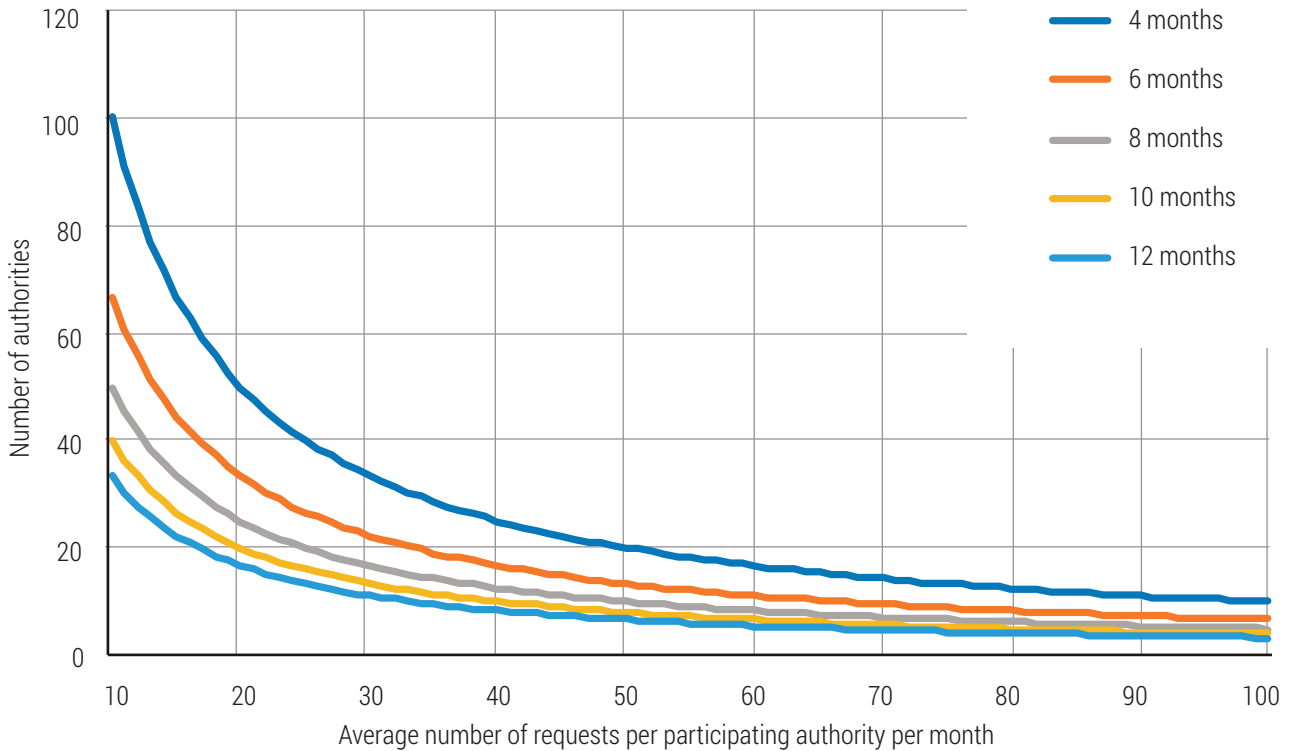
RECOMMENDATIONS: NUMBER OF CASE STUDY SITES

■ Achieving the large number of interviews required to power the study is likely to require that a significant number of authorities (approximately 20) are involved in the study, and that the recruitment phase is extended over at least 6 months.

■ Authorities able to achieve 150 interviews over 6 months are well distributed across most local characteristics, including the three local classes associated with different care models.

■ The one exemption are London authorities, which due to their small size would need to be oversampled in order to contribute sufficient cases to the study.

6 PRACTICALITIES OF THE IMPLEMENTATION OF THE MAIN STUDY

In this section, we set out a proposal for how the fieldwork element of the study could be designed. There are a number of practical challenges associated with the proposed approach, which we discuss in some detail along with suggestions for how these could be addressed by the research team. The discussion of the likely challenges draws on the issues identified in discussions with the survey organisations, the analysis concerning likely numbers contacting local authorities on a monthly basis, and from the interviews with local authority staff.

6.1 ANALYTICAL APPROACH

6.1.1 QUANTITATIVE ANALYSES

Overall, the aim of the main study will be to quantify the impact on outcomes and costs of different approaches for supporting older people with low/moderate social care needs. The study will therefore collect a significant amount of quantitative data, focusing on the types of indicators discussed in previous sections. Given the non-experimental nature of the evaluation, and in particular the lack of a random process for allocating cases to care models, the evaluation will need to apply statistical methods for standardising the characteristics of individuals in the different care models. For instance, the main study should use matching techniques to generate comparable groups of cases across care models before testing for differences in average costs and outcomes (see Stuart (2010) for a discussion of the use of matching methods for causal inference). These matching techniques could be complemented with multivariate regression methods to further control for the effect of confounders in the analysis of costs and outcomes of different models for different users. A particularly important goal for the analysis will be to use multivariate regression methods to control for the effect of the need-related factors listed in Section 4 on care outcomes. A number of social care evaluations have used similar approaches (see for instance Davies, Fernández and Nomer, (2000); Glendinning *et al.*, (2008) and Rand, Malley and Netten (2012)).

6.1.2 PROCESS EVALUATION

Equally important to the quantitative analysis for the success of the main study will be a process evaluation. This will provide a detailed understanding of the policy objectives, associated care processes and services for supporting people with low and moderate care needs in the participating authorities. The process component of the evaluation should engage with local policy makers, professionals involved in the management and running of first point of contact systems, and with (health and social care) professionals from care services supporting the study's target group. In addition, an analysis of relevant local (health and social care) policy documents should be carried out. The aim of this process evaluation should be to:

Complement the statistical analysis of the specification of care models by confirming, using local intelligence, the appropriateness of the association between authorities in the study and care model typologies.

Identifying specific local processes (e.g. different first contact arrangements) which could be used to derive indicators to be used in the quantitative analyses in order to explore the link between costs, outcomes and different local care arrangements.

Gain an in-depth understanding of the nature of and reasons for differences in the support provided in the local authorities in the study. This evidence should support the specification of hypotheses to be tested in the quantitative analysis as well as help with the interpretation of the results obtained.

RECOMMENDATIONS: ANALYTICAL APPROACH

■ The study should use a combination of quantitative and qualitative analytical methods to ensure that estimates of the costs and outcomes of the different care models can be obtained, gain an in-depth understanding of the factors explaining such differences, and draw lessons about how to structure support services for people with low/moderate needs across all English authorities.

■ Given the unlikely availability of experimental data, the study should use statistical methods such as matching techniques and multivariate regression models in order to control for potential differences in the samples of older people from the different care models evaluated.

■ A process evaluation should be carried out to examine the appropriateness of the statistically-led grouping of authorities into care models, the nature of the differences between local arrangements for supporting people with low/moderate needs, and to support the specification of hypotheses for, and the interpretation of results from, the quantitative analyses of costs and outcomes.

6.2 RECRUITMENT OF STUDY PARTICIPANTS

The proposed recruitment method relies on members of the First Contact Team within each local authority inviting older people and their carers to take part in the study, using criteria defining the study eligibility criteria provided by the research team. The recruitment of a representative sample of consistently defined older people and their carers into the study is important for its success, as it will affect the comparability of the findings across care models. Inconsistent application of the eligibility criteria or non-recruitment of people with a particular set of characteristics will create bias in the study sample and the study conclusions.

6.2.1 SAMPLING FRAME

National surveys were explored initially as possible sources of sampling frames of service users into the main study. Using surveys such as HSE and ELSA for this purpose would help ensure national representativeness of the sample of older people in the main study. However, this option was not found to be viable because of problems with very limited sample sizes of older people with social care needs in surveys such as Health Survey for England or ELSA. This problem is further compounded by the fact that they are drawn from across England. They therefore include a very small number of relevant cases per authority and would require the study to cover a very large number of authorities.

The proposed approach is therefore to use older people who contact the local authorities in the study seeking social care support over a specified period as the sampling frame for the study. As noted in Section 1, this approach would aim to follow older people with low/moderate social care needs who have both gone on and not gone on to receive long-term social care support, but it would exclude people

who do not approach the local authority and arrange care privately or carry on managing without formal support. The pathways highlighted in red in Figure 1 (see page 2) illustrate the group of people that would be recruited into the main study, and the range of possible service and care outcomes following their contact with the Council.

6.2.2 STUDY ELIGIBILITY CRITERIA

Local authorities may exert some influence over the numbers and types of people who approach them for support with their social care needs. **The research team will need to be aware of this limitation and use the process evaluation to determine the relationship between the care model in each participating local authority and the profile of people contacting them with a request for social care support. Furthermore, the evaluation should attempt to cover all mechanisms involved in the first point of contact process (e.g. web-based tools for triaging cases) and all agencies with delegated responsibility from the council for handling first contact (e.g. organisations from the voluntary sector and the NHS involved in case finding and signposting).**

The study should use eligibility criteria for the recruitment of older people with low needs that are based on a clearly defined needs profile and ensure that they are applied consistently across all local authority sites. These study eligibility criteria should be developed and piloted with the participating authorities, to ensure that they describe accurately the relevant needs of the target population and that the criteria are interpreted and implemented consistently across councils. Key suggested principles for the study eligibility algorithm are shown in Box 1.

The national eligibility criteria introduced by the Care Act 2014 still allow for some subjectivity in their interpretation. In addition, local authorities are allowed to provide support over and above the minimum national eligibility criteria. As a result, even if the study's eligibility criteria excluded in principle older people eligible for core social care support following the Care Act 2014 eligibility criteria, it is likely that a number of the users in the study would be in receipt of core social care packages (in the more 'generous' authorities). This should allow the study to explore the relative costs and benefits of core vs. alternative forms of social care support.

BOX 1: PRINCIPLES FOR THE SPECIFICATION OF THE STUDY INCLUSION ELIGIBILITY CRITERIA

The study should aim to include:

1. older people

2. who approach their council (or agencies acting on behalf of the council for contacting people with social care needs)

3. in order to enquire specifically about support with their social care needs

4. and who do not exceed the maximum needs eligibility criteria for the study.

The maximum needs eligibility criteria for the study should identify the threshold at which individuals become eligible for ongoing social care support. The study could in particular implement an algorithm based on the Care Act 2014 national minimum eligibility criteria.

As far as possible, the algorithm should build on the information collected as a matter of course by the first point of contact systems in the participating authorities, in order to help assess the representativeness of the study sample.

The main study will need to work with the participating councils to ensure the eligibility algorithm is interpreted and applied consistently.

FIRST POINT OF CONTACT TEAM

Population of older people contacting local council first point of contact system (or agency acting on council's behalf)

Enquiry about other areas (e.g. bus pass; other local services)

Enquiry is about social care needs

Person needs above study's eligibility criteria

Person needs within study's eligibility criteria

Person accepts invitation to participate in study

Assumption: 10% recruitment rate

RESEARCH TEAM

Person contacted by research team

Person accepts baseline interview

Assumption: 75% conversion rate

Study baseline sample

Figure 11 shows the key stages involved in the recruitment of individuals into the study up to the completion of the baseline interview. Older people with low needs should be recruited to the study at the point of first contact with the local authority. This means that they will need to be recruited into the study by local authority staff working within the First Contact Team (or delegated body). To ensure older people are recruited into the study on a consistent basis all people contacting the authority will need to be screened to determine eligibility and only those who are eligible should be invited to participate.

Discussions with local authority staff suggested that members of the First Contact Team would be able to undertake screening at the stage of first contact. They noted that when older people contact the council members of the First Contact Team ask a series of questions to determine the most appropriate response for each enquiry. Some of the councils we spoke to recorded information about the characteristics of older people at this stage.

To screen older people the research team would need to develop a short screening questionnaire that the participating authorities could include within the prepared scripts they currently use to assess the appropriate response for each individual contacting the council.

In some areas, responsibility for triaging entry to social care services may have been delegated to other organisations, in which case these organisations will need to manage recruitment into the study.

As discussed in Sections 5 and 6, recruitment into the study will need to occur on a rolling basis over a period of at least six months. Staff in the First Contact Team(s) will need to apply a screening questionnaire to all those coming into contact with the local authority requesting social care support over the capture period. All those people identified as eligible based on their responses to the screening questionnaire should be invited to participate in the study. Staff in the First

Contact Team(s) will need to provide information about the study to ensure that the study meets ethical and data protection requirements for the handling and transfer of the contact details of people who are willing to participate to the research team.

It is unlikely that information regarding the income and wealth of individuals could be collected at the point of first contact. The study will therefore include individuals regardless of whether they would meet the local authority means-test.

6.2.3 CARERS IN THE STUDY

The main study will explore care outcomes for both older people and their carers. The sampling of carers will be driven by the sample of older people with low/moderate needs in the study, in that the study will seek to identify and recruit their main carers. This means that carers will need to be recruited into the study by fieldworkers via contact with the older person.

An important consideration for the main study will be how to define carers' eligibility criteria. **Carers could be defined as people providing social care support (defined in terms of support with shortfalls in ADLs, IADLs and associated needs such as social isolation) on an unpaid and informal or semi-formal basis to someone with whom they have a pre-existing relationship, e.g. because they are family, friends or neighbours**.

Individuals should be considered as unpaid carers and included in the study even if they receive direct payments, carers' allowance and/or occasional gifts from the person being looked after.

When multiple carers exist for the same person, we suggest that only the main carer, defined as the person providing the greatest number of hours of care per week, should be invited to participate in the study.

A full description of the caring networks (including the number of carers available, sharing of caring tasks across them and relationship to the person with low/moderate needs) should be obtained from the interviews with the person with low/moderate needs and their main carer.

From the point of view of the planning and costing of the data collection, it is important to have an estimate of the proportion of older people who are likely to have an informal carer, and to understand the relationship between the carer and the person being cared for, particularly whether the carer co-resides with the older person.

Based on analyses of the Health Survey for England 2011 to 2014 prepared for the Care Policy and Evaluation Centre (CPEC) macrosimulation model of long-term care demand and expenditure (Wittenberg and Hu, 2015), approximately 60% to 65% of older people with low/moderate needs in England who approach local authorities for help have a carer. The lower estimate is based on the assumption that older people approaching the local authority have the same likelihood of having a carer as those receiving LA-supported home care; the higher estimate is based on the assumption that the likelihood is the same as older people living in the community.

The percentage of people receiving informal care does not vary extensively by degree of disability as measured by limitations with ADLs and IADLs, although percentages are higher among people unable to carry out ADL limitations compared to people reporting only difficulties carrying out ADLs and IADLs.

The PSSRU model can also provide an estimate of the likely percentage of informal carers that co-reside with the older person, an important data fieldwork consideration. It suggests that slightly more than half of older people with informal carers have a co-resident carer and closer to 60% have an extra-residential carer. Percentages do not add up 100 as roughly 10% of older people with informal carers will have both extra-residential and co-residential carers.

6.3 MANAGEMENT OF THE FIELDWORK

6.3.1 DATA COLLECTION STRATEGY

We have assumed a low (but realistic) recruitment rate into the study, which when combined with estimates of the numbers contacting social services on a monthly basis suggests that each site may produce only a few contacts per week (see Section 5.2). To collect data efficiently, the survey organisation responsible for the fieldwork would ideally distribute batches of contacts that are closely located to each interviewer so that interviewers can organise multiple interviews for each day and thus minimise travel and associated costs. However, the survey organisations interviewed felt there would be little opportunity to cluster contacts in this way for this study without compromising significantly the timescale for the collection of the baseline data (and subsequent waves). Our previous experience suggests that waiting for a critical mass of contacts may be undesirable for other reasons, as it may affect the conversion rate of recruited participants to achieved interviews. **The research team will need to be aware of the effects of slow recruitment into the study and ensure that the fieldwork is managed appropriately**.

For baseline interviews to capture the situation at the time the person contacts their council the time between contact with the local authority and the baseline interview will need to be kept to a minimum. The concern being that if the baseline interview takes place several weeks after the first contact is made with the local authority, then the older person may already have started to receive additional support, or his/her situation might have changed in other ways. The fieldwork companies interviewed felt that the minimum time between recruitment into the study and baseline interview was

likely to be between four to six weeks. This timescale reflects potential delays receiving the contact details, processing of the details in management systems, allocating the contact to an interviewer, making contact with the respondent and arranging an appointment for an interview at a time that is mutually convenient to the interviewer and the older person.

There is little evidence to assess whether a timeframe of four to six weeks from recruitment to baseline interview would be short enough to ensure the interview reflects the true baseline. Interviews with local authority staff did not provide a clear indication of the average time between contacting the local authority and the start of the support package. It seems likely to depend on the type of information given by the member of the First Contact Team and whether a further assessment is carried out. All of these aspects vary considerably across local authorities, meaning that it will be important to make this assessment on a case-by-case basis for each local authority site. **From the outset it will be important for the research team to plan for alternative approaches to conducting the baseline interviews and gathering the baseline data. The research team may also need to consider whether to place a restriction on the time to baseline interview, bearing in mind the consequences this is likely to have on the sample size and the quality of the information gathered**.

In line with recent social care evaluations, and following our discussions with survey companies, we recommend that interviews should be administered using computer-assisted personal interviewing software.

6.3.2 TIMING OF INTERVIEW WAVES

To capture information on changes in circumstances (including needs and service receipt) and assess outcomes for older people and the wider impact of care models, the study will need to capture data from older people and their carers at several time points. Based on discussions

with local authorities, we suggest that the research team considers the following intervals for data collection:

- A baseline data collection as soon as possible after recruitment into the study to capture the needs, circumstances and

a baseline measure of care outcomes at point of first contact with the local authority. The speed with which baseline interviews are set-up will affect significantly the ratio of participants recruited to achieved interviews.

- A follow-up data collection at six months post-baseline data collection to collect short-term impacts of the care models and assess any changes in circumstances.

- A further follow-up at 18 months post the baseline data collection to assess longer term impacts of the care models and assess any changes in circumstances.

- A further follow-up at three years post the baseline data collection could be considered to assess longer-term impacts of the care models and assess any changes in circumstances.

Baseline and first follow-up will be essential, as without them the study will be unable to explore any of the causal effects on outcomes and costs of the different care models investigated. A first follow-up at 6 months was suggested by local authority professionals involved with the first point of contact systems, as it was felt that if the support package did not work for the individual, local authorities tended to hear from them within that period. Longer follow-up periods would be important as they would enable the study to explore differences in longer-term outcomes, in particular around relatively infrequent outcomes for people with low/moderate needs such as institutionalisation and admission into hospital.

Excluding a pilot stage, and assuming only two follow-ups were to be carried out, the study could be expected to last approximately 40 months (see Figure 12). While this represents a very lengthy period of time to wait for the final results of the study, it is likely that a stream of outputs would be produced, coinciding with the availability of additional waves of data. From a cost-containment point of view, it might be advisable to assess the suitability of funding waves 3 and 4 depending on whether sufficient numbers of interviews were achieved at wave 2 and that the quality of the evidence emerging was high.

FIGURE 12: POSSIBLE STUDY TIMELINE, ASSUMING TWO FOLLOW-UP PERIODS AT 6 AND 18 MONTHS POST-BASELINE

61
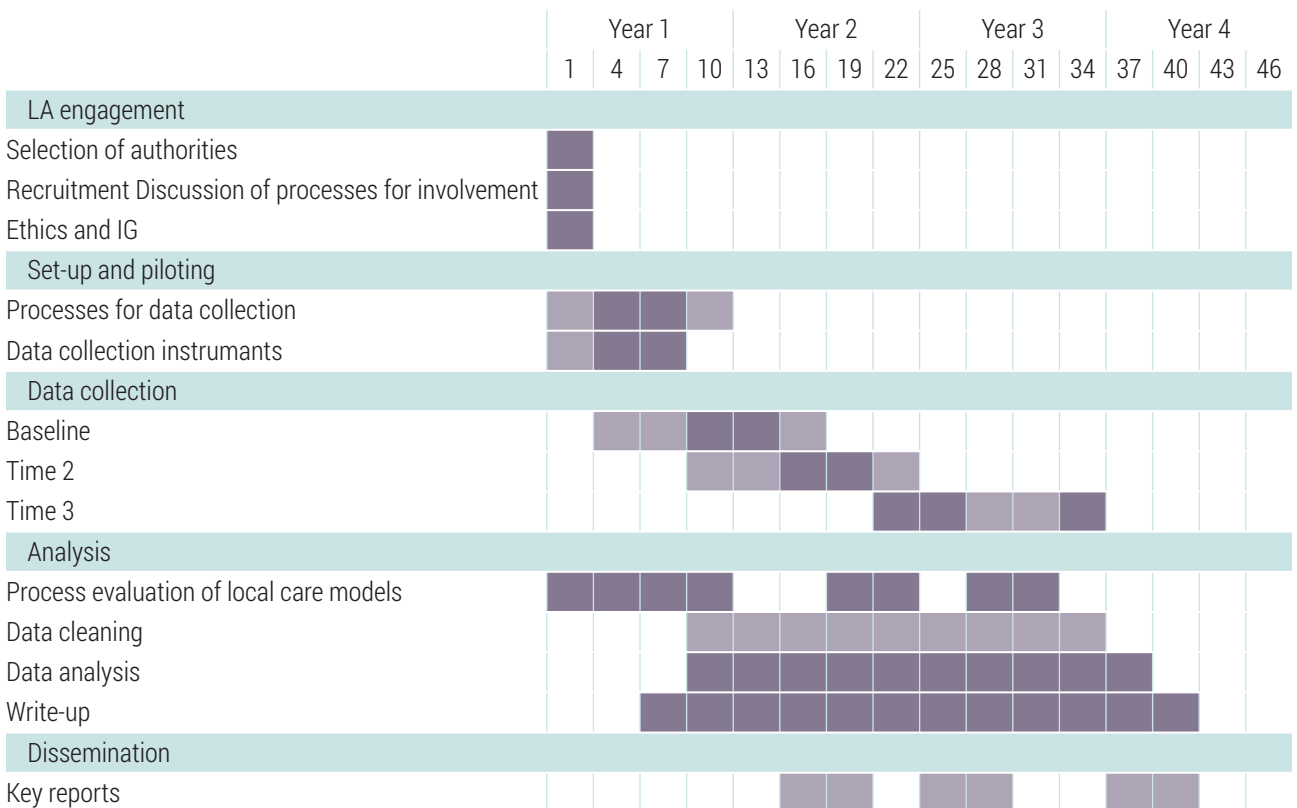
6.3.3   INFORMED CONSENT

All eligible older people should be provided with sufficient information about the study to ensure that they are clear about what participation will involve. This is important for ethical reasons and to meet data protection requirements, but it also is important for ensuring a high conversion rate for the baseline interview and low rates of attrition at subsequent waves.

A balance will need to be struck, however, so that members of the First Contact Team and potential participants do not feel overwhelmed by the amount of information. **The research team will need to explore carefully how best to meet ethical and legal requirements regarding informed consent in the context of this study.**

It will also be important to seek consent from participants for the linking of the data collected through interviews to health and social care administrative records.

6.4   RESPONSE RATES AND ATTRITION

The cost of fieldwork will depend heavily on achieved response rates for each wave, which in turn will also have implications for wave sample sizes and the viability of conducting more than one follow-up wave. To provide ballpark costs for the fieldwork, the survey companies contacted have used assumptions based on previous studies with similar populations and with similar gaps between waves of fieldwork. The consensus view from the survey companies we consulted with, however, was that the likely response rates at each stage of the survey were difficult to predict and would benefit from testing in the field. **The research team may want to consider a pilot to test likely response rates, at least to the first stage, and build-in options to the fieldwork plan to address possible shortfalls in recruitment so that the main aims of the study are met, and the fieldwork costs are within budget.**

In the next sections we illustrate the implications for sample numbers at each stage using a plausible set of response rates to baseline (conversion rate) and subsequent waves (rate of attrition).

6.4.1   CONVERSION RATE

The survey company will only receive contacts for people who have been screened as eligible for the study and have agreed to take part in the study. It is however highly unlikely that 100% of these contacts will be converted into interviews. Experience with previous studies suggests that significant numbers of people change their minds about participation, but that the fraction changing their mind can vary by case study site and increases with the length of time elapsed between agreement to participate and contact by the survey organisation. The consequence for the study is that to achieve the target sample size at the baseline interview, the survey company will need to receive a much larger sample of contacts than the target sample number. The survey companies suggested conversion rates of between two-thirds to three-quarters, with the lower of these estimates being closest to the conversion rate achieved (69%) for a recent study of social care users and the middle estimate being closest to the conversion rate for carers (76%) (Forder *et al.* 2016). The effect of different conversion rates on the required initial sample size is illustrated in Table 23.

TABLE 23: NUMBER OF REQUIRED REFERRALS ASSOCIATED WITH DIFFERENT TARGET SAMPLES AND CONVERSION RATES

Target sample size:		3,000	1,500	1,000	500
Conversion rate:	66%	4,545	2,273	1,515	758
	75%	4,000	2,000	1,333	667
	85%	3,529	1,765	1,176	588

6.4.2 ATTRITION RATES

Participants may not take part in subsequent waves out of choice, or they may be lost to follow-up due to for instance a change of residence or an admission to hospital. A proportion may also die between waves. The ill-health and frailty of many older people, particularly those with social care needs, means that we might expect fairly high rates of attrition between waves. The evaluation of reablement by Glendinning *et al.* (2010) provides an indication of the likely attrition rate for the main study, given the similarities between the target group for the main study and the characteristics of recipients of reablement interventions. The study reported high attrition rates for both study arms over time (control 41% and intervention 45% over a 12-month period), with a high proportion of participants dying during the study period. Lower rates of attrition of 32% at 12 months were observed in the personal health budgets evaluation, another evaluation for a comparable target group (Forder *et al.*, 2012).

Our assumptions about attrition are based on the experience of survey companies of longitudinal surveys with similar populations and similar gaps between the fieldwork stages. The rates of attrition suggested by survey companies were broadly similar – in the region of one-third to a quarter of cases lost at each stage. The survey companies suggested that attrition may increase over the waves. These assumptions are perhaps optimistic given the reported attrition for the two studies noted above. The effect on the achieved sample at each wave of attrition at these levels is illustrated in Table 24.

One aspect the research team will need to consider in follow-up waves is the potential that carers' roles may change as a consequence of changes in the health and frailty of the older person. New carers could start providing help and may take over as the main carer. It is also possible that over the course of the study some older people may lose the capacity to participate. Rather than dropping these cases, it may be desirable for carers to act as proxy-respondents for the older person. **The research team will need to consider how to address these challenges in the design of the study, by collecting appropriate information and consent at baseline**.

TABLE 24: RESPONSE RATES AT EACH SURVEY WAVE

	CONSTANT RESPONSE RATES					DECREASING RESPONSE RATES				
	Response rate	Estimated sample size at each stage				Response rate	Estimated sample size at each stage			
Baseline		3,000	1,500	1,000	500		3,000	1,500	1,000	500
6 months	75%	2,250	1,125	750	375	75%	2,250	1,125	750	375
18 months	75%	1,688	844	563	281	70%	1,575	788	525	263
3 year	75%	1,266	633	422	211	65%	1,024	512	341	171

6.4.3 SAMPLE RETENTION AT FOLLOW-UP WAVES

There is a large literature on nonresponse and strategies for improving response rates to surveys (see for instance Dillman, Smyth and Christian (2014), Ryu, Couper and Marans (2006) and Yu and Cooper (1983). Given the effects of nonresponse on the power of the study to detect differences in outcomes at follow-up waves, as illustrated in Table 25, **it will be important for the research team to consider multiple strategies to maximise response rates to each wave**. Options which should be considered are the use of incentives for study participants; the design, accessibility and attractiveness of advance materials; strategies to build a rapport between interviewer and participants; and activities designed to keep in touch between waves to provide the research team with a means of identifying possible changes of address or circumstances. The research team may also want to consider an allowance for interviewers to carry out tracing of participants in the field for follow-up waves.

6.5 QUESTIONNAIRES AND THEIR MODE OF ADMINISTRATION

The proposed content of the questionnaires is outlined in Section 4 and should cover the following areas: service receipt, social care needs indicators, outcome indicators and personal characteristics and circumstances. Based on previous experience we expect each questionnaire to take between 45 mins to 1 hr to administer. The questionnaire is likely to have a core set of questions that will remain the same throughout the study, although a small set of questions may differ between the baseline and each follow-up interview. Given the length of the questionnaire and the type of information collected, paper-based self -completion should be ruled out as the primary data collection mode[16]. Both telephone and face-to-face interviews would be appropriate methods for collecting the types of data outlined, but **we recommend that the research team use face-to-face interviews as the primary mode of data collection due primarily to the length of the interview, but also to build rapport between the interviewers and participants which is important for a multi-wave study**.

There are additional benefits to face-to-face interviews, particularly for older people. First, face-to-face interviews aid communication, which is important given the likelihood that some participants may have hearing impairments or difficulties processing complex information. Secondly, previous experience suggests that face-to-face interviews can facilitate the recruitment of carers into the study, particularly co-resident carers who are likely to be present at the interview. Interviewers could try to schedule interviews to coincide with visits by extra-resident carers to facilitate recruitment of such carers into the study.

Telephone interviews are a cheaper method of data collection and could potentially be considered for follow-up waves when a rapport is already established, and questionnaires are likely to be quicker to administer. This may be a particularly attractive option for the carer interviews, as it could help to address some of the sensitivities that the research team are likely to encounter trying to interview both the older person and carer. For both individuals, but particularly carers, some of the interview content may be sensitive and difficult for them to discuss in the presence of the person with care needs (e.g. impact of caring on their health or employment). There may therefore be an advantage for data quality in conducting a telephone interview which could be arranged to take place in private. **The research team may want to consider using telephone interviews for carers, particularly for follow-up waves of the study. They may also want to consider options for ensuring interviews can be conducted in private where necessary**.

6.5.1 DEVELOPMENT AND TESTING OF THE QUESTIONNAIRES

The proposed approach, outlined in Section 4, suggests using established questions that have been widely used in other studies for the main study questionnaires. The questionnaires should therefore for the most part only require piloting for flow and errors. It is, however, likely that some new questions will be needed, particularly for capturing some of the more novel services for people with low-level needs. Given the likelihood that some questions will need to be developed **we would recommend that the research team include some capacity** for testing and developing questions in the budget.

The screening questionnaire for assessing eligibility for the study will require development. Given the importance of this questionnaire for the success of the study, **the research team will want to include some capacity to develop and thoroughly test this questionnaire with older people and local authority First Contact Team staff (see Section 6.2)**.

It will be important for the main study to explore arrangements for data sharing between health and social care organisations and the study, in particular regarding data describing the use of care services. Potentially, these data could improve significantly some of the evidence on care use collected through user and carer interviews, by providing a continuous picture of the use of care services over the course of the study, with precise dates of changes in consumption and possibly with information regarding associated costs. These data would not present some of the problems of recall bias associated with retrospective, self-reported data collection.

These linked administrative data would have some limitations, however: private social care provision would not be covered, and it is unlikely that universal low-level services would be recorded systematically in a form that could be shared with the main study.

6.6   DATA REPRESENTATIVENESS

A key consideration for the study will be the extent to which its findings can be used to inform policy in other areas in England. The representativeness of the main study and the transferability of its results will be affected by three considerations:

• The representativeness of the sample of cases interviewed by the study relative to the population of older people with low/moderate needs contacting the authorities in the study.

• The representativeness of the care models for supporting people with low/moderate care needs of the local authorities in the study.

• The inclusion of councils with a broad range of characteristics likely to mediate the success of those models of support (e.g. authority type, socio-economic profile, key health and social care system arrangements).

6.6.1   CORRECTING FOR BIASES IN THE SAMPLE OF INDIVIDUALS SAMPLED

The study should attempt to collect evidence about the representativeness of the sample of users interviewed relative to the population of older people with low/moderate needs contacting authorities for support.

It will be particularly important to negotiate with participating authorities access to aggregate data about the characteristics of all individuals contacting the authority for social care support during the baseline data collection period. This information could be used subsequently to identify possible biases in the sample of cases interviewed, and to reweight the samples obtained during the analysis in order to attempt to correct for any such biases.

Our interviews with local authorities and analyses of local assessment documentation suggests that the type of information collected at first point of contact varies considerably across areas, so it would not be possible to use these data to assess eligibility for the study on a comparable basis. Nevertheless, these data could potentially be used to assess the representativeness of the achieved sample within each authority.

6.6.2   TESTING FOR THE REPRESENTATIVENESS OF PARTICIPATING AUTHORITIES AND GROSSING UP TO NATIONAL LEVELS

The typologies of local care models developed using the methods in Section 3.4, combined with information about local characteristics (e.g. LA type) should allow the reweighting of the study sample to English-level patterns. The success of any grossing-up at the national-level of the results of the main study will depend critically on whether the relevant care models are represented in the study, as well as whether the authorities in the study are distributed across other important dimensions of characteristics, such as rurality, population density, socioeconomic characteristics and deprivation.

The national-level representativeness of the individual-level characteristics of the sample in the study could be tested (and reweighted accordingly) by comparing the study sample against nationally representative surveys such as ELSA, HSE and US.

6.7   THE ROLE OF A PILOT

High recruitment and response rates to each survey wave will be critical to the success of the main study and will affect critically the costs of the fieldwork. The range of plausible estimates of recruitment and response rates based on previous similar studies is quite wide. This means there is some uncertainty over the necessary initial numbers to be recruited to achieve the desired sample size, the costs of the study and the viability of later follow-up waves, especially for the carer sample. Given the importance of these elements for the success of the study and the large costs of the main stage fieldwork there is a strong case for carrying out a significant pilot study across multiple local authority sites. **The research team may therefore want to consider a pilot study which would aim to (i) inform the research team about likely recruitment and response rates for both older people and carers at baseline, the proportion of older people who are likely to have a main carer who is co-resident or extra-resident, and the proportion who are happy to be contacted again at six months, (ii) examine ways of maximising recruitment and response rates for both older people and carers, looking at options for processes and screening and recruitment materials, and (iii) refine in partnership with local authority professionals the definition of the criteria to be applied across collaborating authorities for selecting cases into the study.**

A further area that it would be important to address in a pilot is the arrangements between the research team (including fieldwork organisation) and the local authority for processing participants. The smooth operation of this stage is critical for ensuring that the baseline interviews are conducted as quickly as possible after recruitment of individuals into the study. An important aspect to assess would be the likelihood of achieving a baseline interview prior to the older person starting to receive additional support. The pilot would need to address this question directly. Given differences across authorities in how First Contact Teams operate and in the types of support provided to those who contact the authority the research team may find it necessary to pilot this process in all study sites. The research team may want to explore other options for conducting the baseline interviews in the pilot, e.g. using retrospective questions, collecting key needs and outcomes data at the point of first contact and so on.

In addition to these aspects, it would also be important to pilot the questionnaires for each survey wave. We would anticipate that these questionnaires could be piloted as a 'dry-run' of the main stage rather than a large-scale pilot given the questionnaires should be composed mainly of widely used and tested sets of survey questions.

In the summary, a pilot would provide a firmer basis on which to plan the detail of the main stage survey and an opportunity to re-scope some elements of the study to fit the cost envelope should the assumptions set out here prove to be too optimistic (or pessimistic) or should some of the proposed processes prove infeasible in certain sites. It would provide the research team with greater confidence in the viability of the main survey.

7　COSTS OF THE STUDY

Ballpark costs for the fieldwork were obtained from IPSOS/MORI, GfK and Natcen. These survey companies based their estimates on a brief specification provided by LSE researchers and further discussions with the scoping study research team. The survey organisations made a number of assumptions about key elements of the study, some of which varied between estimates provided, as follows:

1. Assumed start date of the study (variable: 2018, 2019)

2. The number of local authority sites (variable: 10, 15, 30)

3. The achieved sample at baseline for older people (variable: 3,000; 1,500; 1,000)

4. The proportion of older people with a carer who could be interviewed and the ratio of extra- to co-resident carers (variable: two-thirds, half; ratio of half-half)

5. The number and timing of follow-up interviews (variable: either 3 or 4 at 6 months, 1 year, 18 months. 2 years, 3 years)

6. The response rates at each stage of the study for both older people and carers (variable: see Tables 24 and 25)

7. The interview mode (variable: all face-to-face, some telephone interviews for later follow-up interviews with carers)

8. Main questionnaire length (variable: 60-minute for baseline and 45-minute for follow-ups, 45-minute for baseline and 30-minute for follow-ups)

9. Carer questionnaire length (variable: 45-minute questionnaire at each wave, 30-minute questionnaire at each wave)

10. Overlap between questionnaires at waves and between the older person and carer questionnaires (variable: 50, 70 and 75% the same)

11. Other elements of the study (variable costing of pilots, incentives, involvement in questionnaire design and testing, coding of open-ended questions and strategies for maximising response rates between waves)

To protect commercial interests, the costs are reported below as ranges of values and are not attributed to the survey companies. These costs exclude VAT but include estimated inflation costs beyond 2018. To aid comprehension, we have provided some indication of how the costs differ according to changes in the key parameters listed above. Where costs were directly comparable between companies (because they used the same core assumptions) the quotes were fairly similar.

Broadly, it would not be possible to deliver the fieldwork for a baseline sample of much more than a 1,000 older people for under £1m (including VAT) assuming three follow-up waves of data collection. Even assuming two follow-up waves of data collection a baseline sample of 1,500 older people will cost in the region of £1.1m to £1.5m (including VAT). Further follow-up waves could increase costs to between £1.5 and £1.9m (including VAT). A baseline sample of 3,000 older people, which would have the greatest power to detect differences between groups of people receiving different care models, especially given likely rates of attrition, would cost in the region of £2m (including VAT) for a study with two follow-up waves and significantly over £2m for three follow-up waves. The fairly wide variability in costs depends on the assumptions applied about the likely recruitment, conversion and attrition rates for older people and their carers.

The costs of a pilot (including development work) would be a fraction of the costs of the main survey and of the variation in the estimated costs of the fieldwork at around £35,000 depending on the size of the pilot. Given its potential to address many of the significant uncertainties surrounding the implementation of the main study, funding a pilot study appears therefore to be worth the additional costs.

Recruitment rates are also a key parameter in determining the costs of the fieldwork. If recruitment rates are fairly high then our analysis in Section 5.2 suggests that for some of the larger authorities the survey companies are likely to receive a good number of contacts on a weekly basis, which reduces the cost of fieldwork. By contrast, if recruitment rates are fairly low then survey companies will receive very few contacts on a weekly basis. This has

consequences for the management of the fieldwork (discussed in Section 6). Estimates of likely recruitment rates are therefore important for providing indicative costs of the fieldwork. **It will be important for the main study's research team to explore strategies to maximise recruitment rates in a pilot to fine-tune the methods for the main stage of the study and so keeping fieldwork costs down**.

In addition to the fieldwork costs, the evaluation will incur other significant costs, including in particular the analysis costs (i.e., the costs of the research team, which based on the costs of prior similar large evaluations are likely to be in excess of £700,000, assuming a four-year study), any incentives that might be offered to increase local authority participation and individuals' recruitment rates into the study and the costs of purchasing any linked data.

8 SUMMARY OF EXPECTED OUTCOMES FROM THE MAIN STUDY

The previous section has highlighted the significant costs involved in implementing the main study. The present section provides a summary of the key outputs that would be expected to emerge from the study, as well as a list of potential additional uses that could be made of the evidence generated by the main study.

8.1 KEY STUDY OUTPUTS

■ **A detailed picture of the characteristics of people with low/moderate care needs approaching their local council for support and their carers.** If the recommended target number of interviews is achieved, the sample in the study will exceed significantly the numbers of similar cases available in national surveys such as ELSA and HSE and will provide a richer description of their social care needs, formal and unpaid support, and of their quality of life. This evidence should inform needs planning by local authorities and the design of new forms of support for this target group.

■ **A detailed understanding of the nature of different care models for supporting individuals with low/moderate social care needs.** This would represent a key contribution of the study, given our lack of understanding of the different support arrangements put in place for this target group. The study will quantify the types and levels of support provided to different individuals by different care models and will be able to describe patterns of support through time. In addition, the process evaluation will provide evidence about the rationale behind the differences of approach, the different practical arrangements in place and the role of local context in shaping local care models.

■ **A comparative analysis of the costs and outcomes of alternative care models.** The recommended study approach represents an economic evaluation of the different models of support for people with low/moderate care needs. The quantitative analyses will provide estimates of the differences between models in outcomes achieved for older people and their carers, as well as estimates of the differences in the cost of resources. From this evidence, the study should be able to judge the relative cost-effectiveness of different approaches for supporting people with low/moderate needs, taking into account the wider effects of different models on carers and other parts of the health and care system.

■ **An analysis of differences in the cost-effectiveness of specific services for different individuals with low/moderate care needs.** In addition to comparing broad care models, the evaluation will collect evidence about the specific services used by the study participants. Using multivariate regression models, the evaluation should explore the way in which increases in different services lead to improvements in care outcomes, their relative costs, and the way in which the cost-effectiveness of different services vary depending on the need-related characteristics of the care recipients. From this evidence the study should be able to assess to some degree the relative cost-effectiveness of different services for different groups of care recipients.

■ **An analysis of the likely effects of recent changes in social care provision.** By comparing more generous care models with those providing less support, the main

study should inform our understanding of the likely consequences of the recent changes in levels of statutory social care support in England. The study should be able to comment on the likely consequences for levels of unmet needs, care outcomes and the health and social care costs of providing different levels of social care support for people with low/moderate needs. The main study will not provide, however, detailed quantitative estimates of the changes in England in patterns of support between specific years and of their consequences on wellbeing

and health and social care costs. Deriving such estimates would require comparable evidence about the past which is not possible to collect retrospectively.

■ **Evidence to support the development of recommendations about the most cost-effective strategy for supporting older people with low/moderate care needs**. The findings above will allow the study to recommend strategies and associated system arrangements for supporting people with low/moderate care needs across local authorities in England.

8.2 OTHER USES OF THE MAIN STUDY EVIDENCE

The main study will collect a large amount of longitudinal quantitative data about needs, services and outcomes, and a wealth of information regarding local policies and care arrangements. This evidence could be used for a wide range of additional analyses, such as:

■ **Changes in the needs profile of people with low/moderate needs over time, and rates of transition between disability states**. Understanding individuals' needs progression through time is crucial for instance when designing services and systems which match the nature of the needs progression. Such information is also important for developing dynamic simulation models of the social care system.

■ **Understanding lifetime patterns of care costs**: the main study should also provide invaluable information about patterns of care use and transitions between services through time for older people just below the needs eligibility threshold. Using administrative data, this information only exists at present for people who receive core social care packages.

■ **Understanding the causal relationship between needs, services and outcomes**: by collecting evidence about care needs, services and outcomes over a long period, the study evidence could be used to estimate the long-term effects of differences in levels of support, and therefore contribute significantly to our understanding of the cost effectiveness of different strategies for prevention and forms of early intervention. A key policy question that could be investigated using the main study data is the interrelationship

between health and social care service use.

■ **The interrelationship through time between formal and unpaid care**. There is little research investigating the interrelationship between formal and unpaid care, in part due to a lack of available data. The data collected could be used to quantify the extent of substitution between formal and informal care and to explore differentiation in care tasks by formal and unpaid carers, and the factors that explain differentiation.

■ **Understanding the causal relationship between formal care services and outcomes for unpaid carers**: relatively few studies have attempted to explore the effect of formal services on outcomes for unpaid carers, largely due to a lack of appropriate data and the challenges of estimation with available datasets. It is theorised that outcomes for carers from formal services (mainly provided to the older people with care needs) are largely mediated through the effect of formal care on changes in the intensity of unpaid care and care tasks and on outcomes for older people with care needs, which induces an emotional response in the unpaid carer (e.g. of relief, see Bobinac et al 2010, Al-Janabi 2016). The evidence from the main study provides a suitable dataset to test this theory and explore the interrelationship between the quality of life of dependent

older people and their carers in the context of formal care provision.

■ **Quantification of unmet needs**: the measurement of unmet needs related to social care is a controversial topic due to the lack of an agreed definition of the specific needs that should be supported, and in particular of the way in which these needs should be met. Previous studies have, however, developed estimates of unmet need in the social care system (see in particular NatCen Social Research and Ipsos MORI (2017)). The evidence collected in the main study of the types of support provided to older people with low/moderate care needs would enable the estimation of similar unmet needs measures to those used in previous studies, but this evidence would be available for a much larger sample and could be analysed alongside detailed information on care models to better contextualise and interpret the findings. Estimates of unmet need would relate specifically to older people with low/moderate needs, rather than to the whole population of individuals with social care needs, but such analysis would greatly enhance our understanding of the level and types of unmet needs among this group of older people.

■ The appropriateness of different measures for capturing service outcomes for older people with low/moderate care needs. Few studies have explored the effects of care and support services on older people with low/moderate care needs. The evidence collected from this study would provide important information about the sensitivity of different measures and therefore the most appropriate set of outcome indicators for future evaluations of care and support services for older people with low/moderate care needs.

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ANNEX 1: RANKINGS OF LOCAL AUTHORITY CHARACTERISTICS BY YEAR

The following tables illustrate residual relative to predicted local authority values according to a range of measures at discrete time points. As outlined in Figure 6 and the accompanying text of the main report, tables are ordered to facilitate the identification of authorities according to their initial (2010/11) ranking, their final (2015/16) ranking and the degree of movement in ranking between first and final years.

The left-hand column of each table includes the 50% of authorities that are most consistent in their ranking over time.

Those at the top (coloured red) consistently have lower than expected values (according to local characteristics) for the corresponding measure, while those at the bottom (coloured green) have consistently higher values than expected.

The right-hand column of each table includes the 50% of authorities that show the greatest variability within each measure between 2010/11 and 2015/16. Those at the top (green to red) move from higher to lower than predicted values, while those at the bottom (red to green) move from lower to higher than predicted values.

FIGURE 13: RESIDUAL RELATIVE TO PREDICTED NET CURRENT EXPENDITURE PER CAPITA ON OLDER PEOPLE'S ADULT SOCIAL CARE (SELECTED YEARS)

Authority	2010/11	2013/14	2015/16
Portsmouth	-0.30	-0.33	-0.21
Salford	-0.17	-0.36	-0.24
Wigan	-0.27	-0.19	-0.30
Plymouth	-0.26	-0.22	-0.19
York	-0.17	-0.25	-0.22
Bexley	-0.21	-0.26	-0.15
Blackpool	-0.21	-0.13	-0.19
Wolverhampton	-0.04	-0.30	-0.14
Wirral	-0.07	-0.20	-0.16
Sutton	-0.06	-0.24	-0.11
Sunderland	-0.22	-0.03	-0.15
Cornwall	-0.17	-0.04	-0.17
Windsor & Maidenhead	-0.10	-0.21	-0.04
Hampshire	-0.09	-0.15	-0.11
St Helens	-0.10	-0.11	-0.09
Wokingham	-0.14	-0.04	-0.07
Southampton	-0.16	-0.02	-0.07
North Yorkshire	-0.08	-0.10	-0.05
Barnet	-0.09	-0.12	-0.01
Islington	-0.07	-0.06	-0.08
Leicestershire	-0.08	-0.05	-0.07
Trafford	-0.07	-0.01	-0.11
Cumbria	-0.01	-0.09	-0.08
Halton	-0.09	-0.09	0.01
Bolton	-0.03	-0.06	-0.08
Wakefield	-0.07	-0.09	-0.01
Harrow	-0.07	-0.13	0.03
Northamptonshire	0.01	-0.11	-0.05
Westminster	-0.03	-0.03	-0.07
Telford & Wrekin	-0.09	0.06	-0.09
Swindon	-0.07	-0.01	-0.05
Havering	-0.10	-0.01	0.00
Essex	0.02	-0.05	-0.04
Lincolnshire	0.00	-0.09	0.02
Bury	-0.09	0.13	-0.10
Merton	0.00	-0.03	-0.03
Gloucestershire	-0.09	0.04	0.01
Kirklees	0.00	-0.05	0.02
Hillingdon	0.04	-0.03	-0.04
Ealing	0.08	-0.15	0.06
North Somerset	-0.05	0.08	-0.03
Wiltshire	-0.02	0.00	0.04
Norfolk	-0.04	0.09	-0.02
Dorset	0.04	-0.01	0.01
Lancashire	0.03	-0.06	0.08
Sandwell	0.03	0.03	0.01
North Lincolnshire	-0.03	0.12	-0.02
Brighton & Hove	0.04	0.06	0.02
Greenwich	0.07	0.07	-0.01
Poole	0.01	0.04	0.09
South Gloucestershire	0.12	0.01	0.01
Bournemouth	0.11	0.02	0.04
Darlington	0.04	0.12	0.03
Birmingham	0.03	0.11	0.05
Nottinghamshire	0.05	0.15	0.00
Rutland	-0.01	0.13	0.09
Middlesbrough	0.05	0.14	0.02
West Berkshire	0.04	0.09	0.09
Kingston upon Thames	0.09	0.09	0.05
Bradford	0.15	0.09	0.04
Kingston Upon Hull	-0.05	0.39	-0.08
Barking & Dagenham	0.09	0.17	0.00
Redcar & Cleveland	0.18	-0.01	0.10
Central Bedfordshire	0.07	0.06	0.16
Camden	0.09	0.13	0.08
Herefordshire	0.11	0.15	0.08
Hertfordshire	0.07	0.23	0.10
Rotherham	0.16	0.20	0.11
Derbyshire	0.17	0.21	0.08
Tower Hamlets	0.13	0.24	0.13
Lewisham	0.17	0.22	0.17
Cheshire East	0.23	0.35	0.14
South Tyneside	0.24	0.17	0.31
Richmond upon Thames	0.27	0.30	0.23
Isle of Wight	0.31	0.21	0.31

Authority	2010/11	2013/14	2015/16
Hounslow	0.10	-0.06	-0.39
Oldham	0.41	0.00	0.03
Cambridgeshire	0.10	0.08	-0.24
Barnsley	-0.06	-0.17	-0.39
Croydon	-0.03	-0.19	-0.35
Thurrock	0.05	-0.02	-0.24
Bromley	0.04	0.03	-0.25
North Tyneside	0.04	-0.16	-0.22
Coventry	0.06	-0.10	-0.18
North East Lincolnshire	0.22	-0.04	0.01
Worcestershire	0.12	0.20	-0.08
Leeds	0.08	0.02	-0.13
Staffordshire	0.07	0.02	-0.13
Warrington	0.06	0.11	-0.14
Hackney	0.22	0.15	0.04
East Sussex	0.25	0.04	0.07
Liverpool	-0.02	-0.13	-0.19
Rochdale	0.00	-0.10	-0.17
Manchester	-0.04	0.09	-0.20
Durham	0.11	0.00	-0.04
Newham	0.09	-0.11	-0.07
West Sussex	-0.03	0.19	-0.18
Oxfordshire	0.09	0.01	-0.06
Southwark	-0.03	-0.04	-0.17
Cheshire West & Chester	0.04	-0.26	-0.11
Stockport	0.01	-0.02	-0.14
Wandsworth	0.05	-0.06	-0.09
Lambeth	0.18	0.08	0.04
Northumberland	0.11	0.10	-0.03
Milton Keynes	0.03	0.05	-0.11
Calderdale	0.15	0.04	0.01
Waltham Forest	-0.03	-0.09	-0.17
Devon	-0.04	0.01	-0.17
Suffolk	0.06	0.05	-0.07
Southend-on-Sea	-0.05	-0.21	-0.18
Torbay	0.02	-0.07	-0.09
Medway	-0.11	-0.18	-0.23
Walsall	0.14	0.34	0.03
Kent	-0.06	-0.01	-0.16
Shropshire	-0.14	-0.24	-0.02
Brent	-0.21	-0.28	-0.10
East Riding of Yorkshire	-0.14	-0.19	-0.02
Hammersmith & Fulham	0.15	0.05	0.27
Stockton-on-Tees	0.03	0.11	0.15
Dudley	-0.11	0.04	0.03
Sefton	-0.06	0.15	0.07
Nottingham	0.02	0.09	0.16
Reading	-0.06	-0.02	0.10
Kensington & Chelsea	-0.23	-0.06	-0.08
Warwickshire	-0.05	0.06	0.11
Gateshead	0.14	-0.16	0.32
Solihull	-0.10	-0.13	0.07
Luton	0.09	0.05	0.27
Enfield	-0.03	0.20	0.15
Sheffield	0.14	0.16	0.34
Haringey	-0.01	0.04	0.19
Newcastle upon Tyne	-0.08	0.00	0.12
Bracknell Forest	-0.12	-0.05	0.09
Hartlepool	0.02	0.19	0.23
Surrey	-0.07	0.12	0.14
Redbridge	-0.14	-0.18	0.09
Bedford	0.04	0.09	0.27
Slough	0.02	0.12	0.24
Bristol	0.02	0.11	0.25
Blackburn with Darwen	0.12	-0.03	0.36
Peterborough	-0.20	-0.20	0.05
Bath & N. E. Somerset	0.04	0.06	0.30
Buckinghamshire	-0.06	-0.09	0.20
Tameside	-0.11	0.02	0.15
Doncaster	-0.06	0.02	0.21
Knowsley	-0.09	0.04	0.18
Leicester	-0.02	0.15	0.29
Somerset	-0.13	-0.09	0.22
Derby	-0.22	-0.03	0.22
Stoke-on-Trent	-0.06	0.16	0.46

Authority	2010/11	2013/14	2015/16	Authority	2010/11	2013/14	2015/16
Sunderland	-0.39	-0.42	-0.25	York	0.50	0.90	-0.12
Wokingham	-0.33	-0.32	-0.22	Halton	0.56	0.68	-0.02
Barnsley	-0.32	-0.31	-0.23	Sefton	0.36	-0.12	-0.18
Sutton	-0.19	-0.34	-0.31	Tameside	0.45	0.01	-0.09
Wigan	-0.17	-0.16	-0.29	West Berkshire	0.54	0.04	0.01
Bolton	-0.12	-0.23	-0.25	Dudley	0.42	-0.23	-0.07
Plymouth	-0.16	-0.24	-0.18	Buckinghamshire	0.47	0.58	0.01
West Sussex	-0.14	-0.30	-0.12	North Lincolnshire	0.14	-0.19	-0.24
Slough	-0.25	-0.18	-0.11	Gloucestershire	0.18	-0.06	-0.20
Wandsworth	-0.19	-0.23	-0.09	Bradford	0.25	-0.27	-0.09
Islington	-0.08	-0.24	-0.20	Enfield	0.23	0.00	-0.11
Wiltshire	-0.16	-0.16	-0.17	Hartlepool	0.57	0.08	0.23
Bournemouth	-0.16	-0.19	-0.11	Kent	0.18	-0.09	-0.15
Northamptonshire	-0.26	-0.08	-0.12	East Sussex	0.29	0.59	0.01
Sandwell	-0.04	-0.27	-0.14	Somerset	0.44	0.42	0.16
Oldham	-0.13	-0.25	-0.06	Shropshire	0.19	-0.29	-0.08
Birmingham	-0.22	-0.15	-0.07	Telford & Wrekin	0.03	-0.15	-0.24
Medway	-0.10	-0.19	-0.14	North East Lincolnshire	0.28	-0.03	0.06
North Somerset	-0.15	-0.20	-0.05	Hackney	0.00	-0.01	-0.22
Wakefield	-0.13	-0.08	-0.19	Windsor & Maidenhead	0.05	-0.31	-0.16
Warrington	-0.10	-0.23	-0.04	Cumbria	0.18	-0.04	-0.02
Bromley	-0.09	-0.16	-0.10	Harrow	0.16	0.09	-0.03
Leeds	-0.02	-0.21	-0.10	Southampton	0.17	0.26	-0.02
Essex	-0.15	-0.08	-0.07	Kingston upon Thames	0.02	-0.03	-0.17
Nottinghamshire	-0.08	-0.07	-0.15	Thurrock	0.24	-0.34	0.06
Cheshire West & Chester	-0.08	-0.14	-0.07	Lambeth	0.25	0.22	0.07
Milton Keynes	-0.22	0.07	-0.13	Westminster	0.17	0.22	-0.01
Oxfordshire	-0.09	-0.12	-0.05	Hampshire	0.13	-0.07	-0.03
Hounslow	-0.04	-0.20	-0.03	Warwickshire	-0.28	-0.32	-0.45
Suffolk	-0.12	-0.04	-0.08	North Tyneside	0.20	-0.26	0.03
Portsmouth	-0.11	-0.01	-0.11	Barking & Dagenham	0.03	0.17	-0.13
Hillingdon	-0.08	-0.07	-0.04	Lewisham	0.19	0.06	0.03
Calderdale	-0.10	-0.10	0.03	Newham	0.10	-0.01	-0.06
Coventry	-0.08	-0.03	-0.05	Bracknell Forest	0.04	0.08	-0.12
Merton	-0.05	-0.11	0.03	Northumberland	-0.05	-0.27	0.12
Blackpool	-0.02	-0.06	0.00	St Helens	0.02	0.61	0.20
Derby	0.01	-0.08	0.04	Lancashire	-0.09	-0.05	0.09
Barnet	-0.08	0.02	0.04	Richmond upon Thames	-0.21	-0.30	-0.02
Swindon	-0.02	0.07	-0.07	Nottingham	0.03	0.04	0.23
Cambridgeshire	-0.05	0.06	0.00	South Gloucestershire	-0.09	-0.13	0.11
Rochdale	0.04	0.00	-0.03	Norfolk	-0.17	-0.18	0.04
Newcastle upon Tyne	0.04	-0.10	0.08	Gateshead	-0.21	-0.10	0.00
Kensington & Chelsea	0.02	0.07	-0.03	Southwark	-0.24	0.13	-0.03
Leicestershire	-0.02	0.06	0.03	Bury	-0.15	-0.12	0.07
Greenwich	0.08	-0.07	0.09	Stoke-on-Trent	-0.06	0.25	0.15
Herefordshire	-0.03	0.13	0.04	Camden	-0.14	-0.25	0.07
Wirral	-0.10	0.48	-0.24	Liverpool	-0.29	-0.19	-0.07
Durham	-0.01	0.09	0.06	Haringey	-0.28	-0.14	-0.05
Blackburn with Darwen	-0.01	0.03	0.13	Manchester	-0.36	-0.27	-0.14
Derbyshire	0.13	0.00	0.03	Worcestershire	-0.37	-0.32	-0.14
Torbay	0.07	0.14	-0.02	Peterborough	-0.06	0.04	0.18
Salford	0.14	0.12	0.02	Rotherham	-0.14	-0.29	0.09
North Yorkshire	0.16	0.01	0.15	Bath & N. E. Somerset	-0.20	-0.12	0.04
Rutland	-0.05	0.55	-0.17	Dorset	-0.26	-0.33	-0.03
Bristol	0.09	0.08	0.16	Poole	-0.23	-0.18	0.01
Hertfordshire	0.07	0.14	0.13	Waltham Forest	-0.30	-0.33	-0.06
Staffordshire	0.13	0.22	0.00	Wolverhampton	-0.29	-0.32	-0.02
Havering	-0.04	0.36	0.08	Knowsley	-0.18	-0.20	0.10
Luton	0.18	0.05	0.17	Cheshire East	-0.23	-0.03	0.06
Reading	0.15	0.10	0.17	Devon	-0.05	0.00	0.24
Kingston with Darwen	-0.06	0.51	-0.02	Solihull	-0.20	0.17	0.10
Tower Hamlets	0.20	0.12	0.14	Doncaster	-0.16	-0.12	0.14
Leicester	0.12	0.15	0.19	Stockport	-0.04	0.22	0.28
South Tyneside	0.22	0.01	0.26	Sheffield	-0.25	-0.11	0.07
Ealing	0.19	0.14	0.16	Croydon	0.08	0.29	0.40
Trafford	0.10	0.41	0.01	Brent	-0.23	-0.24	0.11
Southend-on-Sea	0.22	0.15	0.18	Brighton & Hove	-0.24	-0.16	0.20
Redcar & Cleveland	0.17	0.29	0.11	Central Bedfordshire	-0.16	0.02	0.30
Darlington	0.23	0.39	0.15	Bexley	-0.48	-0.39	-0.01
Surrey	0.26	0.38	0.21	East Riding of Yorkshire	-0.39	-0.19	0.13
Hammersmith & Fulham	0.26	0.41	0.23	Bedford	-0.09	0.10	0.66
Redbridge	0.35	0.59	0.25	Walsall	.	-0.42	-0.28
Stockton-on-Tees	0.28	0.80	0.20	Cornwall	.	-0.26	-0.18
Kirklees	0.44	0.58	0.28	Lincolnshire	.	0.21	-0.08
Middlesbrough	0.31	1.03	0.17	Isle of Wight	.	-0.06	0.11

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FIGURE 15: RESIDUAL RELATIVE TO PREDICTED NUMBER OF OLDER PEOPLE RECEIVING RESIDENTIAL/NURSING CARE PER CAPITA (SELECTED YEARS)

Authority	2013/14	2010/11	2015/16
Cornwall	- 0.31	- 0.33	- 0.31
Wakefield	- 0.23	- 0.28	- 0.21
Waltham Forest	- 0.21	- 0.24	- 0.23
Poole	- 0.19	- 0.23	- 0.22
Medway	- 0.21	- 0.21	- 0.22
Portsmouth	- 0.21	- 0.20	- 0.23
Wigan	- 0.17	- 0.23	- 0.19
Manchester	- 0.22	- 0.15	- 0.20
Havering	- 0.23	- 0.14	- 0.17
Sunderland	- 0.18	- 0.13	- 0.18
Torbay	- 0.14	- 0.23	- 0.11
Plymouth	- 0.12	- 0.17	- 0.19
Barnsley	- 0.17	- 0.18	- 0.13
Wokingham	- 0.19	- 0.13	- 0.12
Solihull	- 0.19	- 0.10	- 0.14
Warwickshire	- 0.16	0.01	- 0.23
Devon	- 0.14	- 0.16	- 0.08
Coventry	- 0.14	- 0.09	- 0.09
Milton Keynes	- 0.12	- 0.06	- 0.12
Reading	- 0.09	- 0.13	- 0.05
Staffordshire	- 0.09	- 0.11	- 0.06
St Helens	- 0.07	- 0.07	- 0.11
Croydon	- 0.18	0.03	- 0.09
Bexley	0.03	- 0.26	0.00
Kirklees	- 0.06	- 0.17	0.02
Liverpool	- 0.09	- 0.08	- 0.03
Herefordshire	- 0.10	- 0.03	- 0.07
Luton	- 0.12	0.03	- 0.09
Cambridgeshire	- 0.06	- 0.04	- 0.08
Suffolk	- 0.05	- 0.07	- 0.06
Newham	- 0.03	- 0.02	- 0.09
Blackpool	- 0.07	0.01	- 0.08
Worcestershire	- 0.04	- 0.04	- 0.05
Lincolnshire	- 0.08	0.07	- 0.09
Bracknell Forest	- 0.06	0.11	- 0.14
Bournemouth	- 0.03	- 0.02	- 0.03
Sandwell	- 0.05	- 0.05	0.02
Northumberland	0.01	- 0.13	0.07
York	- 0.02	0.02	- 0.05
Oxfordshire	- 0.04	- 0.02	0.01
Norfolk	- 0.01	0.00	0.02
Leicestershire	- 0.01	- 0.01	0.05
Merton	0.00	0.10	- 0.06
Brent	0.04	- 0.09	0.11
Leicester	- 0.02	0.07	0.03
Wiltshire	0.03	0.07	- 0.01
Stockport	- 0.02	0.13	0.01
Knowsley	0.10	0.00	0.02
Durham	0.09	0.03	0.01
Derbyshire	0.02	0.12	0.01
Trafford	0.09	0.04	0.03
Rotherham	0.10	- 0.05	0.13
Leeds	0.09	- 0.01	0.14
Camden	0.17	- 0.05	0.10
Gloucestershire	0.12	0.06	0.05
Hammersmith & Fulham	0.08	0.13	0.04
Hartlepool	0.03	0.11	0.11
Warrington	0.12	0.00	0.15
Cheshire East	0.07	0.14	0.09
Rochdale	0.14	0.10	0.08
Bradford	0.08	0.12	0.13
Lancashire	0.09	0.09	0.16
Dudley	0.06	0.18	0.14
Westminster	0.14	0.18	0.11
Northamptonshire	0.14	0.23	0.07
Central Bedfordshire	0.18	0.11	0.16
Islington	0.21	0.13	0.18
Redcar & Cleveland	0.18	0.22	0.16
Sefton	0.14	0.28	0.15
Hertfordshire	0.23	0.21	0.14
Kingston uopn Hull	0.24	0.22	0.15
Derby	0.25	0.17	0.20
Bath & N. E. Somerset	0.14	0.25	0.23
Brighton & Hove	0.36	0.28	0.30
Stockton-on-Tees	0.33	0.43	0.36

Authority	2010/11	2013/14	2015/16
Cheshire West & Chester	0.23	0.14	- 0.15
Rutland	0.09	0.30	- 0.23
Hillingdon	0.11	- 0.07	- 0.20
North Lincolnshire	0.23	0.16	- 0.07
Kingston upon Thames	0.25	- 0.17	- 0.05
Tameside	0.12	- 0.03	- 0.15
South Tyneside	0.25	- 0.03	0.00
Southend-on-Sea	0.14	- 0.05	- 0.11
Oldham	0.30	0.14	0.06
Sutton	- 0.16	- 0.39	- 0.40
Tower Hamlets	0.24	0.21	0.01
Darlington	0.51	0.44	0.29
Wandsworth	0.15	0.05	- 0.08
Bromley	- 0.06	- 0.21	- 0.28
Wirral	0.12	0.04	- 0.09
North Somerset	0.27	0.18	0.06
Thurrock	0.25	- 0.09	0.05
Bolton	- 0.10	- 0.13	- 0.29
Telford & Wrekin	0.00	0.10	- 0.18
Nottinghamshire	0.11	0.11	- 0.07
Calderdale	0.04	- 0.11	- 0.13
Richmond upon Thames	0.30	0.23	0.14
North East Lincolnshire	0.08	- 0.01	- 0.08
Kent	0.01	- 0.06	- 0.14
Hackney	- 0.14	- 0.21	- 0.28
Greenwich	- 0.05	0.02	- 0.19
Windsor & Maidenhead	0.02	- 0.10	- 0.12
Blackburn with Darwen	0.23	0.25	0.09
Newcastle upon Tyne	0.11	0.13	- 0.03
North Tyneside	0.06	0.04	- 0.07
Lambeth	0.25	0.17	0.12
East Sussex	0.07	0.06	- 0.06
Hounslow	- 0.19	- 0.22	- 0.31
Essex	- 0.01	- 0.07	- 0.12
Shropshire	0.18	0.05	0.06
Dorset	- 0.07	- 0.20	- 0.19
Peterborough	- 0.23	- 0.32	- 0.34
Southwark	0.05	0.16	- 0.06
Barking & Dagenham	- 0.05	0.01	- 0.15
Walsall	- 0.19	- 0.25	- 0.29
Wolverhampton	- 0.04	0.03	0.05
Harrow	- 0.11	- 0.02	- 0.01
South Gloucestershire	0.05	0.15	0.15
Stoke-on-Trent	0.00	0.00	0.10
Southampton	- 0.01	0.01	0.10
Somerset	0.00	0.05	0.11
Swindon	- 0.12	- 0.10	- 0.01
Buckinghamshire	- 0.04	0.10	0.07
Slough	- 0.17	- 0.07	- 0.05
Salford	- 0.18	- 0.16	- 0.06
Middlesbrough	0.08	0.42	0.21
East Riding of Yorkshire	0.29	0.15	0.41
Lewisham	0.03	0.09	0.17
North Yorkshire	- 0.11	- 0.18	0.03
West Berkshire	- 0.11	- 0.09	0.03
Hampshire	- 0.08	- 0.01	0.07
West Sussex	- 0.14	- 0.06	0.02
Barnet	- 0.03	0.03	0.13
Birmingham	- 0.12	- 0.12	0.05
Gateshead	- 0.05	0.03	0.14
Halton	- 0.42	- 0.20	- 0.24
Bury	- 0.05	- 0.05	0.14
Kensington & Chelsea	- 0.31	- 0.12	- 0.11
Cumbria	- 0.11	- 0.17	0.11
Sheffield	- 0.14	- 0.06	0.11
Enfield	- 0.23	- 0.18	0.06
Surrey	0.04	0.05	0.38
Doncaster	- 0.22	- 0.05	0.14
Ealing	- 0.23	- 0.09	0.13
Haringey	- 0.04	0.09	0.32
Bedford	0.14	0.07	0.52
Nottingham	0.00	0.10	0.39
Redbridge	- 0.20	- 0.06	0.23
Bristol	0.03	0.04	0.60
Isle of Wight	.	0.36	0.25

FIGURE 16: RESIDUAL RELATIVE TO PREDICTED NUMBER OF REQUESTS FOR SUPPORT FROM OLDER PEOPLE PER CAPITA (2015/16)

Authority	2015/16	Authority	2015/16
Warwickshire	-0.45	Cambridgeshire	-0.01
Sutton	-0.31	Blackpool	-0.01
Wigan	-0.29	Staffordshire	-0.01
Walsall	-0.29	Southampton	-0.01
Bolton	-0.26	Gateshead	0.00
North Lincolnshire	-0.25	West Berkshire	0.00
Sunderland	-0.24	Poole	0.01
Telford & Wrekin	-0.24	Bexley	0.01
Wirral	-0.23	Salford	0.02
Barnsley	-0.23	East Sussex	0.02
Hackney	-0.23	Buckinghamshire	0.02
Wokingham	-0.22	Herefordshire	0.03
Islington	-0.21	Derbyshire	0.03
Rutland	-0.20	Trafford	0.03
Gloucestershire	-0.20	Leicestershire	0.03
Wakefield	-0.18	Norfolk	0.03
Plymouth	-0.18	Bath & N. E. Somerset	0.04
Cornwall	-0.18	Lewisham	0.05
Wiltshire	-0.17	Barnet	0.05
Sefton	-0.16	Merton	0.05
Kingston upon Thames	-0.16	Derby	0.05
Worcestershire	-0.16	North Tyneside	0.05
Windsor & Maidenhead	-0.16	North East Lincolnshire	0.05
Kent	-0.15	Calderdale	0.05
Nottinghamshire	-0.15	Cheshire East	0.06
Sandwell	-0.14	Lambeth	0.06
Medway	-0.14	Thurrock	0.06
Manchester	-0.14	Durham	0.06
Bracknell Forest	-0.13	Bury	0.07
Northamptonshire	-0.13	Newcastle upon Tyne	0.07
Milton Keynes	-0.12	Lancashire	0.08
Bournemouth	-0.11	Sheffield	0.08
West Sussex	-0.11	Camden	0.09
Slough	-0.11	Rotherham	0.09
Barking & Dagenham	-0.11	Solihull	0.10
Portsmouth	-0.10	Greenwich	0.10
York	-0.10	South Gloucestershire	0.10
Lincolnshire	-0.10	Blackburn with Darwen	0.11
Tameside	-0.09	Northumberland	0.11
Suffolk	-0.09	Isle of Wight	0.11
Enfield	-0.09	Redcar & Cleveland	0.11
Shropshire	-0.09	Brent	0.11
Wandsworth	-0.08	Havering	0.11
Leeds	-0.08	Tower Hamlets	0.12
Cheshire West & Chester	-0.08	Knowsley	0.12
Bromley	-0.08	Hertfordshire	0.13
Bradford	-0.08	East Riding of Yorkshire	0.13
Dudley	-0.07	Stoke-on-Trent	0.15
Liverpool	-0.07	Ealing	0.15
Swindon	-0.07	North Yorkshire	0.15
Essex	-0.07	Darlington	0.15
Birmingham	-0.06	Bristol	0.15
Newham	-0.06	Doncaster	0.15
Waltham Forest	-0.06	Luton	0.16
Oxfordshire	-0.05	Somerset	0.16
Hillingdon	-0.05	Reading	0.17
North Somerset	-0.05	Middlesbrough	0.17
Coventry	-0.05	Peterborough	0.18
Oldham	-0.05	Southend-on-Sea	0.18
Warrington	-0.04	Brighton & Hove	0.19
Haringey	-0.04	St Helens	0.19
Westminster	-0.04	Stockton-on-Tees	0.19
Southwark	-0.04	Leicester	0.20
Kensington & Chelsea	-0.03	Surrey	0.21
Cumbria	-0.03	Hartlepool	0.23
Dorset	-0.03	Nottingham	0.23
Harrow	-0.03	Devon	0.24
Hampshire	-0.03	Redbridge	0.25
Halton	-0.03	Hammersmith & Fulham	0.25
Hounslow	-0.03	Stockport	0.27
Rochdale	-0.03	South Tyneside	0.28
Torbay	-0.03	Central Bedfordshire	0.28
Kingston upon Hull	-0.02	Kirklees	0.30
Wolverhampton	-0.02	Croydon	0.41
Richmond upon Thames	-0.02	Bedford	0.64

DISTRIBUTIONS OF LOCAL AUTHORITY CHARACTERISTICS BY LATENT CLASS

FIGURE 17: HISTOGRAMS AND MEAN VALUES BY YEAR AND CLASS: RANK OF RESIDUAL RELATIVE TO EXPECTED EXPENDITURE (LOW TO HIGH)
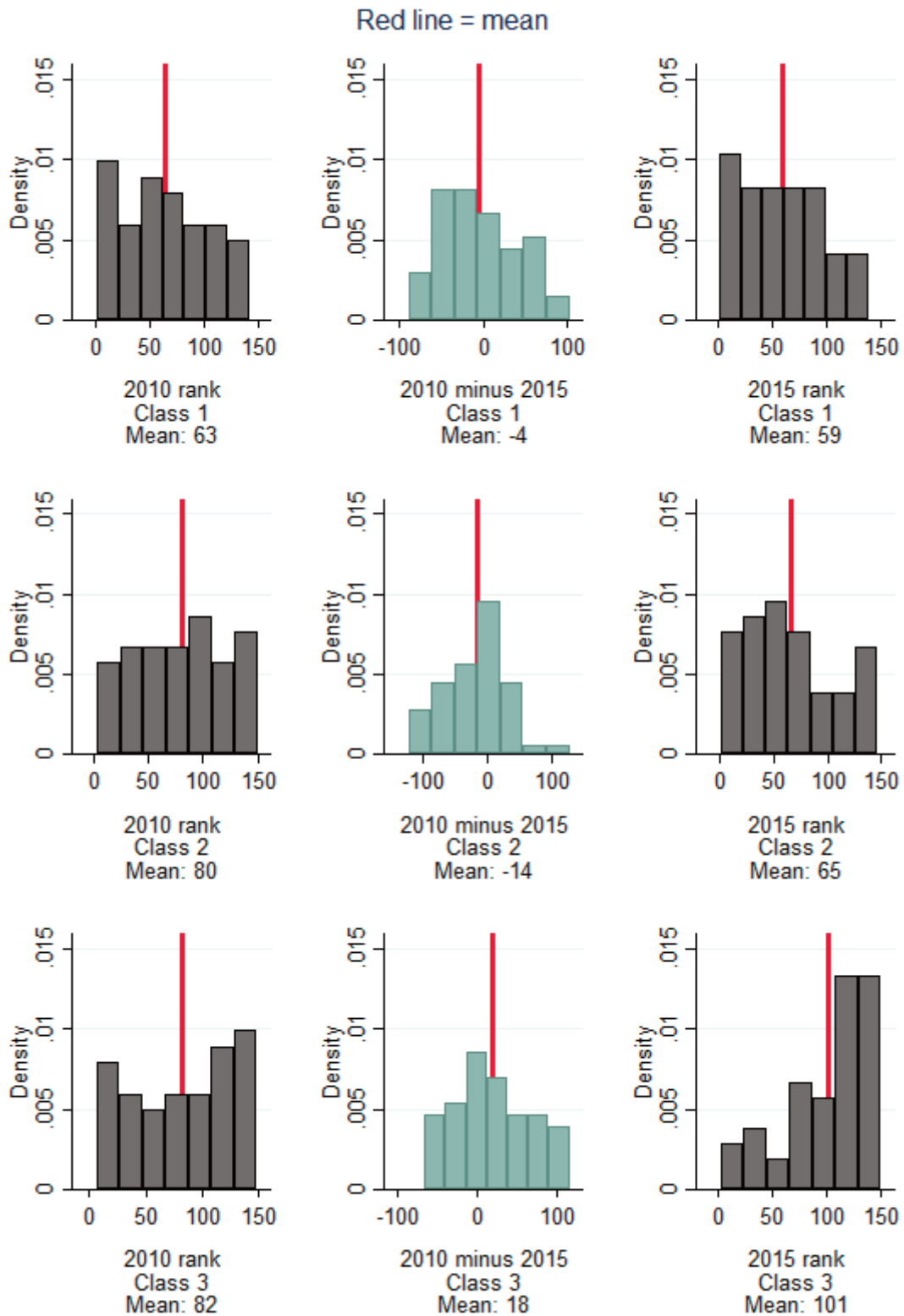
Histograms by year and class:
Rank of residual relative to expected total client coverage (low to high)
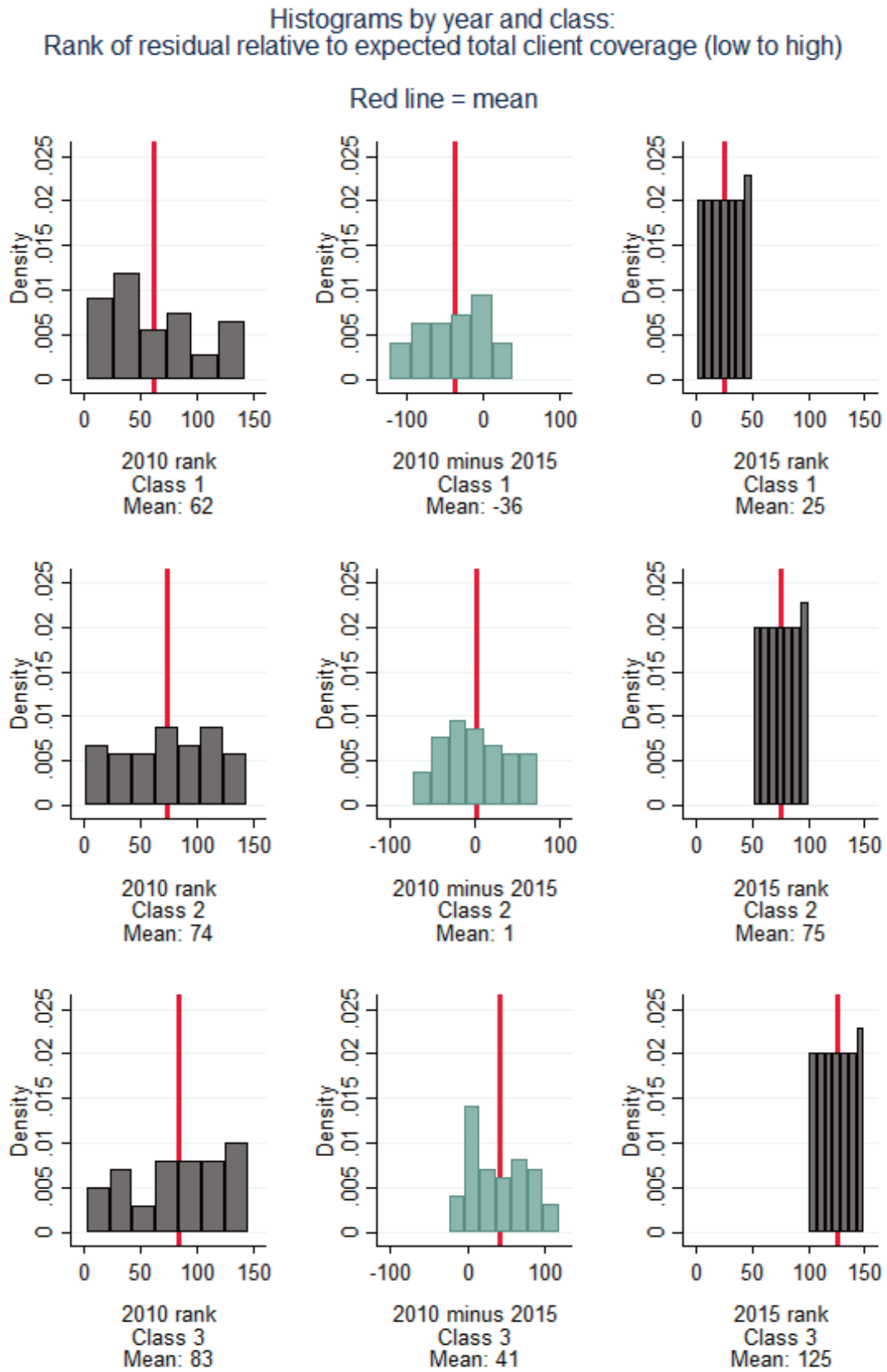
Red line = mean

FIGURE 19: HISTOGRAMS AND MEAN VALUES BY YEAR AND CLASS: RANK OF RESIDUAL RELATIVE TO EXPECTED RESIDENTIAL CLIENT COVERAGE (LOW TO HIGH)
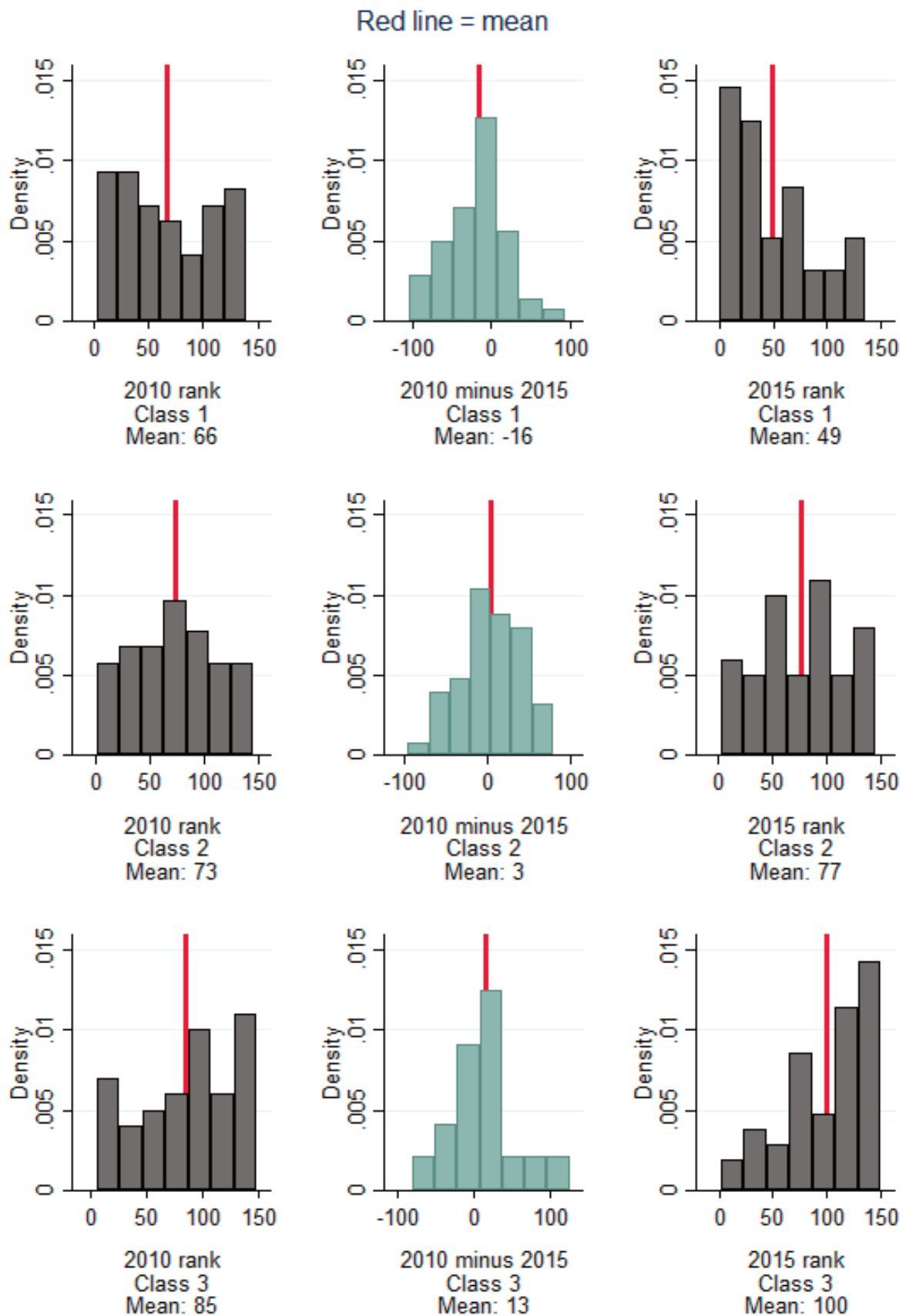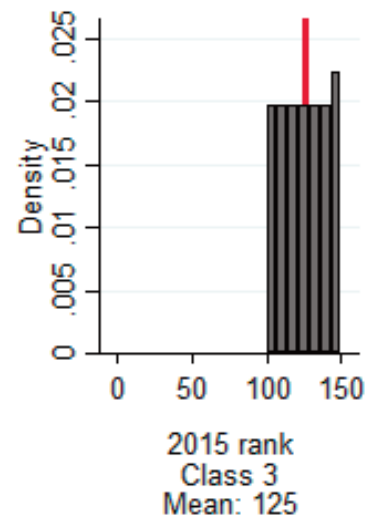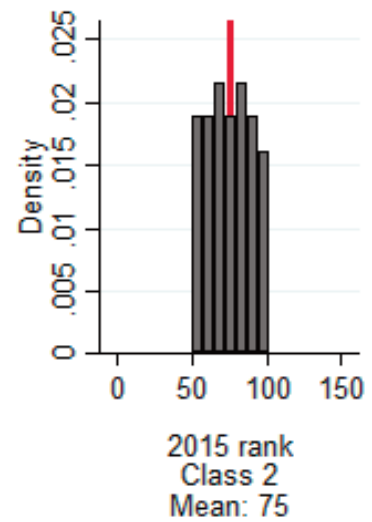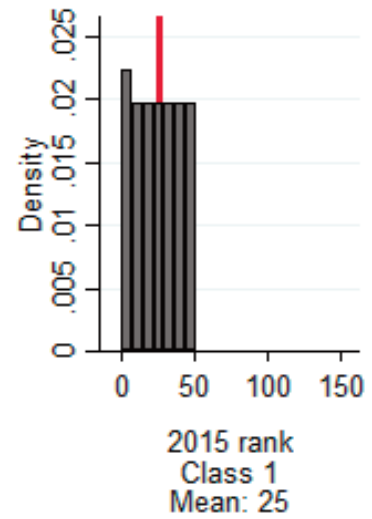

Red line = mean

FIGURE 20: HISTOGRAMS AND MEAN VALUES BY CLASS: RANK OF RESIDUAL RELATIVE TO EXPECTED NUMBERS OF REQUESTS FOR SUPPORT (LOW TO HIGH, 2015/16)

Red line = mean

2015 rank
Class 1
Mean: 25

2015 rank
Class 2
Mean: 75

2015 rank
Class 3
Mean: 125

ANNEX 2: TEMPLATE FOR THE EXTRACTION OF KEY INFORMATION FROM SOCIAL CARE EVALUATIONS

The aim of this review is to collect key information about relevant evaluations of social care interventions for people with low and medium needs in England.

STUDY 1: BAUER ET AL 2017

Bauer, A., Knapp, M., Wistow, G., Perkins, M., King, D. and Iemmi, V. (2017), Costs and economic consequences of a help-at-home scheme for older people in England. Health Soc Care Community, 25: 780–789. doi:10.1111/hsc.12372

Study design and strategies for data collection

- Observational study: users of help-at-home schemes, it comprised a volunteer-provided face-to-face and telephone befriending scheme; a practical home help service for gardening, shopping and cleaning; and welfare benefit advice service
- Target group: older people aged 55 years and above living in their own homes
- Panel data, ASCOT and questionnaire data collected twice, once when users started using the scheme and once after 4–6 months (to those still in contact with the scheme)
- The sample size: 24 for ASCOT and 1064 for questionnaires.

Indicators of needs

- Not available

Indicators of services and costs

- Activity data: hours provided by staff and volunteers; number of people using the scheme
- Budget data for each service components (see study design).

Indicators of outcomes

- Measures of outcomes: ASCOT SCT4 Version
- Well-being and resource use questionnaire (for over the previous 6 months): no before & after design, instead, two groups compared, namely existing users and new users were assessed. No further information provided regarding the content of the questionnaire.

Statistical analyses of outcome data

- ASCOT: mean for each domain; paired t-test analysis to test statistical significance of any differences in those scores (mean and sd available below, page 7)
- Analysis in the proportion of people whose levels of needs increased, decreased or remained the same
- Questionnaire: to estimate the predicted probability that someone would use such service, comparative analysis between service users who responded to the annual survey (people using the scheme for less than a year excluded) and new service users who took part in the smaller survey was carried out; differences in socio-demographics adjusted using logistic regression analysis
- Modelling: details can be included upon request.

STUDY 2: CAIELS ET AL 2010

Caiels, J., Forder, J., Netten, A., Malley, J. and Windle, K. (2010) Measuring the outcomes of low-level services: Final report, Discussion Paper 2699, PSSRU, University of Kent, Canterbury.

Study design and strategies for data collection

- Aim: develop and validate an approach (refined ASCOT) to measuring the impact of low-level services on service users, specifically day care centres

- Methodology:

  Initial instrument design and sample frame development – the development phase (refined ASCOT)

  Exploratory work with day care providers – piloting phase

  Fieldwork for evaluation and testing of toolkit – main fieldwork phase

- Pilot phase: to assess the validity of the ASCOT and come up with questionnaires used in the fieldwork phase in both interview and self-completion formats; carried out in 2-day care centres, using the following methods:

  1. Consultation with service users using focus group – service users' perspective on how services (generally) help them, the outcome domains that were most affected by day care centres, and to examine whether the way in which this help is delivered is important to them

  2. Consultation with stakeholders (interviews and focus groups with managers and care workers) – providers' views of the services that they are involved in delivering and the perceived differences that services make to users' lives

  3. Cognitive testing with service users – to test people's understanding of the questions in questionnaires/interviews

- Fieldwork phase: data on day care providing centres collected using a postal survey sent to councils with social services responsibility in England. The day care centres were then asked to distribute recruitment packs[17] to target population

- Sample sizes: n (recruitment packs handed out)=5,029; 961 valid responses and returned self-completion questionnaires; 224 participants took part in the face-to-face interview[18]

- Cross-sectional study

- Study population/target group: aged 65 years and over and having sufficient cognitive functioning to understand the informed consent process and be able to participate in a face-to-face interview with a researcher

- Aspect of the sample is particularly relevant to the group of people with low social care needs: It was considered likely that people accessing low-level services would have (relatively) low level needs and, therefore, would be able to understand the informed consent process. The day care centre is considered as low-level services.

Indicators of needs

- ADLs (e.g. getting dressed, in/out of a chair, washing, preparing meals, walking)

- IADLs (e.g. dealing with finances/paperwork with or without help)

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[17] Recruitment packs were made up of the self-completion questionnaires, a letter inviting people to take part in the study, and a participant information sheet explaining in detail what was involved.

[18] Only those participants that had correctly completed 18 questions of the self-completion questionnaires (SCT) were asked to take part in a face-to-face interview. This was to ensure that valid comparisons could be made between participants' SCT responses and responses in the face-to-face interview.

- Analysis of alternative wellbeing measures showed that the following two are sensitive to the effects of low-level services:

  EQ5D, adjusted

  GHQ12

- Satisfaction: level of satisfaction with services.

- Day care centres[19].

- ASCOT was developed by the researchers with two components: a well-being measurement scale and an expected outcome (called capacity for benefit) attribution method. The version of ASCOT was not specified

- The self-completed questionnaires collected information on user characteristics and need, and administered the ASCOT (3 levels – good, intermediate and bad for each domain) to collect outcomes information

- The interview repeated the collection of this information as well as including a more comprehensive set of outcomes questions, demographics and dependency measures

- The face-to-face interview comprised 72 questions, The details of both measures were claimed to be included by Caiels 2010 as Annexes 2 and 8, which were not available in the version of paper we obtained

- It was listed that the following aspects were assessed in the face-to-face interview:

  The EQ5D measure (SD 0.35; p36)

  A single (global) quality of life measure using a seven-point scale (Bowling, 1997)

  A single (global) health measure using a five-point scale (Bowling, 1997)[20]

- The ASCOT indicator was developed to capture a range of social-care related quality of life domains. In ASCOT there are three types of 'indicator' number:

  1. Current quality of life (SD 0.20; p40)

  2. Expected quality of life (SD 0.29; p41); adjusted expected quality of life (std. dev. 0.02; p44)

  3. Outcome (current – expected quality of life) (SD 0.21; p41); adjusted outcome (SD 0.18; p44).

- Regression (GLM & OLS).

Overall, the ASCOT outcome measures performed well against validity and reliability tests; and it consistently measured greater degrees of improvement than the EQ5D.

The expected quality of life approach in ASCOT encountered some challenges as people were not always able to isolate the effects of services from other forms of support (e.g. informal care); however, collecting information on other forms of support is useful to adjust or correct expected quality of life to remove any spurious other-service effect.

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[19] Examples of the types of service available to users included: nail cutting; hairdressing; lunch; activities (such as dancing, cards, bingo); bathing and cooking lessons.

[20] The Bowling book gives a few "possible" measurements. Some of the examples they had was SF-36 measures, and WHOQOL.

STUDY 3: FORDER ET AL 2016

Forder, J., Malley, J., Rand, S., Vadean, F., Jones, K. and Netten, A. (2016), Identifying the impact of adult social care: Interpreting outcome data for use in the Adult Social Care Outcomes Framework . QORU Discussion Paper 2892.

Study design and strategies for data collection

- Statistical analysis of data collected from interviews
- Sample size: 990 care recipients (people with either physical or sensory impairment, mental health problems or learning disabilities); 387 carers for a subset of these carer recipients
- The aim was to develop outcome indicators that might better reflect the contributions made by adult social care.

Indicators of needs/services and costs

- Not available.

Indicators of outcomes

- SCRQoL indicators in ASCOF.

Statistical analyses of outcome data

- Aim: developed formula to calculate a person's adjusted SCRQoL score using values of relevant SCRQoL indicators

  (a) A risk adjustment approach that estimated the relationship between sample SCRQoL and the external factors

  (b) In addition to approach (a), the amount of care people received was included as a factor

  9c) The expected ASCOT tool[21] was used to estimate the relationship between this measure and the external factor.

STUDY 4: GLENDINNING ET AL 2010

Glendinning, C., Jones, K., Baxter, K., Rabiee, P., Curtis, L., Wilde, A., Arksey, H. and Forder, J. (2010). Home care re-ablement services: Investigating the longer-term impacts (prospective longitudinal study). York: Social Policy Research Unit, University of York.

Study design and strategies for data collection

- Comparative before-and-after study (participants receive one of the two services based on the type LA provided), comparison of only home care re-ablement services vs only conventional home care service
- Sample sizes: T1 − 1,600; T2 − 370 approx
- Panel data: outcome data collected on study baseline (T1), post-intervention (T1+R) and 12-month follow-up (T2) using questionnaires. Postal questionnaires sent 8 weeks after recruitment
- Study population: adult users (aged 65 and over) of re-ablement and conventional home care services, who had been accepted as eligible for social care support under local FACS. The age group was further extended to just adults due to slow recruitment
- Follow-up period: up to 12 months - interviews were held with participants up to 12 months following their first interview for the study.

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[21] The expected ASCOT tool asks people to hypothetically rate their SCRQoL as if they did not receive services

Not available.

- Use of re-ablement and/or social care services during the first few weeks of entry to the study
- The frequency of each service received (for example the hours of re-ablement home care provided during the re-ablement period)
- Postal questionnaire: use of NHS services and services provided by voluntary organisations or other bodies
- For costs: average annual cost per service user; the cost per hour and the cost per hour of service user contact.

Outcome data collected using questionnaire (available at the end of the template, also page 182–190 on paper), which include the following measures:

- Self-perceived health

  Based on the five-point scale suggested by Robine and colleagues (2003) as part of a European project on health indicators. This question asks respondents to rate their health in general according to five categories ranging from 'very good' to 'very bad'. A higher score indicates better perceived health

  In the comparison group, there was no change in mean perceived health from a baseline score of 2.99 (standard deviation 0.99) to a 12-month follow-up score of 2.96 (sd 1.04) (page 96)

  The self-perceived health measure appears as question 2(a) on the T2 questionnaire.

- Perceived quality of life (a seven-point scale)

  Categories ranging from 'so good, it could not be better' to 'so bad, it could not be worse'. A higher score indicates better perceived quality of life.

  The perceived quality of life scale is question 2(b) on the T2 questionnaire

- Health-related quality of life (EQ-5D – Euro-QoL)

- Social care outcomes (ASCOT, version not mentioned)

  Table D.1 shows the responses and associated levels of need for each of the nine domains

  Table D.2 gives the weights that we applied to each of the attributes

  The ASCOT appears as questions 4(b) to 4(k) on the T2 questionnaire.

- Paired t-tests, chi-square tests and binomial tests for univariate analysis
- Xtreg estimator in Stata10 for multivariate analyses
- Multivariate regression analyses using both a fixed and random-effects model
- The Hausman specification test to evaluate whether each model corresponded to the data sufficiently.

STUDY 5: IPSOS DUNATCHIK 2016

Dunatchik et al 2016. Predicting unmet need for social care and exploring links with well-being: Findings from the secondary analysis: TECHNICAL REPORT. Ipsos MORI (TR).

Ipsos MORI, 2017. Unmet need for care: FULL REPORT (FR).

Dunatchik et al 2016. Predicting unmet social care needs and links with well-being: Findings from the secondary analysis (SA).

Study design and strategies for data collection

- Analysis of HSE and ELSA data

- 24 individual in-depth interviews

- Cross-sectional

- Study population/target group: aged 60 years old or over; have difficulties doing two or more IADL by themselves and/or have difficulties doing at least one ADL by themselves

- Having needs in relation to ADLs indicates more personal care needs so having difficulties with only one of these activities was needed. For IADLs difficulties with at least two activities were needed to be eligible to avoid recruiting people who just needed help with shopping or gardening

- Definition 2 of LA unmet need (pg. 13 of TR): captures those just outside ('almost unmet need')[22] the qualifying criteria. For example, individuals that reported difficulties with two ADLs and good well-being, 11 are potentially eligible for local authority help ('almost unmet need').

Indicators of needs

- ADLs; IADLs; mobility

- Whether received help; nature of care received (paid or unpaid) to help with these difficulties; aids and adaptations available; intensive care from family (indicative of unmet need); number of hours of care received.

Indicators of services and costs

- Care sources (SA pg.84) for activities such as movements, dressing, taking medication etc:

  Unpaid care (partner/spouse, daughter, son etc)

  For a single source, unpaid care was received most often less than 10 hours per week, followed by 20 or more hours per week and then 10−20 hours per week

  Formal care (state funded and privately paid) including (but not limited to): home care worker/ home help/ personal assistant; voluntary worker; member of staff at the care/nursing home or reablement/intermediate care team; hospital staff/ nurse/ physiotherapist; cleaner; handyman etc

- Common home adaptations (SA pg.85)

  Bath or shower seat (~10−13%); alarm that can call for help (~7−12%); stair lift (~5%); toilet equipment or commode (~6−7%); bed lever or bed rail (~3−4%) etc

- Common mobility aid use (SA pg.85):

  Cane or walking stick (~22−24%); zimmer frame or walker (~5−6%); manual wheelchair (~4%) etc.

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[22] For local authority Definition 1, the qualifying level of need is that individuals report difficulties with 3 or more ADLs or that they report difficulties with 2 ADLs and they have poor well-being.

- Well-being: CASP-15 score in ELSA (st dev 8.14, pg11, TR) and the Warwick Edinburgh Mental Well-being Scale (WEMWBS) measure in HSE (st dev 8.74, pg11, TR)

- Table 10, Pg. 21, TR (below):

TABLE 10: COMPARING MEAN CASP-15 SCORES UNDER UMET NEED DEFINITIONS

Base: W6 ELSA respondents aged 60+ in wave 6 to have participated in every wave

	Wider definition Mean (SD)	Modified wider definition Mean (SD)
Unmet needs/unmet needs, no care	44.3 (9.2)	45.7 (7.3)
Needs met/at least some needs met	42.7 (8.1)	42.8 (8.9)
No qualifying needs	48.3 (7.4)	48.3 (7.4)

Statistical analyses of outcome data

- Regression.

Social care questions in ELSA and HSE

- ELSA/HSE questions for identifying needs and whether they are met by help from a person are available in pg. 22–24, TR.

STUDY 6: KINGSTON ET AL 2017

Kingston, A., Wohland, P., Wittenberg, R., Robinson, L., Brayne, C., Matthews, F E. and Jagger, C. (2017). Is late-life dependency increasing or not? A comparison of the Cognitive Function and Ageing Studies (CFAS), The Lancet, Volume 390, Issue 10103, 1676–84.

Study design and strategies for data collection

- The study compared two Cognitive Function and Ageing Studies (CFAS I and CFAS II)[23] of people aged over 65 (including those in institutional care)

- The target population for each cohort was people aged 65 years or older who were permanently registered with a participating general practice (including those in institutional care). Sampling was stratified according to age group (65–74 years vs ≥75 years)

- No further description that is indicative of participants having low social care needs[24]

- Data collection: participants were interviewed in their normal place of residence.

- If cognitive impairment was judged to limit participants' ability to provide reliable answers, proxy informants (generally spouses, offspring, or occasionally paid-for carers) were used

- Information collected in CFAS I and CFAS II included basic sociodemographic (age, sex, marital status, living arrangements, and education); cognitive status, which was

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[23] Participants from CFAS I were assigned as the 1991 cohort, and those from CFAS II were assigned as the 2011 cohort.

[24] Potentially relevant outcome: between 1991 and 2011, there were significant increases in years lived from age 65 years with low dependency (1·7 years [95% CI 1·0–2·4] for men and 2·4 years [1·8–3·1] for women).

assessed by the mini-mental state examination; urinary incontinence; and self-reported ability to do ADL

- Sample sizes (interviewed): 1991 cohort – 7,635; 2011 cohort – 7,796

- Cross-sectional study – two groups (1991 and 2011 cohorts) that met the same criteria were compared.

Indicators of needs

- Not available.

Indicators of services and costs

- Not available.

Indicators of outcomes

- The outcome is individual dependency level and its distribution in the cohort

- Dependency was estimated with Isaacs and Neville's interval measure

- Four levels of dependency: high; medium; low; independent[25].

Statistical analyses of outcome data

- Age and sex-specific dependency prevalence for CFAS I and CFAS II was calculated using inverse probability weighting to account for no-response differences between the studies and study design selection

- To explore time differences in dependency prevalence we combined low, medium, and high dependency and fitted logistic regression models with time (0=1991, 1=2011), age (5-year age band), sex, and region

- Further adjustment performed for education and living arrangement

- Years lived in each of the four dependency levels were calculated out using Sullivan's method

- The proportions in each dependency state were applied to the 2014 England population projections of those aged 65 years or older, by age group (65–74 years, 75–84 years and ≥85 years) and sex to project 2035 demand for care.

STUDY 7: VLACHANTONI ET AL 2011

Vlachantoni, A., Shaw, R., Willis, R., Evandrou, M., Falkingham, J. and Luff, R. (2011). 'Measuring unmet need for social care amongst older people', Popul Trends. ESRC Centre for Population Change, University of Southampton., (145), pp. 56–72. doi: 10.1057/pt.2011.17.

Study design and strategies for data collection

- Conceptual framework

- Study population: older people with unmet social care needs

- Used three nationally representative datasets (ELSA, GHS, BHPS) to explore the receipt of support by older people in relation to specific needs, and the extent to which there is unmet need among older people

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[25] Interval measures-in terms of the interval of time between episodes of required assistance with activity limitations which can provide a greater transparency in the amount of care required than a simple count of activity limitations. In these measures dependency can be stratified as: low dependency (care less than daily), medium dependency (care at set times daily), high dependency (24-h care) (Cordingley et al., 2001; Kingston et al., 2017).

- Sample size: GHS (of people aged 65 and over) − 3,356 (2001−02)[26]; ELSA (Wave 4, 2008, of people aged 65 and over) − 4,916; BHPS (Wave 18, 2008−09, of people aged 65 and over) − 3,760.

Indicators of needs

- From GHS questionnaires:

  Mobility aids

  The ability to perform detailed ADLs and IADLs

  Whether, and from whom, help is received with these specific ADLs and IADLs

- The analysis

  Key concept: difficulty in performing selected ADL and IADL

  Definition of 'unmet need': a person who has a need (ADL/IADL), but do not receive help with specific tasks from any source, either formal (state or paid) or informal

  In the GHS and BHPS datasets, a person is defined as having a 'need' when they either (i) are unable to perform a specific task, such as bathing, or (ii) can perform such tasks only with help, or (iii) can perform such tasks on their own but experience some degree of difficulty in doing so

  In the ELSA dataset, a person is defined as being in need in the same manner as above; however only if they have reported difficulty with at least one mobility task, ADL or IADL.

Indicators of services and costs

In GHS and ELSA 'services' from different sources are noted: formal help: state and paid; informal. In BHPS only formal help is noted (both state and paid), however, in BHPS the report of receipt of different kinds of services is not asked in relation to specific kinds of needs.[27]

Indicators of outcomes

- Not available.

Statistical analyses of outcome data

- Not available.

STUDY 8: WINDLE ET AL 2009

Windle, K., Wagland, R., Forder, J., D'Amico, F., Janssen D. and Wistow, G. (2009). National evaluation of the partnership for older people projects (POPP). Kent: PSSRU, University of Kent.

Study design and strategies for data collection

Information on study design:

- Quasi-control study. intervention: the POPP programme. Quasi-control group: samples from British Household Panel Survey (16th and 17th waves)[28]

- Phase 1: standardised questionnaire and key information questionnaire

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[26] The 2001−02 GHS was the last time the elderly module was included in this survey.

[27] For example, if a person who needed help in order to bath/shower was receiving formal state support; it is difficult to understand whether such support was used by the person specifically towards bathing/showering or whether it was used for assistance with e.g. gardening.

[28] In order to estimate EQ5D scores for the BHPS sub sample, the Health Survey for England 2005 (HSE05) was used to derive parameters for an imputation.

- Phase 2: telephone interviews[29] + focus group[30] + interviews[31]
- Phase 3: 'exit interviews' with project managers and senior members of the statutory or health authority.

Panel data:

- For standardised questionnaire: administered at two time points – prior to the POPP project (time 1) and at either three or six months after the POPP project (time 2) – it was designed to identify changes in user quality of life and service use
- For key informant questionnaire: administered twice during the POPP initiative – to respondents in the 19 first round pilot sites in June 2007, and to those in the ten second round pilot sites in June 2008. Details available in Appendix A, not included in our version.
- Sample sizes: Table 27, pg.112 (see below):

TABLE 27: USERS IN RECEIPT OF A SERVICE BY YEAR

Year of POPP pilot	Total number receiving a service
2006/7	13,659
2007/8	99,988
2008/9	150,990
Total	264,637

For standardised questionnaire: data for time 1 and time 2 were available for a total of 1,529 respondents

For Key information questionnaire: round 1 sites n=280; round 2 sites: n=188

Telephone interview: 24

Focus group: 12

Interview: 30 with each group

Exit interviews: 39

- Study population/target group:

Age range 40–101, mean: 75; mode: 79

Roughly one third was married (33%), with the remainder widowed, separated, divorced or single

More than half of the respondents completed questionnaires by themselves – indicate sufficient cognitive ability

Half of service users belonged to universal services (low-level service) group[32] (pg. 131).

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[29] The interviewees included the Project Manager, Project Lead, Older Person's Lead (Officer) and an older person (either champion or representative).

[30] Carried out with those staff responsible for delivering the projects to explore individuals' experiences, perspectives and perceptions of the effectiveness of their respective models of partnership working, barriers and facilitators to project implementation, impact on older people, their relationship to the wider health and social care economy, practice changes and sustainability.

[31] Carried out with older users, with two samples: users of POPP projects and a matched sample of individuals presenting similar needs, but who had not yet experienced a specific POPP service.

[32] Definitions: low-level, up-stream community orientated interventions; universal services available to all older people within the locality of the POPP programme; examples include: gardening/handyperson schemes, crime prevention, learning (e.g. computers or photography), leisure, signposting services.

In this subgroup, mean age is 74 with a SD of 10

57% of service users lived alone (pg. 139) – indicate potential loneliness

To act as the benchmarking sample, people were selected from the BHPS on the basis that they were aged 60 and over and reported at least one or more limitations in activities of daily living (ADLs).

Indicators of needs

- Not available.

Indicators of services and costs

- Number of service users at the time
- Focus of the projects.

Indicators of outcomes

- Euro QoL or EQ 5D that includes five health domains: mobility; self care; usual activities; pain/discomfort; and anxiety and depression.
- Self-rated QoL as a whole using a seven-point Likert-type scale (developed by Professor Ann Bowling), ranging from 'so good it could not be better' to 'so bad it could not be worse' (pg. 157, 161, see Figures below):

FIGURE 54: SELF-REPORTED QUALITY OF LIFE QUESTION

Thinking about the good and bad things that make up your quality-of-life, how would you rate the quality of your life as a whole (please tick the box next to the answer is that best describes the quality of your life)

(1) So good, it could not be better

(2) Very good

(3) Alright

(4) Bad

(5) Very bad

(6) So bad, it could not be worse

FIGURE 57: SELF-REPORTED GENERAL LEVEL OF HEALTH QUESTION

Compare to my general level of health over the past 12 months, my health state today is:
(please tick one box)

Better

Much the same

Worse

- A client services receipt inventory (Beecham & Knapp 1992), wherein users were asked to indicate the type of services they used (within secondary, primary and social care) three months prior to the POPP project and three months following their contact with the project.
- Available in Appendix H, which was not available in our version. Respondents were asked to record the type and total usage of secondary care services (hospital), primary care services (local surgery or health centre) and those interventions received within their own home (social worker, meals on wheels etc.).

Statistical analyses of outcome data

- Data were analysed using non parametric statistics (e.g. descriptive, bi variate analysis, chi-square; using SPSS 15)
- This data was fed back to the sites at each PLEN to provide an indication of progress as to actual and forecast activity. Discussions were also held at that time around on going reporting inaccuracies and missing data. The latter became a particular problem for this data.

STUDY 9: GLENDINNING ET AL 2008

Glendinning, C., Challis, D., Fernandez J.-L., Jacobs, S., Jones, K., Knapp, M., Manthorpe, J., Moran, N., Netten, A., Stevens, M., and Wilberforce, M. (2008), Evaluation of the Individual Budgets Pilot Programme. Final Report. York: Social Policy Research Unit, University of York.

Study design and strategies for data collection

- Study design: RCT, based on ITT principle. Intervention: personal health budget vs. current support arrangement. Individuals offered IB (individual budgets) can decline
- Sample sizes: n=959; IB: 510 (with 458 accepted IB), control: 449
- Panel data: baseline, 6-month outcome interview
- The primary user groups have either physical disability, learning disability, mental health issues or were older people. The mean age is 57 and more participants were females (56%)
- Those eligible for supporting people funds, that aim to 'provid[e] a better quality of life for vulnerable people to live more independently and maintain their tenancies, were not always eligible for PB/social care help. It could be indicative that some housing needs are more likely to be at the edge of eligibility
- Although councils were instructed to tighten up on FACS and to check that potential or existing service users were FACS eligible before setting up an IB or providing conventional services, a small number of care co-ordinators from sites in which there had been no such changes, indicated that thresholds were lower.

Indicators of needs

- Not available.

Indicators of services and costs

- Cost-effectiveness analysis
- The average gross cost of an IB was about £11,450 (median £6,610; standard deviation £15,810; minimum £72; maximum £165,000). On average, approximately £11,760 was for annual recurrent funding (n=278; median £6,580; standard deviation £16,860) and £1,260 for one-off payments (n=46; median £675; standard deviation) (pg. 69); Only in 31 cases was the cost of payroll support included in the IB (mean £320; standard deviation £194). Despite the widespread use of direct payments, the costs of support for

these were only included in the budget in seven instances (mean £2,218 standard deviation £194) (pg. 117).

- Health-related quality of life (EQ-5D-Euro-QoL)
- Care-related quality of life (ASCOT): 3 levels (no, low, high-level of needs), 7 domains, version not specified. A list of domains is below:

TABLE C.1: OPTIONS PROVIDED FOR EACH DOMAIN TO REFLECT EACH NEEDED LEVEL

Domain	Need level	Description
Control	no	I feel in control of my daily life
	low	I have some control over my daily life but not enough
	high	I have no control over my daily life
Safety	no	I have no worries about my personal safety
	low	I have some worries about my personal safety
	high	I am extremely worried about my personal safety
Personal care	no	I would always feel clean and would be able to wear what I want
	low	I will occasionally feel less clean then I would like all of not be able to wear what I want
	high	I would feel much less clean then I would like, with poor personal hygiene
Accommodation	no	My home is clean and comfortable as I'd like it to be
		My home is feeling comfortable as it can be
	low	My home could be more cleaning comfortable than it is
	high	My home is not at all clean all comfortable
Food and nutrition	no	I'm able to eat their meals I like when I want
	low	I can't always evening meals I like when I want to, but I don't think there is a risk to my health
	high	I can't always eat meals I liked when I want to, and I think there is a risk to my health
Social participation	no	I had a good social life
	low	I have a social life but sometimes I feel lonely
	high	I feel socially isolated and often feel lonely
Occupation	no	I have fully occupied in activities of my choice
	low	I am occupied but not in activities of my choice
		I don't have enough to do to keep me occupied
	high	I have nothing much to do and unusually bored

- Psychological well being (GHQ 12): Goldberg 1992, his scale comprises of 12 items that explore whether respondents have experienced a particular symptom or behaviour over the past few weeks. Each item is rated on a four-point scale (less than usual, no more than usual, rather more than usual, or much more than usual)[33]

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[33] There are two scoring methods; the Likert scoring scale (0 to 3) which generates a total score ranging from 0 to 36, with higher scores indicating worse conditions; and the bi-modal (0 to 1) scoring style that indicates the likely presence of psychological distress according to a designated cut-off score of 4 or more.

- Self-perceived health (a five-point scale): Robine 2003, the respondents were asked to rate their health in general according to five categories ranging from 'very good' to 'very bad'

- Perceived quality of life: a seven point scale with categories ranging from 'So good, it could not be better' to 'So bad, it could not be worse'

- Process of care: people's overall satisfaction with their support and about specific aspects of quality that previous studies have identified as important. The options include: extremely, very, quite satisfied to neither satisfied nor dissatisfied, to quite, very, extremely dissatisfied, and unaware of the planning process.

Statistical analyses of outcome data

- Parametric statistical tests, (multivariate) regression, t test.

STUDY 10: FORDER ET AL 2012

Forder, J., Jones, K., Glendinning, C., Caiels, J., Welch, E., Baxter, K., Davidson, J., Windle, K., Irvine, A., King, D. and Dolan, P. (2012), Evaluation of the personal health budget pilot programme, PSSRU University of Kent, PSSRU Discussion Paper 2699.

Study design and strategies for data collection

- Study design: Controlled trial[34], intervention: personal health budget vs. current support arrangement; carers were approached to complete questionnaires 12 months after participants' consent

- Sample sizes: Study consent was gained from 2,700 people, with 2,235 participants included in the active study sample. (pg.44)

- Panel data:

  Outcomes data were collected on four occasions: at baseline, 6 months (initial follow-up), 12 months (main follow-up) and up to 24 months (second follow-up) after date of consent. Initial and second follow-up was done by postal questionnaires, the main follow-up was carried out using interviews

  Information regarding primary and secondary healthcare service usage was collected twice (baseline and 12 months after consent) using a medical record template.

  Wide range of age group for participants, with majority aged 20–69; for most carers are females, with majority aged 40–69

- People in the personal health budget group were significantly more likely to be unable to perform a number of activities of daily living compared to the control group.

Indicators of needs

- Not available.

Indicators of services and costs

- Cost-effectiveness analysis.

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[34] In some sites people were randomised into the personal health budget group or a control group. In other sites, the personal health budget group was recruited from patients of those health care professionals in the pilot offering budgets and a control group from patients of non-participating health care professionals.

- Health-related quality of life (EQ-5D-Euro-QoL)

- Care-related quality of life (ASCOT): three levels (no, low, high-level of needs), seven domains, version not specified. However, it was specified that slightly different versions of ASCOT [1]were used in 2008 and 2010

- Psychological well being (GHQ 12): Goldberg 1992, Each item is rated on a four-point scale (less than usual, no more than usual, rather more than usual, or much more than usual)[35]

- Subjective well being scale: based on the measure used by ONS in the Integrated Household Survey (IHS). The measure consists of five questions using an eleven-point scale ranging from 0 to 10. The questions are below:

  Overall, how satisfied are you with your life?

  Overall, how happy did you feel yesterday?

  Overall, how worried did you feel yesterday?

  Overall, how satisfied are you with your health?

  Overall, how worried are you about your health?

- Perceived quality of life: a seven point scale with categories ranging from 'So good, it could not be better' to 'So bad, it could not be worse'

- Perceived health (a five-point scale): Robine 2003, the respondents were asked to rate their health in general according to 5 categories ranging from 'very good' to 'very bad'

- Clinical outcomes: HbA1c for diabetes, lung function for COPD sufferers

- Mortality: to assess whether there were differences in mortality rates between the personal health budget and control groups

- The 36-range GHQ-12 score in IBSEN had a mean of 13.8 and a standard deviation 0.85 for the comparison group (pg. 29).

Statistical analyses of outcome data

- Power calculations for minimum sample sizes were computed using data from the evaluation of IBSEN that used both the GHQ-12 measure and the ASCOT measure

- Difference in difference

- T-test, F-test, Sargan Chi2, truncated regression with predictive mean matching approach.

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[35] The findings of GHQ-12 were reported in two ways. The first provides a continuous variable reflecting psychological well-being, and is obtained by summing scores on the 12 items (which run from 0 to 3, with higher scores indicating worse conditions). The second way to use the GHQ-12 scores each item as 0 or 1, sums them, and then calculates the proportion of people with a total score of 4 or higher, which is conventionally interpreted as indicating that they are at risk of psychological ill-health.

STUDY 11: ARMSTRONG ET AL 2016

Armstrong, N., Tarrant, C., Martin, G., Manktelow, B., Brewster, L. and Chew, S. (2017), Independent evaluation of the feasibility of using the Patient Activation Measure in the NHS in England. University of Leicester / The Health Foundation.

Study design and strategies for data collection[36]

- Study design:

  The UK Renal Registry – used co-production approach in their Valuing Individuals programme, engaging with patients right from the beginning of their decision-making process

  The Tailored Health Coaching service: observational

  Diabetes care: re-designed appointment systems using the PAM as part of the diabetes review process.

- Sample sizes:

  NHS Islington – has collected baseline activation scores for around 9,000 patients and plans to repeat this data collection a year later to assess the impact of introducing care planning consultations

- Cross-sectional data:

  Where the PAM is being used as an outcome measure, often a baseline measurement has been taken, but not yet any further follow-up.

- Study population/target group: the Tailored Health Coaching service – those with one or more long-term conditions at medium risk (45−65%) of increased health service use.

Indicators of outcomes

- PAM[37], typically for a distinct intervention or service that a patient has received, either as part of their existing care or offered as an additional service, is a measurement scale used to measure the effectiveness of an intervention for supporting patient activation

  The scale is based on patients' responses to questions that interrogate an individual's knowledge, beliefs, confidence and self-efficacy. The resulting score places a patient at one of four levels of activation; the four levels of activation are:
  Level 1: Disengaged and overwhelmed
  Level 2: Becoming aware, but still struggling
  Level 3: Taking action
  Level 4: Maintaining behaviours and pushing further

  Potential use as a higher system-level outcome to evaluate and assess care provision.

  When assessing the impact of any particular service, PAM data is not typically being used in isolation. Common measures considered using with PAM include cost, value for money, service usage and clinical outcomes etc.

- Risk stratification score, including predicted use of healthcare services and costs

- Well-being, measured using the Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS)

- Number of goals set and achieved.

Statistical analyses of outcome data

- Not available.

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[36] Studies referred to each question are not the same, the report only mentioned info for different studies.

[37] PAM is more commonly being used by learning set organisations as a tailoring tool at individual patient level, as a means of ensuring patients are receiving the most appropriate types of support for their level of activation. The potential for the PAM to be used as a combination of both an outcome measure and a tailoring tool within the same service or intervention appears to be growing.

STUDY 12: DAVIS ET AL 2013

Davis, J. C., Liu-Ambrose, T., Richardson, C G. and Bryan, S. (2013) 'A Comparison of the ICECAP-O and EQ-5D in a Falls Prevention Clinical Setting: Are they complements or substitutes?', Qual Life Res., 22(5), pp. 969–977.

Study design and strategies for data collection

- Information on study design: cross-sectional analysis of participants visiting the Vancouver Falls Prevention Clinic

- Sample size, n=215

- Cross-sectional analysis. collected once at 12 months post first clinic assessment. Follow-up period: 12 months

- Study population/target group:

  Adults ≥ 70 years of age referred by a medical professional to the Falls Prevention Clinic as a result of seeking medical attention for a non-syncopal fall in the previous 12 months; mean age was 79.3 (6.2) years

  Had a Mini Mental State Examination (MMSE) score ≥ 24/30

  Had a Physiological Profile Assessment (PPA) score of at least 1.0 SD above age-normative value or Timed Up and Go Test (TUG) performance of greater than 15 seconds or one additional non-syncopal fall in the previous 12 months

  Were able to walk 3 metres with or without an assistive device

  were able to provide written informed consent; and

  Did not have a neurodegenerative disease.

Indicators of outcomes

- EQ-5D

- ICECAP-O: a short five item multiple choice questionnaire that measures an individual's overall quality of life and wellbeing according to the following five attributes:
  – Attachment (love and friendship)
  – Security (thinking about the future without concern)
  – Role (doing things that make you feel valued)
  – Enjoyment (enjoyment and pleasure)
  – Control (independence)

  Each domain has four possible options.
  – I am able to do all of the things that make me feel valued
  – I am able to do many of the things that make me feel valued
  – I am able to do a few of the things that make me feel valued
  – I am unable to do any of the things that make me feel valued

  The ICECAP-O can be used to calculate a global score on a zero to one scale where zero represents no capability and one represents full capability.

Statistical analyses of outcome data

- Exploratory factor analysis

- Association analyses

- Agreement analyses

- Components of benefit captured by the instruments.

STUDY 13: FLYNN ET AL 2011

Flynn, T., Chan, P., Coast, J. and Peters, T J. (2011) 'Assessing Quality of Life among British Older People Using the ICEPOP CAPability (ICECAP-O) Measure', Appl Health Econ Health Policy, 9(5), pp. 317–329.

Study design and strategies for data collection

- Information on study design: 'Quality of Life in your Neighbourhood' survey by post
- Sample sizes surveyed: 4304; QOL values in only those respondents aged >= 65 years (n = 809) were compared across subgroups
- Cross-sectional
- Study population/target group: aged >=65 years.

Indicators of outcomes

- The questionnaire asked 57 questions in total, which were grouped into sections covering the following:

  1. access to services in the local area;

  2. safety of the local area;

  3. social contact;

  4. sense of community cohesion;

  5. the local environment;

  6. facilities in the local area;

  7. participation and lifestyle;

  8. health;

  9. mode of transport used;

  10. views on local parks;

  11. sociodemographics; and

  12. overall QOL (ICECAP-O); the mean ICECAP-O QOL score was 0.832 (similar to that of 0.814 in the valuation sample) with a standard deviation of 0.123 (pg7).

ICECAP-O QUESTIONNAIRE

Attachment	I can have all of the love and friendship that I want
	I can have a lot of the love and friendship that I want
	I can had a little of the love and friendship that I want
	I cannot have any other loving friendship that I want
Security	I can think about the future without any concern
	I can think about the future with only a little concern
	I can only think about the future with some concern
	I can only think about the future with a lot of concern
Role	I am able to do all of the things that make me feel valued
	I am able to do many of the things that make me feel valued
	I am able to do a few of the things that make me feel valued
	I am unable to do any the things that make me feel valued

ICECAP-O QUESTIONNAIRE (CONTINUED)

Enjoyment
: I can have all of the enjoyment and pleasure that I want
  I can have a lot of the enjoyment and pleasure that I want
  I can have a little of the enjoyment and pleasure that I want
  I cannot have any of the enjoyment and pleasure that I want

Control
: I am able to be completely independent
  I am able to Be independent in many things
  I am able to be independent in a few things
  I am unable to be at all independent