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# Predicting unmet social care needs and links with well-being: Findings from the secondary analysis

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**Date:** November 2016
**Prepared for:** NIHR School for Social Care Research

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# Glossary of key terms

**Activities of Daily Living (ADLs):**  activities relating to personal care and mobility about the home that are basic to daily living.

**Instrumental Activities of Daily Living (IADLs):** activities which, while not fundamental to functioning, are important aspects of living independently.

**Formal care**: provided by formal statutory sources (such as the local council) or from formal paid sources (such as private domiciliary staff).

**Unpaid care**: provided by unpaid sources/carers (such as family or friends). Sometimes family and friends may receive money through a personal budget but on the whole this care is unpaid.

**Intensive care**: care involving a single informal carer providing 20 hours or more care per week.

**Local authority definition:** a measure of unmet need used for this research to include local authority qualifying needs and whether they are met, with intensive unpaid care also indicating unmet need.

**Wider definition:** an alternative measure of unmet need used for this research reflecting less stringent eligibility criteria than the local authority definition and allowing aids and adaptation as a way of meeting needs.

**Health Survey for England (HSE):** A cross-sectional survey of the general population covering health and social care topics. Carried out annually. Used as the basis for prevalence analysis in this report.

**English Longitudinal Study of Ageing (ELSA):** A longitudinal study of older people aged 50 and over.  Participants are interviewed every two years on a wide range of topics including health, social care, finance and well-being. Used for the regression analysis in this report.

# Acknowledgements

# Executive summary

An ageing population, budget cuts to local authorities and pressures on unpaid carers have led to concerns about whether the care and support needs of older people are being met. This study shows high levels of unmet social care need, based on analysis of Health Survey for England (HSE) and English Longitudinal Study of Ageing (ELSA) data. Unmet social care needs are found among men and women across all age groups over 60 years and from a range of social backgrounds, indicating that the impacts of pressures on the social system are widespread, and affect those eligible for local authority financial support as well as self-funders.

Despite concerns about the impact of unmet needs on the lives of older people, our findings show there is no clear link between unmet need for care and well-being. The level of care needs, age and financial situation are more important drivers of well-being.

## Background

There are increasing pressures on demand for and supply of help and support for older people who have difficulties with the activities needed for independent living. The causes include an ageing population, financial pressures on local authorities, increases in female employment and the introduction of the living wage. There is growing demand for services, there is pressure on unpaid carers, local authorities are providing care to fewer people, and the cost of self-funded care may be too high for older people. Research by Age UK, Independent Age and academics has demonstrated the extent of unmet need for social care among older people. At the same time adaptations and telecare provide the scope to support people in maintaining independence. The Care Act 2014 places new responsibilities on local authorities to assess the needs of unpaid carers, to prevent the development of needs and to ensure the maintenance of well-being in service users and carers.

This research was funded by the NIHR School for Social Care Research[1]; and aimed to explore:

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[1] This project is independent research funded by the National Institute for Health Research (NIHR) (Grant: C088/T14-035/IMMB-P66). The views expressed in here are those of the researchers involved and not necessarily those of the NHS, the NIHR or the Department of Health.

- the nature of unmet need for social care and how it can be measured;
- the prevalence of unmet need for social care in England;
- the factors which predict an individual developing unmet social care needs over a ten year period; and
- the links between unmet need for social care and well-being.


## Methods

The project involved two stages: secondary analysis of HSE and ELSA data, and in-depth narrative interviews with older people. This report presents the findings from the secondary analysis.

The secondary analysis involved cross-sectional analysis of HSE and ELSA data to assess the prevalence of unmet need, and provide profiles of people likely to have unmet need. ELSA data was used in a logistic regression to explore the factors that predict the development of unmet need over a ten-year period. A linear growth curve analysis was then used to model the impact of unmet need on the trajectory of well-being as people age.

The focus of the research is on understanding the causes and impacts of social care needs **not being met**.  The research does not explore what predicts the development of care needs themselves.  It should be noted that the data used were collected between 2011 and 2013 before the Care Act 2014 came into force.

## Defining unmet need

In line with previous research and based on the available data, the analysis started by identifying needs as being where someone had difficulties with Activities of Daily Living (ADLs), Instrumental Activities of Daily Living (IADLs) and Mobility activities.[2] We then developed two definitions of unmet care needs, based on discussions with stakeholders and the aims of research. The focus of the research is on older people (aged 60 years and over) living in their own homes.

**The local authority** definition bases the prevalence of unmet need on those who have qualifying needs according to the Care Act 2014, and would thus be eligible for local authority funded care (if their assets are below a certain level). In this definition, people are defined as having unmet need if:

- they have 3 or more ADL difficulties **or** 2 ADL difficulties with an impact on well-being; **and**
- they do not receive care for at least one of their difficulties **or** have their needs met by an unpaid carer who helps them for 20 or more hours a week (which is treated as intensive or burdensome care).

This definition does not take into consideration whether someone has assets which would make them eligible for financial support from the local authority; however, this is

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[2] ADLs are activities relating to personal care and mobility about the home that are basic to daily living, and IADLs are activities which, while not fundamental to functioning, are important aspects of living independently.

explored in the analysis. In combination with data about wealth, this definition is important for exploring the extent to which local authorities are able to meet the needs of those who are eligible for local authority financial support.

**73% of older people with a local authority qualifying level of need had unmet need for social care, in HSE.**

**The wider definition** is intended to explore unmet need more widely, and includes people who are not eligible for local authority care. This definition was developed to understand unmet need among people who have a low level of need, in recognition that addressing needs early on can help with the prevention of future needs. In this definition, people are defined as having unmet need if:

- they have 1 ADL difficulty, and/or 2 or more IADL or mobility difficulties.
- Unpaid care is treated as meeting needs, regardless of the number of hours provided
- Adaptations and aids are regarded as meeting needs (unlike in the local authority definition).

**58% of older people with eligible needs under the wider definition had unmet need, in HSE.**

## Comparing unmet need across different groups

One of the aims was to explore the factors which predict unmet need, in order that local authorities, voluntary organisations and providers could take steps to target support among those most at risk. However, a striking finding of the report is that there is relatively little variation in unmet need. It is an issue affecting all groups in society. Levels of unmet need under the local authority definition were similar for men and women and across the age groups (with the exception of 70-74 year olds where the level was lower). Using the wider definition, men were more likely to have unmet need than women. For women, levels of unmet need were similar across the ages, while for men unmet need declined with age.

Unmet need was found among all wealth groups including those eligible for financial support and those who would need to self-fund.[3] These findings highlight the difficulties local authorities face in meeting their obligations under the Care Act. Among those who we believe would be eligible for full local authority support with their care costs (because they have qualifying needs and fall below the means test threshold[4]), 64% had unmet need. Among those who would qualify for some local authority funded support but not for all their needs, 72% had unmet need. This raises the question of whether these people are receiving no care at all, whether their needs are being met by unpaid carers to an extent which is burdensome, or whether they are receiving some formal care but not enough. The data showed that among those eligible for at least some support from the local authority and with unmet needs, a quarter were receiving

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[3] This analysis was based on ELSA data as HSE does not include wealth data. It should be noted that the overall prevalence of unmet need under the local authority definition in ELSA is 63% (compared with 73% in HSE)

[4] Those with assets of less than £14,250 are eligible for full financial support with their qualifying care needs from the local authority. Those with between £14,250 and £23,500 are eligible for some financial support and those with assets of more than £23,500 need to meet the costs of their care themselves.

some formal care but this did not meet all their needs. Just over a third (37%) were receiving intensive unpaid care[5] and 15% were receiving no care at all. Those people who are eligible for local authority support and receive no care at all, or only intensive unpaid care are of particular concern and highlight the impact of declining local authority budgets for social care.

Unmet need is also found among people that are expected to self-fund, suggesting that the problem of unmet need is not just related to local authority cuts. Among those who would be self-funders, 60% or more had unmet need under the local authority definition. Of these 28% received some formal care, 30% had unpaid care which would be considered burdensome and 23% were receiving no care at all. Efforts to tackle the growing demand for care, in the face of rising costs and constraints on supply, need to consider self-funders as well as those eligible for financial support.

People with unmet needs had more difficulties with ADLs than those with met needs, including difficulties with tasks such as washing and dressing. Unmet need is found among people with difficulties with the most basic tasks of daily living.

Unmet need cuts across age and wealth groups, a finding that was confirmed using longitudinal analysis of ELSA data. We considered a wide range of factors which could predict the development of unmet need over a ten-year period. The significant factors predicting unmet need were being relatively younger and healthier, living alone and being widowed during the period. After controlling for other factors, gender, wealth, socio-economic status, well-being, cognitive ability and lifestyle factors were not found to be predictive of unmet need. This suggests there will be no 'quick fixes' in tackling unmet need for social care. It does, however, identify groups which may need attention, but there are no clear preventative actions in terms of life-style among older people, support for education or well-being among older people or targeting of support among those with lower levels of wealth. Instead the research confirms the problems with the social care system as a whole, which have been raised by other recent research and reviews[6].

## Unmet need and well-being

Concern for the well-being of those with social care needs and their carers is at the heart of the Care Act 2014. An implicit assumption is that meeting social care needs will improve well-being and that unmet needs will have a detrimental impact on well-being. This research sought to explore the extent to which unmet needs are associated with poorer well-being. We were interested in the impacts of well-being on future unmet need as well as the effects of needs being unmet on well-being.

The longitudinal analysis showed that level of well-being did not predict unmet need ten years later. Linear growth curve analysis showed that there was no significant relationship between unmet need and the trajectory of well-being over a ten-year period. The ageing process, financial status and the number of difficulties with ADLs were factors which affected the trajectory of well-being, rather than whether social care needs were met. This suggests that receiving or not receiving support has complex impacts on well-being, possibly related to the beneficial impacts of independence and

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[5] 20 or more hours of unpaid care per week from a single carer.
[6] Humphries, R., Thorlby, R., Holder, H., Hall, P., Charles, A. (2016) Social care for older people: Home truths. The Kings Fund.

resilience on well-being, which may mitigate the negative impacts of facing unsupported difficulties in daily living. In addition, some of the needs we identified may not be recognised as such by older people, meaning they do not seek out support. This is something which needs further exploration.

## Conclusions and implications

Unmet need for social care is an important issue affecting older people across all groups, indicating broader problems in the social care system. None of the factors identified as predicting unmet need are things which can necessarily be prevented (being younger, living alone and being widowed). This suggests that efforts to address unmet need should be targeted at all groups including people eligible for local authority financial support, self-funders and those relying on unpaid care. While only a minority of people are eligible for local authority services, local authorities have responsibilities in the areas of prevention and signposting people to services. In assessing needs and providing information, local authorities should pay particular attention to those who live alone and who do not have a partner or spouse. The findings also suggest the importance of local authorities being alert to the needs of 'younger' older people, whose needs may be overlooked, particularly if they are not known to health services.

Although there is no evidence from this study that unmet need affects well-being, further research is needed to unpick this finding, and explore the extent to which receiving help may simultaneously have positive and negative impacts on different aspects of well-being. Local authorities also need to consider how they will implement the well-being dimensions of their responsibilities under the Care Act. The implicit assumption that not having care needs met may have a detrimental impact on well-being may is brought into question by this research. It also highlights the importance of measuring well-being in a way which is consistent nationally and relevant to the quality of life of older people, in considering the services and support which individuals need.

The next stage of this project (24 in-depth interviews) will explore some of these issues further and the results will be shared in mid-2017.

# 1 Background and aims

This is a report of the first stage of research to look at unmet need for social care among older adults in England. The key aims are to explore different conceptualisations of unmet need and its prevalence, what predicts developing unmet needs for care over a ten year period, and the impacts of unmet need on well-being. The first stage has involved secondary analysis of existing survey data about need for and use of care in the older population. The second stage will involve in-depth narrative interviews with older people with care needs (whether met or unmet).

## 1.1 Rationale

As people age they may develop impairments in their ability to carry out activities which are necessary for independent living. Older people are more likely to have difficulty with activities such as washing, dressing, eating, moving about and shopping, cleaning and cooking for themselves. As these difficulties develop people may receive help in a variety of ways, including help from family and friends, professional care and support at home funded by local authority or self-funded, adaptations and telecare at home, or residential care. In some cases there may be no help at all, or there may be help with some but not all of the activities. Demographic and financial pressures mean that there is a growing risk that people's need for help with daily life are not met.

In recent years an ageing population, particularly growth in the population of the 'oldest old' (Age UK, 2016; Ismail et al, 2014)[7] and cuts to local authority budgets have put great pressure on the availability of local authority funded social care. The Local Government Association (LGA) and Association of Directors of Adult Social Services (ADASS) estimate a funding gap for local authority funded social care growing at £700 million per year.[8] This represents fewer people receiving publicly funded social care and those who do receive care, receiving less of it. At the same time there are pressures on care from family and friends with predictions of a 'crisis in care' by 2017 caused by demand for care from friends and family outstripping supply (Pickard et al in a review by Larkin and Milne, 2013).[9]  Some of the Care Act 2014 reforms, due to

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[7] Age UK (2016) Health and Care or Older People in England 2015 (updated Jan 2016).
Ismail,S., Thorlby, R. and Holder, H. (2014) 'Focus On: Social care for older people - Reductions in adult social services for older people in England'. Nuffield Trust and Health Foundation.
[8] Local Government Association and Directors of Adult Social Services (Sept 2015) Adult social care, health and well-being: A Shared Commitment. 2015 -  Spending Review Submission
http://www.local.gov.uk/documents/10180/6869714/LGA+ADASS+Spendig+Review+social+care+submission/befea68e-bce0-4af3-878c-8db41210a478
[9] Larkin and Milne (2014) Guest editorial: Caring in the 21st Century: research evidence and knowledge generation. Health and Social Care in the Community 23: 1: 1-3

come into force in 2016, to protect self-funders from excessive care costs have been postponed (until 2020 or indefinitely).

Evidence from the Health Survey for England (HSE) shows that substantial proportions of those who report difficulties with activities of daily living (ADLs)[10] do not receive any help (21% of men and 29% of women over 65 years).[11]. This is supported by evidence from the analysis of other surveys such as the English Longitudinal Study of Ageing (ELSA) from which Lloyd and Ross (2014)[12] extrapolate that at least 70,000 older people with substantial needs[13] living at home in England, do not receive any help with their care needs.

Given the evidence of existing unmet need and the fact that pressures are likely to get worse over time, we have carried out research to explore unmet need in more detail. By understanding more about unmet need for social care, what may cause it and some of the effects on well-being it is hoped that local authorities, policy makers, providers, care users and carers will be able to target support and prevention effectively.  Recent developments on the ELSA and HSE have provided robust and consistent data on need for and use of social care, to explore these issues and answer some key questions. Secondary analysis findings can be supported by qualitative research to explore the issues in more depth.

This report presents the findings of a project carried out by Ipsos MORI, NatCen Social Research, Age UK and Independent Age with funding from the National Institute for Health Research School for Social Care Research.[14] This research is intended to produce outcomes relevant for practice and policy. Our intention is to identify risk factors for developing unmet needs for care to help local authorities, the NHS, policy makers and individuals and carers anticipate and prevent unmet needs. Once both phases of the project are complete the implications for different stakeholders will be highlighted in a combined report after discussion at a stakeholder event to present and seek feedback on the findings.

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[10] See section 1.7 for a glossary of key terms used within the report

[11] Maplethorpe,N., Darton, R., Wittenberg, R. (2015) Social Care: need for and receipt of help in Volume 1 Health Survey for England, 2014 Report. Health and Social Care Information Centre.

[12] Lloyd, J. and Ross, A. (2014) 'The Bigger Picture: Understanding disability and care in England's older population'. The Strategic Society Centre and Independent Age.

[13] Lloyd and Ross (2014) used a definition of having difficulties with three or more activities of daily living (ADLs) – see the glossary for a definition.

[14]. This project is independent research funded by the National Institute for Health Research (NIHR) (Grant: C088/T14-035/IMMB-P66). The views expressed in here are those of the researchers involved and not necessarily those of the NHS, the NIHR or the Department of Health.

## 1.2    Policy background

Social care refers to support given to people with daily living and is distinct from health care. Age UK defines social care as the help and support - both personally and practically - which can enable people to lead as independent a life as possible.[15] In England, responsibility for social care lies with local authorities and the system is organised and funded separately from health care. There are growing efforts to integrate the two systems but the set up and structure of the two systems remains separate in most places. Most social care is unpaid (usually provided by family and friends) or self-funded.[16] However, in recent years there have been calls to review the way care is paid for. The Dilnot review[17] highlighted the need for a cap on payments made for social care by individuals. This reflected the fact that many people are not eligible for local authority funded care and need for services over a life time varies considerably between individuals. This makes it hard for individuals to plan for their care needs as they cannot predict the total cost.

The recommendations led to the introduction of a new Care Act to address many of the issues raised by the review. In 2015 the first phase of Care Act 2014 came into force.[18] The Act has led to a range of changes in policy and the ways in which local authorities assess needs for social care, which are of key relevance to the research questions addressed by this study. Key changes include a nationwide eligibility framework for assessing whether someone has eligible needs, an explicit recognition of the importance of well-being in assessing needs and evaluating outcomes, a focus on prevention of needs, and an explicit recognition of the needs of unpaid carers, including a framework to assess their needs and the impact of caring on them. The renewed focus on the needs of unpaid carers is exemplified by plans by the Department of Health for the development of a new Carer's Strategy. Between March and July 2016 a public consultation was held to hear the views of carers, and professionals who support them. The second part of the Care Act 2014, which would set a limit on the lifetime costs of care, has been postponed until 2020 or beyond.

It should be noted that the secondary analysis for this study uses data collected up to and including 2013, before the new Care Act came into force, but the analysis reflects the definitions of care needs and well-being used by the Care Act since 2015.

## 1.3    Aims and objectives

The overall aim of this research is to produce findings which are relevant to policy makers, local authorities, providers in preventing unmet need for care and mitigating its impacts. It is important to identify those most at risk of unmet need so that prevention can be focussed on those groups, given the context in which there are pressures on unpaid carers, local authority provided care and self-funders. Understanding the impact of unmet need on well-being and who is most affected, will also help focus prevention activities.

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[15] http://www.ageuk.org.uk/home-and-care/help-at-home/social-care---all-you-need-to-know/
[16] Humphries, R., Thorlby, R., Holder, H., Hall, P., Charles, A. (2016) Social care for older people: Home truths. The Kings Fund.
[17]  Fairer Care Funding: The Report of the Commission on Funding of Care and Support (July 2011)
[18] See Department of Health (2014) Care and Support Statutory Guidance: Issued under the Care Act 2014.

This research is focused on the social care needs of older people living in their own homes and has four specific aims:

1. *Exploring different conceptualisations and thresholds for unmet need, including the dynamic and changing nature of unmet need and links with life transitions.*
   The different types of unmet need for social care among older people are explored using evidence from literature and cross sectional analysis of Health Survey for England (HSE) and English Longitudinal Study of Ageing (ELSA) data.
2. *Estimating the current prevalence of unmet need.*
   This is explored primarily using HSE data since this cross sectional survey provides better prevalence estimates than ELSA. However, ELSA data are also presented to provide a context for the regression analysis and used for exploring unmet need and wealth.
3. *Identifying what factors predict an individual developing unmet social care needs, focusing on characteristics ten years before and key events such as widowhood occurring in the last ten years.*
   Multiple logistic regression of ELSA data from waves 1 and waves 6 are used to identify the factors which predict unmet needs in ten years' time. The focus is on characteristics at wave 1 with unmet need for social care at wave 6 being the outcome measure. Widowhood experienced between the two waves is also included in the model.
4. *Exploring the complex links between unmet need for social care and well-being, allowing for the possibility of causation in both directions.*
   Using linear growth curve analysis ELSA data from all waves from 1 to 6 have been used to explore the links between unmet need and well-being.

More detail of the data and methods used is provided in the methodology section in chapter 3. This report focusses on the results of the secondary analysis described above. The project also involves a phase of in-depth interviews with older people with care needs (whether met or unmet). These will be used to explore aims 1, 3 and 4 further in order to confirm findings from the quantitative phase, to understand some of the unexpected findings and to investigate any issues which are hidden by the limitations of the available quantitative data.

## 1.4    Report outline

A brief review of the key literature is provided in chapter 2 to provide context and explanations for the approach taken in this research. Chapter 3 explains the methodology used for the research including an outline of the data and the statistical methods used in the analysis. Chapter 3 also describes the involvement of users, practitioners and other stakeholders in this study. Chapter 4 focusses on the first aim and describes the conceptual framework and definitions used for this study. Fuller details off the definitions considered during the project are provided in a separate technical report. Chapter 5 describes the profiles of those with unmet need under the two definitions of unmet care. Chapter 6 addresses the second aim of the research and

presents the prevalence of unmet. Chapter 7 looks at the third aim and what predicts future unmet need. Chapter 8 addresses the fourth aim and the relationship between unmet need and well-being. In Chapter 9 we bring together all the findings and draw overall conclusions and tentative policy recommendations.

Most of the results tables are contained within appendices. Key figures are reported in paragraphs and charts within the chapters. For those who would like to go directly to the key findings, we recommend reading the following sections:

Section 4.1 - conceptualisation of unmet need

Section 4.4 - descriptions of the two key definitions and

Chapter 6 - findings in relation to the prevalence of unmet need overall and among different groups

Sections 7.4 and 7.5 - predictors of developing unmet need and conclusions

Sections 8.5 and 8.6 - findings from the model exploring the relationships between unmet need and well-being

Chapter 9 – discussion and implications

A technical report accompanies this report and provides more details on definitions and methods.

# 2 Key literature and policy context

In this chapter we outline key literature which has informed this project as well as the policy context. This is not a literature review of all relevant literature on these subjects as this is beyond the scope of this report.

## 2.1 Unmet need for social care

Since 2011 the Health Survey for England (HSE) has collected data on need for help with daily living and the nature of any help received.  These data have shown that the majority of help received is unpaid help from family or friends and the majority of formal help is paid for by users themselves (not by the local authority). Furthermore, aids and adaptations are an important ways of meeting needs.

In 2014, HSE showed that 24% of men and 33% of women aged 65 and over needed help with at least one activity of daily living (ADL); and 21% of men and 34% of women needed help with at least one instrumental activity of daily living (IADL).[19] [20] Among those who had received help with ADLs in the last month, 82% of men and 75% of women had received this solely from unpaid carers (family and friends), 4% of men and 6% of women had received it only from formal sources, and 13% of men and 18% of women had received help from a combination of both formal and unpaid helpers. In 2011, among those who received formal help, 56% had paid all the cost themselves and 10% some of the costs.[21] Only 29% reported that they had paid nothing. In 2013, HSE reported on use of aids and adaptations.[22] 20% of men and 30% of women aged 65 and over had an aid or adaptation in their home and 20% of men and 31% of women had a mobility aid such as walking stick, Zimmer frame or wheelchair.

The diverse ways in which needs are met (unpaid help, self-funded and local authority funded formal care, adaptations) means that the definition of unmet need and its causes are complex. Previous research has conceptualised unmet need in a variety of ways. A common approach involves identifying whether someone has care needs by asking about their ability to perform activities (ADLs and IADLs) independently and whether they receive any help with those particular needs.  If they do not receive help this is defined as unmet need. In the HSE report[23], respondents were considered to have unmet need if they had difficulties with at least one ADL (or IADL) for which they had not received help in the last month. Using this measure 21% of men and 29% of women over 65 years had unmet need with at least one ADL and 13% of men and 18%

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[19] ADLs are activities relating to personal care and mobility about the home that are basic to daily living, and IADLs are activities which, while not fundamental to functioning, are important aspects of living independently. HSE 2015 has not yet been published so these are the latest published figures from HSE.
[20] Maplethorpe,N., Darton, R., Wittenberg, R. (2015) Social Care: need for and receipt of help in Volume 1 Health Survey for England, 2014 Report. Health and Social Care Information Centre.
[21] Craig, R., Darton, R., Hancock,R., Henderson,C., Morciano,M., Sadler, K., Wittenberg R. (2012) 'Social Care' in Craig, R. and Mindell, J. (eds.) (2012), HSE 2011: Volume 1. Health, Social Care and Lifestyles, London: HSCIC.

[22] Whalley, R. (2013) 'Social Care: need for and receipt of help' in Craig, R. and Mindell, J. (eds) (2013), HSE 2012: Vol 1. Health, Social Care and Lifestyles, London: HSCIC.
[23] Maplethorpe,N., Darton, R., Wittenberg, R. (2015) Social Care: need for and receipt of help in Volume 1 Health Survey for England, 2014 Report. Health and Social Care Information Centre.

of women had unmet need with at least one IADL in HSE 2014. Research by Age UK, based on data from ELSA wave 6 (2012-2013), has shown that 31% of people aged 65 or over who have difficulty in carrying out essential activities of daily life do not receive any formal help from care workers or informally from family, friends or neighbours (Age UK, 2014).[24] An ADL and IADL based approach was also used by Vlachantoni et al (2011)[25] to explore unmet need using ELSA, General Household Survey (GHS) and British Household Panel Survey (BHPS) data.  A broadly similar approach was taken by Lloyd and Ross (2014)[26] but with a narrower definition (including only those with difficulties with three or more ADLs – substantial care needs). They extrapolated from wave 6 ELSA data that 6.7% of the older population living at home have difficulty undertaking three or more ADLs (560,000 in the population) of whom 70,000 receive no care.

An ADL and IADL based approach does not involve an evaluation by the care user of whether their needs are met. It also assumes that once help is received the need is met regardless of who provides the help). However, an advantage is that it provides data from people who are not care users and may not identify themselves as needing care.

An alternative approach is to ask people with care needs whether they feel their needs are met. Research by Brimblecombe et al (2016)[27] with carers and care recipients identifies unmet need among those who are receiving unpaid care. In this study carers identified themselves as providing unpaid care and then facilitated the researchers in contacting the person they cared for. Nearly half (47%) of care recipients felt they needed more services to meet their needs. This highlights that receiving help does not necessarily mean that all needs are met. Furthermore, two-thirds of unpaid carers (66%) felt the care recipient needed more services. Thus, even where needs are being met as reported by the care recipient, there may be unmet need related to the burden being placed on the carer, or care recipient may not fully acknowledge all their needs. While this approach has the advantage of including the views of both care recipient and carer, it excludes those who do not receive any care (and in that particular research the sample was limited to people who received some unpaid care). A systematic review by Jose de Sao Jose et al (2016)[28] highlights the ambivalence felt by those older people who prefer unpaid care over formal care but have feelings of guilt associated with the burden placed on unpaid carers. This ambivalence may contribute to the disparity between the views of carers and recipients in relation to unmet needs.

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[24] Age UK (2014) 'Care in Crisis'.
[25] Vlachantoni A, Shaw H, Willis R, Evandrou M, Falkingham J, Luff R. (2011) 'Measuring Unmet Need for Social Care Amongst Older People' *Population Trends* 145.
[26] Lloyd, J. and Ross, A. (2014) 'The Bigger Picture: Understanding disability and care in England's older population'. The Strategic Society Centre and Independent Age.
[27] Brimblecombe, N., Pickard, L., King, D., Knapp, M. (2016) 'Perceptions of unmet need for community social care services in England. A comparison of working carers and the people they care for. Vol x: xx Health and Social Care in the Community.
[28] De Sao Jose, J., Barros, R., Samitca, S. Teixeira, A. (2016) 'Review: Older persons' experiences and perspectives of receiving social care: a systematic review of the qualitative literature' Vol 24 (1): pp1-11 Health and Social Care in the Community

## 2.2   Unpaid care

The Care Act 2014 recognises the key role for unpaid carers in meeting needs and the burden which may be placed on them by their caring responsibilities. The Act includes assessment criteria for the carer's needs alongside those of the care recipient. These include impacts on the carer's well-being related to risks to the carer's health, home life and relationships, work, other caring responsibilities and recreation.[29] Carers are entitled to a carer's assessment by the local authority to determine the support they may need as well as the support the person being cared for may need.  Given that the majority of social care in England is provided by unpaid carers (Norman and Purdam, 2013)[30] rather than paid support from the local authority, this is important. However, research shows that many carers may not be visible to the local authority. Pickard at al (2015)[31] compared a general population survey of carers (Survey of Carers in Households in England) with a survey of carers known to local authorities (PSSRU Adult Carers in England) and found that carers known to local authorities provided longer hours of care than those in the general population survey. Among carers in the survey of those known to councils, 79% provided care for 20 or more hours a week (most of them providing 100 hours or more a week) compared with 42% in the general population survey of carers. They also found that while 83% of carers in the survey of those known to councils had had a carer's assessment, only 7% of carers in the general population survey had had an assessment. This may be a result of rationing of scarce resources to those carers facing the greatest pressure but it highlights that councils are only in contact with a minority of carers; and these carers tend to be the older, co-resident carers with their own health problems. The authors estimate that if carer's assessments were to be offered to anyone caring for 20 or more hours a week this would lead to an additional 1.5 million assessments as a result of the new Care Act (substantially more than the 250,000 assumed by the Department of Health).

Other research suggests a growing gap between the availability of unpaid carers and demand for them. Pickard (2013)[32] uses projections to predict that in 2017 the demand for unpaid care among those aged 65 and over needing 20 or more hours of care a week will exceed supply, and that by 2032 the gap will be 160,000 care givers. She suggests that this is driven by the changing ratio of older to working age people, growing employment rates, particularly among women in middle age, increased geographic separation between adult children and parents and growing divorce rates which reduce the availability of family care. Perhaps the support offered through the Care Act 2014 may address some of the issues, and adaptations and telecare may have a part to play. Robards et al (2015)[33] conducted a longitudinal analysis of Census data between 2001 and 2011 and found that the overall prevalence of caring increased from 10% reporting providing unpaid care in 2001 to 10.3% reporting this in 2011. The

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[29] The Care and Support (Eligibility Criteria) Regulations 2014
http://www.legislation.gov.uk/ukdsi/2014/9780111124185

[30] Norman, P., and Purdam, K. (2013) 'Unpaid caring within and outside the carer's home in England and Wales' Population, Space and Place Vol 19(1) pp 15-31.

[31] Pickard, L., King, D., Knapp, M. (2015) 'The 'visibility' of unpaid care in England' The Journal of Social Work. Vol 0: pp 1-20

[32] Pickard, L. (2015) '*A growing care gap? The supply of unpaid care for older people by their adult children in England to 2032'.* Ageing and Society, 35 (1). pp. 96-123.

[33] Robards, J., Vlachantoni, A., Evandrou, M., Falkingham, J, (2015) 'Informal caring in England and Wales – stability and transition between 2001 and 2011' Vol 24: pp 21-33 in Advances in Life Course Research.

percentage of people providing intensive care (more than 20 hours a week) increased from 3.2% to 3.8% in the same period (which the authors highlight as 'the most notable shift' over the period). This evidence underlines the growing need for unpaid care. There is scope for the supply of unpaid carers to increase over time but ultimately demand for unpaid care will outstrip supply and increases in formal care will be needed to meet the gap (Pickard, 2013).

## 2.3   Formal care

While the gap between the demand for and supply of unpaid care has been growing, there has also been a decline in the amount of social care provided by local authorities and the threshold for eligibility has been raised (so that only those with substantial or critical need receive services). In parallel there has also been a move towards personalisation of social care to give users greater control over how their needs are met, which means the types of services which are funded have changed; making comparisons more difficult. Nonetheless the picture is clear. The total number of people aged 65 and over receiving services from councils with social services responsibilities in 2013-14 was 849,280 (down 5% from 895,940 in 2012-13 and down 31% from 1,215,575 in 2008-09).[34] This is a reduction of around half a million users who can no longer access services. The additional cost of meeting all social care needs at the 'moderate' level is estimated at £1.2bn annually. A considerable number of people are estimated to go without care because the local authority social care system can only meet the most significant care and support needs. Some have their needs met by self-funding or topping up their local authority funded care, but others are unable to do this. Despite policy objectives of prevention and enabling people to live at home rather than in residential care, the cuts to community based care for older people have been greater than those for residential care and nursing homes.[35]

The Care Act 2014 has changed the eligibility criteria and made them more consistent across the country with national thresholds.[36] The 'critical', 'substantial' and 'moderate' terminology has been replaced. Those who are unable to meet two or more outcomes related to listed ADLs and IADLs, which will result in a significant impact on the adult's well-being are considered to have eligible needs. This can be assessed in a needs assessment which everyone is entitled to.  Whether someone with eligible needs then receives local authority funded care depends on a financial assessment based on wealth. For home care those with assets (excluding housing wealth) of more than £23,500 have to pay for their care themselves. Those with between £14,250 and £23,500 of assets share the costs with the local authority and those with assets of under £14,250 can have all their care costs met by the local authority (for those eligible needs identified by the needs assessment).[37] Individuals may top up their local authority funded care with their own money to cover the cost of any additional care

[34] HSCIC, Adult Social Care Statistics team (2014) Community Care Statistics on Social Services Activity in England for 2013-14

[35] Humphries, R., Thorlby, R., Holder, H., Hall, P., Charles, A. (2016) Social care for older people: Home truths. The Kings Fund.

[36] Forder and Fernandez (2015) Using a 'well-being' cost effectiveness approach to improve resource allocation in social care'. Discussion Paper 2893 QORO – Quality and outcomes person-centred care policy research unit.

[37] https://www.moneyadviceservice.org.uk/en/articles/means-tests-for-help-with-care-costs-how-they-work

needs beyond what the local authority can provide. This itself contributes to unmet need as those who do not qualify for local authority support because of their means or because of the level of their needs, often do not have the resources to pay for the care needed. As noted above, reforms due to come into place in 2016 as part of the Care Act 2014 which would set a limit on the lifetime costs of care have been postponed until 2020 or beyond. Those who need care but must pay for it themselves, may ration themselves to save money for more serious care needs in the future.

According to Local Government Association analysis (LGA, 2014)[38], councils in England faced a funding gap of £5.8 billion between March 2014 and the end of 2015/16. Local authorities would need to make substantial savings before April 2016, equivalent to 12.5% of their total budgets. The £5.8 billion shortfall in council budgets is caused by a combination of reduced government funding and rising demand for services, in particular from growing numbers of older people. The 2015 interim update by the LGA predicts a £10.1 billion funding gap by 2019/20. In 2015 the LGA predicted the gap in funding for social care growing by £700 million per year. From April 2016 local authorities with responsibility for adult social care were permitted to increase council tax by up to 2% to raise money for social care (and 95% of councils did so). However, a survey of 151 adult social care directors in May 2016 suggests that there is still a shortfall of £1 billion, 39% of which would need to be covered by cuts to services[39]. On top of existing demographic pressures, the introduction of the National Living Wage in April 2016 has placed additional pressure on local authority budgets.[40] This means that local authorities may struggle to afford the services required to meet care needs, even where needs are assessed as eligible and the person meets the financial threshold for support.

On 23rd June 2016 the European Union (EU) referendum resulted in a vote in favour of leaving the EU (52%). The full ramifications of this are unknown as yet, but it is likely to have a further detrimental impact on the availability of care. The care industry employs EU migrants and financial uncertainty may lead to further cuts in local authority funding. In the 2016 Budget Survey, ADASS warned that uncertainty caused by the outcome of the referendum would compound the existing strains on the social care system.

## 2.4   Prevention

All these pressures mean that unmet need for care and the issue of how to meet growing needs are key policy issues, which will only grow in importance over time. The Care Act 2014 has introduced a focus on prevention of care needs. Local authorities now have a responsibility to prevent the development of needs. The LGA has identified three aspects of prevention:[41] primary prevention – to stop care and support needs

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[38] Local Government Association (2014) **Future funding outlook 2014:** Funding outlook for councils to 2019/20

[39] ADASS Budget Survey 2016: https://www.adass.org.uk/media/5379/adass-budget-survey-report-2016.pdf

[40] Humphries, R., Thorlby, R., Holder, H., Hall, P., Charles, A. (2016) Social care for older people: Home truths. The Kings Fund.

[41] http://www.local.gov.uk/documents/10180/7003262/FINAL+MANUAL_TAB_2A_WELL+BEING+AND+PREVENTION_SLIDES.pdf/4d2e5922-3f94-464e-b22c-8c7063d8bf4d

from developing among those who do not have them; secondary prevention – for people at increased risk of developing needs (e.g. housing adaptations, short term telecare); tertiary prevention – for people with established needs to help improve independence. This may prevent or reduce the need for social care or health services. The Barker Review (Barker, 2014)[42] has further highlighted the need for greater integration of health and social care. At present, health services are free at the point of use, while social care services are means tested. Integration involves an element of prevention as well as a need to move resources from health to social care to reflect the changing needs of an ageing population. This is beyond the scope of this project, however it is an important part of the context in which this research is situated.

It is also important to understand how unmet needs can be prevented. This is because secondary and tertiary prevention are not about preventing the needs, but about meeting needs in such a way that they do not develop further. By not meeting lower level or 'moderate' needs, this potentially accelerates rather than arrests their need for significant care at a later date. It also has wider consequences for the potential for older people to stay active and contribute to the community through volunteering roles, for example. In order to understand how to prevent needs or prevent unmet needs it is necessary to understand what causes or is associated with the development of them. This is one focus of this project.

## 2.5   Well-being

Much recent research has focused the financial impact of growing care needs for individuals and public finances and the financial causes and costs of unmet need. However, a central issue is the extent to which unmet need is associated with social costs to those with care needs and their carers. The Care Act 2014 recognises the importance of well-being in assessing the need for care. In this sense well-being can be regarded as part of the definition of need for care. Well-being may be both a contributor to and a consequence of unmet need. This is relevant for prevention, as negative impacts on well-being may contribute to further development of care needs.

The LGA has sought to draw out what well-being means in this context[43]. This includes dignity, physical and mental health and emotional well-being, protection from abuse and neglect, control over day to day life, participation in work and education, social and economic well-being, relationships, accommodation and contribution to society. Thus well-being is multi-faceted and complex. A model of well-being and its drivers developed by NEF in 2008[44] describes how external conditions and personal resources interact to enable people to function well in the sense of being autonomous, safe and connected which leads to good feelings such as happiness, contentment and

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[42] Barker, K (Chair) (2014) A new settlement for health and social care: final report. Commission on the future of Health and Social Care in England. London: The Kings Fund: London.

[43]http://www.local.gov.uk/documents/10180/7003262/FINAL+MANUAL_TAB_2A_WELL+BEING+AND+PREVENTION_SLIDES.pdf/4d2e5922-3f94-464e-b22c-8c7063d8bf4d
[44]Michaelson, J., Mahony, S., Schifferes, J. (2012) Measuring Well-being: A guide for practitioners. NEF (New Economics Foundation).

satisfaction. Measuring well-being involves measuring this functioning and related feelings. The technical report which accompanies this analytical report includes a description of the well-being measures considered for inclusion in the analysis and their previous use for those who would like more detail. A summary of the well-being measures used in this analysis are included in section 4.3.4.

# 3   Methodology

## 3.1   Design of project

This research involves a mix of methods: secondary analysis of existing datasets and in-depth interviews to explore the issues in more detail and to understand people's lived experiences. The two main elements are:

1) Secondary analysis of existing data from the English Longitudinal Study of Ageing (ELSA) and the health survey for England (HSE), using a cross-sectional analysis and longitudinal regression analysis.
2) In-depth narrative interviews with older people to explore pathways into social care and the links between well-being and unmet need for care.

This report is focused on secondary analysis. Full details of the datasets, the analysis methods and the rationale for our approach are included in this chapter. Some additional information is included in the technical report.

As the results show, the secondary analysis raises some important questions which cannot be answered using the existing data. The in-depth interviews will be crucial for exploring these as well as understanding whether our definitions of unmet need, imposed by the available data chime with people's experiences. Furthermore, although ELSA data are longitudinal and enable us to look at people's changing situation over time, this still provides snapshots every 2 years. By taking a retrospective narrative approach, the in-depth interviews will enable us to look at evolving care needs and how they are met without being confined to fixed points of measurement.

## 3.2   User and practitioner involvement

Throughout the project we have sought to involve users and practitioners in the design of and implementation of the research. This is to ensure that the research addresses relevant issues, that it will answer the questions which practitioners have and that it is carried out in a way which reflects the experiences of older care users and which is sensitive to their needs. It is also crucial that the results of the research are accessible to users and practitioners and that there is wide awareness of the results. By involving a wide range of interested parties throughout the project, we hope that when the final report is published people will be expecting it and will already have views on how they can use the findings in practice.

Early on in the project in October 2015 Ipsos MORI hosted a project direction meeting. This was attended by individuals from a range of organisations including charities and bodies which represent users of social care and carers, local government, central government, providers of care and organisations representing them, organisations which bridge the divide between research and practice and researchers working on similar projects. At this meeting we informed people about the aims and approach and sought input and advice on our objectives, proposed definitions for unmet need and well-being, and outlined our study plan. The purpose of the meeting was to ensure that our approach to analysis and the definitions we used reflect current concerns and issues and will generate findings which are relevant and useable. Our approach to definitions of unmet need was strongly influenced by discussion at this meeting which

indicated the need for a measure which would enable us to explore whether people were receiving the local authority care to which they are entitled (though bearing in mind that we are constrained by the available data, rather than identifying people through a real local authority needs assessment). Discussion also showed the need for a broader measure of unmet need which recognizes that people who do not meet local authority eligibility criteria still have needs which should be considered. These needs may develop further if left without support and can be significant in their own right. An important point was made that needs may be met through adaptations rather than care from a person and that at least one of our definitions should reflect this.

We also invited users of social care and carers to the project direction meeting. However, no one from these groups was able to attend. On reflection and further discussion between Ipsos MORI and Age UK we felt it would be more appropriate to consult users and carers using a different approach in a more accessible venue and forum. Age UK runs a Sounding Board to obtain views on issues facing older people and reactions to planned Age UK policies and developments. A panel of older people from all walks of life, some of whom are carers, some who are service users and some who are social care practitioners are on this panel. At a meeting of the Sounding Board in February 2016, details of this project were presented and a discussion held about some key issues facing the project including which types of care need have the biggest impact, what aspects of well-being are most important, what level of unpaid care is burdensome and who the findings of the research should be shared with. This meeting highlighted the importance of adaptations in meeting needs and the fact that the extent to which care is burdensome to the care giver depends on more than just the hours of care given.

In March 2016 a further meeting was held with practitioners and other social care stakeholders (from the same groups invited to the project direction meeting) to discuss initial findings from the cross-sectional descriptive analysis and to guide the direction of the longitudinal regression analysis. This resulted in guidance for which other variables should be included in the regression, the need to consider isolation and loneliness alongside other aspects of well-being and the need for care in how results are presented (e.g. to explain the rationale for the definitions chosen).

## 3.3  Outline of datasets and how data are used

ELSA is a longitudinal survey tracking a representative sample of approximately 10,000 English adults aged 50 and older. Interviews are repeated every other year and data collected on a range of topics including economic circumstances, social participation and networks, biological markers of disease as well as subjective measures of health, disability and well-being. ELSA data offers enormous scope for understanding the relationships between the health, financial and social domains.

The study began in 2002-2003 and the same respondents have been interviewed every two years since then. Six waves of data collection interviews have been carried out to date, spanning a period of ten years. All waves include questions about difficulties with Activities of Daily Living (ADL) and instrumental activities of daily living (IADL), and some information about whether the individual receives care. Wave 6 of ELSA included a new question module on social care. This module was developed by

NatCen Social Research in collaboration with the Personal Social Services Research Unit (PSSRU) and the University of East Anglia in order to collect data on need for, receipt of and payments for social care, and reflecting recent changes to the way social care is delivered by local authorities. This module included questions on whether the respondent receives help with a subset of activities of daily living (ADL) and instrumental activities of daily living (IADL), who helps, how many hours of help are received, whether it is paid for and how much is paid by who[45].

The analysis reported on here used different waves of the data. Whilst the cross-sectional analysis used the sixth wave of ELSA (collected in 2012-2013), the analysis looking at predicting social care needs that go unmet primarily used data from the first and the sixth waves of ELSA, with some information on transitions in intermediate waves. Wave 1 of ELSA included the same set of questions about difficulties with ADLs and IADLs as wave 6 so it was possible to identify those with and without care needs in a consistent way in both waves of data. The analysis of the relationship between unmet social care needs and well-being used all waves of ELSA data. Because of the unavailability of detailed care variables in the waves preceding wave six, a simplified definition of unmet needs has been used for this analysis. Details are discussed further in Chapters 6, 7 and 8 and the technical report.

As ELSA interviews the same respondents every two years it is ideally suited for tracking changes in people's circumstances over time. However, due to the complex sampling design and longitudinal nature of ELSA, with sample attrition, it is not well-suited for calculating population prevalence estimates. This is particularly related to the age of the individuals interviewed. In fact, due to old age, ELSA respondents are more likely to drop out of the sample across waves. Hence, the samples collected in the later waves are likely to differ from the sample design of the first one. The ELSA sample is drawn from respondents to HSE and those who responded at wave 6 have been part of the ELSA sample for up to 10 years. Non-response to the initial invitation to take part in ELSA and attrition of the ELSA due to death, movement to care homes and overseas and non-response means it is less representative than the HSE sample of older people[46]. The analysis of ELSA data was therefore supplemented by analysis of the Health Survey for England (HSE) in order to be able to present data on the prevalence of unmet need. The HSE is a cross sectional survey of the general population of England which covers all ages. Each year the survey collects data on core topics relating to health and health related behaviours, and in 2011-2013 it also included many of the same questions on social care needs as in ELSA. In the report two definitions of unmet need are presented (local authority definition and a wider definition). These are explained in detail in section 4.4. Owing to the variables required for each definition, analysis of the local authority definition includes HSE data from 2011 to 2013, while analysis for the wider definition includes HSE data from 2013 only due to availability of data on aids and adaptations in the home.

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[45] Full details of the development of the new social care question module are available here: http://natcen.ac.uk/our-research/research/social-care-questions-for-over-65s/ Balarajan,M., Gray,M., Blake, M., Green, S., Darton,R., Fernandez,J-L., Hancock, R., Henderson, C., Kearns,D., King,D. Malley,J., Martin,A., Morciano,M., Pickard, L., and Wittenberg,R. *Cognitive testing of social care questions for people aged 65 and over (2010).*

[46] Bridges, S., Hussey, D., Blake, M. (2015) The dynamics of ageing: The 2012 English Longitudinal Study of Ageing (Wave 6): http://www.elsa-project.ac.uk/publications/case/technical

There are some important differences between the two datasets that are outlined below:

- In ELSA questions about ADLs and IADLs and use of social care are asked to all participants (mostly aged 50+). In HSE the questions are asked to those aged 65+. This meant we were only able to investigate prevalence of unmet need in adults aged 65 and older.

- The way in which ADLs and IADLs are described varies slightly between the two datasets. This represents a limitation for the analysis as it hinders the direct comparison of definitions and cross-sectional results across datasets.

- On ELSA the ADLs, IADLs and mobility difficulties are presented on showcards from which respondents can select the activities they have difficulties with. On HSE respondents are asked a series of questions about each of a smaller number of activities and they describe the level of difficulty in their answers. See the technical report for the survey questions and references to the full questionnaires for both surveys.

- Well-being is not measured by the same instrument in the two datasets: CASP-15 score was used in ELSA whereas the WEMWBS measure was used in HSE. This is due to the unavailability of CASP questions in HSE. See the technical report and section 4.3.4 for more detail.

## 3.4   Hypotheses for analysis

Based on the literature and policy context we posited the following hypotheses:

1) After controlling for other factors, having more limited social networks and loneliness increases the likelihood of unmet need ten years later.
2) People with middling wealth are more likely to have unmet need as they cannot afford care but are not eligible for local authority support.
3) People with moderate care needs are more likely to have unmet need, as they fall below the need threshold for local authority support.
4) Unmet need is not fixed – as level of difficulty with ADLs increases, or life circumstances change, individuals may have temporary unmet needs while their care arrangements adjust.
5) After controlling for other factors, having a higher level of well-being reduces the likelihood of unmet need ten years later.
6) Unmet need is associated with lower levels of well-being, even controlling for well-being prior to development of care needs.

In section 9.2 we explain the extent to which the hypotheses were confirmed or disproved by the findings.

## 3.5   Cross-sectional analysis

The cross-sectional analysis strand of this project has two main aims:

- To explore the meaning of unmet need and how it can be measured

- To measure the prevalence of unmet need in the older population

Unmet need can be conceptualised in many ways. The cross-sectional analysis was carried out with two definitions of unmet need: the local authority definition and a wider definition. The rationale for the choice of definitions is described in more detail in section 4.2 and the technical report. The first aim of the cross sectional analysis was to explore how different definitions of unmet need impact on prevalence estimates and the profiles of individuals who are classified as having unmet need according to the different definitions.

The cross-sectional analysis includes both ELSA and HSE data for adults aged 65 and over in England. For the purpose of exploring the differences between the two definitions and understanding the definition to be used in the regression analysis, the ELSA analysis is useful. In terms of reported prevalence figures for unmet need, the HSE data should be used. This is because it is more representative of the older population than ELSA. The exception is the wealth analysis since wealth data are not available in HSE.

## 3.6    Regression model for predicting unmet need

This regression model is designed to answer the following research question:

'Among older people who develop care needs during a 10-year period, what characteristics and circumstances at the beginning of the decade predict care needs being unmet at the end of the decade?'

The sample used to answer this question included ELSA respondents without ADL difficulties in wave 1 (2002) (but with up to 1 non-ADL difficulty) and with at least 1 ADL or 2 non-ADL difficulties in wave 6 (2012). Thus all the individuals included in this analysis had developed 'qualifying' social care needs during the 10-year period. The reason for this choice was to ensure that the model captured the development of unmet needs and not the development of ADLs. The sample included respondents aged 60 years and over at wave 6.

Full details of the approach and the variables included are provided in sections 7.2 and 7.3. The definition of unmet need used as the outcome variable in this analysis is described in section 4.4.2 and the technical report.

## 3.7 Model for looking at unmet need and well-being

The question addressed by this regression model was 'How does having unmet needs affect well-being and the trajectory of well-being over time among older people?'

To address our research question we used a sample of ELSA respondents who participated in all 6 waves of the survey (from 2002-2012) and were aged 60 years and over at wave 6. Our analysis used the CASP-15 scale as our primary outcome variable of interest (instead of the full CASP-19) following the example of Vanhoutte and Nazroo (2012) (details covered in section 2.3). We ran four separate models, one using the full CASP-15 scale as an outcome measure, and three subsequent models using the control, pleasure and self-realisation subscales. For more details on the CASP-15 scale (see sections 4.3.4 and 8.3 and the technical report).

Full details of the modelling approach and the variables included are given in sections 8.2 and 8.3.

## 3.8 Weighting

The survey data used in this analysis were weighted using survey-specific weighting variables which aim to correct for non-response in order to ensure results are as representative of the sampled population as possible. The tables presented give a weighted percentage and a weighted and unweighted base (the unweighted base shows how many respondents answered the question). The weighting approach varied across the analyses performed. Cross-sectional weighting variables were used for the cross-sectional analysis. The regression models used a differentiated weighting strategy connected to the nature of the exploration and to the waves included in the analysis. The model that predicts the development of unmet needs used data from wave 1 and wave 6 but not from the intermediate waves. The longitudinal weight available in the dataset is suitable for analysis of respondents who took part in every wave, which is a subset of the respondents who took part in both the first and the sixth waves (but who may not have taken part in every intervening wave). Therefore, to control for sample attrition across waves but retain all respondents in our analysis sample for this regression, we used the wave 6 cross sectional weight and adjusted the analysis by including specific variables that are associated with non-response across waves. The model that looks at the association between unmet needs and well-being used all the waves available (from wave 1 to wave 6) and so only people who had responded to every wave were included in the analysis. So for the well-being regression, the longitudinal weighting variable available in the dataset was used. Further details on the weighting strategy used for each regression model are included in the regression chapters (7 and 8).

# 4   Conceptualising and defining unmet need

## 4.1   Introduction

In this chapter we first describe ways in which unmet need has been conceptualised and measured in previous research. We then describe the available data from HSE and ELSA which can be used to measure some key dimensions of unmet need. We describe the two definitions which form the basis of the analysis in the rest of report, explaining how they have been constructed and the reason for the choice of these definitions. This chapter forms an importance basis for understanding the analysis which follows. The intention of this chapter is to provide an accessible background to the analysis. For readers who would like to know more about how the definitions were constructed and definitions which were considered and rejected, there is a separate technical report.

## 4.2   Conceptualisations of unmet need in relation to social care

Vlachantoni et al (2011)[47] describe unmet need as follows: "Unmet need, relates to the amount and nature of support received by a person with needs, as well as the extent to which such support is satisfactory from that person's perspective."  In order to understand unmet need one needs to define both needs and the ways in which those needs may be met. Therefore, to measure unmet need for social care one needs a measure of whether someone has difficulties that require social care as well as measures of how those needs may be met fully or partially. In the context of this phase of the project, where the main approach is secondary analysis of data, a key consideration has been the availability of suitable data to operationalise the definition.

A widely accepted way of defining need for social care in England is the use of activities of daily living (ADLS) and instrumental activities of daily living (IADLS). These indicate the extent to which someone can perform key functions of daily life. This approach underpins the question modules about social care in ELSA and HSE[48]. This is also the approach taken by Vlachantoni et al (2011), although their focus was on a small number of specific activities. In ELSA people are presented with a list of activities and asked to report which they have difficulties with. In HSE a series of activities are presented and respondents are asked to report how difficult they find them[49]. Even when one has agreed on this broad approach to defining need, decisions have to be made about which activities should be considered and how many difficulties should be reported in order to be considered to have a need for social care. Decisions also need to be made about whether any other factors should be considered in defining need.

For this project our starting point was definitions previously used by Independent Age and Age UK in research on this topic. We initially explored whether we should set need

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[47] Vlachantoni A, Shaw H, Willis R, Evandrou M, Falkingham J, Luff R. (2011) 'Measuring Unmet Need for Social Care Amongst Older People' *Population Trends* 145.

[48] See section 4.3 for details of the ADLs and IADLs used in ELSA.

[49] See the technical report for more details on the questions asked in each survey.

as having difficulties with 3 or more ADLs (the definition used by Lloyd and Ross, 2014 on behalf of Independent Age, and by Age UK) or whether need should be defined by having any difficulty, i.e. one or more ADL, IADL or mobility difficulty.

The next question is how needs can be met and therefore what defines a need as being unmet. Using ELSA and HSE data the main feasible approach is to regard a need as met if someone says they receive help with that need. Using this approach, it can be assumed that receiving formal care from care and support workers meets needs. There is a question of the extent to which unpaid care from family and friends is regarded as meeting needs or whether it is a sign of unmet needs (always or in some circumstances). Consideration also needs to be given to the role of aids and adaptations in meeting needs. There is also a question of whether someone is regarded as having unmet needs if some but not all needs are met (the definition used by Age UK), or whether unmet need means none of the needs are met (the definition used by Lloyd and Ross, 2014 in work with Independent Age).

Another approach, which moves away from ADLs and IADLs and a task based system, involves self-assessment of unmet need by the person who needs care. In this approach people are asked whether the care which they receive meets their needs. Someone may receive help but it may be insufficient or unsuitable. ELSA includes a question about this, but this is only asked of those who receive some kind of care and thus does not allow for an assessment of the extent to which needs may be met through aids and adaptations. This is also the approach taken by Brimblecombe et al (2016) in their research but their methodology relied on the person with care needs receiving some kind of unpaid care and also revealed a tendency to underestimate unmet need among care users compared with the views expressed by carers. The Care Act 2014 highlights the needs of carers and raises the possibility that even when unpaid care is provided it may represent an unmet need because of the impacts of the care on the carer which may not always be apparent to the care recipient.

Through discussions within the research team and with stakeholders and older people it became clear that there was a role for two definitions of unmet need on this project. Each of these takes a different approach to measuring needs as well as measuring how they are met. One closely aligns to local authority definitions of need under the Care Act 2014 (in which two or more ADLs and with an impact on well-being are considered in defining need and the burden of care on unpaid carers is taken into consideration). There is a strong interest among stakeholders in looking at the extent to which budget cuts are causing unmet need for care even among those who are entitled to local authority care (based on their needs and financial status) and therefore it was important for us to include a definition which, within the constraints of the available data, maps onto the new eligibility criteria.

However, there is another view among stakeholders that there are many people with social care needs who would not be assessed as needing social care by a local authority needs assessment. This is important because of the impacts of this on the individual now, but also because where early needs are left unmet it can lead to further needs which might not have developed, had the initial needs been met. Prevention of future needs relies on addressing early needs quickly. It was also clear from discussion with older people, from the approach taken by local authorities and from looking at the

data, that adaptations can be an important way to provide people with support, while retaining their independence. The second definition therefore takes a wider view in which having difficulties with one ADL, or with two IADLs or mobility issues indicates a need. This definition also recognises the growing importance of adaptations in meeting needs. More detail on the precise way in which the definitions were operationalised is provided in section 4.4.

Both definitions were explored in the cross-sectional analysis but the regression analyses focussed solely on the wider definition. This is because a key variable in the regression was well-being and therefore we needed a definition which did not include well-being within it. Additionally, the purpose of the study is to explore factors which predict unmet need with the intention of understanding prevention. In this context a wider definition which considers lower levels of need seemed more suitable than a definition based on local authority criteria.

## 4.3   Variables and data available from ELSA and HSE

As discussed above, our definition of unmet need was to be based on the care needs of ELSA and HSE respondents and the help or aids received for those needs rather than self-defined unmet need. This approach allows us to include people who do not have their needs met but may not recognise this. Previous research shows that social care users may underestimate unmet need compared to their carers, when asked to self-define unmet need (Brimblecombe et al, 2016). Furthermore, by using a standard list of activities and asking about difficulty we can include people who might not even consider they have a need for care. From a pragmatic point of view, we were constrained by the data available on ELSA and HSE for the secondary analysis element of the project. HSE includes no self-definition of the adequacy of care and ELSA only includes this for those who receive some kind of help with their needs. The ADL and IADL based approach has also been widely used in previous research.

Social care needs covered in ELSA and HSE are classified into three categories: Activities of daily living (ADLs), instrumental activities of daily living (IADLs) and mobility activities. Activities of daily living refer to basic functional abilities while IADLs refer to a higher level of functioning, which require mental and physical functioning and may deteriorate earlier than ADLs[50]. Mobility activities refer to physical functioning abilities required to get around in daily life. The ADL, IADL and mobility covered in both surveys are described in Table 1.

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[50] Lawton, M.P. and Brody, E.M. (1969) 'Assessment of older people: Self-maintaining and instrumental activities of daily living.' *Gerontologist* 9:179-186.

| Table 1 | Social care needs covered in ELSA and HSE | |
|---|---|---|
| | ELSA | HSE |
| ADLs | Dressing, including putting on socks | Dressing or undressing |
| | Walking across a room | Getting around indoors |
| | Bathing or showering | Washing face and hands |
| | | Having a bath or shower |
| | Eating, such as cutting up food | Eating, including cutting up food |
| | Getting out of bed | Getting in and out of bed |
| | Using the toilet, including getting up or down | Using the toilet |
| | Dressing, including putting on socks | Dressing or undressing |
| IADLs | Shopping for groceries | Shopping for food |
| | Taking medications | Taking the right amount of medicine at the right times |
| | Doing work around the house or garden | Doing routine housework or laundry |
| | Managing money, such as paying bills, keeping track of expenses | Doing paperwork or paying bills |
| Mobility activities | - | Getting out of the house |
| | Walking 100 yards | - |
| | Climbing one flight of stairs without resting | Getting up and down stairs |
| | Climbing several flights of stairs without resting | |

In order to be able to provide robust prevalence estimates for the unmet needs it was necessary to be able to replicate the definition of unmet need using HSE data. Our definition therefore also needed to include variables available in both the ELSA and HSE datasets and be appropriate for the longitudinal analysis

Key measures used in defining unmet need that were available in both datasets were:

1. Difficulties with ADLs, IADLS and mobility activities
2. Whether help was received with a subset of key ADLs, IADLs and mobility activities in the last month
3. Who helps
4. Hours of help received and patterns of help
5. Adaptations and equipment in the home
6. Well-being

Other variables of interest included other types of support, whether the respondent provides care themselves and a self-assessment of sufficiency of care but these were only asked in ELSA and so this could not be included within the key definitions.

In the next section we present these key measures and discuss their comparability across the two datasets, based on people aged 65 and over in both surveys.

### 4.3.1   Difficulties with ADLs, IADLs and/or mobility in ELSA and HSE

Analysis of the ADL, IADL and mobility data in ELSA and HSE shows a complex pattern. Lower proportions of participants in ELSA reported difficulties with any ADLs or IADLs (23% for both) compared with participants in HSE (30% for both). A higher proportion of participants in ELSA reported difficulties with mobility (45%) compared with those in HSE (28%). However, this may relate to the fact that there were three measures of mobility difficulty in ELSA including 'climbing several flights of stairs' which was not in HSE and which 42% of ELSA respondents reported having difficulties with.

Difficulties with specific ADLs, IADLs and mobility are shown in appendix A1-3 and described further in the technical report.

**Appendix Table A1- A3**

### 4.3.2   Help received and hours of care in ELSA and HSE

Where ELSA and HSE respondents reported difficulties with the activities listed in Table 1, they were followed up with a questions asking whether they have received help with that difficulty from anyone over the past month and if so, who provided that help. Sources of help were categorised into two groups: formal care, which is typically paid care provided by a professional and care provided by a family member or friend, which is usually but not always unpaid[51]. In ELSA[52] help from family or friends was more common than formal help across all types of activities, with levels of help ranging from 75% receiving help from family or friends with washing and dressing to 92% receiving help with managing money. In contrast only 26% received help with washing or dressing from a formal provider and 8% with managing money.

The most common source of help from family and friends across all difficulties was help from a partner or spouse. The second most common provider of help from family was a daughter. Formal help was mostly received from a home care worker, particularly for ADLs.  The exceptions were shopping and housework where a cleaner (or gardener) were the most common formal providers.

The number of hours of care is a key measure of intensity of care which can act as a proxy for burden (although other factors contribute to burden). About two thirds of people with unpaid care received less than 10 hours of family care from any one person. About a fifth received 20 hours of care or more from a particular unpaid carer, which tends to be the threshold in the literature of care provision that may be detrimental to the well-being of the carer[53].

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[51] Sometimes payment may be received for family care through personal budgets. The alternative term which can be used is informal care but this term is not well recognised by carers so has been avoided.

[52] In this section figures from ELSA are described as this survey provides more detail on the type of activities each type of provider helped with.

[53] Pickard, L., King, D., Knapp, M. (2015) 'The 'visibility' of unpaid care in England' The Journal of Social Work. Vol 0: pp 1-20

Robards, J., Vlachantoni, A., Evandrou, M., Falkingham, J, (2015) 'Informal caring in England and Wales – stability and transition between 2001 and 2011' Vol 24: pp 21-33 in Advances in Life Course Research.

Norman, P., and Purdam, K. (2013) 'Unpaid caring within and outside the carer's home in England and Wales' Population, Space and Place Vol 19(1) pp 15-31.

### 4.3.3   Adaptations and equipment in the home in ELSA and HSE

Some individuals may use aids or home adaptations to manage their difficulties with some ADL, IADL and mobility activities. This is encouraged by local authorities through the provision of adaptations for free. Older people consulted about this research suggested that adaptations offer a favourable way of meeting needs while retaining independence. To capture this, we use indicators available in ELSA and HSE measuring the types of aids and adaptations used by respondent. A quarter of respondents aged 65+ (whether or not they had difficulties with ADLs or IADLs) reported having at least one adaptation (25% in HSE) and a similar number reported having at least one mobility aid (26% in HSE). The most common home adaptation reported was a bath or shower seat (10% in HSE) and alarm to call for help (12% in HSE). The most common mobility aid was a cane or walking stick (22% in HSE).

**Appendix Tables A7 & A8**

### 4.3.4   Well-being in ELSA and HSE

To capture well-being we used the CASP-15 [54] score in ELSA and the Warwick Edinburgh Mental Well-being Scale (WEMWBS)[55] measure in HSE. CASP is a tool designed to capture subjective mental well-being in older age which covers positive and beneficial aspects of well-being (Hyde et al, 2003; Wiggins et al 2007)[56]. The Warwick-Edinburgh Mental Well-being Scale (WEMWBS)[57] is a widely used tool intended to cover more than an absence of mental illness, and involves 'feeling good and functioning well'.

In our analysis, well-being was incorporated in one of the definitions of unmet need (for cross-sectional analysis of HSE and ELSA), as well as being used as an outcome measure on one of the regression models (ELSA only). We therefore needed a well-being measure from both surveys. As there is no single measure available on both surveys, we selected two measures which seemed most relevant to the study of unmet need and which are broadly equivalent in their approach. The distribution of well-being was similar across the two datasets using the different measures (Table 2) and they both capture eudaimonic well-being and elements of quality of life.

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[54] Informed by Vanhoutte, B., and Nazroo, J. (2014) 'Cognitive, Affective and Eudemonic Well-Being in Later Life: Measurement Equivalence over Gender and Life Stage'. *Sociological Research Online, 19 (2) 4*.
[55] http://www.healthscotland.com/scotlands-health/population/Measuring-positive-mental-health.aspx
[56] Wiggins,R.D., Netuveli,G., Hyde,M., Higgs, P. and Blane,D.N., (2007) 'The evaluation of a self-enumerated scale of quality of life (CASP-19) in the context of research on ageing: a combination of exploratory and confirmatory approaches. Social Indicators Research. Vol 89 (1): pp 71-77.
Hyde,M., Wiggins,R.D., Higgs,P., and Blane,D.B. (2003) Researching quality of life in early old age: the importance of the sociological dimension. Social Policy and Administration. Vol 37 (3): pp 239-252.
[57] http://www.healthscotland.com/scotlands-health/population/Measuring-positive-mental-health.aspx

See the technical report for more details about the two measures in terms of their origin, purpose and previous use.

For this analysis we defined poor well-being 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. According to this definition, 15% of older people had poor well-being in ELSA and 14% did in HSE (using CASP-15 in ELSA and WEMWBS in HSE).

| Table 2 | Well-being measures, ELSA W6 and HSE 2011-2013 | | | |
|---|---|---|---|---|
| *Base: Adults aged 65 and over* | | | | *ELSA W6, HSE 2011-2013* |
| 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 |

**Appendix Table A9**

### 4.3.5 Wealth in ELSA

We use wealth as our primary indicator of financial circumstances. This is because it is wealth rather than income which determines financial eligibility for local authority support with social care. In older populations, who are mainly retired, it is also a better measure of financial status than income. Wealth data is available only in ELSA, therefore our analysis of unmet need and wealth is restricted to this dataset. We use an indicator of net non-housing wealth (comprised of savings, investment and physical wealth after financial debt is subtracted), which corresponds with the types of capital considered in the local authority means test to determine eligibility for financial assistance with social care under the Care Act 2014[58].

The Care Act 2014 sets a lower capital limit of £14,250. Where an individuals' non-housing capital falls below this limit, they are eligible for fully state-funded social care. The Care Act also sets an upper capital limit at £23,500, above which individuals are responsible for the entirety of their care costs. Between the lower and upper capital limits, individuals are eligible for some assistance with the cost of their care.

Using our measure of non-housing wealth in ELSA, we derived a variable indicating respondents' financial eligibility for social care assistance. Table 3 shows a breakdown of ELSA wave 6 respondents over the age of 65 by their financial eligibility for state-assisted social care. 38% of respondents have non-housing wealth below the lower capital limit, 9% are between the lower and upper limit and 53% have non-housing wealth above the upper capital limit.

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[58] See Department of Health (2014) *Care and Support Statutory Guidance: Issued under the Care Act 2014*

| Table 3 | Local Authority social care eligibility means test ELSA W6 | |
|---|---|---|
| *Base: Adults aged 65 and over* | | *ELSA W6* |
| **LA social care means test** | **Who pays for the care** | **%** |
| Below the lower capital limit | Eligible for LA to cover all costs of meeting qualifying needs. | 38 |
| Between the lower and upper capital limit | Local authority responsible for some but not all costs of meeting qualifying needs. | 9 |
| Above the upper capital limit, less than £50,000 | All care must be self-funded. | 14 |
| Above the upper capital limit, more than £50,000 | All care must be self-funded. | 39 |
| *Weighted bases* | | *4113* |
| *Unweighted bases* | | *5061* |

# 4.4   Developing possible definitions

Based on the literature about unmet need for care, the eligibility criteria set by the Care Act 2014 and using the data available (described in 4.3), we developed two broad working definitions of unmet need which could be derived using data from ELSA wave 6 (2012) and HSE 2011-2013. These broad definitions, which were developed in consultation with stakeholders (see section 3.2 for details), were selected for their policy relevance as well as their relevance to the daily experience of older people.

The first definition of unmet need was designed to reflect local authorities' assessment of social care needs (under the Care Act 2014), which hold that a person may be eligible for local authority assistance with social care if he or she has difficulties with 3 or more ADLs or has difficulties with 2 or more ADLs and these difficulties have a significant impact on the person's well-being.[59] This definition also takes into account the intensity and burden of any unpaid care received, in line with the consideration for carers included in the Care Act. We refer to this as the local authority definition of unmet care needs.

Recognising that this definition is a rather strict conceptualisation of what constitutes unmet need, we proposed a second broader definition of unmet need that was not tied to whether current eligibility was being met and looked more widely at needs so that it included IADL and mobility activities. In moving away from the qualifying criteria, we also wanted to consider the role of adaptations in meeting needs and remove well-being as a factor in determining whether someone has qualifying needs as this would be an outcome variable in the longitudinal analysis. We refer to this as the 'wider definition' of unmet care needs. In this definition we also moved away from treating intense provision of unpaid care as an indication of unmet need.

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[59] At the time of data collection between 2011 and 2013 (on the two surveys) the LA eligibility criteria were different from the current rules which we have used in our analysis.

Starting with these two definitions that represented a wide, data driven and a narrow, policy driven definition of unmet need we explored variations within these which are described the technical report. In this chapter we present the details of the two final definitions taken forward for analysis.

### 4.4.1 Local authority definition of unmet need.

The local authority definition is based on the eligibility criteria set by the Care Act.

For the local authority definition, the qualifying level of need is that they report difficulties with 3 or more ADLs or that they report difficulties with 2 ADLs and they have poor well-being (defined as having a well-being score more than 1 standard deviation below the mean well-being score for those without difficulties with ADLs).

| | |
|---|---|
| *Local authority definition* | Individual has LA qualifying level of need: 3+ ADLs or 2 ADLs and poor well-being (base) <br> AND <br> • they either receive no care, OR <br> • the care they receive does not meet all their need types, OR <br> • they only receive unpaid care for at least one need type AND <br> • the level of unpaid care is deemed intensive for at least one of the carers (providing care for 20 hours or more per week) |

Individuals who reported difficulties with 2 ADLs and good well-being[60] are potentially eligible for local authority help ('almost unmet need'). Table 4 shows the different categories for the local authority definition. Individuals in the dark grey boxes are classified as 'unmet need', those in the grey boxes with a question mark ('?') are classified as 'almost unmet need'. For the analysis those classified as 'almost unmet need' were treated as if they had their needs met. This means that some people in our needs met group may actually have unmet needs but because their well-being is good they do not have a qualifying level of need and are thus regarded as having needs met. Those in the white boxes in Table 4 do not have unmet need, either because their level of need is not severe enough or their needs are met. This definition excludes those who have only 1 difficulty with an ADL as these people would not qualify for local authority assistance.[61]

This definition was designed so that only those who would potentially qualify for local authority support are included in the base. Thus we can explore what percentage of those with qualifying needs have unmet need (rather than what percentage of older people have unmet needs for care). Those with 2 ADLs have been included in the base because they are potentially eligible for local authority support and their good well-being may relate to having their needs met (in this group the boundary between qualifying needs which have been met and needs which are not qualifying is blurred).

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[60] Well-being score above the mean or less than 1 SD below the mean for older people without care needs (see Table 2).
[61] This means that, individuals with 1 ADL are treated in the analysis as if they have no needs

By including these cases in the base we are guarding against over-estimating unmet need.

Having set the qualifying level of need for the definition, we used existing data from the two surveys to determine whether those needs were met. This included data on whether care from family and friends could be considered burdensome, based on the hours provided by a single carer (intensity).

| Table 4 | Criteria for meeting 'unmet need' and 'almost unmet need' for local authority definition 1 | | | | |
|---|---|---|---|---|---|
| | No care | Unpaid or formal insufficient | Unpaid care only for at least one need and unpaid care is intensive | Unpaid care only all needs met (sufficient & not intensive) | Formal care and unpaid care combo – all needs met (sufficient & not intensive) | Formal care all needs met |
| 3+ ADL | | | | ? | | |
| 2 ADL + poor WB | | | | ? | | |
| 2 ADL + good WB | ? | ? | ? | ? | | |
| 1 ADL + poor WB | N/A | N/A | N/A | N/A | N/A | N/A |
| 1 ADL | N/A | N/A | N/A | N/A | N/A | N/A |
| No need | N/A | N/A | N/A | N/A | N/A | N/A |

N/A     These cells are not included in the base

## 4.4.2 Wider definition of unmet need

As discussed in section 4.2, there is an interest in care needs which would not qualify as eligible needs for local authority support. For this definition we used a different threshold in terms of the types of difficulties to be included in the definition of need. In this definition, we also considered that, in some cases, an adaptation to the home or a mobility aid may be sufficient to meet needs. In this definition care from family or friends is always considered to meet a need even if provided at 'intensive' levels which are treated as indicating unmet need in the local authority definition.

| *Wider definition* | Individual has at least one ADL, or 2 or more IADL or mobility difficulties (excluding difficulties with stairs) (base) <br> AND <br> • does not receive care or have an adaptation for each of their ADL difficulties or at least all but one of their non-ADL difficulties. |
|---|---|

## 4.4.3 Comparison of unmet need by different definitions

Table 5 shows the prevalence of unmet need for the two different definitions. The wider definition shows better agreement between ELSA and HSE in terms of prevalence of unmet need than the stricter local authority definition. Note that the prevalence of unmet need is lower in ELSA than in HSE for the local authority definition. There is further discussion of the differences between the surveys and definitions in the technical report.

| Table 5 | Prevalence of unmet need, local authority and wider definitions, ELSA W6 and HSE 2011-2013 | | | |
|---|---|---|---|---|
| *Base: Adults aged 65 and over with LA qualifying care needs* | *ELSA W6, HSE 2011-2013* | | | |
| | **ELSA** | | **HSE** | |
| | **Local authority** | **Wider** | **Local authority** | **Wider** |
| | % | % | % | % |
| Unmet need | 63 | 56 | 73 | 58 |
| *Unweighted bases* | *500* | *1298* | *830* | *584* |
| *Weighted bases* | *432* | *1119* | *674* | *487* |

## 4.4.4 Differences in the final definitions

It is important to note that there are some key differences between the final definitions selected for the report, inherent in the way they have been conceptualised and operationalised in the data. These should be taken into account when looking at differences in prevalence.

- Intensive unpaid care (long hours of care from one family member or friend) puts someone in the unmet need category in the local authority definition but not the wider definition

- Well-being is a factor in the local authority definition but not the wider definition

- Adaptations and aids can meet needs in the wider definition but not the local authority definition

- In the local authority definition the met need category means the person has no unmet needs at all. Therefore, the unmet need category includes people who have some but not all their needs met. In contrast in wider definition, those in the needs met category could still have an unmet need (1 IADL or mobility need may not be met).

# 5  The profile of those with unmet need

## 5.1.1  Introduction

The focus of this report is on the prevalence of unmet need among older people and exploring how the prevalence varies across different groups (see chapter 6). However, there is an interest in understanding the characteristics of those with unmet need. Since we have included two definitions of unmet need in the report, in this section we have shown how the profiles of those with unmet need under the two definitions compare. Within definitions there is also an interest in how the characteristics of those with unmet need compare with the characteristics of those with met need as well as how the profiles of those with unmet need vary between HSE and ELSA. This short chapter provides this information and the corresponding tables can be found in Appendix B.

## 5.1.2  Comparing the profiles of those with unmet need in the two definitions

Overall, those with unmet need in the local authority definition[62] tended to have a greater level of need, to be less healthy and to be lonelier than those with unmet need in the wider definition.

- Looking at ADL difficulties only, the local authority definition includes a higher concentration of individuals with 3 or more ADL needs than the wider definition; a reflection of its stricter criteria. For the wider definition of unmet need, a greater proportion of individuals had 3 or more ADL difficulties in HSE than in ELSA. The opposite holds for the local authority definition.

- In ELSA, among those with unmet need, the most common need (regardless of whether it was met) was difficulty dressing for both definitions; 89% of those with unmet need according to the local authority definition and 69% according to the wider definition had difficulty dressing.[63]

- In HSE, the most common need[64] among those with unmet need in the local authority definition was shopping for food; 94% of those with unmet need under the local authority definition had this difficulty; while for the wider definition the most common need was getting up and down stairs: 80% of those with unmet need under the wider definition had difficulties with this.

- In both ELSA and HSE, those with unmet need in the local authority definition were more likely to have poor or bad self-reported health than those with unmet need in the wider definition (on HSE 48% of those with unmet need under local authority definition had bad or very bad health compared with 36% of those with unmet need under the wider definition).

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[62] See Chapter 4 for an explanation of the local authority definition
[63] Though it is not necessarily this need which is unmet
[64] Considering both ADLs and IADLs – though only ADLs are qualifying for the local authority definition

- Those with unmet need in the local authority definition were more likely to report often feeling lonely (27%) than those with unmet need in the wider definition (17%). This question was only asked in ELSA.

### 5.1.3 Comparing the profiles of those with met and unmet needs within each definition

This analysis also shows how the profiles of those with unmet needs and with needs met differ for the two definitions. Overall the local authority definition showed more difference between those with met and unmet need that the wider definition did. In the local authority definition those with unmet need have more difficulties with ADLs, are more lonely and less health than those whose needs are met.

- On HSE those with unmet need were more likely than those with needs met to have 3 or more ADLs on both definitions. On ELSA this was the case for the local authority definition but not for the wider definition where the percentage with 3 or more ADLs was similar for both groups.

- Comparing those with unmet and met needs for each survey in terms of the percentage having each type of difficulty, figures show that in HSE on both definitions those with unmet need were more likely to have difficulties with each ADL than those with needs met. The same generally holds for ELSA.

- In ELSA, those with unmet need in the local authority definition were more likely to have some adaptation in the home than those with no unmet needs (90% versus 83%). In HSE, those with unmet needs were only slightly more likely to have adaptations than those with no unmet needs (81% vs. 79%). For the wider definition, in ELSA, those with needs met were more likely to have an adaptation than those with unmet needs (87% compared with 67%). In HSE, there was little difference with 70% of those with unmet need and 74% of those with needs met reporting having at least one adaptation in the home.

- There were also no consistent differences in the health of those with met and unmet needs when compared across the surveys and the definitions. On HSE under the local authority definition those with unmet need were more likely to have bad or very bad health (48%) than those with no unmet needs (41%), while on the wider definition there was no difference in the percentage with bad or very bad health (36%).

- In ELSA, under the local authority definition 27% of those with unmet need reported often feeling lonely compared with 14% of those with met needs. There was no clear difference for the wider definition, 17% with unmet needs often felt lonely compared with 15% of those with needs met.

**Appendix Tables B1–B12**

# 6 Prevalence of unmet need

## 6.1 Introduction

Measuring current prevalence of unmet need in our older population is important for identifying those most at risk of unmet need and anticipating need, now and in the future. It also allows us to potentially uncover hidden unmet need, where needs are being met but only at financial or social cost to the families of those with care needs. These findings can then inform local authorities and policy makers as to where there is a need for increased support and who should be targeted.

Firstly, we present the percentage with unmet needs according to each definition, among those with qualifying social care needs (the figures are not prevalence in the older population as a whole). Our definitions are based on reported need for help and whether or not that need is met and not on self-reported unmet need. HSE is more appropriate for reporting prevalence estimates because it is more representative of the general population than ELSA is. For example, older people who have continued with ELSA over a decade are healthier than the HSE sample  Therefore, sections 6.2 to 6.4 present prevalence of unmet need by key characteristics in HSE only[65] (the equivalent data from ELSA are shown alongside the HSE data in Appendix C for reference). Analysis by wealth has been done using ELSA data since wealth data are not available from HSE (see section 6.5 and Appendix D).

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[65] The choice of datasets is discussed in section 3.3. Note that for the local authority definition, combined data from HSE 2011 to 2013 are used, whereas for the wider definition data from HSE 2013 are used. This is because the wider definition includes adaptations to meet care needs and these are only available in the 2013 dataset.

## 6.2   Local authority definition

*Individual has local authority qualifying level of need and they either receive no care, the care they receive does not meet all their need types, or the level of unpaid care is deemed intensive for at least one of the carers (providing care for 20 hours or more per week)*

According to this definition, 73% of people aged 65 and over with a local authority qualifying level of need had unmet need in HSE. (Appendix Table C1)

- Gender: similar proportions of men and women had unmet need (73% of men and 74% of women). (Appendix Table C2)

- Age: those aged 70-74 were least likely to have unmet need (66% compared with 73-76% in the other age groups). This was true for both men and women (Figure 1). (Appendix Table C3 & 5)

| Figure 1 | Proportion with unmet need by age and gender wealth for local authority definition, HSE 2011-2013 |
|---|---|

*Base: Adults aged 65 and over with LA qualifying care needs*
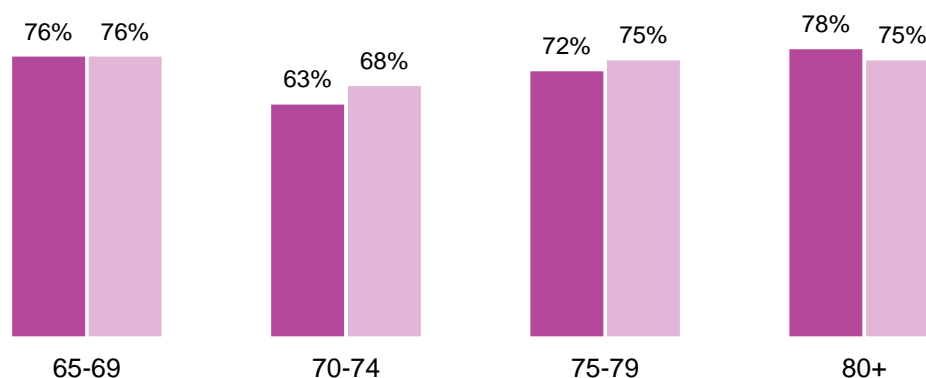


- Living arrangements: the highest unmet need was among those living in three person households (80%), although the numbers in this group were much smaller compared to the numbers living alone or with one other person. 74% of those people living alone had unmet needs and 72% of those living in a two person household had unmet need. (Appendix Table C6)

- Tenure: 79% of those with a mortgage had unmet need compared to 72-74% of those who rented or owned their home outright, though again numbers were much smaller for those with a mortgage. (Appendix Table C7)

- Region: the proportion with unmet need ranged from 82% in the West Midlands to 66% in the East of England. (Appendix Table C9)

- Sight loss:  the proportion of those with good or fair eyesight who had unmet need (78% and 83%) was higher than the proportion with excellent/very good eyesight (68% and 68%). The numbers with poor eyesight and registered blind were too small to comment. (Appendix Table C10)

## 6.3 Wider definition

*Individual has at least one ADL difficulty or at least two non-ADL difficulties (IADL or mobility - excluding stairs) and does not receive care or have an adaptation for each of their ADL difficulties or at least all but one of their non-ADL difficulties.*

According to this definition, 58% of people aged 65 and over with at least 1 ADL or 2 IADL/ mobility difficulties had unmet need in HSE. (Appendix Table C11)

- Gender: men were more likely to have unmet need than women (62% of men compared with 56% of women). (Appendix Table C12)

- Age: the likelihood of having unmet need decreased with age. This was driven by younger men being more likely to have unmet need compared with the other age groups, although numbers in this group were small (75% of men aged 65-69 and 53% among men aged 80+). For women there was not much difference across the age groups in the proportions having unmet need (ranging from  57% of those aged 65-74 to 54% of those aged 80+). (Figure 2) (Appendix Table C15)

Figure 2    Proportion with unmet need by age and gender for wider definition, HSE 2013

*Base: Adults aged 65 and over with 1+ ADL need or 2+ IADL/mobility needs*
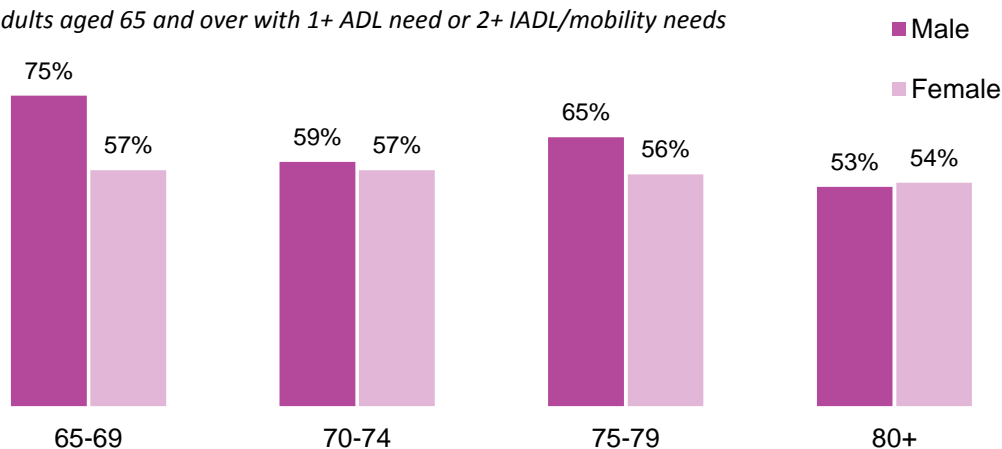


- Living arrangements: those living alone were more likely to have unmet need (63% compared with 52% of those in two person households and 57% of those in three person households). (Appendix Table C16)

- Tenure: the proportion of those with a mortgage who had unmet need was similar to those who rented or owned their home outright (60% with a mortgage, 59% who own outright and 56% of renters). (Appendix Table C17)

- Region: the proportion with unmet need ranged from 64% in the North West to 53% in London. (Appendix Table C19)

Sight loss: the proportion of those with good/fair eyesight who had unmet need (59-61%) was slightly higher than the proportion with excellent/very good eyesight (56-

57%). The numbers with poor eyesight and registered blind were too small to comment. (Appendix Table C20)

## 6.4    Comparisons of the definitions

These findings show how different the prevalence patterns look for our two definitions. This has implications for any conclusions that we can draw about who is most likely to experience unmet need (once they have developed care needs). In this section we discuss how the different operationalising of the definitions may explain some of the divergence we have seen. It should be noted that not only is the way unmet needs are defined different, but so is the definition of qualifying between the two definitions (thus they have different bases). In this section we bring together evidence from the tables in Appendix B and Appendix C.

### 6.4.1    Number and types of care needs

#### Comparing the two definitions

The number of ADL difficulties reported by respondents can be used as an indication of the severity of their needs. It is also clear that the needs of those with unmet need under the local authority definition are more 'severe' than the needs of those with unmet need under the wider definition, reflecting the fact that the qualifying level of need for the local authority definition is higher.

Among those with unmet need on the local authority definition, 91% have 3 or more ADL difficulties (Appendix tables B1 and B2). This contrasts with those with unmet need on the wider definition where only 48% have 3 or more ADLs. Looking at the types of ADLs, among respondents with an unmet need under the local authority definition, 89% reported difficulty with bathing or showering and the same percentage with dressing and undressing. This contrasts with 66% and 60% respectively for those with an unmet need under the wider definition (Appendix tables B5 and B6).

#### Comparisons between those with met and unmet needs within each definition

Within each definition, the contrast between those who have their needs met and those who do not is also of interest. Considering the local authority definition, 49% of people whose needs are met have difficulty with 3 or more ADLs compared with 91% of those with unmet need (Appendix table B1). Looking at specific ADLs, 78% of those with their needs met and 89% with unmet needs have difficulty dressing and undressing and 79% of those with their needs met and 89% of those with unmet need have difficulties with bathing and showering (Appendix table B5). There are greater disparities for other ADLs, where the percentage reporting a difficulty with activities is greatest for those with unmet need (40% of those with unmet need having difficulty with using the toilet compared with 27% of those with no unmet needs). Looking at the wider definition, for all ADLs the percentage reporting a difficulty with an ADL is about twice as great for those with unmet needs as for those with needs met and while 22% of those with needs met have difficulties with 3 or more ADLs, 48% of those with unmet needs have three or more ADLs (Appendix table B2).

Therefore, for both definitions the level of need among those with unmet need is greater than those with met needs both in terms of the number of ADLs and the percentage reporting each type of ADL. This may in part be a result of the definition of unmet need: those with more needs may be more likely to have a need which is unmet because there are more needs to meet. However, the data still show that among the group with unmet needs, people have serious needs – it is not the case that those whose needs are unmet, are those with less severe needs.

### 6.4.2   Adaptations and aids

As discussed in section 4.4.4, adaptations and aids are treated as meeting needs in the wider definition but not the local authority definition. Nonetheless, in both definitions the percentage with adaptations was similar for the met and unmet need groups. The percentage with adaptations was higher under the wider definition than under the local authority definition.

Under our wider definition men in oldest age group (those aged 80 and over) were least likely to have unmet need (with little difference over the age groups for women). This may be because the oldest age group are more likely to have their needs met by aids/adaptations in the home (aids and adaptations could be used to meet needs according to our wider definition but not the local authority definition). Under our local authority definition, the oldest men and women were as likely as the youngest age groups (those aged 65 to 69) to have unmet need.

## 6.5   Wealth

As described in section 4.3.5, we use an indicator of net non-housing wealth (comprised of savings, investment and physical wealth after financial debt is subtracted), which corresponds with the types of capital considered in the local authority means test to determine eligibility for financial assistance with social care under the Care Act 2014.[66] These data are only available from ELSA. The overall prevalence of unmet need among older people with qualifying care needs in ELSA is 63% under the local authority definition and 56% under the wider definition[67]. Looking at unmet need by wealth for the two definitions:

- Local authority definition: 64% of those with income below the lower capital limit (eligible for full financial support with qualifying needs) had unmet need. There was a similar level of unmet need among those above the capital limit (60-65%). Although the base sizes are very small (below 50) which means the exact estimate should be treated with caution, a higher proportion (72%) of those with wealth between the lower and upper capital limit (who are eligible for some financial support from the local authority) had unmet need. This is a group of concern to stakeholders since they are not eligible for funded care for all their qualifying needs

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[66] Individuals with assets below the Local Authority upper capital limit (£23,250) are eligible for state assistance in paying for social care costs. Those with assets above the capital limit are responsible for the cost of their care. Between the lower and upper capital limits, individuals are eligible for some assistance with the cost of their care (see https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/315993/Care-Act-Guidance.pdf)

[67] The prevalence of unmet need using the local authority definition in ELSA may be related to the fact that this sample is healthier than the HSE sample.

but they may lack the financial means to self-fund the remaining care needed.
Figure 1)

- Wider definition: the likelihood of having unmet need increased with wealth: 59-62% of those with income above the upper capital limit had unmet need compared to 52-55% of those with income below the upper capital limit (and eligible for full or partial local authority financial support). (Figure 3)

**Appendix Tables D1 & D2**

Figure 3    Proportion of unmet need by (non-housing) wealth for local authority and wider definitions, ELSA W6

*Base: Adults aged 65 and over with eligible care needs*

■ 'Local authority' definition
■ Wider definition



| Below lower capital limit | Between lower and upper capital limit | Above upper capital limit (less than £50k assets) | Above upper capital limit (more than £50k assets) |

64% | 72% | 65% | 60%
52% | 55% | 59% | 62%
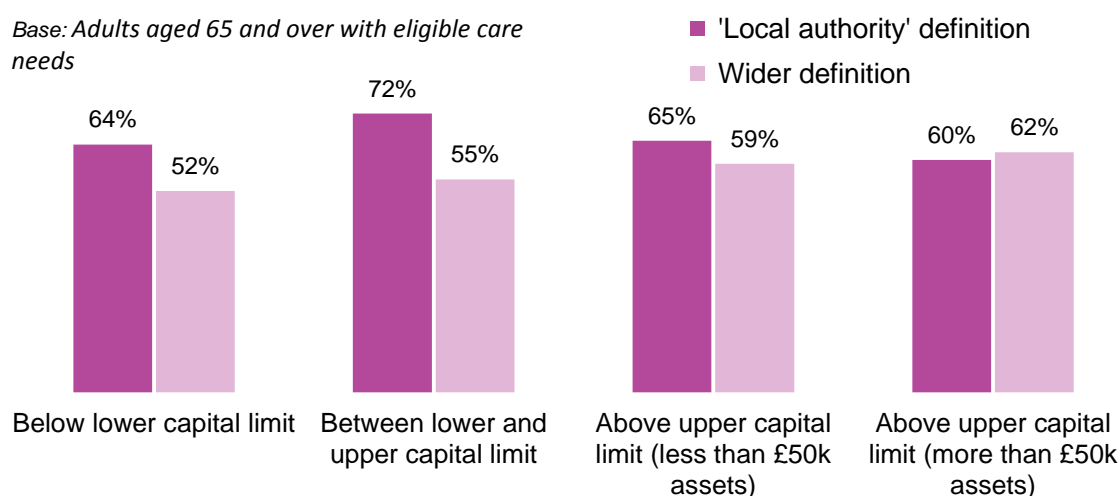
The two definitions showed different patterns across the wealth groups. Our local authority definition shows similar prevalence of unmet need among those who are eligible for full local authority financial support in meeting their care needs and those who are not with a rise in prevalence for those eligible for some support. This contrasts with our wider definition which shows the highest prevalence of unmet need among the wealthiest (62%). In section 6.6, we look more closely at those with unmet need among those who are eligible for social care support to understand more about what is driving their unmet need.

## 6.6 Unmet need among those with qualifying needs and financial eligibility for local authority support

Those who have unmet needs under the local authority definition and are under the upper capital limit[68] are people who have qualifying needs and are eligible for full or partial local authority financial support in meeting those needs.[69] The high prevalence of unmet need seen in this group (64% or more) may be a concern. Given that our local authority definition includes whether the respondent received any care, whether formal or unpaid and intensity of unpaid care, and includes a level of well-being, we explored these to understand more about the nature of the unmet need in this group. Is the level of unmet need in this group caused by poor levels of well-being, being more likely to have intensive unpaid care or is it that they are just not getting care at all?

Looking at the local authority definition of unmet need for two groups (below and above the upper capital limit[70]):

- 15% of those with unmet needs below the upper capital limit were getting no care at all compared with 23% of those above the upper capital limit. (Figure 4)

- The proportion receiving unpaid care only was higher for those below the upper capital limit then those above (60% vs 49%). (Figure 4)

- The proportion receiving formal care only was similar for both groups (5-6%) (Figure 4), while 19% below the upper capital limit and 23% above the upper capital limit were receiving both formal and unpaid care

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[68] Those below the lower capital limit would be eligible to have all the care to meet their qualifying needs paid for by the local authority. Those between the lower and upper capital limits would be eligible to have some of their qualifying needs paid for by the local authority.

[69] At the time of data collection between 2011 and 2013 (on the two surveys) the LA eligibility criteria were different from the current rules which we have used in our analysis.

[70] Those below the upper capital limit would be entitled to have all or some of the care to meet their eligible needs paid for. The reason for combining those below the lower capital limit with those between the lower and upper capital limit in this analysis is because of the small sample sizes.

**Figure 4    Types of care for respondents with unmet needs by wealth, ELSA W6**

*Base: Adults aged 65 and over with local authority defined unmet need*

■ Below upper capital limit
■ Above upper capital limit



|  | No care | Unpaid care only | Formal and unpaid | Formal care only |
|---|---|---|---|---|
| Below upper capital limit | 15% | 60% | 19% | 6% |
| Above upper capital limit | 23% | 49% | 23% | 5% |
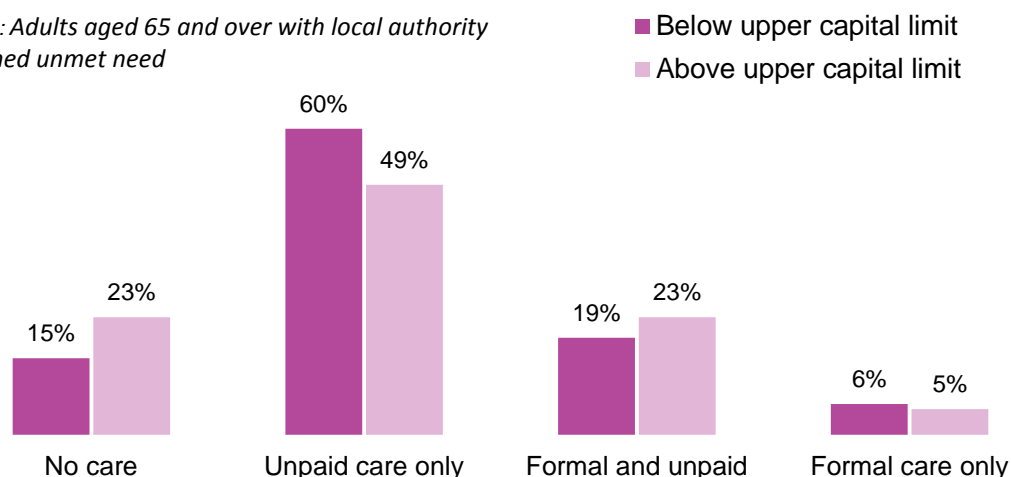
- The proportion who received 20+ hours of care from one person (intensive care) was slightly higher for those below the upper capital limit than those above (37% vs 30%)

- Those below the upper capital limit were more likely to have poor well-being than those above (71% vs 61%)

**Appendix Tables D3 – D5**

# 6.7    Conclusions

Whichever definition is used, we have found that the majority of people with social needs are not having all their needs met. 73% of those under the local authority definition and 58% of those under the wider definition have unmet need[71]. The higher level of unmet need in the local authority definition may be related to the fact that intensive care from a single family member or friend for more than 20 hours a week is regarded as an unmet need for care.

The local authority definition is designed to identify those who would be eligible for state support with care needs if they fall below the capital limit. Using ELSA data we have found that 64% or more of those eligible for at least some local authority support (under both needs and financial criteria) have unmet need[72]. Among this group 15% are receiving no care at all and 37% receive intensive unpaid care which could be considered burdensome to a carer (20 or more hours a week). This is a group who have difficulties with at least two ADLs and is based on ELSA data where the prevalence of unmet need was lower than in HSE (63% overall compared with 73% in HSE). This is an important finding and shows a genuine unmet need for care among those entitled to local authority support. It should be noted that the data on which this is

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[71] Using HSE data.
[72] Note that in ELSA the overall prevalence of unmet need under the local authority definition is 63%.

based were collected in 2012, whereas the definition is based on qualifying needs for care since 2015. At the time when assessments of their needs were made, some of these people may not have qualified for assistance. However, given the funding situation, it still indicates a problem since most local authorities will be unable to fund care for more people in 2016 than in 2012 so the needs of many of these people are still likely to be unmet despite the changes to the eligibility criteria.

The wider definition of unmet need for care shows a surprising relationship with age, with unmet need decreasing with age. This is the definition used in the regression modelling to predict unmet need. The next chapter explores this in more detail controlling for other characteristics. We have chosen this definition for several reasons. Under this definition the prevalence and profile of those with unmet need is most similar for HSE and ELSA, and we have to use ELSA data for the regression. When looking at predicting unmet need, it is useful to look at a wider definition which includes people with developing needs (not just those who already have qualifying needs under the local authority definition). Since well-being is an important predictor in one model and an outcome in the other, it is important that our definition of unmet does not have well-being within it.

# 7 What predicts future unmet need for care

## 7.1 Introduction

Meeting older people's needs for social care is very important, particularly at a time when the proportion of older people is increasing in the population. For this reason, measuring the extent to which social care needs go unmet and understanding the factors influencing this phenomenon is a key challenge.

To increase understanding of the reasons why social care needs are not met and to target prevention effectively, it is crucial to investigate which factors predict this phenomenon. We therefore set out to investigate which characteristics predict the development of unmet needs by addressing the following research question:

 'Among older people who develop care needs during a 10-year period, what characteristics and circumstances at the beginning of the decade predict care needs being unmet at the end of the decade?'

To answer this research question, logistic regression was used on data from the English Longitudinal Study of Ageing (ELSA). The aim was predicting the binary outcome of having unmet needs versus not having them met. It is important to note that in the models everyone had a need for social care – the model is not intended to predict the development of needs, rather it predicts having needs met versus not having needs met. Preliminary tests have been carried out to ensure the model is predicting the development of social care needs being unmet and not the development of ADL needs. This is a key difference to bear in mind for the interpretation of the results.

## 7.2 Sample and main variables

The ELSA sample included respondents without ADL difficulties in wave 1 (2002) and with difficulties (1 ADL and/or 2 or more IADLs or mobility difficulties) in wave 6 (2012), aged 60+ at wave 6.

In the survey, questions about different kinds of support were asked to respondents who reported having difficulty with at least one ADL, IADL or mobility tasks. The outcome variable was the wider definition of unmet need at wave 6. This is a variable that identifies those who have at least some activity or mobility care need(s) that they neither receive care for nor have an aid or adaptation for, from those who have all of their difficulties addressed through care and/or aids and adaptations ('unmet needs' vs 'needs met'). See section 4.4 and the technical report for more detail of the development of the definitions, their operationalization and building blocks. The wider definition of unmet need used in this regression was a binary variable in which (1 = 'unmet needs', 0 = 'needs met').

## 7.2.1 Other explanatory variables

The model controlled for potential predictors and other factors suggested by previous research that might affect social care needs being unmet, including respondents' socio-demographic characteristics, health status, social indicators and events which happened between wave1 and wave 6. These are listed in Appendix Table E1 and described below. All explanatory variables were measured at wave 1 (apart from one measure of having an ADL at wave 6 and a measure of widowhood occurring between wave 1 and wave 6).

### Socio-demographic characteristics

Three main 'core' explanatory variables were introduced in the model: age, gender and household composition. Other socio-demographic variables included having children, how often respondents meet their children, how often respondents talk with the children over the phone.

### Health status

Variables indicating respondents' health status were included. These were an indicator for the presence of long-standing illness, measures of well-being, measures of cognitive function, of poor eyesight and smoking behaviours. A measure of well-being was derived using the CASP-15 score scale: a continuous variable indicating the CASP-15 score of well-being was constructed to indicate the level of individuals' well-being (see sections 4.3.4 and 8.3 for more detail about CASP). In ELSA, cognitive function was assessed using tests of immediate and delayed recall of ten common nouns. These tests resulted in a cognitive scale ranging from 0 to 24 possible points. From this scale, binary variables were constructed to indicate poor cognitive function in immediate recall and in delayed recall (the threshold to identify poor cognitive function has been set to a score of 1 standard deviation below the mean).

A variable indicating the presence of ADL difficulties in wave 6 was also included to account for the severity of the care needs. This is the only variable included in the model which has been measured at wave 6.

### Circumstances

Variables indicating respondents' circumstances were included: work, wealth and housing tenure. Wealth was a categorical variable indicating non-pension, non-housing wealth (see section 4.3.5).

ELSA data also includes measures of physical activity. Respondents were asked how often they took part in vigorous-intensity activities (e.g. running/jogging, swimming, cycling, aerobics/gym workout, tennis, and digging with a spade), moderate-intensity (gardening, cleaning the car, walking at moderate pace, dancing) and low-intensity (laundry and home repairs), using prompt cards with different activities to help them interpret different physical activity intensities. Response options were: more than once a week, once a week, one to three times a month, and hardly ever/never. These variables were used to create a three-category variable indicating the highest level of respondents' physical activity (no activity, light activity, moderate or vigorous activity).

### Social indicators

Social indicators included: whether family understands how respondents feel and whether respondents have friends.

### Transitions

Transitions refer to life events which may have occurred to the respondents between wave 1 and wave 6, the two waves considered for the analysis. The transition considered in this study concerned whether respondents experienced spousal loss in that time span. Other measures of change between wave 1 and wave 6 were considered, including moving house and retirement. However only widowhood was included in the model because we did not wish to include events which may have been caused by developing unmet needs.

# 7.3    Method

## 7.3.1    Building the model

Logistic regression was used to identify the predictors of having needs unmet at the end of a decade. Logistic regression is used when the outcome variable is binary (i.e. whether someone has unmet social care needs or not). The output from the model is in the form of odds ratios. An odds ratio (OR) is a measure of association between an exposure and an outcome. The OR represents the odds that an outcome will occur given a particular exposure, compared to the odds of the outcome occurring in the absence of that exposure. For each characteristic in the model there is a 'reference group' (for example, people aged 49-54) which always has an odds ratio (OR) of one. If another group (such as people aged 55-59 years) has an OR higher than one, this means that people in this group are more likely to experience the outcome than those in the reference group. OR can be interpreted in terms of percent change, by subtracting them from 1 and then multiplying the outcome for 100 (OR-1)*100.

A logistic regression model was built to determine which factors are significantly associated with having unmet social care needs after controlling for other individuals' characteristics. To build the model, a list of possible predictors of unmet needs was tested one by one and the association between each of them with unmet needs was checked. The predictors included are listed in Appendix E (and described in section 7.2.1). Firstly, the unadjusted association between each variable measured at wave 1 and unmet needs in wave 6 was tested. The variables which revealed a significant association with unmet needs were selected and introduced stepwise in blocks in the regression model. This procedure was repeated for each block of variables to obtain a final model which included only variables which showed a significant association with unmet needs at wave 6. Core controls' (age, gender and household composition) were kept throughout (even when they were not significantly associated with unmet needs). In addition, variables measuring the presence of long-standing illness, the highest level of educational qualification and housing tenure were used to control for longitudinal

non-response across waves 1 and 6[73]. These variables were also kept throughout (even when they were not significantly associated with unmet needs).

The blocks of variables which might predict unmet need at wave 6 (or were needed for control purposes) and were tested in the model were as follows:

Block 1: variables of socio-demographic characteristics measured at wave 1.

Block 2: variables of socio-economic characteristics measured at wave 1.

Block 3: variables of health-related characteristics measured at wave 1.

Block 4: variables of behaviours measured at wave 1.

Block 5: variables of social-inclusion characteristics measured at wave 1.

Block 6: variables of transitions measured between wave 1 and wave 6.

The final block contained only the variables which remained significant across all the previous steps (or which were needed for control purposes) and it represents the final model.

## 7.3.2   Weighting strategy

All analyses presented in this chapter was weighted to help minimise bias from differential non-response amongst key sub groups, which in longitudinal surveys increases with each successive wave. Because of the sample design of the ELSA data, a correct weighting strategy is especially important to adjust for non-response at the initial sampling stage (when ELSA participants were selected to take part in HSE) and subsequent refusal to join the ELSA study and non-response at ELSA waves, including attrition through death. The regression analysis used data from waves 1 and 6 but not from the intermediate waves. Therefore, using the longitudinal wave 6 weight would exclude any respondents who did not take part in one or more of the intervening waves. The weighting approach thus involved using the cross sectional weight from wave 6 with the inclusion of any variables associated with longitudinal non-response in the regression model to control for non-response.

The technical report on ELSA wave 6[74] highlighted the fact that the results between waves 1 and 6 showed significant differences between respondents and non-respondents on a number of characteristics: age, government office region, number in household, whether had a long term limiting illness white/non-white ethnicity, self-reported general health, highest educational qualifications, housing tenure. Hence, these variables have been included as control variables to comply with the weighting strategy.[75] Furthermore, the complex sample design of ELSA data has also been accounted for in the statistical analysis.

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[73] See section 7.3.2 for an explanation for the weighting strategy.

[74] Bridges, S., Hussey, D., Blake, M. (2015)  The dynamics of ageing: The 2012 English Longitudinal Study of Ageing (Wave 6): http://www.elsa-project.ac.uk/publications/case/technical

[75] Information on white or non-white ethnicity has not been used in the models because of low number of observations across waves. Information on government office region has not been used because the variable has been utilised to identify the strata of analysis (in the svyset command).

## 7.4    Predictors of having unmet need

The following variables were significantly associated with having unmet social care needs after 10 years (after controlling for other factors) compared with having social care needs which are met. Those without care needs at wave 6 were not included in the model.

- **Age**. Older respondents were less likely to develop unmet social care needs than those in the youngest age groups (aged 49-54 at wave 1). In particular, respondents aged 70-74 have 65% ((OR-1)*100 = (0.35 - 1)*100 = - 60%) lower odds of developing unmet needs in 10 years compared to those in the youngest age group (aged 49-54).
- **Household composition**. Those who lived alone at wave 1 had 74% greater odds of developing unmet needs compared to those who lived with others (reference category: living with others – 2 or more people in the household).
- **Long-standing illness**. The absence of a longstanding illness at wave 1 was a significant predictor of developing unmet need at wave 6; those with a longstanding illness at wave 1 had 30% lower odds of developing unmet needs compared to those who did not have one.
- **Having ADL difficulties**. those who had ADL difficulties at wave 6 had a higher likelihood of developing unmet needs (than those with non-ADL difficulties i.e. mobility or IADL only); those with ADL needs had 1340% greater odds of developing unmet needs compared to those who did not have one.
- **Becoming widowed.** Those who experienced widowhood between wave1 and wave 6 had higher likelihood of developing unmet needs; they had 70% greater odds of developing unmet needs compared to those who did not experience it.

**Appendix Table E2**

However in the regression model most of the characteristics and circumstances available in the dataset were not found to be significant predictors. In particular, the following variables were not significantly associated with developing unmet social care needs (after controlling for other factors):

- Self-reported health
- Presence of children in the household
- How often respondents meet children
- How often respondents talk to children
- Income
- Non housing wealth
- Working status
- Poor well-being
- Cognitive functions (both immediate and delayed recall)
- Poor eyesight
- Smoking behaviour (ever smoked)
- Physical activity
- Whether respondents think the family understand how he/she feels
- Whether respondents have friends

- Housing tenure
- Educational level

## 7.5   Conclusions

This chapter looked at the characteristics and circumstances which predict the development of unmet needs over a 10 year time span drawing on data from the ELSA wave 1 (2002) and wave 6 (2012). The model includes only those with social care needs at wave 6 and the results show what predicts having unmet needs compared to having needs met. The model does not predict the development of needs.

The results of this investigation showed that being younger and not having a long-standing illness were significant predictors of the development of unmet social care needs, after controlling for other social and economic factors. This may be because individuals who are younger and/or healthier (i.e. who do not have a long-standing illness) at wave 1 may be more likely to have their needs unmet at wave 6 because their needs may have developed more recently. Hence, they may be less aware of services available to meet their needs or might not have been able to organise care because less time has passed between the need developing and the end of the observation period compared with those who had long standing illness in wave 1. In addition, it may be that they are not (yet) known to the relevant health and social services and therefore it may be more difficult to receive any support needed to meet their needs. In some cases this may also be because the needs of 'younger' older people are just starting to develop and may be less severe (or may be regarded in that way by services). However, as described below, having ADL difficulties (rather than only IADL and mobility difficulties) was also a predictor of unmet need suggesting that on the whole people with unmet needs are not those with less severe needs.

Results also showed that living arrangements are a significant predictor of developing unmet needs. More specifically, those who live alone are more likely to develop unmet needs. In addition, the analysis revealed that those respondents who had experienced widowhood in between waves 1 and 6 were more likely to have unmet needs at wave 6. These results highlight the necessity for policy makers to take into account individuals' living conditions and whether support from a partner is available when designing new policy measures aimed at addressing care for older individuals. It also highlights the need for local authorities to assess other forms of support available when making needs assessment (as is set out in the Care Act 2014 which came into force after these data were collected). Another implication of these findings is that those who live with others and have not been widowed are receiving support from family members, who may themselves need support. Among those with met needs, there may be hidden unmet needs in terms of the burden of intense care on family members (since unlike the local authority definition, the wider definition used here treats all care from family and friends as meeting needs).

Findings also showed that having ADL difficulties in wave 6 was a positive and significant predictor of the development of unmet needs. This suggests that

respondents with more severe needs (indicated by having at least one ADL rather than just IADLs or mobility needs[76]) are more likely to have their needs unmet.

A key finding of the analysis is that a range of factors which we thought might predict future unmet need do not, controlling for other factors. Financial status (wealth), education level, housing tenure, relationships with family, cognitive functioning, level of well-being and health related behaviours (such as smoking and physical activity) were all found **not** to be significant predictors of future unmet need. This means that some obvious preventive actions (while having merit in their own right) cannot be employed to reduce future unmet need. There is no evidence that reducing isolation, improving physical activity levels, encouraging people to stop smoking and other lifestyle changes would lead to a reduction in unmet need. Unmet need for social care is also an issue affecting people at all levels of wealth; any preventative actions need to consider the needs of self-funders as well as those eligible for local authority financial support.

This analysis has yielded several important findings which reflect the complexity of the topic and the level of difficulty encountered when measuring unmet needs. These will inform policy makers interested in addressing the issue of unmet social care needs among older people. Moreover, additional research is needed in order to understand the characteristics associated with the development of unmet needs.

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[76] See section 4.2 for more information on ADLs and IADLs.

# 8  Modelling the effect of unmet need on well-being

## 8.1  Introduction

The intersection of social care needs and well-being is an increasingly relevant topic in the political discussion around social care as evidenced by the inclusion of 'impact on well-being' in the Care Act 2014 regulations which affect how local authorities assess need for social care assistance. Our analysis of the predictors of unmet need revealed that well-being is not a significant predictor of unmet need 10 years into the future. This chapter analyses the relationship between well-being and unmet need more robustly, investigating the research question: 'How does having unmet needs affect well-being and the trajectory of well-being over time among older people?'

## 8.2  Sample and method

To address our research question we used a sample of ELSA respondents who participated in all six waves of the survey (from 2002 - 2012) and were age 60 years and over at wave 6.

We employed linear growth curve analysis (also referred to as a mixed effects linear regression analysis) to model the trajectory of well-being over time and to determine how having unmet social care needs affect well-being trajectories as individuals age.

Growth curve modelling involves fitting a curve (or trajectory) through each individual's repeated measurements on an outcome variable to summarise change in the outcome – in this case, well-being – over the observation period.[77] We do not fit a separate regression for each person, but rather fit an overall average curve and allow each individual's own curve to depart from this average according to a normal distribution, while controlling for other individual characteristics included in the model.

A random intercept model can be fitted to allow for individual variation in the well-being at the beginning of the observation period, however this assumes that the rate of change in the outcome will be the same for each individual. A random slope model is far more realistic because it additionally allows for individual variation in the growth rate (or slope of the relationship between the outcome and time).[78] Our analysis used a random slope model which allows for individual differences both in the level of initial well-being (the intercept) and the rate of change in well-being over time (the slope).

Time in the model was specified as chronological age and was centred at the sample grand mean of 66 years to allow for ease of interpretation.

Other variables included in the models (described in Appendix table F1) were informed by the findings in Jivraj, Nazroo, Vanhoutte and Chandola's (2014) paper 'Ageing and subjective well-being later in life'.[79] A full description of covariates used is shown in

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[77] Steele, F. (2014). Multilevel Modelling of Repeated Measures Data. LEMMA VLE Module 15, 1-62. (http://www.bristol.ac.uk/cmm/learning/course.html).

[78] Ibid.

[79] Jivraj, S., Nazroo, J., Vanhoutte, B., & Chandola, T. (2014). Aging and subjective well-being in later life. Journals of Gerontology, Series B: Psychological Sciences and Social Sciences, 69(6), 930–941

Table F1 in the Appendix. In summary these included key standard demographic indicators, health status, social support, socio-economic indicators and employment status. In addition to these covariates, we also included in our models the following interaction terms:

- Unmet need * age, which will allow us to observe whether unmet need affects well-being trajectories over time;

- Unmet need * number of needs, which allows us to observe how unmet need affects well-being, depending on how many social care needs a person has;

- Unmet need * wealth, which allows us to observe any heterogeneity in the effects of unmet need on well-being by wealth status.

**Appendix Table F1**

The definition of unmet need used in this analysis was a modified version of our selected definition used in the cross sectional and 'predicting unmet need' model. Our primary interest in this analysis was investigating the effect of unmet need on well-being, requiring a definition of unmet need from multiple waves of ELSA. Because our selected definition of unmet need was derived using variables only available in wave 6 of ELSA, we had to modify this definition to use information available in all waves.

We employed linear growth curve analysis (also referred to as a mixed effects linear regression analysis) to model the trajectory of well-being over time and to determine how having unmet social care needs affects well-being trajectories as individuals age. The covariates in our model are informed by key literature on determinants of well-being in older age.[80]

## 8.3   Outcome measure

Our analysis used the CASP-15 scale as our primary outcome variable of interest. CASP is a scale designed to capture subjective mental well-being in older age. CASP-15 encompasses three dimensions of well-being: control/autonomy, pleasure and self-realisation. See section 4.3.4 and the technical report for more detail of this scale. To understand more completely the relationship between unmet need and well-being, we ran four separate models (shown below): the first using the full CASP-15 score as the outcome variable, and three subsequent models using the CASP subscales as the outcome variable. The reason for this was to enable us to unpack different aspects of well-being in order to understand the relationship between unmet need and well-being better.

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[80] See: Jivraj, S., Nazroo, J., Vanhoutte, B., & Chandola, T. (2014). Aging and subjective well-being in later life. Journals of Gerontology, Series B: Psychological Sciences and Social Sciences, 69(6), 930–941

**Model 1: CASP-15 score** (1 to 60)

**Model 2: Control/ autonomy subscale score** (1 to 20)

- How often feels what happens to them is out of their control
- How often feels free to plan for the future
- How often feels left out of things
- How often can do the things they want to do
- How often feels they can please themselves what they do

**Model 3: Pleasure subscale score** (1 to 20)

- How often look forward to each day
- How often feels that their life has meaning
- How often enjoys the things they do
- How often enjoys being in the company of others
- How often looks back on their life with a sense of happiness

**Model 4: Self-realisation subscale score** (1 to 20)

- How often feels full of energy these days
- How often chooses to do things they have never done before
- How often feels satisfied with the way their life has turned out
- How often feels that life is full of opportunities
- How often feels the future looks good to them

# 8.4   Unmet need

The definition of unmet need used in this analysis was a modified version of the wider definition used in the previous prevalence and predicting unmet need analysis (see Chapters 6 and 7). Our primary interest in this chapter was investigating the effect of unmet need on well-being, requiring a definition of unmet need from multiple waves of ELSA. Because our wider definition of unmet need was derived using variables only available in wave 6 of ELSA, we had to modify this definition to use information available in all waves. The main difference is that in earlier waves we are unable to identify which care needs an individual is receiving care for and only know whether or not they receive any care. In earlier waves we were thus unable to identify individuals who receive care for some of their difficulties but have other needs that are not met. This modified definition thus identifies individuals as having unmet need if:

- The respondent has difficulty with at least 1 ADL or 2 non-ADL activities for which he/she does not have an aid or adaptation; AND
- The respondent does not receive any care.

Conceptually, this is a somewhat stricter definition than the original wider definition used for in the previous chapters, requiring that respondents who have difficulties that are not met through an aid or adaptation receive no care at all in order to be categorized as having unmet needs. Those who receive any care at all, even if the care they receive may not addresses each of their difficulties, are categorized as having (at

least some) needs met because of the less detailed information on care available in the first 5 waves. A comparison of the wider definition used in the cross sectional analysis and the modified wider definition is shown in the technical report.

## 8.5    Effect of unmet need on well-being

Appendix Table G2 shows the results from our 4 linear growth models, including the estimated effects of our full list of control variables, which are consistent with prior literature and are not discussed further here. The results suggest that having unmet needs as captured by the modified wider definition had no significant effect on well-being overall, nor did it have a significant effect on the control, pleasure or self-realisation domains. Instead we found that well-being is significantly reduced with increasing age, regardless of whether care needs are met or not. Furthermore, the interaction between unmet needs and age suggests that well-being trajectories for individuals with unmet need did not differ significantly from those with who have at least some social care needs met. Figure 5 shows this graphically, illustrating the predicted trajectory of well-being over time for those with needs met, unmet needs and no qualifying needs. Well-being declines with age for all three groups, however these trajectories of well-being by age do not differ significantly between groups.

Figure 5    Predicted well-being over time by unmet need
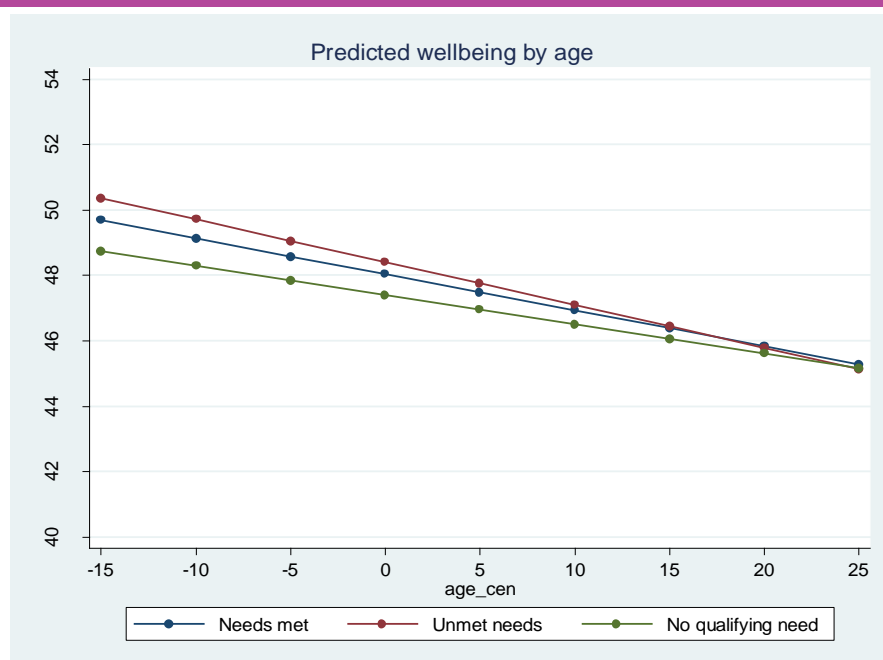


The number of difficulties the individual reported had a strong negative effect on well-being across all four models. Each additional care need an individual had lowered overall well-being by 0.6 points, sense of control by 0.3 points, pleasure by 0.1 points and self-realisation by 0.3 points. The interaction between unmet need and number of needs was not significant in all four models, suggesting unmet need did not significantly affect well-being, regardless of the number of needs an individual had.

Overall, wealth had a relatively consistent effect on well-being across the models. Those below the local authority lower capital limit means test for assistance with social care needs had significantly lower CASP-15, control and self-realisation scores compared with those who have £50,000 or greater in non-housing wealth. The interaction between unmet need and wealth was significant in the pleasure domain model, suggesting that those who have unmet needs and are between the local authority lower and upper capital limit means test scored 0.5 points lower on the Pleasure subscale compared with those who have unmet need and £50,000 or greater in non-housing wealth.

In addition to the main model specification, we also investigated a more detailed modified definition of unmet need, by incorporating a distinction by the severity of need in our modified wider definition. The purpose of this was to explore whether the lack of a relationship between unmet need and well-being is caused by those with unmet needs having differing levels of need compared to those whose needs are met. This variable separated out respondents who:

- Had ADL difficulties and did not receive care or have an adaptation for their need

- Had ADL difficulties and received care or had an adaptation for their need

- Did not have ADL difficulties and did not receive care or have an adaptation for their need

- Did not have ADL difficulties and received care or had an adaptation for their need

- Had no qualifying needs

The results for this model were very similar to the main model. Regardless of the type of need (ADL or non-ADL), those receiving care had, on average, a lower level of well-being than those not receiving care, although these differences were small in magnitude and statistically insignificant.

**Appendix Table G2**

# 8.6   Conclusions

Taken together, these results suggest, contrary to our hypothesis, that unmet need does not affect well-being or the trajectory of well-being over time, when controlling for other circumstances. Nor does having unmet needs appear to have disparate effects on well-being for individuals of different financial circumstances (except in the domain of pleasure). Instead, it is the number of needs an individual has, their financial circumstances, and ageing itself which significantly influence well-being in older age.

These findings could mean a number of things. First, these results could indicate successful targeting of social care needs to those most in need. It is possible that those who are receiving care and have adaptations or aids for at least some of their care needs are those whose needs are qualitatively most severe, while those with needs who are not receiving care and do not have adaptations or aids for their needs are getting by without. Second, it is possible that those who manage without help with their care needs are more resilient and able to cope and this may be associated with good well-being. Since receiving help with activities of life which someone previously carried out independently may lead to a loss of control and autonomy, and possible a change to self-identity, it is possible that receiving care rather than managing alone may have a detrimental effect on well-being for some people. This is an impact that could be

measured in the CASP-15 scale which has several items related to control/ autonomy and self-realisation. Clearly, this will be balanced by the detrimental effects of needing help with essential tasks like washing, using the toilet and shopping and not getting help. This may in part explain why there is no clear relationship between needs being unmet and well-being.

This analysis aimed to provide a useful initial investigation of the effect of unmet social care needs on well-being over time. However, as discussed in the beginning of this chapter, due to data constraints, we have had to employ an imprecise definition of unmet need based on the less detailed data available in all six ELSA waves. The somewhat surprising results may thus very well reflect the limitations of our modified definition of unmet need and potentially not be a good indicator of the relationship between having social care needs that go unmet and well-being in older age.

As future ELSA waves become available, this research would benefit from a similar analysis using a definition of unmet need that makes use of the extended social care module from wave 6 onwards. Future research would also do well to compare the relationship between unmet need and well-being using a variety of definitions of unmet need and measures of well-being. This would allow for a robust analysis of unmet need and a more nuanced understanding of the effects of unmet social care needs on a variety of aspects of well-being.

# 9 Discussion and implications

## 9.1 Drawing together cross sectional and regression analysis

This research has involved both cross sectional and regression analysis. The cross sectional analysis of both ELSA and HSE has been used to understand more about the components of unmet need and to understand how to conceptualise it. The analysis showed the prevalence of care needs, types of help received (including the amount of unpaid care), use of adaptations and aids and well-being levels among older people. All of these were used as the building blocks for our definitions. Having decided on our definitions, cross sectional analysis of both surveys was used to show both the profile of those with unmet need as well as the prevalence of unmet need among different groups. The cross sectional analysis of HSE is what should be used for drawing conclusions about prevalence (since this is a more representative sample than ELSA). The exception is on the analysis of the relationship between wealth and unmet need, for which only ELSA data are available. The cross sectional analysis of ELSA also provides a good basis for understanding the data used for the regression. The longitudinal regression analysis of ELSA data was used to explore what predicts unmet need and how unmet needs are related to well-being.

The conclusions in relation to the hypotheses set out at the start of the project are discussed in the following section (9.2) drawing on both the cross sectional and regression analysis. First we outline the key findings from cross sectional and regression analysis in order to understand the commonalities and contradictions.

The first finding from the cross sectional analysis is that the way in which unmet need is defined and the choice of base (who is included in the definition) affects the prevalence and profile of those with unmet need. Since the purpose of this project is to understand the causes and impacts of not having care needs met, among those with care needs, only people with care needs have been included in the bases for our definitions. After preliminary analysis and consultation with stakeholders we decided to explore two definitions which define needs and eligibility differently:

1) local authority **definition** to understand levels of unmet need among those who we believe would be eligible for help according to local authority care needs assessments (though not all would be eligible for local authority funding because of their assets). A person may be eligible for local authority assistance with social care if he or she has difficulties with 3 or more ADLs or has difficulties with 2 ADLs and these have a significant impact on well-being. This definition also includes consideration of the burden on carers and those receiving 20 or more hours of unpaid care from a single person are also regarded as having unmet need, as well as those receiving care which does not meet all their needs,

2) **Wider definition** to understand levels of unmet need among those with a broader range of needs (including IADL and mobility difficulties as well as ADL), while also considering adaptations and aids as a way of meeting needs.

We found that using both these definitions over half of people with qualifying needs are not having all their care needs met. Using HSE data 73% have unmet need according to the local authority definition and 58% according to the wider definition. Using ELSA data we found that among those eligible for local authority financial support for all of their care needs (because of their level of need and assets) 64% have unmet need[81]. Looking at those who would be eligible for all or some of their care to be paid for by the local authority 15% are receiving no care at all and 37% are receiving intensive unpaid care which may be burdensome to the carer (20 or more hours a week from one carer). This has highlighted the fact that many of those who have qualifying needs and are eligible for support are not having their needs met. However, the cross sectional analysis also shows that unmet need can be found across all age, wealth and social groups.

The regression analysis focussed on characteristics ten years before, rather than current characteristics. Only those with care needs were included in the model which sought to explore what predicts needs going unmet, rather than what predicts the development of needs. The analysis confirms that unmet needs is an issue affecting a wide range of people, such that factors such as gender, wealth, social contact, education, housing tenure, health behaviours, well-being and cognitive function do not predict the development of unmet needs for care. The only predictive factors were found to be living alone, being relatively young (though still 50 and over), not having a longstanding illness and losing a spouse.

The well-being regression analysis shows that there is no clear relationship between unmet need and well-being. There is no evidence that having care needs unmet contributes to lower well-being compared with those whose care needs are met. Rather well-being is affected by the number of care needs (whether or not they are met), age and financial and socio-economic status.

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[81] The overall level of unmet need in ELSA among those with qualifying needs under the local authority definition was 63%.

## 9.2 Testing our hypotheses

Based on the literature and policy context we posited the following hypotheses. Here we discuss the findings and the extent to which they confirm or disprove the hypotheses.

### 9.2.1 After controlling for other factors, having more limited social networks and loneliness increases the likelihood of unmet need ten years later.

The cross sectional analysis showed that under the wider definition of unmet need those who live alone have a higher level of unmet need than those living with others (in both ELSA and HSE). Under the local authority definition this is less clear. On ELSA those living alone have higher levels of unmet need but on HSE only a slightly higher percentage of those living alone have unmet need compared with those in two person households. In HSE, the highest level of unmet need is found among those in three person households. This suggests that the impact of living with others may be more to do with the availability of care from a family member (usually a spouse or partner) to meet needs rather than in reducing loneliness (see sections 6.2 and 6.3). This may be why in the local authority definition, which treats burdensome unpaid care as unmet need, there are high levels of unmet need in all household types on HSE.

Cross-sectional analysis of self-reported loneliness showed that there were relatively small differences between those with unmet need and those with needs met in the percentage reporting that they often felt lonely (see section 5.1.2).

In the regression modelling to predict unmet need, social indicators about friendship and relationships with family, and variables such as frequency of contact with others were not found to be significantly related to unmet need and so were not included in the final model. Two factors which were significant in the model were living alone and becoming widowed, both of which were significant predictors of unmet need (see section 7.4). The finding that social indicators are not significant predictors of unmet need suggests that the impacts of living arrangements and widowhood relate more to the practical availability of care and support from family, rather than loneliness but this is an avenue for further research and will be explored further in the in-depth interviews.

### 9.2.2 People with middling wealth are more likely to have unmet need as they cannot afford care but are not eligible for local authority support.

ELSA data contains detailed information on wealth which is not available on HSE. Looking at the local authority definition, the highest levels of unmet need were among those with wealth between the lower and upper capital limit (who are entitled to some state support but not to meet all the costs), however the sample size for this group was small and so this conclusion is tentative. Among those groups with a larger sample size, unmet need was higher among those with the lowest levels of wealth (below the lower capital limit) who would be eligible for full local authority support with social care needs (64%) and among those with assets above the upper capital limit but less than £50,000 who are not entitled to any local authority support (65%). The lowest levels of

unmet need were among those with wealth above the upper capital limit and above £50,000 (60%). It would be of interest to explore the unmet need among those only just above the upper capital limit (e.g. up to £35,000 assets) but sample sizes are too small to do this.

These findings tentatively support our hypothesis that people with middling wealth are more likely to have unmet need as they cannot afford care but are not eligible for full local authority support for all their needs. What is more striking is that unmet need among those who are eligible for full state support is as high as that among those above the threshold for any support. The research also shows that 15% of those with eligible needs and eligible for full local authority support who have unmet need, receive no care at all and 60% have unpaid care only. This suggests that in most cases unmet need is not related to whether people can top up their care (beyond what the local authority will fund) or to whether people fall just above the threshold for local authority financial support, because a minority of those eligible for local authority support are receiving any formal care at all.

The overarching finding is that well over half of all wealth groups have unmet need according to the local authority definition, suggesting that unmet need is an issue affecting all groups in society regardless of their financial means.

### 9.2.3 People with moderate care needs are more likely to have unmet need, as they fall below the need threshold for local authority support.

Data on the profile of those with unmet need and met needs on the local authority definition from ELSA and HSE show a complex pattern. Since the Care Act 2014, the eligibility criteria have changed and no longer refer to 'moderate', 'substantial' and 'critical' needs. However, having 2 ADLs rather than 3 or more could be treated as a proxy for moderate needs. We found that on HSE those with unmet needs under the local authority definition were more likely to have 3 or more ADL difficulties than those with no unmet needs (see section 4.3.5) which contradicts this hypothesis. On ELSA the pattern was less clear and there was little difference in the percentage with 3 or more ADLs according to whether needs were met. Even looking at the wider definition there is no evidence that those with unmet needs have a smaller number of ADLs than those with met needs. This was confirmed by our regression analysis in which having ADL needs (rather than just IADL or mobility needs) was a predictor of unmet need. There is a risk that our finding results from the way the definitions are created which means that those with more needs have a greater chance of at least one of them being unmet.  However, it is clear that those with unmet needs on both definitions include people with multiple difficulties with functioning in daily life, not all of which are being met.

### 9.2.4 Unmet need is not fixed – as level of difficulty with ADLs increases, or life circumstances change, individuals may have temporary unmet needs while their care arrangements adjust.

The methodology we have used involving cross sectional analysis and longitudinal analysis of two waves of ELSA 10 years apart makes it difficult to come to firm conclusions in relation to this hypothesis. Nonetheless there is some tentative evidence to confirm this hypothesis and we will explore this further in the narrative interviews which are better suited to looking at temporary needs and adjustment. The regression model showed that being younger and not having a limiting longstanding illness at wave 1 is predictive of unmet need at wave 6. One explanation for this is that those who are younger and were previously healthier have not yet had a chance to make the arrangements to meet their needs, while those who are older or who have had limiting longstanding illness for at least ten years have been able to.

### 9.2.5 After controlling for other factors, having a higher level of well-being reduces the likelihood of unmet need ten years later.

In the regression model to predict further unmet need for care, well-being was measured using CASP-15. CASP-15 scores were not found to predict unmet need at wave 6 and were not included as predictors in the final model. As discussed in section 4.3.4 and the technical report, well-being is a multi-faceted concept which can be measured in a variety of ways. CASP-15 was selected because of its availability in all waves of ELSA and its focus on positive aspects of well-being, rather than merely the absence of mental ill-health or depressive symptoms. It includes dimensions of control/autonomy, pleasure (or fulfilment) and self-realisation which relate to dimensions set out in the Care Act 2014 and which are all related to quality of life.

### 9.2.6 Unmet need is associated with lower levels of well-being, even controlling for well-being prior to development of care needs.

The linear growth curve analysis was designed to look at the effect of unmet need on well-being. We found that, contrary to our hypothesis, unmet need does not affect the trajectory of well-being over time when controlling for other factors. Instead, the number of needs, financial circumstances and ageing influence well-being over time.

The reasons for this initially surprising finding need further investigation. We suggest two possible explanations. One is that limited care provision is being successfully targeted so that those at most risk of negative impacts of unmet need are having their needs met. Those with unmet need are those who can find other coping mechanisms which means their well-being is not affected. Another, possibly related, explanation is that receipt of care can lead to a loss of control and autonomy. Those who have to manage without help may retain a greater sense of control and self-realisation, which may partially counterbalance some of the negative impacts on well-being of having needs unmet. Discussion with older people through the Age UK sounding board suggests that adaptations and aids are important as they provide help while retaining independence. A future research avenue beyond the scope of this project is exploring whether well-being varies according to the way in which needs are being met.

## 9.3    Implications for qualitative work

The next phase of the project involves 24 narrative in-depth interviews with older people with care needs to explore their experiences as their care needs have developed. This is an extremely important element of the research since it will allow us to explore some of the issues which could not be fully unpicked using the secondary analysis (for example whether unmet needs are temporary or long term and how this relates to the development of needs). It will also allow us to explore some of the surprising findings of the research (such as the absence of a relationship between unmet need and well-being).

Based on the original aims of the qualitative phase and the findings presented in this report we suggest that the following questions should be explored in the qualitative phase:

- o How do people develop unmet needs? What triggers unmet needs – is the change progressive (getting old), or is the onset sudden (e.g. an illness, a change of personal circumstances)?
- o How do people who develop unmet needs adapt to their new circumstances? Do unmet needs remain unmet for a long period of time, or is this just a short/interim situation until a solution is found to meet these needs? Are unmet needs just a transition phase while people adapt to a new life of having (more) social care needs?
- o What is the role of living with other people, especially a spouse or partner in meeting care needs?  To what extent is the help practical and to what extent does it counter isolation and loneliness?
- o What factors cause people to be social isolated and lonely and how does this relate to having social care needs met? How does social isolation and loneliness relate to well-being?
- o How, if at all, does having unmet needs affect people's well-being or vice versa?
- o To what extent do people plan ahead for their care needs – did those who were in border line situations 5-10 years ago (e.g. have one long-term illness, physically inactive, aged 70+) plan ahead more than those who were younger, fit and physically active back then?
- o What contact do people have with the health service and local authority and how has this helped or hindered them in meeting their care needs?
- o What is the role of family and friends and adaptations in meeting needs?

The findings from the secondary analysis and the questions above also inform the recruitment plan for the qualitative phase. We will recruit people from the following groups:
- From a range of ages 60 years and over
- Men and women
- A variety of marital status (including widowed, divorced/separated and single)
- People living alone, with one other person and in a household with three or more people
- With and without difficulties with ADLs and with varying levels of need
- With varying levels of care and support including formal care, help from family and friends, adaptations and aids, and no support or care

- With varying level of financial resources
- Those who have developed needs recently and those with long term care needs
- Including two or three regions of England

# 9.4   Implications for policy

As discussed in sections 1.2 and 2.1, the Care Act 2014 has led to important changes in relation to unmet need for care. A national framework for determining eligible needs, the role of well-being in relation to determining needs, the importance of carers in meeting needs and the recognition of their needs, and the importance of prevention in the social care responsibilities of local authority are all relevant for this project. Furthermore, the findings of this project provides important insights for those involved in implementing the Care Act at a national level and in local authorities, for those providing care (either formally or as family carers) and for organisations campaigning on behalf of older people and carers and seeking to understand the impact of the Care Act. In this section we outline the implications from the first phase of this project. Firmer implications will be developed once the qualitative phase is complete and in consultation with stakeholders.

## 9.4.1   local authority definition

The key finding in relation to the local authority definition of care used in this project is that 64% of those with eligible needs and below the lower capital limit (meaning they are eligible for local authority funded care) had unmet need for care in 2012 using the Care Act 2014 eligibility criteria. Among those entitled to have all or some of their care paid for by the local authority and with unmet needs only 25% were receiving some formal care, 37% were receiving intensive care from family and friends (at a level which may be detrimental to the health and working status of the carer), and 15% were receiving no care at all. We cannot conclude that local authorities were not meeting their responsibilities in 2012 (when eligibility criteria were different). However, it shows that under the new Care Act, many people not receiving any formal care in 2012, would now be eligible for care and support at least partially funded by their local authority. In the context of budget cuts facing local authorities this has serious implications. Gross spending on social care for older people by local authorities declined by 9% in real terms between 2009/10 and 2014/15. Overall local authorities have had a real term reduction in central government funding of 37% between 2010/11 and 2015/16 so the cut to social care would have been even greater had local authorities not used income from charges and money from the Better Care Fund[82]. Local authorities may carry out needs assessments and financial assessments under the framework set by the Care Act 2014 but be unable to fund the resulting care packages. Without further central government funding, use of reserves or cuts to other services it will not be possible to pay for this care, or meet the needs of intensive carers.

The research also shows the importance of unpaid carers in meeting the needs of care users. The Care Act 2014, includes provisions to meet the needs of carers including carer's assessments and the responsibility to provide support for them in their caring

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[82] Humphries, R., Thorlby, R., Holder, H., Hall, P., Charles, A. (2016) Social care for older people: Home truths. The Kings Fund.

responsibilities. Previous research suggests that there is a growing care gap in terms of provision of unpaid family care, and that local authorities are not in contact with all those providing more than 20 hours of care a week[83]. This research confirms that a contributing element to unmet need under the local authority definition is burden on carers. A reassessment needs to be made of the number of unpaid carers eligible for local authority assessment under the Care Act so that the necessary resources can be made available to local authorities. Within local authorities, work is needed on ways of identifying 'invisible' carers who are not known to the local authority but who are entitled to assessment and support to maintain their own health and to enable them to work. There is potential for further research using ELSA data to explore contacts people may have had with the local authority and the ways in which paid for care is funded.

The research also highlights unmet need among those who would be expected to self-fund with 60-65% of those above the upper capital limit having unmet need. Among those 28% receive some formal care, 30% receive intensive unpaid care and 23% have no care at all. This may reflect an unwillingness or inability to self-fund, a lack of supply of suitable services or insufficient information about what is available.

## 9.4.2 Wider definition

We used a wider definition of unmet needs to explore what predicts unmet need in the future. This reveals that there are no 'quick fixes' since the factors which predict future unmet need are not things which can be changed by policy or by programmes to improve people's health and well-being. There is no evidence that improving people's lifestyles in relation to healthy behaviours, reducing loneliness or undertaking activities to improve the well-being of older people will necessarily reduce levels of unmet need in the future.

The finding that living alone or being widowed predicts future unmet needs, coupled with the fact that most needs are met by family and friends, with a partner or spouse being the most important family member in providing care, highlights the difficulties faced by those living alone in meeting their needs. Some of those who live alone with unmet needs would be expected to self-fund, however all are entitled to a needs and financial assessment. This suggests that local authorities should be alert to those who live alone or who have been widowed (even if a decade ago) during these assessments as they are particularly vulnerable to unmet need and may need help with signposting of services even if the local authority should not be paying for the services, and even if the needs may fall below the eligibility threshold. Clearly there are financial constraints on local authorities. Funding for local authorities should to allow for needs assessments even among those who will not eventually receive local authority funded care because of the responsibilities of local authorities in preventing needs. This is particularly important for those living alone who may not have access to care from family or for whom the care from family and friends may be geographically distant[84].

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[83] Pickard, L., King, D., Knapp, M. (2015) 'The 'visibility' of unpaid care in England' The Journal of Social Work. Vol 0: pp 1-20

[84] Norman, P., and Purdam, K. (2013) 'Unpaid caring within and outside the carer's home in England and Wales' Population, Space and Place Vol 19(1) pp 15-31

One finding which was initially surprising, but which chimes with other research is that those who were younger and without limiting longstanding illnesses at wave 1 of ELSA were more likely to have developed unmet need by wave 6. Pickard et al (2015) found that carers known to local authorities tended to be older, less healthy and not in employment. Since many carers are spouses, it is reasonable to assume that this may also indicate something about the characteristics of the person being cared for. This suggests that those with care needs who are younger and healthier are less likely to be known to local authorities and therefore less likely to have access to needs assessments. It is also possible that those with longstanding illnesses may be known to health services, which also play in role in directing people to services. The implications of these findings are that attention should be given to the needs of the youngest old as well as the oldest old, particularly given the importance of secondary and tertiary prevention (as highlighted by the Local Government Association).

Our research has also shown that there is no clear relationship between well-being and unmet need. Given the focus of the Care Act 2014 on well-being, this is an important finding. The Care Act implicitly assumes that not meeting care needs would have an impact on well-being. However, this research puts this assumption into question. It also uncovers the complexity involved in measuring well-being. For this research we were obliged to use available measures of well-being from the two surveys. For local authorities carrying out assessments there is a choice of approaches to measuring well-being and the likely impact of not receiving care on well-being. Particularly given the financial pressures on local authorities, it is possible that inconsistencies may emerge in how the impact on well-being is assessed. It would be valuable for a consistent framework for assessing well-being to be developed and for its implementation to be evaluated.

## 9.5 Strengths and Limitations of the research

The research has been conducted by a multi-disciplinary team across two research organisations in close collaboration with two charities focussed on the needs of older people. Age UK and Independent Age have been involved throughout, from the development of the proposal, in refining objectives and methods and during the research. Both organisations will remain involved during the dissemination process in ensuring the findings are useful and accessible.

During the project we have benefited from the input of advisors from central government, local authorities, charities, providers and from older people and carers to ensure that the project remains focussed on relevant issues and employs a suitable approach.

The secondary analysis has been conducted using data from two high quality and respected surveys (Health Survey for England and English Longitudinal Study of Ageing). The data are available from the UK Data Service to any bona fide researchers. This project benefits from the fact that the principal investigator has been involved in the design of the social care questions on both surveys and in managing the data collection on both surveys.

Nonetheless, there are several limitations to this research. Firstly, the data used for analysis were collected between 2011 and 2013. This means they reflect a recent period, rather than the current situation. The analysis has employed current eligibility

criteria for local authority support under the Care Act 2014, however this was not the legislation or framework in place when the data were collected.

The exploratory analysis of unmet need (which is described further in the technical report which accompanies this report) demonstrated that the way in which unmet need is defined affects the conclusions which may be drawn from the analysis. Through consultation with advisors, reference to the literature and consideration of the policy context we have sought to use definitions which are robust and will stand up to scrutiny. However, it is possible that there may have been better alternatives. We also think that some of the findings may result from logic inherent within the way unmet need is defined. For example, people with unmet need have more difficulties with ADLs than those with needs met but this may be because people with more difficulties have more difficulties which could be unmet.

Although the use of longitudinal data enables us to consider the direction of impacts and to understand how circumstances in one time period affect unmet need in the future, we are only able to analysis snapshots from the time when data were collected (every two years in ELSA and over ten years when comparing wave 1 and wave 6). In contrast, the narrative interviews will be able to explore with participants, events taking place over much shorter time periods, identifying key tipping points or changes in their care needs or use of services. This relates to another limitation of the secondary analysis which is that we have imposed a definition of unmet need on the participants. We have placed people in the unmet need or needs met categories, but this is not necessarily how they would have described themselves. To some extent this is a strength as it enables us to look at gaps in service provision even among people who may not recognise their needs. However, it may mean that we have placed people who would consider themselves to be coping and maintaining independence in the unmet need category. On the other hand we may have classified some people as having their needs met when they would regard themselves as having unmet need in areas which we did not measure in the survey.

Owing to the fact that the detailed questions about social care receipt were not included until ELSA wave 6, the linear growth model to explore the impact of unmet need on well-being, had to use a modified version of the wider definition of unmet need. This may have affected the conclusions drawn. The differences between the modified and main wider definition are outlined in the technical report.

Notwithstanding these limitations, we consider that this research contains important messages which can contribute to the current debate on the funding and organisation of social care in this country and the experiences of people who need these services.

## 9.6    Further research

Recent literature and the findings of this research underline the important role of unpaid care from family and friends in meeting the needs of those who need help with daily life. In this research, the local authority definition of unmet need included an element to take account of the burden on unpaid carers. However, the role of carers is not a key part of this research. HSE offers a rich source of data on those providing care, in a way which is possible to link with the responses of those receiving care in the same

household and with valuable data on the impacts of caring (HSE 2011 report). Given the growing demographic and financial pressures, it is important to understand more about the role of carers and the impacts caring has on them. This research has used hours given as a measure of burden but there are other important dimensions including the type of care given, the other responsibilities of the carer, the working status of the carer and the impacts on their health.

The lack of a relationship between well-being and unmet need is one of the key surprises of this research. Further research based in local authorities and their experiences of care assessments and how well-being is measured and assessed initially and during reviews would be valuable.

The focus of this research has been on whether needs are met or not, and less on how formal care has been paid for. Both ELSA and HSE include data on payments for social care. Although the numbers available for analysis are currently small, it would be valuable to explore how formal care is being paid for and the role of local authorities in funding care for people in different wealth groups. It would also be useful to explore the extent to which people have had contact with local authorities which resulted in no care or insufficient care and the extent to which people have not even identified themselves to local authorities as having needs.

Future research could also investigate the costs and implications of unmet social care in terms of utilisation of health care and community based services. Research to look at the size of the unmet needs groups and their characteristics could then be extended to explore whether the money saved (whether by local authorities or self-funders) is outweighed by higher expenditure on health and other services which are not means tested. This would rely on an economic approach which is beyond the scope of this project.

Given the surprising findings in relation to unmet need and well-being, it would be fruitful to explore what types of social care provision are best able to improve or maintain well-being in older people. It is possible that receiving social care may have a detrimental impact on well-being (through loss of control), while improving more practical aspects of well-being through meeting needs. An exploration of whether the type of support received is related to well-being would be possible using ELSA data, controlling for other factors. The types of support to consider would include adaptations and aids, care from family, formal care (self-funded or local authority funded) and community services such as lunch-clubs and meals on wheels.

# Appendix A. Key measures for defining unmet need

Please note that in some of the tables in this section, percentages may not add exactly to 100%. This is either because participants may be in more than one category or because of rounding. Bases may also vary because of missing values for some of the characteristics being presented.

| Appendix Table A:1 Prevalence of type of difficulties | | |
|---|---|---|
| *Base: Adults aged 65 and over* | | *ELSA W6, HSE 2011-2013* |
| | **ELSA** | **HSE** |
| Type of difficulty | % | % |
| ADL | 23 | 30 |
| IADL | 23 | 30 |
| Mobility | 45 | 28 |
| *Unweighted bases* | *5113* | *6470* |
| *Weighted bases* | *4155* | *5214* |

| Appendix Table A:2 Difficulties with ADLs, IADLs and mobility activities, ELSA W6 | | | | | |
|---|---|---|---|---|---|
| *Base: Adults aged 65 and over* | | | | | *ELSA W6* |
| Activity | | **Reporting difficulty** | **No care for that need (of those reporting difficulty)** | *Unweighted base* | *Weighted base* |
| | | % | % | | |
| Mobility | Walking 100 yards | 19 | 69 | *785* | *785* |
| | Climbing several flights stairs without resting | 42 | 91 | *2090* | *1752* |
| | Climbing one flight stairs without resting | 21 | 86 | *1002* | *883* |
| ADL | Dressing, including putting on shoes and socks | 16 | 56 | *766* | *658* |
| | Walking across a room | 5 | 70 | *223* | *196* |
| | Bathing or showering | 12 | 50 | *570* | *501* |
| | Eating, such as cutting up food | 3 | 38 | *147* | *126* |
| | Getting in and out of bed | 7 | 67 | *329* | *281* |
| | Using the toilet, including getting up or down | 4 | 66 | *205* | *171* |
| IADL | Shopping for groceries | 12 | 18 | *569* | *515* |
| | Taking medications | 3 | 16 | *131* | *118* |
| | Doing work around the house or garden | 19 | 31 | *934* | *798* |

| Appendix Table A:2 Difficulties with ADLs, IADLs and mobility activities, ELSA W6 | | | | | |
|---|---|---|---|---|---|
| | Managing money, such as paying bills and keeping track of expenses | 4 | 19 | *189* | *177* |

| Appendix Table A:3 Difficulties with ADLs, IADLs and mobility activities, HSE 2011-2013 | | | | | |
|---|---|---|---|---|---|
| *Base: Adults aged 65 and over* | | | | *HSE 2011-2013* | |
| Activity | | **Reporting difficulty** | **No care for that need (Out of those with need)** | *Unweighted bases* | *Weighted bases* |
| | | % | % | | |
| Mobility | Getting out of the house | 20 | 36 | *1273* | *1035* |
| | Getting up and down stairs | 25 | 78 | *1565* | *1265* |
| ADL | Dressing and undressing, including putting on shoes and socks | 14 | 51 | *860* | *694* |
| | Getting around indoors | 11 | 70 | *665* | *543* |
| | Having a bath/shower, including getting in and out of bath/shower | 16 | 54 | *1030* | *833* |
| | Washing face and hands | 4 | 67 | *254* | *204* |
| | Eating, including cutting up food | 5 | 58 | *332* | *269* |
| | Getting in and out of bed | 11 | 62 | *702* | *566* |
| | Using the toilet | 5 | 70 | *312* | *254* |
| IADL | Shopping for food | 25 | 26 | *1588* | *1201* |
| | Taking the right amount of medicine at the right times | 7 | 30 | *410* | *336* |
| | Doing routine housework or laundry | 23 | 34 | *1482* | *1201* |
| | Doing paperwork or paying bills | 13 | 31 | *798* | *651* |

| Appendix Table A:4 Type of help received for difficulties, ELSA W6 | | | | |
|---|---|---|---|---|
| *Base: Adults aged 65 and over who receive help with a difficulty* | | | | *ELSA W6* |
| **Activity** | **Receives unpaid care** | **Receives formal care** | *Unweighted bases* | *Weighted bases* |
| | % | % | | |
| Movement | 86 | 17 | *477* | *421* |
| Washing/dressing | 75 | 26 | *481* | *430* |
| Eating | 77 | 20 | *131* | *120* |
| Shopping/ housework | 84 | 24 | *1071* | *930* |
| Taking medication | 85 | 19 | *175* | *163* |
| Managing money | 92 | 8 | *229* | *206* |

Note: the sum of the columns might not sum up to 100% as people might receive no care, only one type of care or both types of care

| Appendix Table A:5 Who helps with difficulties, ELSA W6 | | | | | | |
|---|---|---|---|---|---|---|
| *Base: Adults aged 65 and over receiving any help* | | | | | | *ELSA W6* |
| | | **Movement activities** | **Washing/ dressing** | **Eating** | **Shopping and housework** | **Taking medication** | **Managing money** |
| | | % | % | % | % | % | % |
| Unpaid help | Husb/Wife/Partner | 51 | 57 | 49 | 36 | 61 | 43 |
| | Son | 15 | 5 | 7 | 18 | 7 | 20 |
| | Daughter | 27 | 13 | 19 | 25 | 16 | 23 |
| | Grandchild | 6 | 2 | 2 | 6 | 3 | 1 |
| | Sister | 3 | 1 | 2 | 2 | 2 | 1 |
| | Brother | 1 | 0 | 1 | 1 | 1 | 1 |
| | Other relative | 2 | 0 | 0 | 3 | 1 | 4 |
| | Friend | 9 | 3 | 5 | 10 | 2 | 4 |
| | Neighbour | 2 | 1 | 1 | 6 | 0 | 0 |
| | None | 14 | 25 | 23 | 16 | 15 | 8 |
| Formal Help | Home care worker/ home help/ personal assistant | 11 | 22 | 15 | 6 | 13 | 3 |
| | A member of the reablement / intermediate care staff team | 1 | 0 | 5 | 0 | 0 | 1 |
| | Voluntary helper | 1 | 0 | 0 | 1 | 0 | 2 |
| | Cleaner | 1 | 0 | 0 | 11 | 0 | 0 |
| | Warden / Sheltered housing manager | 0 | 0 | 0 | 0 | 0 | 1 |
| | Council's handyman | 0 | 0 | 0 | 1 | 0 | 0 |
| | Member of staff at the care/nursing home | 2 | 2 | 0 | 0 | 5 | 1 |
| | Hospital staff/ nurse/ physiotherapist | 2 | 1 | 2 | 0 | 2 | 0 |
| | Day centre staff | 1 | 0 | 0 | 0 | 0 | 0 |
| | Gardener | 0 | 0 | 0 | 9 | 0 | 0 |
| | Equipment (e.g. chair lift/rail) | 0 | 0 | 0 | 0 | 0 | 0 |
| | None | 83 | 74 | 80 | 76 | 81 | 92 |
| | *Unweighted bases* | *477* | *481* | *131* | *1071* | *175* | *229* |
| | *Weighted bases* | *421* | *430* | *120* | *930* | *163* | *206* |

| Appendix Table A:6 Intensity of unpaid care received from a single source, ELSA W6 and HSE 2011-2013 | | | | |
|---|---|---|---|---|
| *Base: Adults aged 65 and over receiving any help* | | *ELSA W6, HSE 2011-2013* | | |
| Intensity of care received | | **ELSA** | | **HSE** |
| | % | N | % | N |
| Less than 10 hours per week | 67 | 639 | 62 | 727 |
| 10-20 hours per week | 12 | 112 | 14 | 164 |
| 20 or more hours per week | 21 | 195 | 24 | 275 |
| *Unweighted bases* | | *1075* | | *1735* |
| *Weighted bases* | | *946* | | *1166* |

| Appendix Table A:7 Prevalence of home adaptations, ELSA W6 and HSE 2013 | | |
|---|---|---|
| *Base: Adults aged 65 and over* | *ELSA W6, HSE 2013* | |
| Home adaptations | **ELSA** | **HSE** |
| | % | % |
| Stair lift | 5 | 5 |
| Alarm that can call for help | 7 | 12 |
| Bed lever or bed rail | 4 | 3 |
| Toilet equipment or commode | 7 | 6 |
| Hoist | 1 | 0 |
| Bath or shower seat | 13 | 10 |
| Changes to kitchen | 1 | 0 |
| None | 78 | 75 |
| *Unweighted bases* | *5106* | *2236* |
| *Weighted bases* | *4149* | *1808* |

Note: HSE figures refer only to year 2013 because adaptation variables were only present in that year

| Appendix Table A:8 Prevalence of mobility aid use, ELSA W6 and HSE 013 | | |
|---|---|---|
| *Base: Adults aged 65 and over* | *ELSA W6, HSE 2013* | |
| Aids used | **ELSA** | **HSE** |
| | % | % |
| Cane or walking stick | 24 | 22 |
| Zimmer frame or walker | 5 | 6 |
| Manual wheelchair | 4 | 4 |
| Electric wheelchair | 1 | 1 |
| Buggy or scooter | 4 | 3 |
| Elbow crutches | 1 | 1 |
| None | 72 | 74 |
| *Unweighted bases* | *5111* | *2235* |
| *Weighted bases* | *4153* | *1807* |

| Appendix Table A:9 Relative well-being, ELSA W6 and HSE 2011-2013 | | | | |
|---|---|---|---|---|
| *Base: Adults aged 65 and over* | | | *ELSA W6, HSE 2011-2013* | |
| Well-being | **ELSA** | | **HSE** | |
| | **CASP-15** | | **WEMWBS** | |
| | % | N | % | N |
| 1 SD or more below the mean* | 15 | 532 | 14 | 536 |
| within 1 SD of mean* | 72 | 2605 | 71 | 2654 |
| 1 SD or more above mean* | 14 | 498 | 14 | 532 |
| *Unweighted bases* | | *5113* | | *4694* |
| *Weighted bases* | | *3636* | | *3721* |

*mean for those with no care needs

# Appendix B.    Profile of unmet need

Please note that in some of the tables in this section, percentages may not add exactly to 100%. This is either because participants may be in more than one category or because of rounding.

Bases may also vary because of missing values for some of the characteristics being presented.

| Appendix Table B:1 Number of ADLs by local authority definition | | | | | | |
|---|---|---|---|---|---|---|
| *Base: Adults aged 65 and over with LA qualifying care needs* | | | | | *ELSA W6, HSE 2011-2013* | |
| | **ELSA** | | | **HSE** | | |
| | % | | | % | | |
| Number of ADL needs | **Unmet need** | **No unmet needs** | **Total** | **Unmet need** | **No unmet needs** | **Total** |
| 2 needs | 25 | 68 | 41 | 9 | 51 | 4 |
| 3 needs | 38 | 10 | 28 | 32 | 16 | 4 |
| 4 needs | 16 | 8 | 13 | 22 | 8 | 2 |
| 5 needs | 13 | 7 | 11 | 18 | 10 | 2 |
| 6 needs | 8 | 6 | 8 | 20 | 14 | 2 |
| *Unweighted bases* | 315 | 185 | 500 | *608* | *222* | *830* |
| *Weighted bases* | 273 | 159 | 432 | *495* | *179* | *674* |

| Appendix Table B:2 Number of ADLs by wider definition | | | | | | |
|---|---|---|---|---|---|---|
| *Base: Adults aged 65 and over with qualifying needs* | | | | | *ELSA W6, HSE 2013* | |
| | **ELSA** | | | **HSE** | | |
| Number of ADL needs | **Unmet need\*** | **Needs met** | **Total** | **Unmet need\*** | **Needs met** | **Total** |
| | **%** | **%** | **%** | **%** | **%** | **%** |
| No needs | 3 | 30 | 15 | 8 | 46 | 24 |
| 1 need | 49 | 33 | 42 | 27 | 23 | 25 |
| 2 needs | 24 | 15 | 20 | 17 | 10 | 14 |
| 3 needs | 12 | 9 | 11 | 17 | 7 | 13 |
| 4 needs | 5 | 5 | 5 | 11 | 5 | 9 |
| 5 needs | 4 | 5 | 4 | 10 | 5 | 8 |
| 6 needs | 3 | 3 | 3 | 10 | 5 | 8 |
| *Unweighted bases* | *744* | *554* | *1298* | *335* | *260* | *611* |
| *Weighted bases* | *623* | *497* | *1119* | *281* | *215* | *509* |

*1+ ADL or 2+IADL/Mobility - no care/adapt

## Appendix Table B:3 ADLs, IADLs and mobility activities by local authority definition: ELSA W6

| Base: Adults aged 65+ with qualifying needs | | ELSA W6 |
|---|---|---|
| | **Unmet need*** | **No unmet needs*** |
| | % | % |
| Mob: Walking 100 yards | 83 | 62 |
| ADL: difficulty dressing | 89 | 89 |
| ADL: difficulty walking across a room | 47 | 23 |
| ADL: difficulty bathing or showering | 80 | 70 |
| ADL: difficulty eating | 24 | 21 |
| ADL: difficulty getting in and out of bed | 59 | 44 |
| ADL: difficulty using the toilet | 43 | 25 |
| IADL: difficulty shopping for groceries | 62 | 50 |
| IADL: difficulty taking medications | 14 | 19 |
| IADL: Doing work around the house or garden | 80 | 69 |
| IADL: Managing money, such as paying bills and keeping track of expenses | 18 | 22 |
| *Unweighted bases* | *315* | *185* |
| *Weighted bases* | *315* | *185* |

\* Percentage of those in each unmet need category with each type of difficulty. It is not necessarily that need which is not met.

## Appendix Table B:4 ADLs, IADLs and mobility activities by wider definition: ELSA W6

| Base: Adults aged 65+ with qualifying needs | | ELSA W6 |
|---|---|---|
| | **Unmet need*** | **Needs met*** |
| | % | % |
| Mob: Walking 100 yards | 48 | 66 |
| ADL: difficulty dressing | 69 | 45 |
| ADL: difficulty walking across a room | 14 | 21 |
| ADL: difficulty bathing or showering | 44 | 44 |
| ADL: difficulty eating | 11 | 13 |
| ADL: difficulty getting in and out of bed | 31 | 18 |
| ADL: difficulty using the toilet | 18 | 13 |
| IADL: difficulty shopping for groceries | 31 | 56 |
| IADL: difficulty taking medications | 5 | 16 |
| IADL: Doing work around the house or garden | 53 | 70 |
| IADL: Managing money, such as paying bills and keeping track of expenses | 7 | 23 |
| *Unweighted bases* | *744* | *554* |
| *Weighted bases* | *623* | *497* |

\* Percentage of those in each unmet need category with each type of difficulty. It is not necessarily that need which is not met.

| Appendix Table B:5 ADLs, IADLs and mobility activities by local authority definition HSE 2011-2013 | | |
|---|---|---|
| *Base: Adults aged 65+ with qualifying needs* | | *HSE 2011-2013* |
| | **Unmet need*** | **No unmet needs*** |
| | % | % |
| Mob: Getting up and down stairs | 92 | 88 |
| Mob: Getting out of the house | 89 | 74 |
| ADL: Getting in and out of bed | 78 | 58 |
| ADL: Having a bath/shower | 89 | 79 |
| ADL: Dressing and undressing | 89 | 78 |
| ADL: Using the toilet | 40 | 27 |
| ADL: Eating, including cutting up food | 38 | 29 |
| ADL: Getting around indoors | 74 | 49 |
| ADL: Washing face and hands | 31 | 22 |
| IADL: Taking the right amount of medicine at the right times | 36 | 33 |
| IADL: Shopping for food | 94 | 86 |
| IADL: Doing routine housework or laundry | 93 | 85 |
| IADL: Doing paperwork or paying bills | 52 | 48 |
| *Unweighted bases* | *608* | *222* |
| *Weighted bases* | *495* | *179* |

* Percentage of those in each unmet need category with each type of difficulty. It is not necessarily that need which is not met.

| Appendix Table B:6 ADLs, IADLs and mobility activities by wider definition, HSE 2013 | | |
|---|---|---|
| *Base: Adults aged 65+ with qualifying needs* | | *HSE 2013* |
| | **Unmet need*** | **Needs met*** |
| | % | % |
| Mob: Getting up and down stairs | 80 | 63 |
| Mob: Getting out of the house | 67 | 68 |
| ADL: Getting in and out of bed | 48 | 20 |
| ADL: Having a bath/shower | 66 | 38 |
| ADL: Dressing and undressing | 60 | 30 |
| ADL: Using the toilet | 22 | 11 |
| ADL: Eating, including cutting up food | 25 | 12 |
| ADL: Getting around indoors | 45 | 27 |
| ADL: Washing face and hands | 16 | 8 |
| IADL: Taking the right amount of medicine at the right times | 21 | 25 |
| IADL: Shopping for food | 79 | 85 |
| IADL: Doing routine housework or laundry | 74 | 76 |
| IADL: Doing paperwork or paying bills | 38 | 47 |
| *Unweighted bases* | *351* | *260* |
| *Weighted bases* | *294* | *215* |

\* Percentage of those in each unmet need category with each type of difficulty. It is not necessarily that need which is not met

## Appendix Table B:7 Adaptations in home by local authority definition

| Base: Adults aged 65 and over with LA qualifying care needs | ELSA W6, HSE 2013* | | | | | |
|---|---|---|---|---|---|---|
| | ELSA | | | HSE | | |
| | % | | | % | | |
| | Unmet need | No unmet needs | Total | Unmet need | No unmet needs | Total |
| No adaptations | 10 | 17 | 13 | 19 | 21 | 20 |
| Adaptation | 90 | 83 | 87 | 81 | 79 | 80 |
| *Unweighted bases* | *241* | *142* | *383* | *212* | *74* | *286* |
| *Weighted bases* | *209* | *123* | *332* | *177* | *60* | *238* |

\* This table analyses data from HSE 2013 only due to the availability of aids and adaptation information.

## Appendix Table B:8 Adaptations in home by wider definition

| Base: Adults aged 65 and over with qualifying needs | ELSA W6, HSE 2013* | | | | | |
|---|---|---|---|---|---|---|
| | ELSA | | | HSE | | |
| | Unmet need | Needs met | Total | Unmet need | Needs met | Total |
| | % | % | % | % | % | % |
| No adaptations | 33 | 13 | 24 | 30 | 26 | 29 |
| Adaptation | 67 | 87 | 76 | 70 | 74 | 71 |
| *Unweighted bases* | *744* | *423* | *1295* | *351* | *260* | *572* |
| *Weighted bases* | *452* | *378* | *830* | *294* | *215* | *477* |

\* This table analyses data from HSE 2013 only due to the availability of aids and adaptation information.

## Appendix Table B:9 Self-reported health by local authority definition ELSA W6

| Base: Adults aged 65+ with qualifying needs | | | ELSA W6 |
|---|---|---|---|
| | **Unmet need*** | **No unmet needs*** | **Total** |
| | % | % | % |
| Excellent | - | 1 | 0 |
| Very good | 4 | 7 | 5 |
| Good | 14 | 25 | 18 |
| Fair | 37 | 38 | 38 |
| Poor | 45 | 29 | 40 |
| *Unweighted bases* | *291* | *159* | *450* |
| *Weighted bases* | *249* | *136* | *385* |

*percentage of those in each unmet need category with each type of difficulty. It is not necessarily that need which is not met

## Appendix Table B:10 Self-reported health by wider definition, ELSA W6

| Base: Adults aged 65+ with qualifying needs | | | ELSA W6 |
|---|---|---|---|
| | **Unmet need** | **Needs met** | **Total** |
| | % | % | % |
| Excellent | 1 | 0 | 1 |
| Very good | 8 | 8 | 8 |
| Good | 27 | 20 | 24 |
| Fair | 39 | 38 | 39 |
| Poor | 25 | 33 | 28 |
| *Unweighted bases* | *714* | *497* | *1211* |
| *Weighted bases* | *596* | *444* | *1040* |

| Appendix Table B:11 Self-reported health by local authority definition HSE 2011-2013 | | | |
|---|---|---|---|
| *Base: Adults aged 65+ with qualifying needs* | | | *HSE 2011-2013* |
| | **Unmet need** | **No unmet needs** | **Total** |
| | % | % | % |
| Very good/good | 16 | 16 | 16 |
| Fair | 36 | 43 | 38 |
| Bad/very bad | 48 | 41 | 46 |
| *Unweighted bases* | *608* | *222* | *830* |
| *Weighted bases* | *495* | *179* | *674* |

| Appendix Table B:12 Self-reported health by wider definition, HSE 2013 | | | |
|---|---|---|---|
| *Base: Adults aged 65+ with qualifying needs* | | | *HSE 2013* |
| | **Unmet need** | **Needs met** | **Total** |
| | % | % | % |
| Very good/good | 20 | 21 | 21 |
| Fair | 44 | 43 | 43 |
| Bad/very bad | 36 | 36 | 36 |
| *Unweighted bases* | *335* | *249* | *584* |
| *Weighted bases* | *281* | *206* | *487* |

| Appendix Table B:13 Loneliness by local authority definition ELSA W6 | | | |
|---|---|---|---|
| *Base: Adults aged 65+ with qualifying needs* | | | *ELSA W6* |
| | **Unmet need** | **No unmet needs** | **Total** |
| Feeling lonely…. | % | % | % |
| Hardly ever or never | 41 | 52 | 45 |
| Some of the time | 33 | 34 | 33 |
| Often | 27 | 14 | 22 |
| *Unweighted bases* | *251* | *147* | *398* |
| *Weighted bases* | *214* | *126* | *340* |

## Appendix Table B:14 Loneliness by wider definition, ELSA W6

| Base: Adults aged 65+ with qualifying needs | | | ELSA W6 |
|---|---|---|---|
| | **Unmet need** | **Needs met** | **Total** |
| Feeling lonely…. | % | % | % |
| Hardly ever or never | 52 | 55 | 53 |
| Some of the time | 31 | 29 | 30 |
| Often | 17 | 15 | 17 |
| *Unweighted bases* | *633* | *388* | *1021* |
| *Weighted bases* | *523* | *345* | *869* |

# Appendix C. Prevalence of unmet need

## Appendix Table C:1 Unmet need according to local authority definition, ELSA W6 and HSE 2011-2013

| Base: Adults aged 65 and over with LA qualifying care needs | ELSA W6, HSE 2011-2013 | | | |
|---|---|---|---|---|
| | **ELSA** | | **HSE** | |
| | **%** | N | % | N |
| Unmet need | 63 | 273 | 73 | 495 |
| No unmet needs | 37 | 159 | 27 | 179 |
| *Unweighted bases* | | *500* | | *830* |
| *Weighted bases* | | *432* | | *674* |

## Appendix Table C:2 Prevalence of unmet need, by sex, local authority definition, ELSA W6 and HSE 2011-2013

| Base: Adults aged 65 and over with LA qualifying care needs | ELSA W6, HSE 2011-2013 | | | |
|---|---|---|---|---|
| | **ELSA** | | **HSE** | |
| | **Male** | **Female** | **Male** | **Female** |
| | % | % | % | % |
| Unmet need | 62 | 64 | 73 | 74 |
| No unmet needs | 38 | 36 | 27 | 26 |
| *Unweighted bases* | *210* | *290* | *346* | *484* |
| *Weighted bases* | *185* | *248* | *269* | *404* |

## Appendix Table C:3 Prevalence of unmet need, by age group, local authority definition, ELSA W6 and HSE 2011-2013

| Base: Adults aged 65 and over with LA qualifying care needs | ELSA W6, HSE 2011-2013 | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **ELSA** | | | | **HSE** | | | |
| | **65-69** | **70-74** | **75-79** | **80+** | **65-69** | **70-74** | **75-79** | **80+** |
| | % | % | % | % | % | % | % | % |
| Unmet need | 67 | 59 | 64 | 63 | 76 | 66 | 73 | 76 |
| No unmet needs | 33 | 41 | 36 | 37 | 24 | 34 | 27 | 24 |
| *Unweighted bases* | *102* | *112* | *142* | *144* | *170* | *166* | *208* | *286* |
| *Weighted bases* | *85* | *95* | *111* | *141* | *131* | *132* | *171* | *240* |

## Appendix Table C:4 Prevalence of unmet need, by age and gender combined local authority definition, ELSA W6

| Base: Adults aged 65 and over with LA qualifying care needs | | | | | | | | ELSA W6 |
|---|---|---|---|---|---|---|---|---|
| | **Male** | | | | **Female** | | | |
| | **65-69** | **70-74** | **75-79** | **80+** | **65-69** | **70-74** | **75-79** | **80+** |
| | % | % | % | % | % | % | % | % |
| Unmet need | 68 | 56 | 67 | 59 | 64 | 62 | 63 | 66 |
| No unmet needs | 32 | 44 | 33 | 41 | 36 | 38 | 37 | 34 |
| *Unweighted bases* | *102* | *112* | *142* | *144* | *43* | *56* | *88* | *86* |
| *Weighted bases* | *85* | *95* | *111* | *141* | *32* | *47* | *68* | *86* |

## Appendix Table C:5 Prevalence of unmet need, by age and gender combined local authority definition, HSE 2011-2013

| Base: Adults aged 65 and over with LA qualifying care needs | | | | | | | | HSE 2011-2013 |
|---|---|---|---|---|---|---|---|---|
| | **Male** | | | | **Female** | | | |
| | **65-69** | **70-74** | **75-79** | **80+** | **65-69** | **70-74** | **75-79** | **80+** |
| | % | % | % | % | % | % | % | % |
| Unmet need | 76 | 63 | 72 | 78 | 76 | 68 | 75 | 75 |
| No unmet needs | 24 | 37 | 28 | 22 | 24 | 32 | 25 | 25 |
| *Unweighted bases* | *86* | *77* | *94* | *89* | *84* | *89* | *114* | *197* |
| *Weighted bases* | *66* | *61* | *73* | *70* | *65* | *71* | *97* | *171* |

| Appendix Table C:6 Prevalence of unmet need, by household composition, local authority definition, ELSA W6 and HSE 2011-2013 | | | | | | |
|---|---|---|---|---|---|---|
| *Base: Adults aged 65 and over with LA qualifying care needs* | | | | | *ELSA W6, HSE 2011-2013* | |
| | **ELSA** | | | **HSE** | | |
| | **Lives alone** | **2 person household** | **3+ person household** | **Lives alone** | **2 person household** | **3+ person household** |
| | % | % | % | % | % | % |
| Unmet need | 70 | 60 | [54] | 74 | 72 | 80 |
| No unmet needs | 30 | 40 | [46] | 26 | 28 | 20 |
| *Unweighted bases* | *186* | *262* | *50* | *349* | *413* | *68* |
| *Weighted bases* | *154* | *209* | *47* | *279* | *329* | *66* |

| Appendix Table C:7 Prevalence of unmet need, by tenure, local authority definition, ELSA W6 and HSE 2011-2013 | | | | | | |
|---|---|---|---|---|---|---|
| *Base: Adults aged 65 and over with LA qualifying care needs* | | | | | *ELSA W6, HSE 2011-2013* | |
| | **ELSA** | | | **HSE** | | |
| | **Own outright** | **Buying with help of loan or mortgage** | **Rent** | **Own outright** | **Buying with help of loan or mortgage** | **Rent** |
| | % | % | % | % | % | % |
| Unmet need | 62 | [72] | 66 | 72 | 79 | 74 |
| No unmet needs | 38 | [28] | 34 | 28 | 21 | 26 |
| *Unweighted bases* | *323* | *33* | *142* | *507* | *50* | *273* |
| *Weighted bases* | *268* | *27* | *136* | *411* | *41* | *221* |

## Appendix Table C:8 Prevalence of unmet need, by region, local authority definition, ELSA W6

| Base: Adults aged 65 and over with LA qualifying care needs | | | | | | | | | ELSA W6 |
|---|---|---|---|---|---|---|---|---|---|
| | North East | North West | Yorkshire and The Humber | East Midlands | West Midlands | East of England | London | South East | South West |
| | % | % | % | % | % | % | % | % | % |
| Unmet need | 63 | 74 | [74] | 59 | 64 | 43 | 65 | 67 | [60] |
| No unmet needs | 37 | 26 | [26] | 41 | 36 | 57 | 35 | 33 | [40] |
| *Unweighted bases* | *27* | *57* | *40* | *71* | *62* | *60* | *52* | *62* | *42* |
| *Weighted bases* | *23* | *53* | *34* | *50* | *53* | *48* | *57* | *54* | *37* |

## Appendix Table C:9 Prevalence of unmet need, by region, local authority definition, HSE 2011-2013

| Base: Adults aged 65 and over with LA qualifying care needs | | | | | | | | | HSE 2011-2013 |
|---|---|---|---|---|---|---|---|---|---|
| | North East | North West | Yorkshire and The Humber | East Midlands | West Midlands | East of England | London | South East | South West |
| | % | % | % | % | % | % | % | % | % |
| Unmet need | 78 | 74 | 75 | 75 | 82 | 66 | 78 | 67 | 70 |
| No unmet needs | 22 | 26 | 25 | 25 | 18 | 34 | 22 | 33 | 30 |
| *Unweighted bases* | *61* | *153* | *82* | *84* | *93* | *86* | *74* | *112* | *85* |
| *Weighted bases* | *30* | *123* | *70* | *66* | *79* | *73* | *72* | *91* | *71* |

## Appendix Table C:10 Prevalence of unmet need, by self-reported eyesight, local authority definition, ELSA W6 and HSE 2011-2013

| Base: Adults aged 65 and over with LA qualifying care needs | | | | | | | | | | | | ELSA W6, HSE 2011-2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **ELSA** | | | | | | **HSE** | | | | | |
| | Excell-ent | Very good | Good | Fair | Poor | Registered blind | Excell-ent | Very good | Good | Fair | Poor | Registered blind |
| | % | % | % | % | % | % | % | % | % | % | % | % |
| Unmet need | 57 | 60 | 61 | 73 | 58 | * | [68] | 68 | 78 | [83] | * | * |
| No unmet needs | 43 | 40 | 39 | 27 | 42 | * | [32] | 32 | 22 | [17] | * | * |
| *Unweighted bases* | *29* | *81* | *189* | *118* | *53* | *7* | *31* | *63* | *113* | *48* | *26* | *6* |
| *Weighted bases* | *23* | *68* | *160* | *108* | *46* | *7* | *25* | *52* | *92* | *40* | *22* | *7* |

| Appendix Table C:11 Unmet need according to wider definition, ELSA W6 and HSE 2013 | | | | |
|---|---|---|---|---|
| *Base: Adults aged 65 and over with 1+ ADL need or 2+IADL/mobility need* | | | *ELSA W6, HSE 2013* | |
| | **ELSA** | | **HSE** | |
| | **%** | N | % | N |
| Unmet need | 56 | 623 | 58 | 281 |
| Needs met | 44 | 497 | 42 | 206 |
| *Unweighted bases* | | *1298* | | *584* |
| *Weighted bases* | | *1119* | | *487* |

| Appendix Table C:12 Prevalence of unmet need, by sex, wider definition, ELSA W6 and HSE 2013 | | | | |
|---|---|---|---|---|
| *Adults aged 65 and over with 1+ ADL need or 2+IADL/mobility needs* | | | *ELSA W6, HSE 2013* | |
| | **ELSA** | | **HSE** | |
| | **Male** | **Female** | **Male** | **Female** |
| | % | % | % | % |
| Unmet need | 60 | 53 | 62 | 56 |
| Needs met | 40 | 47 | 38 | 44 |
| *Unweighted bases* | *533* | *765* | *221* | *363* |
| *Weighted bases* | *472* | *648* | *174* | *313* |

## Appendix Table C:13 Prevalence of unmet need, by age group, wider definition, ELSA W6 and HSE 2013

| Base: Adults aged 65 and over with 1+ ADL need or 2+IADL/mobility needs | | | | | | | | ELSA W6, HSE 2013 |
|---|---|---|---|---|---|---|---|---|
| | **ELSA** | | | | **HSE** | | | |
| | **65-69** | **70-74** | **75-79** | **80+** | **65-69** | **70-74** | **75-79** | **80+** |
| | % | % | % | % | % | % | % | % |
| Unmet need | 63 | 62 | 59 | 45 | 64 | 58 | 59 | 54 |
| Needs met | 37 | 38 | 41 | 55 | 36 | 42 | 41 | 46 |
| *Unweighted bases* | *307* | *267* | *317* | *407* | *100* | *113* | *145* | *226* |
| *Weighted bases* | *259* | *221* | *235* | *404* | *80* | *89* | *124* | *195* |

## Appendix Table C:14 Prevalence of unmet need, by age and gender combined, wider definition, ELSA W6

| Base: Adults aged 65 and over with 1+ ADL need or 2+IADL/mobility needs | | | | | | | | ELSA W6 |
|---|---|---|---|---|---|---|---|---|
| | **Male** | | | | **Female** | | | |
| | **65-69** | **70-74** | **75-79** | **80+** | **65-69** | **70-74** | **75-79** | **80+** |
| | % | % | % | % | % | % | % | % |
| Unmet need | 67 | 64 | 60 | 49 | 59 | 61 | 57 | 42 |
| Needs met | 33 | 36 | 40 | 51 | 41 | 39 | 43 | 58 |
| *Unweighted bases* | *307* | *267* | *317* | *407* | *177* | *148* | *208* | *232* |
| *Weighted bases* | *259* | *221* | *235* | *404* | *142* | *118* | *157* | *230* |

| Appendix Table C:15 Prevalence of unmet need, by age and gender combined, wider definition, HSE 2013 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Base: Adults aged 65 and over with 1+ ADL need or 2+IADL/mobility needs | | | | | | | | *HSE 2013* |
| | **Male** | | | | **Female** | | | |
| | **65-69** | **70-74** | **75-79** | **80+** | **65-69** | **70-74** | **75-79** | **80+** |
| | % | % | % | % | % | % | % | % |
| Unmet need | [75] | [59] | 65 | 53 | 57 | 57 | 56 | 54 |
| Needs met | [25] | [41] | 35 | 47 | 43 | 43 | 44 | 46 |
| *Unweighted bases* | *41* | *48* | *59* | *73* | *59* | *65* | *86* | *153* |
| *Weighted bases* | *32* | *39* | *47* | *56* | *47* | *50* | *77* | *139* |

| Appendix Table C:16 Prevalence of unmet need, by household composition, wider definition, ELSA W6 and HSE 2013 | | | | | | |
|---|---|---|---|---|---|---|
| Base: Adults aged 65 and over with 1+ ADL need or 2+IADL/mobility needs | | | | | | *ELSA W6, HSE 2013* |
| | **ELSA** | | | **HSE** | | |
| | **Lives alone** | **2 person household** | **3+ person household** | **Lives alone** | **2 person household** | **3+ person household** |
| | % | % | % | % | % | % |
| Unmet need | 59 | 54 | 49 | 63 | 52 | 57 |
| Needs met | 41 | 46 | 51 | 37 | 48 | 43 |
| *Unweighted bases* | *497* | *692* | *109* | *266* | *260* | *58* |
| *Weighted bases* | *410* | *601* | *108* | *219* | *212* | *56* |

## Appendix Table C:17 Prevalence of unmet need, by tenure, wider definition, ELSA W6 and HSE 2013

| Base: Adults aged 65 and over with 1+ ADL need or 2+IADL/mobility needs | | | | | | ELSA W6, HSE 2013 |
|---|---|---|---|---|---|---|
| | ELSA | | | HSE | | |
| | Own outright | Buying with help of loan or mortgage | Rent | Own outright | Buying with help of loan or mortgage | Rent |
| | % | % | % | % | % | % |
| Unmet need | 56 | 59 | 55 | 59 | [60] | 56 |
| Needs met | 44 | 41 | 45 | 41 | [40] | 44 |
| *Unweighted bases* | *883* | *81* | *329* | *354* | *37* | *193* |
| *Weighted bases* | *735* | *66* | *315* | *293* | *34* | *160* |

## Appendix Table C:18 Prevalence of unmet need, by region, wider definition, ELSA W6

| Base: Adults aged 65 and over with 1+ ADL need or 2+IADL/mobility needs | | | | | | | | | ELSA W6 |
|---|---|---|---|---|---|---|---|---|---|
| | North East | North West | Yorkshire and The Humber | East Midlands | West Midlands | East of England | London | South East | South West |
| | % | % | % | % | % | % | % | % | % |
| Unmet need | 51 | 52 | 52 | 61 | 50 | 53 | 64 | 58 | 58 |
| Needs met | 49 | 48 | 48 | 39 | 50 | 47 | 36 | 42 | 42 |
| *Unweighted bases* | *95* | *150* | *125* | *162* | *163* | *151* | *121* | *182* | *148* |
| *Weighted bases* | *77* | *149* | *103* | *116* | *140* | *117* | *134* | *157* | *125* |

## Appendix Table C:19 Prevalence of unmet need, by region, wider definition, HSE 2013

| Base: Adults aged 65 and over with 1+ ADL need or 2+IADL/mobility needs | | | | | | | | | *HSE 2013* |
|---|---|---|---|---|---|---|---|---|---|
| | **North East** | **North West** | **Yorkshire and The Humber** | **East Midlands** | **West Midlands** | **East of England** | **London** | **South East** | **South West** |
| | % | % | % | % | % | % | % | % | % |
| Unmet need | 58 | 64 | 55 | 54 | 57 | 60 | 53 | 56 | 61 |
| Needs met | 42 | 36 | 45 | 46 | 43 | 40 | 47 | 44 | 39 |
| *Unweighted bases* | *45* | *94* | *56* | *66* | *57* | *65* | *65* | *85* | *51* |
| *Weighted bases* | *21* | *77* | *51* | *53* | *51* | *58* | *61* | *73* | *43* |

## Appendix Table C:20 Prevalence of unmet need, by self-reported eyesight, wider definition, ELSA W6 and HSE 2011-2013

| Base: Adults aged 65 and over with 1+ ADL need or 2+IADL/mobility needs | | | | | | | | | | | | *ELSA W6, HSE 2013* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **ELSA** | | | | | | **HSE** | | | | | |
| | **Excellent** | **Very good** | **Good** | **Fair** | **Poor** | **Registered blind** | **Excellent** | **Very good** | **Good** | **Fair** | **Poor** | **Registered blind** |
| | % | % | % | % | % | % | % | % | % | % | % | % |
| Unmet need | 70 | 57 | 57 | 56 | 41 | [19] | 57 | 56 | 61 | 59 | [49] | * |
| Needs met | 30 | 43 | 43 | 44 | 59 | [81] | 43 | 44 | 39 | 41 | [51] | * |
| *Unweighted bases* | *92* | *273* | *524* | *278* | *104* | *26* | *54* | *146* | *214* | *104* | *49* | *16* |
| *Weighted bases* | *74* | *230* | *446* | *248* | *95* | *25* | *44* | *124* | *177* | *84* | *41* | *15* |

# Appendix D. Wealth and unmet need among those with qualifying needs and financial eligibility for local authority support

Please note that in some of the tables in this section, percentages may not add exactly to 100%. This is either because participants may be in more than one category or because of rounding. Bases may also vary because of missing values for some of the characteristics being presented.

| Appendix Table D:1 Prevalence of unmet need, by wealth local authority definition, ELSA W6 | | | | | |
|---|---|---|---|---|---|
| Base: Adults aged 65 and over with LA qualifying care needs | | | | | ELSA W6 |
| | Below lower capital limit | Between lower and upper capital limit | Above upper capital limit, less than £50,000 assets | Above upper capital limit - more than £50,000 assets | Total |
| | % | % | % | % | % |
| Unmet need | 64 | [72] | 65 | 60 | 63 |
| No unmet needs | 36 | [28] | 35 | 40 | 37 |
| Unweighted bases | 279 | 35 | 55 | 124 | 500 |
| Weighted bases | 253 | 31 | 45 | 99 | 432 |

Below the lower capital limit is below £14,250, between lower and upper capital limit is between £14,250 and £23,500, and above upper capital limit is more than £23,500.

| Appendix Table D:2 Prevalence of unmet need, by non-housing wealth, wider definition, ELSA W6 | | | | | |
|---|---|---|---|---|---|
| Base: Adults aged 65 and over with 1+ ADL need or 2+IADL/mobility needs | | | | | ELSA W6 |
| | Below lower capital limit | Between lower and upper capital limit | Above upper capital limit, less than £50,000 assets | Above upper capital limit - more than £50,000 assets | Total |
| | % | % | % | % | % |
| Unmet need | 52 | 55 | 59 | 62 | 56 |
| Needs met | 48 | 45 | 41 | 38 | 44 |
| Unweighted bases | 662 | 114 | 150 | 361 | 1298 |
| Weighted bases | 599 | 100 | 122 | 290 | 1119 |

| Appendix Table D:3 Type of care for respondents with unmet need, by wealth local authority definition, ELSA W6 | | | |
|---|---|---|---|
| *Base: Adults aged 65 and over with LA defined unmet need* | | | *ELSA W6* |
| | **Below upper capital limit** | **Above upper capital limit** | **Total** |
| | % | % | % |
| No care | 15 | 23 | 18 |
| Unpaid care only | 60 | 49 | 57 |
| Formal and unpaid care | 19 | 23 | 20 |
| Formal care only | 6 | 5 | 5 |
| *Unweighted bases* | *195* | *107* | *305* |
| *Weighted bases* | *179* | *85* | *85* |

| Appendix Table D:4 Intensity of unpaid care for respondents with unmet need, by wealth local authority definition, ELSA W6 | | | |
|---|---|---|---|
| *Base: Adults aged 65 with local authority defined unmet need who receive unpaid help with difficulties* | | | *ELSA W6* |
| | **Below upper capital limit** | **Above upper capital limit** | **Total** |
| | % | % | % |
| Less than 20 hours per week | 63 | 70 | 65 |
| 20 or more hours per week | 37 | 30 | 35 |
| *Unweighted bases* | *152* | *78* | *232* |
| *Weighted bases* | *142* | *62* | *205* |

| Appendix Table D:5 Well-being* for respondents with unmet need, by wealth local authority definition, ELSA W6 | | | |
|---|---|---|---|
| *Base: Adults aged 65 with local authority defined unmet need* | | | *ELSA W6* |
| | **Below upper capital limit** | **Above upper capital limit** | **Total** |
| | % | % | % |
| Not poor well-being | 29 | 39 | 33 |
| Poor well-being | 71 | 61 | 67 |
| *Unweighted bases* | *161* | *93* | *257* |
| *Weighted bases* | *144* | *73* | *219* |

*CASP-15 score

# Appendix E.    Predicting unmet needs: logistic regression

| Appendix Table E:1 Logistic regression: unmet social care needs | | | |
|---|---|---|---|
| **Group** | **Factor** | **Category** | **%** |
| **Socio-Demographic** | **Age** | | |
| | | 49-54 (Ref.) | 16 |
| | | 55-59 | 18 |
| | | 60-64 | 14 |
| | | 65-69 | 17 |
| | | 70-74* | 22 |
| | | 75+ | 14 |
| | **Gender** | | |
| | | Female (Ref.) | 58 |
| | | Male | 42 |
| | **Household composition** | | |
| | | Lives with others (Ref.) | 79 |
| | | Lives alone | 21 |
| | **Has children** | | |
| | | Yes (Ref.) | 12 |
| | | No | 88 |
| | **How often meet children** | | |
| | | Weekly (Ref.) | 60 |
| | | Monthly | 33 |
| | | Yearly | 7 |
| | **How often talk over the phone with children** | | |
| | | Weekly (Ref.) | 86 |
| | | Monthly | 12 |
| | | Yearly | 2 |
| **Health status** | **ADL needs at wave 6** | | |
| | | No (Ref.) | 51 |
| | | Yes | 49 |
| | **Long-standing illness** | | |
| | | No (Ref.) | 38 |
| | | Yes | 62 |
| | **Ever smoked** | | |
| | | No (Ref.) | 66 |

| | | | |
|---|---|---|---|
| | | Yes | 34 |
| | **Poor cognitive function: recall now** | | |
| | | No (Ref.) | 90 |
| | | Yes | 10 |
| | **Poor cognitive function: delayed recall** | | |
| | | No (Ref.) | 79 |
| | | Yes | 21 |
| | **Physical activity** | | |
| | | No activity (Ref.) | 8 |
| | | Mild | 16 |
| | | Modest or vigorous | 75 |
| | **Good eyesight** | | |
| | | No (Ref.) | 16 |
| | | Yes | 84 |
| | **CASP-15** | | |
| | | mean value | 50 |
| **Circumstances** | **Work** | | |
| | | Not in work (Ref.) | 73 |
| | | In work (employed/self-employed) | 27 |
| | **Wealth** | | |
| | | Below upper capital limit (Ref.) | 49 |
| | | Between lower and upper capital limit | 9 |
| | | Above upper capital limit <£50,000 | 14 |
| | | Above upper capital limit >£50,000 | 28 |
| | **Education** | | |
| | | No education (Ref.) | 62 |
| | | Medium Education | 29 |
| | | High Education | 9 |
| | **Housing tenure** | | |
| | | Own the house (Ref.) | 57 |
| | | Buying the house | 20 |
| | | Rent | 21 |
| | | Rent free | 2 |
| **Social indicators** | **Family understand how the respondent feels** | | |
| | | A little/Not at all (Ref.) | 39 |
| | | A lot/Some | 61 |
| | **Has friends** | | |
| | | Yes (Ref.) | 94 |
| | | No | 6 |
| **Transition** | **Became widow between w1 and w6** | | |
| | | No (Ref.) | 87 |
| | | Yes | 13 |

Table E2 presents the results from the final regression model. Variables were added in the model in blocks. The final model shows only the variables which remained significant across all the previous steps. It also shows the 'core controls' (age, gender and household composition) which were kept in the final model (even when they were not significantly associated with unmet needs). In addition, variables measuring the presence of long-standing illness, the highest level of educational qualification and housing tenure were kept in to control for longitudinal non-response across waves 1 and 6 (even when they were not significantly associated with unmet needs).

For each characteristic in the model there is a 'reference group' (for example, people aged 49-54) which always has an odds ratio (OR) of one. If another group (such as people aged 55-59) has an OR lower than one, this means that people in this group are less likely to experience the outcome than those in the reference group.

The factors that are significant (with a p-value lower than 0.05) in the model have been highlighted using an asterisk. A statistically significant factor means the outcome of the model varies according to that factor. If the factor is significant it is possible to look at the p-values for each of the categories within each factor, if the p-value for a category is less than 0.05 then the category is significantly different from the reference category.

| Appendix Table E:2 Logistic regression: unmet social care needs | | | | | |
|---|---|---|---|---|---|
| *Base: No difficulties in wave 1 and difficulties in wave 6* | | | | 95% CI | |
| **Factor** | **Category** | **OR** | **Lower** | **Upper** | **p** |
| **Age*** | | | | | |
| | 49-54 (Ref.) | 1 | | | |
| | 55-59 | 0.84 | 0.44 | 1.61 | 0.60 |
| | 60-64 | 0.70 | 0.35 | 1.41 | 0.32 |
| | 65-69 | 0.70 | 0.36 | 1.36 | 0.30 |
| | 70-74* | 0.35 | 0.19 | 0.66 | 0.00 |
| | 75+ | 0.24 | 0.12 | 0.47 | 0.00 |
| **Gender** | | | | | |
| | Female (Ref.) | 1 | | | |
| | Male | 1.35 | 0.93 | 1.95 | 0.12 |
| **Household composition*** | | | | | |
| | Lives with others (Ref.) | 1 | | | |
| | Lives alone | 1.74 | 1.08 | 2.80 | 0.02 |
| **ADL needs at wave 6*** | | | | | |
| | No (Ref.) | 1 | | | |
| | Yes | 14.38 | 7.48 | 27.67 | 0.00 |
| **Long-standing illness*** | | | | | |
| | No (Ref.) | 1 | | | |
| | Yes | 0.56 | 0.39 | 0.81 | 0.00 |
| **Became widow between w1 and w6*** | | | | | |
| | No (Ref.) | 1 | | | |

| | | 1.71 | 1.00 | 2.93 | 0.05 |
|---|---|---|---|---|---|
| | Yes | 1.71 | 1.00 | 2.93 | 0.05 |
| **Education** | | | | | |
| | No education (Ref.) | 1 | | | |
| | Medium Education | 1.27 | 0.84 | 1.90 | 0.26 |
| | High Education | 1.05 | 0.57 | 1.93 | 0.87 |
| **Housing tenure** | | | | | |
| | Own the house | 1 | | | |
| | Buying the house | 1.04 | 0.61 | 1.78 | 0.88 |
| | Rent | 0.69 | 0.43 | 1.10 | 0.12 |
| | Rent free | 0.88 | 0.22 | 3.58 | 0.86 |
| *Constant* | | *0.3* | | | |
| *Weighted base* | | | | | *749* |

*Statistically significant in this model

# Appendix F. Modelling the effect of unmet need on well-being

| Concept | Measure |
|---------|---------|
| **Appendix table F:1** Description of covariates included in linear growth curve model of well-being in older age | |
| **Concept** | **Measure** |
| Marital/cohabitation status | 4 category: (1) single and never been married/ civil partnered, (2) married, civil partner or cohabitating, (3) separated or divorced, (4) widowed |
| Economic activity | 3 category: (1) employed, (2) retired, (3) other inactive (disabled, etc.) |
| Health status | Number of social care needs (ADLs, IADLs and mobility difficulties) |
| | Chronic illness, measured as a binary indicator of whether the respondent reports ever having been diagnosed with: heart disease, stroke, cancer, diabetes, lung disease, or arthritis |
| | CES-D - treated as a continuous variable from 1-8, indicating the number of depressive symptoms |
| | Whether the respondent reports being troubled with pain |
| Demographic indicators | Sex |
| | Ethnicity – (1) white (2) non-white |
| Social support indicators | Number of close contacts |
| | Measure of social support received – comprised of a scale from 1-27, based on responses to questions on how well the respondent's friends, relatives and children 1) understand the way the respondent feels about things, 2) can be relied on if the respondent has a serious problem, and 3) how much the respondent can open up to them to talk about worries |
| Socio-economic indicators | NS-SEC - 6 category classification of current or most occupation: (1)managerial and professional, (2) intermediate occupations, (3) small employers and own account workers, (4) lower supervisory and technical occupations, (5) semi-routine and routine occupations, (6) other |
| | Wealth  - 1) Below the lower capital limit (2) Between the lower and upper capital limit (3) above the upper capital limit and below £50,000 (4) above the £50,000 |
| | Self-reported financial well-being (1) manage very well/ well (2) get by alright, don't manage very well (3) Has difficulty/ severe difficulty |
| | 3 category education indicator: (1) low education - left before completing compulsory education, (2) mid education - those leaving education after compulsory education, but before 19, (3) high education - those leaving education after age 19 |

Table F2 presents the results from the four growth curve models of well-being. It presents the results for our unmet need variable, our interactions of interest and the control variables described in Table F1. The coefficients presented in the table indicate the marginal effect of each variable on well-being, holding all other factors at their means. For a categorical variable like Modified Wider definition of unmet need, for example, the coefficient on Unmet Need can be interpreted as having unmet need is associated with an increase in CASP-15 well-being by 0.245 points compared with those who have Needs Met. For a continuous variable like Age_cen, the coefficient can be interpreted as a one-year increase in age is associated with a 0.110 decrease in CASP-15 well-being.

Statistical significance is indicated using asterisks. Effects that are significant at the 10% level (with a p-value of 0.1 or lower) are indicated by *, those significant at the 5% level (with a p-value of 0.05 or lower) are indicated by ** and those that are significant at the 1% level (with a p-value of 0.01) are indicated by ***.

| Appendix table F:2 Results from linear growth curve models | | | | | |
|---|---|---|---|---|---|
| *ELSA respondents who have responded in all waves and are age 60+ in wave 6* | | Model 1 | Model 2 | Model 3 | Model 4 |
| VARIABLES | | CASP-15 | Control | Pleasure | Self-realisation |
| | | Coefficient (S.E.) | Coefficient (S.E.) | Coefficient (S.E.) | Coefficient (S.E.) |
| Modified "Wider definition" of unmet need | (Needs met) | | | | |
| | Unmet Need | 0.245 (0.416) | -0.0232 (0.189) | -0.0532 (0.135) | 0.165 (0.179) |
| | No qualifying needs | 0.274 (0.343) | 0.00631 (0.143) | 0.0193 (0.101) | 0.151 (0.143) |
| Age_cen | | -0.110*** (0.0186) | -0.0344*** (0.00762) | -0.0103* (0.00605) | -0.0540*** (0.00758) |
| Interaction: unmet need *age_cen | (Needs met*age_cen) | | | | |
| | Unmet need*age_cen | -0.0209 (0.0232) | -0.00782 (0.00970) | 0.00476 (0.00712) | -0.0132 (0.00900) |
| | No qualifying needs*age_cen | 0.0205 (0.0182) | 0.0151** (0.00733) | 0.00655 (0.00597) | -0.000950 (0.00748) |
| Number of needs | | -0.604*** (0.0843) | -0.267*** (0.0335) | -0.107*** (0.0238) | -0.287*** (0.0354) |
| Interaction: unmet need *number of needs | (Needs met*number of needs) | | | | |
| | Unmet need*number of needs | 0.113 (0.131) | 0.0906 (0.0599) | 0.00708 (0.0409) | 0.0195 (0.0550) |
| | No qualifying needs*number of needs | -0.749*** (0.216) | -0.227*** (0.0815) | -0.125* (0.0682) | -0.266*** (0.0878) |
| LA wealth means test eligibility | (Above the upper limit, more than £50,000) | | | | |
| | Below the lower capital limit | -0.668* (0.342) | -0.269* (0.144) | -0.0800 (0.101) | -0.360*** (0.133) |
| | Between the lower and upper limit | 0.103 (0.436) | -0.0952 (0.199) | 0.242 (0.154) | -0.105 (0.189) |
| | Above the upper limit, less than £50,000 | -0.342 (0.416) | -0.250 (0.172) | 0.00750 (0.121) | -0.0446 (0.176) |
| Interaction: unmet need *LA wealth means test eligibility | (Needs met* LA wealth means test) | | | | |
| | Unmet Needs*below the lower capital limit | 0.0601 (0.417) | 0.0273 (0.188) | 0.0420 (0.140) | 0.0372 (0.174) |
| | Unmet Needs*Between the lower and upper limit | -0.951 (0.840) | 0.244 (0.306) | -0.512** (0.244) | -0.192 (0.307) |
| | Unmet Needs*Above the upper limit, less than £50,000 | 0.492 (0.555) | 0.171 (0.251) | 0.277* (0.168) | 0.00182 (0.236) |
| | (Unmet Needs*Above the upper limit, more than £50,000) | | | | |

| | | | | | |
|---|---|---|---|---|---|
| | No qual needs*below the lower capital limit | -0.296 (0.355) | -0.0195 (0.149) | -0.173* (0.104) | -0.0391 (0.138) |
| | No qual needs*Between the lower and upper limit | -0.210 (0.473) | -0.00904 (0.216) | -0.374** (0.165) | -0.0263 (0.203) |
| | No qual needs*Above the upper limit, less than £50,000 | -0.0659 (0.458) | 0.00572 (0.183) | -0.127 (0.137) | -0.208 (0.185) |
| | (No qual needs*Above the upper limit, more than £50,000) | | | | |
| Age_cen squared | | -0.00471*** (0.000886) | -0.00257*** (0.000348) | -0.00068*** (0.000262) | -0.00183*** (0.000356) |
| Marital Status | (-Single, never married) | | | | |
| | Married/ civil partner/ cohabitating | -0.756 (0.460) | -0.775*** (0.162) | -0.140 (0.145) | 0.178 (0.192) |
| | Divorced/ separated | -2.530*** (0.527) | -0.966*** (0.187) | -0.888*** (0.164) | -0.635*** (0.226) |
| | Widowed | -1.338*** (0.491) | -0.527*** (0.172) | -0.497*** (0.152) | -0.0604 (0.204) |
| Sex | (Male) | | | | |
| | Female | 0.279 (0.210) | 0.137* (0.0738) | 0.202*** (0.0643) | 0.261*** (0.0841) |
| Ethnicity | (White) | | | | |
| | Non-white | -2.051** (0.938) | -0.957*** (0.270) | -0.282 (0.210) | -0.256 (0.314) |
| Education level | (Low educated) | | | | |
| | Medium educated | 0.355 (0.217) | -0.0538 (0.0764) | 0.00773 (0.0662) | 0.133 (0.0887) |
| | High educated | 0.708** (0.281) | 0.00631 (0.100) | -0.0836 (0.0893) | 0.311*** (0.116) |
| Economic Activity | (Employed) | | | | |
| | Retired | -0.0511 (0.186) | 0.0120 (0.0719) | -0.0195 (0.0563) | -0.0338 (0.0688) |
| | Otherwise inactive (disabled, etc) | -0.964*** (0.229) | -0.345*** (0.0901) | -0.163** (0.0691) | -0.427*** (0.0890) |
| NSSEC | (Managerial and professional Occupations) | | | | |
| | Intermediate occupations | -0.562** (0.265) | -0.231** (0.0956) | -0.168** (0.0849) | -0.174* (0.105) |
| | Small employers and own account owners | -0.975*** (0.284) | -0.443*** (0.0993) | -0.291*** (0.0941) | -0.128 (0.111) |
| | Lower supervisory and technical occupations | -1.439*** (0.337) | -0.571*** (0.115) | -0.268*** (0.0961) | -0.334** (0.130) |
| | Semi-routine and routine occupations | -1.084*** (0.233) | -0.511*** (0.0852) | -0.298*** (0.0717) | -0.365*** (0.0974) |
| | Other | -1.863 (1.250) | -0.476 (0.374) | -0.311 (0.332) | -0.429 (0.454) |
| How well getting by financially | (Very well/well) | | | | |
| | Getting by | -0.990*** (0.132) | -0.466*** (0.0535) | -0.212*** (0.0402) | -0.415*** (0.0496) |

| | | | | | |
|---|---|---|---|---|---|
| **Appendix table F:2    Results from linear growth curve models** | | | | | |
| | Some/many financial difficulties | -2.454*** | -1.138*** | -0.478*** | -1.030*** |
| | | (0.337) | (0.158) | (0.118) | (0.158) |
| Whether has a chronic condition | (No) | | | | |
| | Yes | -0.229* | -0.0819* | -0.0342 | -0.116** |
| | | (0.123) | (0.0476) | (0.0354) | (0.0479) |
| Whether often troubled by pain | (Yes) | | | | |
| | No | 0.621*** | 0.199*** | 0.0760** | 0.250*** |
| | | (0.115) | (0.0470) | (0.0336) | (0.0466) |
| CES-D scale | | -0.803*** | -0.331*** | -0.203*** | -0.321*** |
| | | (0.0491) | (0.0194) | (0.0153) | (0.0185) |
| Number of close contacts | | 0.0638*** | 0.0178*** | 0.0217*** | 0.0248*** |
| | | (0.0110) | (0.00410) | (0.00326) | (0.00434) |
| Social support scale | | 0.269*** | 0.0759*** | 0.0769*** | 0.0867*** |
| | | (0.0154) | (0.00522) | (0.00425) | (0.00556) |
| Constant | | 48.29*** | 17.07*** | 17.91*** | 14.45*** |
| | | (0.643) | (0.242) | (0.199) | (0.267) |
| Observations | | 13,694 | 13,515 | 13,570 | 13,547 |
| Number of groups | | 3,671 | 3,659 | 3,663 | 3,658 |