



# Inequalities in later life

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# Executive summary

## Introduction

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### Background

There are stark inequalities in how different people experience later life. While some of us enjoy the benefits of longer lives, others may experience later life as a time of profound challenge. The causes of such inequalities are complex, inter-related, and challenging to address.

The Centre for Ageing Better commissioned a review of the evidence on the nature of inequalities in later life, with a focus on six key areas: subjective wellbeing; physical and mental health; life expectancy and healthy life expectancy; financial security; social connections; and home and living environment.

The review presents and summarises the most recent published evidence on inequalities in later life in England. It is the collaborative work of teams from the Institute of Health & Society and Institute for Ageing at Newcastle University and the International Longevity Centre-UK (ILC-UK).

### Methodology

The review aimed to understand the main factors that influence inequalities in later life and the nature of inequalities related to our six identified outcomes. It also summarised the state of the evidence and identified evidence gaps.

Given the breadth of the research questions, the approach used was a scoping review, which offers a rigorous and transparent way of summarising the evidence. Unlike systematic reviews, it is more exploratory in nature with less emphasis on the direct comparability of the studies reviewed.

For each outcome, inequalities were considered relating to: gender (including transgender), race, age, disability, sexual orientation and religion or beliefs, socioeconomic status, place of residence, and status as an informal carer.

This report is a summary of current published research (from 2006 to 2016 inclusive). Data published by national and local governmental departments and third sector organisations is not included. The review includes evidence relating to England only.

# How we understand inequalities

Stage one of the review identified two key approaches in the literature which can help us understand inequalities in later life: the life-course approach and the intersectional approach.

The life-course approach proposes that inequalities observed in later life are a result of disadvantages experienced across an individual's life, in other words they accumulate over the life course. For example, disadvantages during childhood can lead to challenging socioeconomic circumstances and poor health in adulthood and continue into later life. This approach of cumulative advantage/disadvantage has significant implications when looking at what interventions can make a difference for people in later life.

The intersectional approach considers how some groups of people experience multiple disadvantage because causes of inequality combine or overlap. For example, women may experience a negative outcome, such as an average lower retirement income than men, and people belonging to BME groups may experience the same disadvantage in terms of income. But the combined experience for BME women would result in even greater inequalities in relation to retirement income.

## Key findings

### Subjective wellbeing

Subjective wellbeing is described differently across the literature, with terms such as subjective wellbeing, quality of life, and life satisfaction used interchangeably.

The review highlights several studies which provide insight into the subjective wellbeing of people in later life, including at-risk' or marginalised groups such as older homeless people, people living in institutions (e.g. patients in a high security hospital), and those who may be disadvantaged by their health.

It finds evidence of some well-designed interventions that target potentially marginalised groups and seek to reduce health inequalities and impact positively on wellbeing outcomes. Examples include Men in Sheds pilot programme, concessionary public transport in London, and home energy improvements as part of the Warm Front scheme.

It also challenges assumptions – for example, highlighting that low levels of education are not necessarily associated with poorer wellbeing – and includes some potentially interesting findings for policy makers, such as how people who display resilience in terms of money management and budgeting skills acquired over the life course fare rather better in terms of wellbeing outcomes than those who lacked such skills.

However, the evidence that is available provides a mixed and inconsistent picture in relation to: age, sex, ethnicity, education, and place of residence. While evidence was available on some groups of interest, such as informal carers, other aspects of inequality, including BME or LGBT status, were largely absent from the available evidence. The inconsistent evidence

makes it challenging to draw overall conclusions about subjective wellbeing in later life. Instead the review in this chapter seeks to highlight areas of potential interest, as well as gaps, where further research is needed.

## **Physical and mental health**

Health outcomes (both physical and mental) in later life are strongly linked to socioeconomic factors. The evidence shows that people from lower socioeconomic groups have poorer health outcomes than those from higher socioeconomic groups, and socioeconomic status in early life continues to impact health outcomes in later life. However, there is some evidence that disadvantage in early life can be lessened if one's socioeconomic status improves as one moves through the life course.

There is strong evidence that where someone lives and their health outcomes are strongly linked. Living in a disadvantaged community is associated with poorer physical and mental health in later life. Some groups are particularly vulnerable to poor health outcomes, and services and treatments are not always accessible to people living in disadvantaged communities.

There is a substantial body of evidence on inequalities in physical and mental health outcomes in later life. The literature draws on a wide range of methods, encompassing analysis of nationally representative datasets, major longitudinal studies, local and regional surveys, and a variety of qualitative approaches. Some studies explored 'at-risk' groups, such as people living alone in later life, but there remain significant gaps with respect to other aspects of inequality, including: BME groups, the LGBT community, and the oldest old.

## **Life expectancy and healthy life expectancy**

While average life expectancies for men and women have increased over time, area-based inequalities in life expectancy have not reduced significantly. People from less advantaged groups live shorter lives in worse health and with more functional impairments. Evidence shows that living in a deprived area is strongly linked with higher mortality and lower chances of survival. Furthermore, a person's subjective judgement about how long they are likely to live is related to their actual chances of survival.

For someone diagnosed with a particular health condition, wealth, age, sex and ethnicity are important factors in a person's risks of mortality and/or chances of survival. Marginalised groups, such as people with intellectual disabilities, have a much lower average life expectancy than the general population.

There was a lot of overlap between the evidence related to health inequalities and that focused on inequalities in life and healthy life expectancy. Socioeconomic factors again featured prominently, with a strong association between socioeconomic status and inequalities in life expectancy, and disability-free life expectancy.

## **Financial security**

There is powerful evidence of gender inequalities in financial security in later life, with older women more financially insecure than older men. Female part-time workers or women with low-grade employment are at greater risk of financial insecurity. Women who have spent most of their lives in part-time employment are no better off in retirement than women who have been employed part-time for short periods or who have never worked.

Although based on a small number of studies, there is evidence that migrants and some people from minority ethnic communities are less likely to have adequate pension savings, resulting in financial insecurity in later life. Women from minority ethnic backgrounds are particularly at risk.

Most of the evidence on financial security relates to pensions and employment and does not include the wealth of people in later life. There was limited evidence focusing on people from BME and LGBT communities, people with disabilities, or people with informal caring responsibilities.

## **Social connections**

Age is an important risk factor for loneliness, alongside other factors such as health and socioeconomic status. For example, higher education and wealth are associated with better social connections and leisure activity in later life.

If a person's perception of their neighbourhood is not very good, then their social connections are influenced in a negative way. For people living in rural areas, local services can provide opportunities for social connections. In residential care settings, frailty and disability can prevent social participation.

While older adults belonging to most BME groups demonstrate no difference from White British older adults with respect to informal social support, older women from minority backgrounds can find it difficult to access formal statutory social services. For this group, language and communication problems prevent access to these services.

Older lesbian, gay and bisexual people can experience challenges in their social connections that can be shaped by discriminatory attitudes from others, their personal histories, and their decisions around coming out. For example, the impact of losing a partner can be worsened due to the lack of support from social contacts; for some, their networks perceive their bereavement as the loss of a friend rather than a partner.

Within the current evidence, the concept of social connections is described and analysed in numerous ways, making it difficult to generalise across the evidence on inequalities and social connections. There are also multiple gaps in the evidence base.

## **Home and living environment**

This chapter has the most limited body of evidence in the review, with very few studies looking at the relationship between living environments and inequalities in later life. The research in this area focuses on particular sub-groups or circumstances, which means that it is difficult to reach broader conclusions.

However, the evidence does reinforce the fact that living in a deprived area brings with it different aspects of inequality, and highlights that inequalities relating to gender and health can also shape people's experiences of their living environment, for example, how safe they feel, and how active they are able to be in their communities. Specific aspects of poorer health such as depression and difficulty carrying out Activities of Daily Living are linked to negative perceptions of the neighbourhood in which people live. Older people with visual impairment experience worse housing outcomes – tenure and home conditions – than people with good vision. There has been growing interest, at national and local policy level, on the importance of housing and communities, however housing still remains largely at the periphery of health and social care policy. More research is needed into how our living environment, and local community, can be designed to mitigate the impact of inequalities and improve the quality of housing in later life.

## **Conclusions**

Inequalities in later life can be the product of cumulative advantage or disadvantage over time and multiple factors that combine and overlap to shape experiences in later life. This is a complex picture and we need to better understand our increasingly diverse ageing population and do more to tackle the causes and symptoms of inequality in later life.

Research by the Centre for Ageing Better shows that people will have vastly different experiences of later life (Ipsos MORI 2015). This review broadens our understanding of the nature of inequalities in later life in England across a range of outcomes that contribute to a good later life.

While there is strong evidence that poverty and disadvantage play a central role in inequalities in later life, there is much more to learn about how inequalities in later life are experienced by and the factors affecting inequalities among BME groups, the LGBT community, people with disabilities, people with informal caring responsibilities, and the oldest old.

The findings from this review should inform those concerned with developing policy and practice solutions for when and how to intervene to reduce inequalities in later life in England. For more on the findings, and the potential implications for policy and practice, read Ageing Better's insight report which sets out key insights from the review and Ageing Better's ideas for enabling more people to enjoy a good later life now and in the future.

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# Acknowledgements

by the Review Team

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The scoping review on inequalities in later life was undertaken as an active collaboration between research teams based at Newcastle University and the International Longevity Centre-UK (ILC-UK). Led by Professor Thomas Scharf, Professor of Social Gerontology at Newcastle University's Institute for Ageing, the review has benefited considerably from the input of a number of colleagues based at both organisations.

At ILC-UK, Brian Beach led on those parts of the review that focus on inequalities in social connections and in the living environment. He also wrote the concluding chapter. Dean Hochlaf has been responsible for the work on inequalities in financial security, while Sally-Marie Bamford contributed across the various themes and also managed the overall project on behalf of the research team. As part of the wider ILC-UK contribution to the work, we have benefited at key times from the insights and support of David Eaton, Ben Franklin, Cesira Urzi Brancati and David Sinclair.

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# Chapter 1

## Introduction

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## Background

The growing proportion of older people in the population has long-term implications for countries such as the United Kingdom. In particular, there is a need to consider how different groups of people experience later life. While some groups enjoy the many benefits of extended lives, others may experience older age as a time of profound challenge.

In this report, the focus is on the often stark contrasts that can mark later life in England. The distribution of good health, longer life expectancy, positive subjective wellbeing, financial security, strong social connections, and decent living environments varies between different groups of an increasingly diverse older population. In general, it is the most vulnerable in society who fare worst in terms of their experiences of later life.

The causes of such inequalities in later life are complex, interrelated, and challenging to eliminate. Moreover, research evidence relating to the scale, nature and influences of inequalities is wide-ranging, and can be of varied quality and quantity.

## Aim

Against this background and reflecting the goal of the Centre for Ageing Better to bring about changes in society that enable more people to enjoy a good later life, this report seeks to present and summarise the evidence from recent scientific research on the current nature and scale of inequalities in older age in England. Such evidence is needed if more people are to have access to opportunities to age better. The evidence can also be used to highlight potentially promising opportunities for interventions that can assist in narrowing inequalities.

The report aims to provide a non-exhaustive scoping review of inequalities in later life that can inform and underpin the future work of the Centre for Ageing Better. In broad terms, the review seeks to respond to three key questions:

1. What is the scale and nature of inequalities in outcomes in later life in England?
2. What are the most significant influences on these outcomes?
3. What is the quality and strength of the evidence on inequalities in later life, and where are the particular gaps or limitations in the evidence base?

The focus of the evidence review is on inequalities that apply to people aged 50 and over in the following six areas:

- Subjective wellbeing;
- Physical and mental health;
- Life expectancy and healthy life expectancy;
- Financial security;
- Social connections; and
- Living environment (home and neighbourhood).

Inequalities relate to a broad range of characteristics of individuals and the groups to which they belong. In this review, we report on evidence concerning inequalities associated with the protected characteristics of sex, race, age, disability, sexual orientation and religion and belief. Where the evidence is available, we also explore inequalities associated with socioeconomic status, place of residence, and being an informal carer for another person.

## Organisation of the report

Having summarised the background to our review of inequalities in later life, we will continue by introducing the methods used to conduct the review. This also entails highlighting some of the limitations associated with the application of our particular methodological approach – the scoping review technique. We conclude the introduction with a brief synopsis of some of the key approaches that have been used in scientific work to understand how inequalities arise and how they go on to affect people in later life.

The major part of the report is given over to summarising the current state of the evidence about inequalities in later life in England. We do this in six separate chapters, which focus in turn on the different inequality themes that underpin the review (i.e. inequalities in: subjective wellbeing; physical and mental health; life expectancy and healthy life expectancy; financial security; social connections; and living environment).

Each of these chapters is organised according to a common framework. Chapters begin with a summary of the search process and its outcomes in relation to the theme to be explored. Following a synopsis of key findings, the scientific evidence is then summarised under headings that are most appropriate to the topic of the chapter. Chapters conclude with a short section that considers gaps in the evidence base and highlights potential directions for further scientific investigation.

The report ends with a summarising chapter that provides key insights relating to the current state of evidence on inequalities in later life in England.

# Methodological approach

Responding to the key questions concerning inequalities in later life requires a methodologically robust approach to collecting, interpreting and presenting a potentially considerable amount of evidence. The approach used in this report involves conducting a 'scoping review', the full details of which are presented in Appendix 1. In essence, this entails summarising current research knowledge and identifying gaps in existing research.

Our work occurred in two stages. First, we sought to show how researchers have conceptualised inequalities in order to understand the factors which influence inequalities in later life. Second, we reviewed evidence relating to the specific inequality themes of interest with reference to the protected characteristics, socioeconomic status, place of residence, and status as an informal carer.

**Figure 1.1 Screening process for each scoping review**

	Conceptualising inequalities	Inequalities in subjective wellbeing	Inequalities in physical and mental health	Inequalities in life expectancy and healthy life expectancy	Inequalities in financial security	Inequalities in social connections	Inequalities in living environment
Records identified from database searching	2178	1527	5118	3287	5736	9600	5034
Records after duplicates removed	1625	1139	4039	2514	4157	7249	3717
Records after additional records identified via other sources	1626	1140	4039	2515	4157	7256	3730
Records selected for full text screening	82	106	167	140	72	123	46
Records included in data extraction	48	30	88	34	15	44	12

Underpinning the review is a search of the scientific literature, conducted using keywords relating to inequalities in later life (listed in Appendix 2). The 24,463 scientific papers identified through the initial search were sorted and examined for relevance to each of the inequalities themes. In this report, we refer only to the 250 unique papers that met the study's inclusion criteria, recognising that some of these papers are discussed under more than one inequalities theme (see Figure 1.1).

## Limitations of the scoping review

As with any review of this type, and despite the considerable body of evidence reviewed, there are limitations that should be considered when reading the report. These relate primarily to the need to conduct the review within budget and in a timely fashion:

- The scale of the scientific evidence meant that we were unable to review the ‘grey literature’ relating to inequalities in later life. As a result, potentially important information, including data published by national and local government departments and third sector organisations, is not included in the review.
- Given that the primary focus of the Centre for Ageing Better’s work is on bringing about change in England, the review is limited to evidence relating to England only.
- All scoping reviews are limited by the search terms and databases used to locate relevant evidence. While a broader range of search terms might have identified additional papers to include in the review, searches using more general terms yielded an unmanageable number of papers to be reviewed.
- Scoping reviews tend not to collect insights from the people most closely affected by the questions that underpin the review. In this case, our review has not benefited from the direct involvement of people affected by inequalities in later life. The review team did, however, draw on the insights and experience of members of its two advisory groups, some of whom work with older adults. In future work, we hope to discuss findings from the review with older people who are affected by inequalities.

Having considered the limitations of the scoping review, we now explore some of the ways in which researchers have conceptualised inequalities in later life.

## Conceptualising inequalities in later life

The first stage of the scoping review process involved identifying conceptual frameworks that specifically address inequalities in outcomes in later life. This part of the review draws on the relevant national and international literature to understand the factors which influence inequalities in later life. The aim is to frame the findings from the individual evidence reviews that follow by presenting insights into how inequalities emerge and evolve and how inequalities characterise various domains of later life. Two key questions guided the choice of evidence to include in this element of the review process:

- How are inequalities in later life conceptualised?
- What are the most significant influences on unequal outcomes in later life?

The review process led to 48 papers being identified as responding in some way to these two questions (see Figure 1.1). For the purposes of this report, in which the main focus is on presenting empirical evidence relating to the nature and scale of inequalities in later life in England, we summarise some of the main insights arising from these papers.

The evidence review highlights the variety of ways in which inequalities feature in the scientific literature. While some studies have a specific focus on inequalities in later life, such as a focus on the ways in which socioeconomic factors are associated with inequalities in particular areas of life, in others inequalities are addressed more implicitly, for example by making reference to the experiences of particular marginalised or 'at risk' groups of ageing adults. On occasion, evidence relates to unequal outcomes in later life, highlighting the stark differences that can exist between groups in terms of, for example, physical and mental health conditions. At other times, inequalities feature as differences in personal characteristics of individuals that are associated with varying experiences of later life.

In general terms, and with notable overlaps, the most compelling evidence concerning the conceptualisation of inequalities in later life can be divided into two broad types of explanation. The first considers life-course approaches, the second intersectional approaches. We take each of these in turn and provide some illustrative examples arising from relevant scientific sources.

## Life-course approaches

There is a growing body of evidence that draws on a range of life-course approaches to conceptualise inequalities in later life. Life-course frameworks address patterns of change over time that cast light on the ways in which we should understand the process of ageing. In relation to inequalities in later life, as argued by Fulle-Iglesias et al. (2009), life-course approaches play a key role in shaping micro- and macro-level influences on health inequalities and wellbeing in older age.

The most straightforward approach to life-course analysis considers the ways in which older people may be disproportionately affected by certain kind of losses or restrictions relating to income, health or reduced social ties. While these types of change might take place across all points of the life course, they are likely to feature more prominently in later life given income changes associated with retirement, the impact of chronic disabling conditions, and increased needs among people adjusting to living alone.

Of broader relevance to this review is a particular strand of life-course theory. The idea of cumulative advantage/disadvantage, and the way in which this evolves over time, has been the focus of a number of major theoretical contributions (e.g. Dannefer 2003, 2011; O'Rand 2002). In its broadest sense, the idea of cumulative disadvantage refers to the fact that birth cohorts – people born at a similar point in time – may become more unequal over the course of time. For example, limited educational opportunities, a lack of social connections, and the absence of work opportunities at earlier points in the life course may have long-term consequences in terms of reduced income and poor quality social relationships in later life or limited awareness about how to access available social and health-care services.

In a key contribution to work on cumulative advantage/disadvantage, O’Rand (2002) make a case for exploring processes that link origins at earlier stages of the life course to outcomes in later life. She argues that ‘origins and destinations in the life course are linked by patterns of appreciation, depreciation and compensation of life course capital that are highly complex and interdependent with age’. Importantly, individual lives are seen as being linked over time to structural characteristics of societies, represented for example in terms of the organisation of the labour market or features of welfare states. This idea is taken forward by Komp and Johansson (2016) in their case study of Germany, illustrating how historical events and past experiences lay the foundation for future experiences, including future trends in inequalities in later life.

This type of approach to understanding inequalities in later life is a strong feature of work on unequal outcomes in relation to physical and mental health and (healthy) life expectancy. In particular, life-course approaches are often engaged as a means of exploring the influence of early life factors on health outcomes in adulthood. For example, Graham and Power (2004) develop a framework to show how childhood disadvantage translates into negative socioeconomic circumstances and poor health at later stages of the life course. One of the benefits of this approach lies in its ability to identify how and when policy interventions might contribute to narrowing inequalities in older age.

## Intersectional approaches

Especially in recent years, there has been a growing focus on intersectional approaches as a means of exploring inequalities in later life. Such approaches seek to take account of the way in which multiple factors combine or overlap to shape individuals’ and groups’ experiences of older age. For example, research that considers inequalities in terms of gender alone might be extended by giving attention to the simultaneous impact of other characteristics, such as race, sexual orientation, and socioeconomic status on differences between (and within) the lives of older men and women. Intersectional approaches are valued for their potential to support policy makers in their efforts to develop policies that are better suited to the needs of an increasingly diverse older population (e.g. Adams 2016; Calasanti and Keicolt 2012).

While there is broad agreement in the scientific literature about the reciprocal way in which various categories interact, Collins (2015) makes the important point that definitions of ‘what counts as intersectionality are far from clear’. She goes on to develop the argument that this particular approach is characterised by its overarching focus on power relations and social inequalities. Many empirical studies explore intersectionality as a means of highlighting the multiplicative rather than additive nature of intersections of socioeconomic status, gender and race/ethnicity on older people’s lives. This draws attention to that ways in which inequalities based on single identities, such as gender, are compounded by other identities associated with individuals, such as their age or race/ethnicity. By contrast, less attention has been paid to the unequal power relations that are at the heart of intersectional approaches (Collins 2015). In her work on inequalities in Canada, McMullin (2010) makes a powerful case for focusing on the processes through which inequalities evolve through the frequent interactions of individuals and groups. Her intersectional framework suggests that just as important as inequalities based on social class are those relating to age, gender, ethnicity, and race.

As Clarke and McCall (2013) suggest, intersectionality can potentially result in different interpretations of a similar set of ‘facts’, reflecting the analysis of multiple and perhaps conflicting social processes. This point is emphasised by Cronin and King (2010) in their study of the lives of older lesbian, gay and bisexual (LGB) adults in England. While a narrow focus on diversity, in terms of differences between older LGB adults and the general population of older adults, may emphasise the disempowerment of older LGB adults, exploring the intersections of ageing, sexuality and socioeconomic status – for example, with reference to financial status – can highlight the ways in which older LGB people may be empowered.

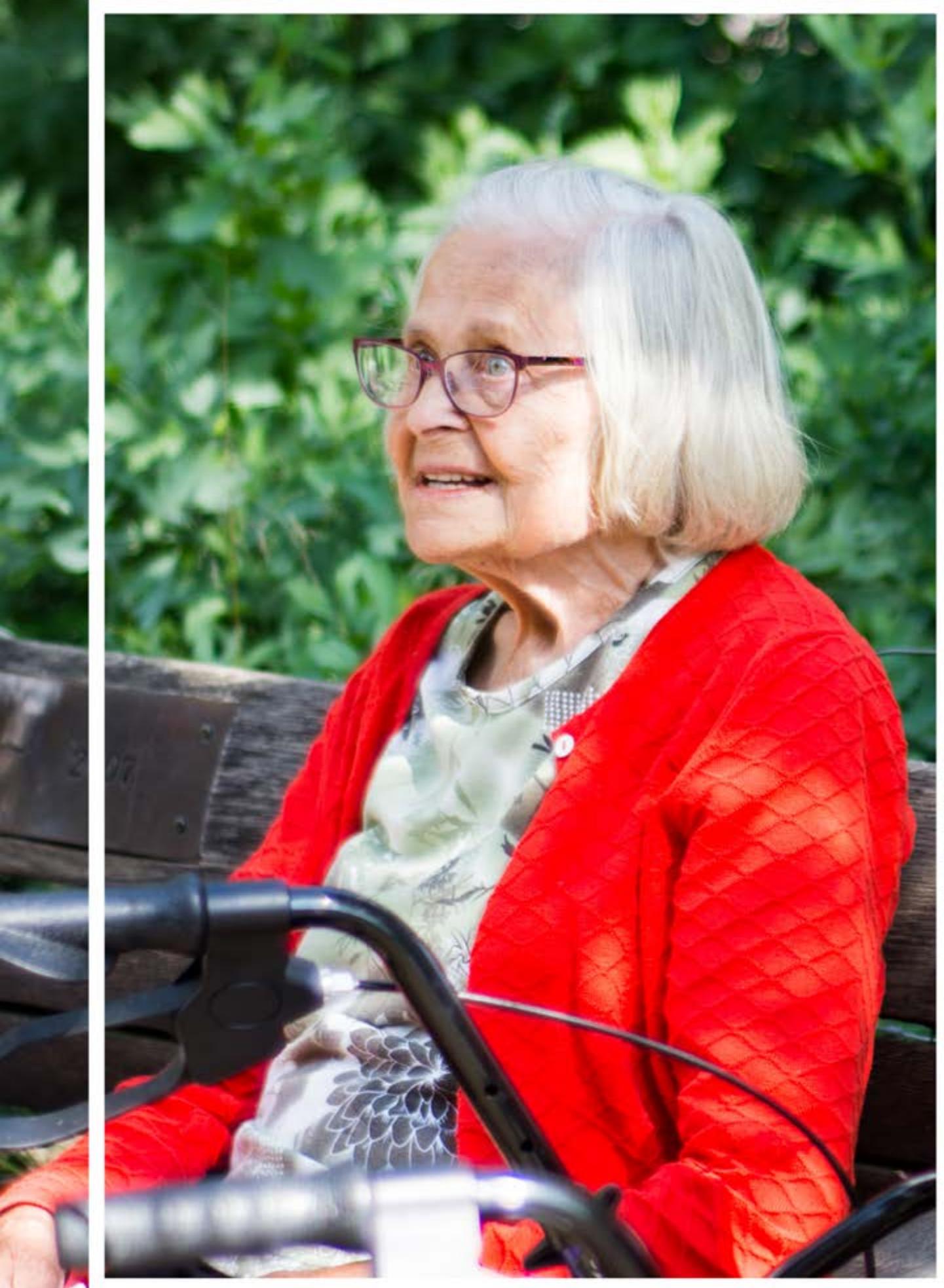
The value of an intersectional approach is emphasised in a number of empirical studies. For example, in a study that analyses survey data from a number of European countries, Harnois (2015) shows how individuals who hold multiple minority statuses are more likely than others to perceive themselves as having experienced multiple forms of discrimination. Using data from successive waves of the nationally representative Health and Retirement Study in the United States, Warner and Brown (2011) reveal the differing health trajectories of ageing adults according to race/ethnicity and gender. They show that, between 1994 and 2006, health disparities between White, Black and Mexican American men and women generally remained stable, with the exception of older Black women whose functional health deteriorated more rapidly over time.

Over time, there has been a stronger focus on intersectional approaches in deepening understanding in particular of the production of health inequalities in later life (e.g. Hinze et al. 2012). This type of analysis is facilitated by increasing access to longitudinal data sources and by a focus in qualitative research on biographical methods that have the potential to present a more holistic account of the ways in which characteristics such as age, gender, socioeconomic status and sexual orientation combine to shape individuals’ experiences of later life.

In the chapters that follow both life-course and intersectional approaches are used to frame an understanding of inequalities in later life. Sometimes these approaches are explicit, as for example when studies report on life-course determinants of health inequalities in older age. At other times, the theoretical underpinnings of inequalities are a more implicit feature of the scientific evidence or are absent altogether.

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# Chapter 2

## Inequalities in subjective wellbeing

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### Introduction

In this chapter, the focus is on inequalities in subjective wellbeing that characterise later life in England. The chapter presents evidence from 30 papers that met the criteria for inclusion in the review (Figure 2.1).

As a general point, it is worth noting that subjective wellbeing is conceptualised and then measured in a variety of ways in the papers reviewed in this chapter. Sometimes terms such as subjective wellbeing, quality of life and life satisfaction are used interchangeably. Underpinning the different concepts, however, is the aim to capture in broad terms how individuals feel about their lives as a whole.

On occasion, the lack of consistency in the use of concepts and measures makes it difficult to draw direct comparisons across the evidence concerning inequalities in subjective wellbeing in later life. Moreover, while some papers have an explicit focus on subjective wellbeing, others explore wellbeing in a more implicit way, reflecting the particular risks to wellbeing that may arise for specific groups of ageing adults

The chapter is divided into three sections according to key themes to emerge from the review process. The first section addresses inequalities in subjective wellbeing that are associated with a range of sociodemographic characteristics, including socioeconomic status, age, sex, ethnicity, and health characteristics of people in later life. The second section considers inequalities in wellbeing as they relate to 'at-risk' or marginalised groups of older adults. The final section focuses on inequalities in wellbeing arising from a range of policy measures and interventions directed towards older people.

The material reviewed in this chapter highlights several key findings that concern inequalities in subjective wellbeing in later life:

- Evidence about the nature and scale of inequalities in subjective wellbeing is surprisingly mixed and inconsistent in relation to such factors as age, sex, ethnicity, education, and place of residence.
- Several studies provide insights into subjective wellbeing of 'at-risk' or marginalised groups. Such studies highlight the value of considering the lived circumstances of specific populations of older adults, including older homeless people, people living in particular institutional contexts, and those who may be disadvantaged by their health.

- Some evidence highlights the impact of a range of policy measures and interventions in either increasing or decreasing wellbeing in later life. Interventions that seek to reduce health inequalities may lead to positive wellbeing outcomes when well designed and targeted appropriately at particular groups of ageing adults.

### **Figure 2.1 Inequalities in subjective wellbeing: review process**

Using a range of synonyms for subjective wellbeing and quality of life, and after removing duplicates, the database search identified 1,140 papers for title and abstract review. After considering review papers, 106 papers were ultimately subjected to full-text screening. Thirty papers met the criteria for inclusion in the review and provide the basis for this chapter.

The selected papers reflect different approaches to conceptualising and measuring subjective wellbeing. In part, this corresponds to different disciplinary and methodological traditions. While some papers have an explicit focus on subjective wellbeing, others explore wellbeing in a more implicit way, reflecting the particular risks to wellbeing that may arise for specific groups of ageing adults.

The 30 papers reviewed in this chapter fall into three broad categories. Ten papers relate to inequalities in wellbeing that are associated a range of individual characteristics, including socioeconomic status, age, sex, ethnicity, and health characteristics of people in later life. Eight papers address inequalities in wellbeing as they related to 'at-risk' or marginalised groups of older adults. The remaining twelve papers focus on inequalities in wellbeing in terms of a variety of policy measures and interventions directed towards older people.

## **Individual characteristics and subjective wellbeing**

Ten papers refer to inequalities in subjective wellbeing that are related to the individual characteristics of older adults. This encompasses empirical studies of sociodemographic and socioeconomic determinants of subjective wellbeing in later life, associations between psychosocial variables, self-perceptions, and wellbeing outcomes, and the relationship between wellbeing and health conditions. Underlining the importance of the English Longitudinal Study of Ageing (ELSA) in evidence around inequalities in later life, seven of the 10 papers in this section draw on data from this major study.

In a paper that compares determinants of socioeconomic inequalities in subjective wellbeing of people aged 50 and over in England and the United States, Jivraj and Nazroo (2014) show that poor health and low socioeconomic status significantly reduce some older adults' wellbeing. Analysis of harmonised data from ELSA and the Health and Retirement Study in the USA reveal cross-national variations in subjective wellbeing, assessed with standard measures of life satisfaction and quality of life. In both countries, lower life satisfaction scores and reduced quality of life are associated with having a disability, chronic health conditions, and low household wealth. In England, low education levels were not reflected in poorer wellbeing in later life. This

finding contrasted with the USA, where lower education was associated with poorer wellbeing, leading the authors to suggest that England's welfare system might protect people of lower socioeconomic status from reduced wellbeing in later life (Jivraj and Nazroo 2014). Within the context of a wide-ranging analysis, McMunn et al. (2014) also draw on ELSA data to report on gender differences in wellbeing of older men and women. The authors show that, on average, quality of life scores and life satisfaction scores do not substantially vary according to gender across age groups, decreasing only slightly after the age of 75 years (McMunn et al. 2014).

In relation to mental wellbeing – a core feature of subjective wellbeing – Stewart-Brown et al. (2015) seek to identify whether mental wellbeing is associated with similar socioeconomic factors as mental illness. They do this by estimating independent odds ratios of high and low mental wellbeing for a range of sociodemographic factors, including age, identified in previous research as being closely associated with mental ill health. The study uses data from the 2010 and 2011 Health Surveys for England and assesses mental wellbeing using a standard instrument – the Warwick–Edinburgh Mental Well-being Scale. In relation to age, the authors report different odds ratios for high and low mental wellbeing. The odds of low mental wellbeing were greatest in the 35-54 age group. By contrast, the odds of high mental wellbeing were greatest in the age group 55 and over, with the researchers also reporting that retired people had greater odds of high mental wellbeing than people in other categories of employment status (Stewart-Brown et al. 2015).

While older adults' material circumstances and their associated lifestyles and behaviours have the greatest influence on the association between socioeconomic status and health outcomes in later life, as shown in Chapters 3 and 4, individuals' psychosocial characteristics have a considerable influence on reported wellbeing (Ploubidis et al. 2011). In particular, analysis of ELSA data shows that perceived control – a measure that reflects individuals' sense of control over their lives and their ability to cope with hardship and manage stressful events – is closely associated with satisfaction with life in older age (Ploubidis et al. 2011). A further paper explores the effect of how people aged 50 and over judge their social status alongside a range of more objective socioeconomic factors in shaping their quality of life. Also using ELSA data, Netuveli and Bartley (2012) suggest that older adults' perceptions of their current position in the social hierarchy have a much stronger effect on quality of life scores than objective characteristics. This association occurs independently of advantageous socioeconomic circumstances, favourable life conditions, and mental health (Netuveli and Bartley 2012).

In a comparative paper, Motel-Klingebiel et al. (2009) reach beyond individual characteristics to consider the impact of different types of welfare state on the distribution of quality of life in older age across Europe. Using ELSA data for England, the researchers show that while life satisfaction of people aged 65 and over is lower in England than in comparable European countries, including Germany, Spain and Sweden, there is no difference between England and other countries in terms of absolute quality of life scores (assessed for all countries using the CASP-19 instrument). The authors argue that factors such as education, social class and gender may be less important in explaining the distribution of quality of life scores across different countries and types of welfare state. Perhaps more important is the way in which older adults' views take account of the welfare system that exists in their country of residence. In this

respect, the authors suggest that personal judgements about one's quality of life in older age may implicitly reflect key characteristics of the welfare state, such as the level of pensions or access to health and social care services (Motel-Klingebiel et al. 2009).

Two studies consider trends in subjective wellbeing of older adults over time. First, using Amartya Sen's capabilities approach and drawing on data from three waves of ELSA, Anand et al. (2015) investigate the distribution and drivers of quality of life in older age. The researchers combine data on happiness, assessed using a standard life-satisfaction measure, and 11 common daily activities (such as reading a newspaper, having a hobby or using the internet), chosen to reflect Sen's idea of 'functionings', to identify factors that are most closely associated with happiness in later life. Using this approach, happiness is closely related to the performance of a wide range of activities. This confirms the view that wellbeing in later life significantly depends on the types of daily activity undertaken by older adults. It also varies according to individual characteristics. Thus, the distribution of happiness differs according to the specific features of daily activities performed, individuals' education levels, the state of their health, and also their gender. In particular, education in the teenage years and beyond is identified as having long-lasting effects that reach into advanced older age, with more education being associated with higher life-satisfaction scores (Anand et al. 2015).

In the second study, Howel (2012), use two waves of ELSA data to interpret and evaluate the CASP-19 quality of life measure for its ability to provide a score that reflects older adults' circumstances. In this analysis, quality of life scores are lower in largely predictable ways across a range of variables. For example, while people who live alone have a mean CASP-19 score that is 1.9 points lower than those who do not live alone; the gap between people who are able to walk a quarter of a mile without difficulty and those who can do this only with difficulty is 8.0 points. A self-assessed socioeconomic variable is also considered in this paper. People who perceive their social status as being low have significantly lower quality of life scores than those who rate their social status as high; compared with the group who judge their status to be highest, the lowest group have a CASP-19 score that is on average 16.5 points lower. In this analysis, quality of life scores changed relatively little over time, but when they did change, this tended to occur in a predictable way. For example, improvements over time in health were associated with higher scores while worsening health led to lower quality of life scores (Howel 2012).

Two final papers in this section address inequalities in subjective wellbeing in relation to particular health conditions and in terms of area deprivation. Gott et al. (2006) examine predictors of the quality of life of 542 people aged 60 and over with heart failure, recruited from general practices in four areas of England. Using the Short Form-36 as a generic measure of quality of life, this study highlights a range of factors associated with poorer quality of life scores. Among this group with heart failure, older women have lower quality of life than men and people of lower socioeconomic status, measured with reference to occupational status, have lower quality of life than those of higher socioeconomic status. Quality of life in people with heart failure also declines with age, reaching its lowest level among people aged 85 and over (Gott et al. 2006).

Taking a different approach, Bellis et al. (2012) draw on a cross-sectional survey involving 15,228 people aged 18 and over to consider variation in risk and protective factors for life satisfaction and mental wellbeing according to area deprivation. In relation to later life, this analysis identifies a strong association between deprivation, assessed with reference to the Index of Multiple Deprivation, and standard measures of both life satisfaction and mental wellbeing. The proportion of participants reporting high life satisfaction varied between 37.6% of people aged 65 and over in the most affluent third of areas and just 19.7% of those aged 40-54 years in the most deprived third. Further analyses identified being aged 55 and over as being protective against low life-satisfaction in people living in the most deprived third of areas. In relation to mental wellbeing, people aged 65 and over in the most deprived areas are identified as having much higher wellbeing scores than people aged 40-54 years. With regard to deprived areas, these findings lead the authors to conclude that since low life-satisfaction appears to decrease with age while high mental wellbeing increases with age, policy makers interested in enhancing wellbeing might wish to focus their attention on younger adults (Bellis et al. 2012).

## Wellbeing of 'at-risk' and marginalised groups

Eight papers in this chapter address aspects of the subjective wellbeing of marginalised groups, identified in the scientific literature, and also in terms of policy and practice, as being at risk of poor outcomes in later life. In some of these papers, inequalities in subjective wellbeing are an implicit rather than explicit focus of the analysis. Underpinning such papers is an assumption that particular personal characteristics, including, for example, low socioeconomic status and vulnerability on the grounds of high health and social care needs, are likely to be associated with lower levels of subjective wellbeing than in the general population of older adults in England.

One group that is potentially vulnerable to lower subjective wellbeing are informal carers. Thomas et al. (2015) draw on findings from the 2011-12 English General Practice Patient Survey, involving 195,364 informal carers of all ages, to report on the differences in health-related quality of life of carers and non-carers. In terms of age, older informal carers generally report poorer quality of life (assessed using the EuroQual-5D measure) than their non-caring age peers. However, this pattern is different for people in the oldest age group. Among informal carers aged 85 and over, health-related quality of life scores are higher than for non-carers of the same age. When stratified by age, regardless of how many hours of care they provide, older informal carers are more likely than non-carers to report pain, depression and anxiety. Perhaps surprisingly, carers aged 85 and over also report better mobility and self-care ability than non-carers of the same age. When considering differences in quality of life scores among carers by age, Thomas et al. (2015) report that informal carers aged 85 and over have 44 fewer days of full health per year compared with the 55 to 64-year-old reference group.

The equivocal nature of evidence relating to subjective wellbeing in later life is also reflected in research on people who are ageing with sensory impairments. While one might anticipate that poor vision in later life is associated with lower subjective wellbeing scores than apply to people with good vision, this is not supported by evidence from research. Using data from ELSA, Zimdars et al. (2012) find that 'reported poor vision appears not to be singled out as a crucial factor triggering depression and low well-being' (Zimdars et al. 2012, p.29).

Holt et al. (2012) suggest that older homeless men may require additional support in order to achieve a reasonable standard of wellbeing. Having interviewed ten older, long-term homeless men living in hostels, the researchers identify as one of three key themes running through participants' narratives a 'contingent sense of wellbeing in the hostel'. While older homeless men report managing hostel life reasonably well, their ability to manage is affected by a range of features of hostel life. This includes issues linked to maintaining their personal safety and security in the hostel, the unpredictability of the hostel as a type of living environment, and the challenge of maintaining wellbeing given the monotony of daily life in such a regulated setting. Core to improving wellbeing of older homeless men, according to the authors, is for those who work with homeless people to address inequities of power within the hostel environment, to support older homeless men to maintain continuity in self-identity and to facilitate a sense of connectedness between this population group and others in society (Holt et al. 2012).

In another qualitative paper that explores the circumstances of a highly marginalised and 'at risk' population, the focus is on the wellbeing of older people who are patients in a high security hospital in England (Yorston and Taylor 2009). Supplementing interviews with 12 patients aged 60 and over who were resident in Broadmoor Hospital were interviews with 21 members of staff. Older participants ranged in age from 60-88 years. 'Quality of life' emerged as one of four key themes from analysis of participants' accounts. The multidimensional nature of this theme is reflected in the range of topics identified in the analysis. For older patients in this particular setting, quality of life encompasses such topics as peace and quiet, the importance of maintaining good relationships with hospital staff, family contacts, access to leisure and learning opportunities, being able to leave the hospital ward, and restrictions associated with a growing age mix of wards (Yorston and Taylor 2009).

Such qualitative studies point to differences between the components of subjective wellbeing in later life for older people as a whole and those who are more marginalised by virtue of their personal characteristics or health status. In this respect, one might anticipate that older people who are ageing with an HIV infection may also be at disproportionate risk of low subjective wellbeing. As part of survey involving 761 people who attended five HIV clinics, a subgroup of 93 people aged 50 and over responded to questions relating to aspects of their health condition and the quality of their lives (Sherr et al. 2009). Using the Euroqol-5D as a measure of quality of life, the researchers could identify no significant difference in quality of life scores between older and younger people with HIV (Sherr et al. 2009). In this study, no comparisons are made with equivalent quality of life scores in a general population of older adults. As a result, it is not possible to identify whether people ageing with HIV infection have lower subjective wellbeing than other groups in later life.

People who are identified as being frail on the basis of multiple health conditions and difficulty performing activities of daily living may also experience poorer wellbeing than the general population of older adults. In a study that examines the impact of financial resources on subjective wellbeing of people aged 65-79 years who participated in ELSA, Hubbard et al. (2014) show that frailty is significantly negatively correlated with subjective wellbeing. This association remains when a range of sociodemographic and health-related factors are taken into consideration. When financial resources are included in the analysis, the evidence points

to better subjective wellbeing of people with more assets and higher incomes. The authors conclude that access to financial resources may act as a 'partial buffer against the detrimental psychological effects of frailty' (Hubbard et al. 2014, p.367).

Two final papers in this section consider subjective wellbeing in later life in relation to obesity. In the first, Jackson et al. (2014) consider the psychological wellbeing impacts of weight loss for older people who are overweight and obese. Drawing on data from 1,979 participants of ELSA who were overweight or obese at initial point of interview and lost weight over the following four years, the authors examine changes in life satisfaction and depressive symptom scores. While weight loss is associated with improvements in physical health, as reflected in a reduction in cardio-metabolic risk, no psychological benefits are identified. On the contrary, weight loss is associated with a non-significant increase in low wellbeing and a significant increase in depressed mood. Also using ELSA data, Jackson et al. (2015) went on to explore associations between obesity and measures of psychological wellbeing and then to investigate whether the adverse relationship between these phenomena can be explained by weight discrimination. Obesity is associated with lower quality of life, life satisfaction, and depressive symptoms. Mediation analyses suggest that a substantial proportion (40%) of the association between obesity and psychological wellbeing can be explained by perceived weight discrimination. This leads the authors to conclude that the psychological burden of obesity in later life might be reduced by measures aimed at tackling the stigma of overweight in society (Jackson et al. 2015).

## Policy measures and interventions

The largest category of papers in this chapter (n=12) addresses subjective wellbeing in relation to the broader policy context or with reference to a wide range of interventions targeted at populations at risk of poor outcomes in later life.

At the societal level, one paper explores the impact of the economic recession on older adults' wellbeing and quality of life and provides a framework for understanding some of the connections between policy and practice and unequal outcomes in later life (Fenge et al. 2012). Drawing on a qualitative study of 28 people aged 65 and over living in the South of England belonging to the 'asset rich-income poor' category (i.e. home owners, not in receipt of means-tested benefits, and not required to complete a tax return), the authors argue that the recession has had a generally negative impact on older adults' quality of life, assessed in terms of participants' perceptions of their material, mental and social wellbeing. People who display resilience in terms of money management and budgeting skills acquired over the life course fare rather better in terms of wellbeing outcomes than those who lacked such skills (Fenge et al. 2012).

At a community level, four papers consider the impact on subjective wellbeing in later life of a range of welfare advice interventions. A particular focus of these papers is on whether particular types of welfare benefits advice, typically framed within attempts to improve the health of potentially vulnerable older adults, also lead to positive wellbeing outcomes. For example, Campbell et al. (2007) report on a longitudinal postal survey of people aged 60 and over who were referred to a specialist welfare benefits advice service between 2003 and 2004.

Participants completing the original survey were followed up five months later, giving the research team the opportunity to track improvements in health and wellbeing over a relatively short period of time. Seventy-seven of the 233 people approached to take part returned the original survey, and of these 52 completed the follow-up survey. While the general health of these 52 participants showed no change over the five-month period, their wellbeing scores, measured with the General Health Questionnaire-12, increased significantly (Campbell et al. 2007).

Similar evidence emerges from a randomised controlled trial of welfare rights advice accessed through four general practices in Newcastle-upon-Tyne (Moffatt et al. 2006). This non-clinical intervention was framed within the context of attempts to reduce health inequalities in later life. Of 25 participants aged 60 and over recruited to the intervention, 14 received a financial gain as a result of the advice provided, with the median gain for beneficiaries being £57 per week. Arising from the improvement in their personal financial circumstances, most participants could identify benefits in terms of their mental wellbeing, not least through increased social participation (Moffatt et al. 2006). In a further analysis of these data, Moffatt and Scambler (2008) point to the role played by increased financial security in alleviating older adults' risks of social exclusion. Key to improving quality of life as a result of this particular intervention is the increased affordability of necessities of daily life, the enhanced capacity to respond to emergency situations and lower levels of perceived financial strain (Moffatt and Scambler 2008).

The fourth paper to examine the impact of welfare advice interventions considers the impact of targeted welfare rights advice, reporting on an empirical study conducted with ethnic minority older people in Newcastle-upon-Tyne (Moffatt and Mackintosh 2009). One-to-one interviews with 22 South Asian men and women aged 50-81 years reveal a low knowledge of means-tested state benefit entitlements. As in the earlier study, a range of positive impacts arise from enhanced access to benefit entitlements as a result of receipt of appropriate welfare rights advice. Participants report improved quality of life, less stress, and more independence. Such benefits also extend to informal carers of older people whose financial circumstances improved as a result of the intervention. The authors conclude that income and health inequalities in later life can be ameliorated by the provision to potentially marginalised groups of welfare rights advice that is culturally appropriate and delivered using language that is easily understood by the target population (Moffatt and Mackintosh 2009).

Other interventions are orientated towards improving wellbeing of older adults belonging to populations of older adults regarded as being under-served or particularly disadvantaged. In this context, Lovell et al. (2014) report on an exploratory randomised trial conducted in four disadvantaged communities in the north west of England and involving the development and evaluation of a culturally sensitive wellbeing intervention aimed at primary care patients of all ages belonging to ethnic minority groups and, separately, to people aged 50 and over. The intervention sought to improve patient wellbeing by reducing anxiety and depression in the target population. Notwithstanding a limited sample size caused by recruitment challenges, analysis points to improved wellbeing in the older intervention group ( $n=23$ ) compared with patients receiving usual care ( $n=14$ ), suggesting the value of a new substantive trial design to test the intervention with a larger population (Lovell et al. 2014).

Also falling into the group of papers that explore different types of interventions in terms of wellbeing impacts is a qualitative investigation of the quality of life impacts of a 'Men in Sheds' pilot programme (Milligan et al. 2015). Drawing on data collected in three sites spread across England, analysis highlights the positive benefits for the promotion and maintenance of men's health and wellbeing that arise from their participation in activities located in a space created and designed for older men. Key to supporting wellbeing of older men is the role that sheds play as sites within which men can perform and reaffirm their masculinity (Milligan et al. 2015).

Two papers focus on how different aspects of mobility impact on wellbeing in later life. First, Musselwhite and Haddad (2010) report on a qualitative study of mobility, accessibility and quality of life, involving 57 people aged 65 and over who participated in either focus group or individual interviews or who completed a diary exercise. While the paper emphasises the importance of driving as a means of accessing essential services, it goes on to connect mobility to core features of individuals' perceived quality of life. Alongside other factors, mobility encompasses older adults' wish to guarantee their independence, be socially included and in control of their lives, and maintain their social status. As a result, giving up driving is associated with a reduced quality of life (Musselwhite and Haddad, 2010). Second, and more exploratory in its orientation, is a qualitative study that examines connections between social tourism – the provision of subsidised leisure trips for people who are economically disadvantaged – and wellbeing in later life (Morgan et al. 2015). The potential of social tourism to improve wellbeing arises from older people's desire to escape from, and enjoy respite from, daily routines; to make new social connections; to reminisce; and to renegotiate self-identity after the death of a spouse. Alongside such potential benefits arising from this type of leisure activity, the authors concede that wellbeing benefits may be moderated by anxieties connected to planning and preparing for a trip (Morgan et al. 2015).

The final three papers in this section examine wellbeing outcomes in relation to specific policy measures. First, Gilbertson et al. (2006) draw on qualitative interviews with people living in 49 households in five major English cities who had received home energy improvements as part of the Warm Front scheme. This particular scheme, replaced in 2013 by the Affordable Warmth scheme, was aimed at low-income households, with a view to reducing fuel poverty, itself a major influence on inequalities in health in later life. Alongside a range of positive impacts associated with improvements in the warmth and comfort of their homes, research participants report improved mental health and emotional wellbeing. This could in part be associated by participants with improved family relations, increased privacy, and better quality of social interaction – factors that are core to wellbeing as people age (Gilbertson et al. 2006).

Second, Moran et al. (2013) address older adults' experiences of cash-for-care schemes, reporting on evidence from Individual Budget pilot projects between 2005 and 2007. Analysis is underpinned by quantitative data on a range of outcome measures collected in interviews with 263 people who participated in a randomised controlled trial, and by qualitative data arising from semi-structured interviews with 40 older recipients of Individual Budgets. While a range of benefits are associated with receipt of cash-for-care payments, including increased choice and control, greater continuity of care worker, and the possibility of financial compensation of family carers for their caring activities, evidence also suggests a range of less positive outcomes of the scheme. Older people in receipt of Individual Budgets have higher levels of mental ill

health and lower levels of wellbeing than people in the control group. In particular, managing budgets and organising their own support leads to anxieties that, the authors suggest, might only be reduced by improved access to help and advice in planning and managing Individual Budgets (Moran et al. 2013).

Third, a qualitative study undertaken by Jones et al. (2013) focuses on the wellbeing impacts arising from concessionary public transport in London. In addition to individual, pair and group interviews with young people aged 12-18 years, 46 interviews were conducted with people aged 60 and over. Data analysis suggests that concessionary travel promotes feelings of social inclusion, increasing older adults' sense of belonging to the city. For older participants, wellbeing can be threatened by particular features of bus travel. In particular, negotiating access to particular spaces on the bus requires older people to come to terms with the personal challenge of acknowledging public perceptions of their need or frailty (Jones et al. 2013).

## Gaps and looking ahead

This chapter has reviewed 30 papers that focus in a variety of ways on inequalities in subjective wellbeing in later life. While there are overlaps across the papers, the evidence relating to inequalities in wellbeing is rather mixed. At least some of the inconsistency in findings arises from differences in the conceptualisation and operationalisation of subjective wellbeing. Terms such as life satisfaction, happiness, quality of life and wellbeing are seldom well defined and tend to be used interchangeably. Against this background a number of gaps in the evidence can be identified that might be addressed in future studies.

In relation to the quality and quantity of evidence, there are notably fewer papers that consider inequalities in subjective wellbeing than there are in the related area of physical and mental health.

First, there appears to be a gap in relation to an explicit focus on fact that a host of characteristics and circumstances lead to inequality in subjective wellbeing in later life. While inequalities in physical and mental health and in (healthy) life expectancy are widely understood and reported in terms of a range of approaches and indicators (as reported in Chapters 3 and 4), this does not seem to be the case when considering evidence around wellbeing. Many of the papers reviewed here have explored wellbeing and associated outcomes, such as quality of life, but they have only addressed inequalities in an implicit way. A stronger focus on the nature and scale of inequalities in subjective wellbeing might assist in designing policies for ageing societies and in the targeting of groups identified as being at greatest risk of low wellbeing in later life. Longitudinal and cohort studies, such as ELSA, provide an excellent foundation for further analysis of unequal subjective wellbeing, including of wellbeing trends over time.

Second, there is a gap in evidence around inequalities in subjective wellbeing across an increasingly diverse older population. While this chapter reports on the circumstances of a range of groups, including informal carers, people with particular health conditions and functional impairments, and people who are ageing in different environmental settings, there is a need for further evidence in relation to these populations. Moreover, other groups do not feature at all in the sources that have been reviewed. For example, we know little about the unequal distribution of subjective wellbeing according to such characteristics as household and partner

status, race and ethnicity, or sexual orientation. Intersections between sociodemographic characteristics are largely absent in the material reviewed here, raising potential opportunities for future research.

Third, several papers reviewed in this chapter consider the subjective wellbeing impacts of a range of policy measures and community-based interventions. In general, such interventions are not directed explicitly towards improving the subjective wellbeing of target populations. The focus is typically on ameliorating inequalities in health or on ensuring that socioeconomically disadvantaged older adults can maximise their incomes or improve their access to services and supports. In designing interventions, a stronger focus might be placed on the improvement of subjective wellbeing as an end in itself. Some of the evidence reported here suggests that while some interventions struggle to provide evidence of health improvements, they can point to improvements in wellbeing of groups targeted.

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# Chapter 3

## Inequalities in physical and mental health

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### Introduction

In this chapter, the focus is on inequalities in physical and mental health in later life in England. Of all the review chapters, this chapter draws on the most substantial body of evidence, with 83 papers included in our analysis (Figure 3.1).

The chapter is divided into four sections, reflecting the principal themes explored in the research evidence: inequalities in general physical and mental health of people in later life; inequalities and specific health conditions; the health of 'at risk' groups of older adults; and inequalities relating to older adults' access to and use of health-care services.

In broad terms, the evidence reviewed in this chapter highlights the following key features associated with inequalities in physical and mental health in later life:

- Health outcomes in older age are strongly linked to socioeconomic factors. In general, people of lower socioeconomic status have poorer health outcomes than those of higher socioeconomic status. This pattern occurs across a wide range of physical and mental health conditions.
- Socioeconomic status in early life, reflecting the occupation of parents or individuals' educational attainment, continues to have a strong bearing on health outcomes much later in life.
- Some of the impact of disadvantage in early life can be lessened by improvements in people's socioeconomic status as they move through the life course. Birth cohorts who are now reaching older age may also have benefited in health terms from a general rise in living standards and improved access to education in the early post-war decades.
- There is powerful evidence of an association between health outcomes and individuals' place of residence. In general, older people who live in socially disadvantaged communities have poorer physical and mental health than those who live in more advantaged communities.
- Individual characteristics, such as age, sex, ethnicity, and socioeconomic circumstances, can intersect with area of residence to contribute to especially poor health outcomes for some groups in later life.
- Older people with the greatest need for health care, especially those living in socially disadvantaged communities, do not always have access to appropriate services and treatments. Take-up of services and access to treatment is often lower amongst the most disadvantaged groups.

### **Figure 3.1 Inequalities in physical and mental health: review process**

The initial database search, using a variety of terms relating to physical and mental health, generated 4,039 papers after removal of duplicates. The title and abstract review process identified 53 review papers and 167 further papers to be subject to full-text scrutiny. Eighty-three papers were ultimately retained for analysis and form the focus of this chapter.

The 83 papers reviewed in this chapter fall into four broad categories, albeit with a number of overlaps that cut across categories. Twenty-four papers refer in some way to inequalities in relation to general physical and mental health of people in later life. A second set of papers ( $n=24$ ) draws attention to the ways in which inequalities are associated with specific health conditions. Eight papers focus on the health of particularly marginalised groups of older adults. The largest number of papers in this chapter ( $n=27$ ) address inequalities relating to older adults' access to and use of a variety of health-care services.

A fifth potential theme to emerge from the review of inequalities in physical and mental health concerned unequal outcomes in survival and/or mortality. Five papers belonged to this theme (Adams et al. 2014; Allen et al. 2016; Bellary et al. 2010; Pulte et al. 2015; Sutcliffe et al. 2007). Given the obvious overlap between mortality and life expectancy, and a wish to avoid duplication, we consider these five papers in Chapter 4.

## **General physical and mental health**

Evidence relating to inequalities in general physical and mental health in later life can be organised under three broad headings. These encompass the relationship between socioeconomic status and health outcomes, links between social inequalities and self-reported health, and aspects of frailty in older age.

### **Socioeconomic status and health**

There is a substantial and growing body of evidence relating to a variety of indicators of socioeconomic status and inequalities in health in later life. The evidence is consistent in linking lower socioeconomic status to poorer physical and mental health across a range of domains. Where international comparisons are made, patterns are broadly similar. For example, analysis of national health survey data from ten European countries, including England, demonstrates that education and income levels are associated with substantial differences in health of people aged 60-79 years. Less than good health is linked to lower levels of education and income. In England, these health differences are also evident when housing tenure is used as an indicator of socioeconomic status (Dalstra et al. 2006).

In another comparative paper that explores variations in the health status of older adults aged 55 to 64 years in England and the United States, Banks et al. (2006) draw on representative data from the 2002 wave of the English Longitudinal Study of Ageing (ELSA) to show that self-reported disease is closely associated with socioeconomic status. Older adults with low socioeconomic status are more likely to report having a range of common conditions than

those of higher status. Using education and income as indicators of socioeconomic status, the authors report the greatest disparities between people with low and high incomes and with low and high levels of education in a range of common conditions, such as diabetes, hypertension, heart disease, myocardial infarction, stroke, chronic lung diseases and cancer (Banks et al. 2006).

Other markers of socioeconomic status point to similar health inequalities. For example, Syddall et al. (2009) use data from the Hertfordshire Cohort Study to demonstrate that the non-availability of a car in the household and not owning one's home are associated with lower grip strength in men and women aged 59-73 years. Weber's (2016) analysis of ELSA data shows that men and women with higher education and a history of non-manual employment have better lower body function, measured in terms of walking speed, than their counterparts who are less well educated and have worked in manual occupations. Higher education alone offers an advantage in walking speed, and its associated benefits for individual mobility and potential for living independently in later life, of up to 15 years for men and 10 years for women (Weber 2016).

Similar findings emerge when wealth is considered as an indicator of socioeconomic status. In their analysis of three waves of ELSA data, Zaninotto et al. (2013) highlight a significant gap in walking speed between people in the richest and poorest wealth quintiles. A person aged 71 in the richest wealth quintile has a mean walking speed of 0.91 m/s compared with a figure of 0.75 m/s for someone in the poorest wealth quintile. These differences persist over time and into advanced old age, leading the authors to suggest a need to reduce socioeconomic inequalities across all stages of the life course in order to improve physical functioning in later life (Zaninotto et al. 2013).

Wealth also emerges as a key factor in the unequal distribution of physical disability in the older population of England. Also using ELSA data, Gjonca et al. (2009) compare the association between three indicators of socioeconomic position and different levels of physical disability. People with the highest levels of wealth and education and who belong to the higher social classes have the lowest rates of disability. The social gradient is greater for men than for women and for those in the younger rather than the oldest age groups. The association between wealth and disability is stronger than that for education and social class (Gjonca et al. 2009).

The socioeconomic status health gradient persists when biological rather than self-reported measures are considered. This suggests that health inequalities are not simply a reflection of differences in the recognition and reporting of health conditions according to a person's socioeconomic status (Banks et al. 2006). In a follow-up paper, which also considers evidence relating to people older than 64 years, Banks et al. (2010) point to the absence of an income gradient for people aged 70 to 80 years in England; higher incomes are not associated with better health for this age group. The authors suggest that this is likely to be explained by the impact of England's system of income benefits in later life. There is an equalisation of retirement incomes of people in advanced old age arising from the impact of flat-rate pensions and other benefits. This occurs independently of past income and, therefore, past health during working life (Banks et al. 2010).

Individuals' material circumstances and their associated lifestyles and behaviours, rather than psychosocial mechanisms, have the most prominent role in explaining the connection between socioeconomic position and health in later life (Ploubidis et al. 2011). This finding is also borne out when wealth is used as an indicator of socioeconomic status. Using ELSA data to look at the relationship between five common health conditions and wealth, Steel et al. (2014) show that people with the least wealth have a much higher chance of reporting angina, diabetes, depression, osteoarthritis and cataracts than those with the most wealth. The odds ratios range from 4.2 for diabetes to 15.1 for osteoarthritis. Importantly, the prevalence of diagnosis and treatment of the five conditions across social groups does not match the prevalence of ill health; that is, the least wealthy people aged 50 and over are less likely to receive a diagnosis of, or treatment for, their condition than the most wealthy (Steel et al. 2014).

The influence of socioeconomic factors on unequal health outcomes in later life is broadly consistent over time. A person's early-life socioeconomic status continues to shape their physical health in older age. Tampubolon (2015) explores the influence of childhood circumstances on health in later life using data from the 2006 wave of ELSA. To address issues relating to the recall of material conditions during childhood, he also draws on life history information collected retrospectively from ELSA participants. Material poverty in childhood is associated with worse health in older age, reflected in lower walking speed, poorer memory, and a higher incidence of depression (Tampubolon 2015).

The influence of early-life socioeconomic factors is the focus of a parallel study, also using ELSA data. Examining the health of people aged 50-64, 65-74 and 75 and above, Ploubidis et al. (2014) assess life-course influences on biomarkers of health. While the influence on health of early-life socioeconomic position, measured by father's occupational class, remains powerful, effects vary across age groups. Early-life factors are more relevant in explaining unequal health outcomes for people aged 75 and over. For people aged 50-64 years, current rather than childhood socioeconomic position is more important, pointing to the potential influence of social change processes, such as better access to education and rising living standards, on health outcomes for younger cohorts of older people (Ploubidis et al. 2014).

While the evidence suggests that people belonging to less advantaged socioeconomic groups tend to have poorer health in later life, social change processes can influence the degree to which successive cohorts of older people are affected by a range of health conditions. This is borne out in a study of social mobility and health over time. Using self-reports and nurse measures of 16 health indicators, collected from people aged 65 and above in the representative Health Survey for England between 1992 and 2007, Martin et al. (2012) suggest that rising education levels and an increase in non-manual social class membership are associated, amongst other outcomes, with declines in smoking and in experiencing difficulties completing activities of daily living. While worse trends for hearing, completing activities of daily living and mobility functions are experienced by people with lower levels of education or of manual social class, the opposite trend applies to vision, where those who are more advantaged experience a worse trend. Such findings, the authors suggest, emphasise the ambiguity of trends in health and functioning in later life. This highlights the need to understand better the influence of particular social change processes, such as long-term changes in social class composition, on specific aspects of health and functioning (Martin et al. 2012).

The influence of social mobility patterns on health outcomes can also be explored using longitudinal rather than cross-sectional data, and using biological markers rather than reported measures of health. Drawing on ELSA data collected from people aged 50 and over, Na-Ek and Demakakos (2016) explore the association between social mobility across the life course and a range of markers that predict the incidence of cardiovascular disease in later life. They conclude that upward social mobility, measured in terms of a higher socioeconomic position at age 50 than during childhood, partially reverses the negative effect of social disadvantage during childhood on inflammatory markers in later life that are closely associated with cardiovascular disease (Na-Ek and Demakakos 2016).

Much of the recent evidence about health inequalities draws on data from longitudinal studies to show changing patterns over time and over the life course. For example, in assessing the extent to which wealth inequalities continue to influence inequalities in health in later life, McMunn et al. (2009) use data from two waves of the English Longitudinal Study of Ageing (ELSA) to examine the degree to which health inequalities decrease with increasing age. Since people who are disadvantaged in socioeconomic terms tend to die at a younger age than people who are more advantaged, one might expect this 'survival effect' to result in a reduction in socioeconomic inequalities in health in later life. The analysis by McMunn et al. (2009) of a sample of people aged 50 and over who reported good health, no functional impairment, or no heart disease when first interviewed, shows different patterns two years later depending on the particular health outcome being assessed. In terms of the onset of functional impairment, wealth inequalities, measured by an individual's housing, financial and business assets, remain constant with age. However, such inequalities decline with age in relation to the onset of heart disease and the self-reporting of poor health. When examining mortality patterns, the authors suggest that differences between more and less socioeconomically advantaged people is a factor that contributes to a decrease in wealth inequalities with age only in the oldest age groups (i.e. those aged 80 and over) (McMunn et al. 2009).

Another important source of information about changing health trajectories over time and their relation to indicators of socioeconomic status is the Whitehall II cohort study of 10,308 British civil servants aged 35-55, interviewed initially in 1985 and followed up at regular intervals thereafter. Using data from nine waves of this study, Howden-Chapman et al. (2011) explore the effect of housing, as an indicator of socioeconomic status, on older people's mental health. They demonstrate that poorer mental health is more common among older people who rent rather than own their homes, but that differences between renters and home owners diminish with age. People who struggle to pay household bills or had problems with their housing when first interviewed have worse mental health than those who have no such difficulties, with the difference between these groups increasing over time. Housing quality and the ability to pay household bills becomes more salient in explaining older people's mental health status, highlighting a need to consider inequalities in housing and ageing adults' ability to meet their housing costs in order to improve mental health in later life (Howden-Chapman et al. 2011).

Alongside standard indicators of socioeconomic status, such as income, wealth and social class, more recent evidence shows the additional impact of subjective social status on changes in health over time (Demakakos et al. 2008; McGovern and Nazroo 2015). In a comprehensive study of a wide range of physical and mental health measures of people aged 52 and over who

participated in ELSA, Demakakos et al. (2008) show that subjective social status is positively related to such outcomes as self-rated health, depression and longstanding illness in both men and women. People who regard their social status to be high have better health outcomes than those who perceive their status to be low. In part, an approach that considers how people view their own social status can capture the influence on health of individual lifestyle characteristics. Using ELSA data to chart change over time, McGovern and Nazroo (2015) demonstrate not only that health inequalities persist into retirement, but also that the direct effect of occupation on health in later life is accompanied by a major indirect effect on older people's health of personal wealth and lifestyle. Subjective social status can be viewed as a useful correlate of health in later life, since it may reflect a person's sense of life-time achievement and achieved social status (Demakakos et al. 2008).

Other factors linked to better health and functioning and socioeconomic status in later life include dietary patterns. This is the focus of a paper which examines the relationship between three indicators of socioeconomic status (education, occupational class and area deprivation) and dietary patterns of participants in the Newcastle 85+ Study (Granic et al. 2015). Analysis identifies two less healthy dietary patterns, labelled 'High Red Meat' and 'High Butter', and a more healthy 'Low Meat' dietary pattern that are related to socioeconomic status and measures of physical and mental health and functional status. People aged 85 and over who follow a 'Low Meat' diet are more likely to be advantaged in terms of their educational background, occupational class and residence in more affluent areas and to have lower levels of disability, cognitive impairment and depression than people who adhere to other dietary patterns (Granic et al. 2015).

## Subjective health

Evidence points to a close correlation between objective and subjective measures of health. People who report their health as being less than good are more likely to have poor health when assessed by various measures of disease. This relationship is confirmed by analysis of self-reported health of participants in the Whitehall II study of 10,308 men and women aged 35-55 at first interview in 1985 who were subsequently followed up at various intervals. Participants belonging to lower civil service grades experience a more rapid deterioration of physical health and age faster than those belonging to higher grades (Chandola et al. 2007). At age 70 years, men or women in a high-grade position have on average a physical health status that is equivalent to that of a person aged around 62 years who has held a low-grade position. While mental health improves with age over time, people belonging to the lower grades experience a slower improvement than those from a higher grade (Chandola et al. 2007).

Similar findings emerge from a cross-sectional study of people aged 39-79 years in Norfolk, where the prevalence of poor or moderate self-rated health of men and women under the age of 50 years in manual social classes is equivalent to that of men and women aged over 70 years in non-manual classes. The strong social gradient in self-rated health exists independently of education and significant health-related behaviours, such as smoking, alcohol consumption and physical activity (McFadden et al. 2008a). For women, good self-rated health in later life appears to be linked to experiences of labour-market activity. Using ELSA data, Stone et al. (2015) show that women who engage in periods of full-time work before and after time spent focusing on family life tend to have the best health outcomes in later life.

Self-perceived health has been shown to vary across regions, and to parallel differences in life expectancy. In the MRC Cognitive Function and Ageing Study, involving 13,009 people aged 65 years and over recruited in five locations, participants from Newcastle-upon-Tyne score lower in terms of self-perceived health, even when controlling for level of functional impairment (Matthews et al. 2006). They also have a shorter life expectancy than their age peers, for example, from Oxford and Cambridgeshire.

## Frailty

In considering inequalities in general physical and mental health in later life, three papers explore questions relating to frailty. Described as a 'multi-dimensional geriatric syndrome' (Syddall et al. 2010), frailty in older age is typically associated with a heightened risk of disability, falls, admission to hospital and mortality. Analysis of ELSA data, drawing on a frailty index encompassing 58 potential indicators, shows a close relationship to socioeconomic status, based on a measure of wealth and level of neighbourhood deprivation (Lang, I.A. et al. 2009). Older people who live in socially disadvantaged neighbourhoods and who have low wealth are significantly more likely to be frail than those who live in more advantaged neighbourhoods and have high wealth. In the Hertfordshire Cohort Study, frailty amongst men aged 64-74 years is associated with older age, and socioeconomic characteristics such as lower educational level, not owning one's home, and reduced availability of a car in the household. For women, not owning one's home is linked to heightened odds of frailty. However, most of these associations become non-significant when other co-existing health conditions are taken into account, suggesting that inequalities in frailty are mediated by co-morbidity (Syddall et al. 2010).

When exploring differences in frailty across age cohorts, using five waves of ELSA data (2002-2010), Marshall et al. (2015) suggest that frailty levels are higher in more recent cohorts (people aged 50-69 years in 2002) than in older birth cohorts (those aged 70 and over in 2002). Especially noteworthy in this analysis are unequal outcomes over time that are associated with differences in wealth. For the wealthiest groups, there is relatively little change in trajectories of frailty over time, suggesting little difference between younger and older age cohorts. By contrast, substantial cohort differences exist in the least wealthy group, leading the authors to the pessimistic view that poorer older people are spending longer periods of later life in a frail state than had previously been the case (Marshall et al. 2015).

## Specific health conditions

This section describes 24 papers identified in our search that address inequalities relating to specific physical and mental health conditions in people aged 50 and over. In addition to a focus on socioeconomic factors, papers also explore inequalities linked to sociodemographic characteristics such as age, gender, and ethnicity.

### Diseases of the circulatory system

Three papers draw on a community sample of people aged 39-79 years in Norfolk to examine the incidence of diseases of the circulatory system in men and women. In their examination of factors associated with stroke, McFadden et al. (2009) show that the incidence of stroke was higher for both men and women of lower, compared with higher, social class even when

accounting for other lifestyle and psychosocial risk factors. A similar pattern is found when examining the association between occupational social class and a range of modifiable cardiovascular risk factors (Myint et al. 2006) and, subsequently, the incidence of cardiovascular disease in people aged 65 and over, suggesting that low social class continues to be a risk factor for cardiovascular disease after the age of 65 years (McFadden et al. 2008b).

This finding is further supported by analysis of data from the Whitehall II study. Trudel et al. (2016) assess the association between aortic stiffness, as a predictor of cardiovascular disease, and a range of socioeconomic factors, across two waves of the cohort study. Increased aortic stiffness over a five-year time period is higher among study participants who had a lower employment grade, lower household income, and lower education, after adjusting the analysis for a variety of other risk factors for cardiovascular disease (Trudel et al. 2016). Tabassum et al. (2010) use ELSA data to add a further dimension to the examination of risk factors associated with coronary heart disease by taking into account regional deprivation and age. For people aged over 65 years, regional deprivation is positively associated with key risk factors, including higher body mass index, raised waist–hip ratio, and higher systolic blood pressure. These associations occur independently of individual-level social position and health behaviours. The fact that no association between risk factors and regional deprivation is found among people aged 52–65 years leads the authors to suggest that region of residence may be more important for the cardiovascular health of older people than is the case for people in late middle age (Tabassum et al. 2010).

## Diseases of the musculoskeletal system

In a study of the onset of disabling pain, using data collected from people aged 50 and over participating in the North Staffordshire Osteoarthritis Project, Jordan et al. (2008) examine the influence of both individual and socio-spatial predictors of pain. Significant predictors associated with the onset of pain interference during the three years between initial data collection and follow-up include perceived financial strain – the sense that one's income is inadequate to meet personal needs – and local area deprivation status. The fact that residence in a socially disadvantaged neighbourhood is associated with an increased likelihood that one will experience disabling pain leads the authors to point to the need to consider area deprivation when seeking to develop policies aimed at preventing conditions (Jordan et al. 2008).

Exploring life-course socioeconomic position and disabling pain in adults aged 50 and over, and using the same North Staffordshire study, Lacey et al. (2013) show that inequalities in childhood education and in occupational status are strongly associated with pain interference in later life. Compared with people with a consistently high socioeconomic status across the life course, based on the age at which they left school and the type of job they had done for the longest during working life, those with a consistently low socioeconomic status are more than twice as likely to report disabling pain in later life. The North Staffordshire Osteoarthritis Project has also been used to explore links between socioeconomic status and gout in later life. In this analysis, Hayward et al. (2013) find no connection between seeking treatment for gout and measures of area deprivation or individuals' occupation and education. However, the authors do find gout to be associated with reported income adequacy. In a different study of people aged 50 and over conducted in North Staffordshire, lower socioeconomic status,

being female and being aged 75 years or over are associated with a heightened occurrence of symptomatic midfoot osteoarthritis (Thomas et al. 2015).

## Mental and behavioural disorders

Several studies examine inequalities relating to mood disorders, primarily depression. Marshall et al. (2014) use ELSA data to explore the association between neighbourhood characteristics and depressive symptoms in people aged 50 and over. They show that poorer people, regardless of whether they live in advantaged or disadvantaged neighbourhoods, are at most risk of depression. People in the richest quintiles of individual wealth are half as likely to experience depression compared with those in the poorest wealth quintiles. However, alongside such individual characteristics, there is also a clear association between neighbourhood characteristics and depressive symptoms. In this analysis, older people who live in neighbourhoods with a greater mix of house prices have a lower risk of depression than those who live in neighbourhoods with more equal house prices. Marshall et al. (2014) use these findings to lend weight to policy measures aimed at promoting a greater mix of housing types across neighbourhoods.

Also drawing on ELSA data, Montgomery et al. (2007) seek to examine whether favourable childhood conditions, as measured by taller adult stature, are associated with a decreased risk of depression in later life. Despite confirming the nature of this association for people aged 50 and over who are living without financial disadvantage, favourable childhood conditions do not protect those who experienced financial disadvantage in later life from the risk of depression (Montgomery et al. 2007).

In their analysis of Whitehall II Study data, Virtanen et al. (2015) explore the impact of adversity during the mid-life phase on depressive symptoms in later life. Different indicators of socioeconomic adversity (low occupational position and low standard of living) and psychosocial adversity (high job strain and a low number of close personal relationships) are associated with a heightened risk of depressive symptoms in retirement. In a different study, Williams et al. (2015) explore the prevalence of depressive symptoms for people aged 58-88 years belonging to three major ethnic groups. Using data from a community-based cohort study in north-west London, the prevalence of depression is shown to be 9.7% for White Europeans, 15.5% for South Asian people, and 17.7% for Black Caribbean people. For South Asian people, depressive symptoms are closely related to aspects of physical health, while for Black Caribbean people heightened risk of depression is largely explained by participants' experience of socioeconomic disadvantage (Williams et al. 2015).

Two papers consider inequalities relating to the prevalence of dementia in later life. Adelman et al. (2011) compare the prevalence of dementia in African-Caribbean and White UK-born people aged 60 and above. Equal numbers of participants belonging to each ethnic group were recruited from general practices in North London. In this study, African-Caribbean participants have a significantly higher prevalence of dementia (9.6%) than White UK-born participants (6.9%) after adjusting for age and socioeconomic status (Adelman et al. 2011). Socio-spatial features of cognitive impairment and dementia are explored by Wu et al. (2015) with data from the Cognitive Function and Ageing Study. Reaching beyond traditional measures of area deprivation, this analysis also assesses such features of the community environment as land use mix, the

natural environment and crime. After accounting for individual factors, the research team find no association between area deprivation or crime and increased risk of dementia and cognitive impairment. However, residence in areas with a high land use mix is associated with a reduced chance of dementia of around 60%. There is also a heightened risk of dementia and cognitive impairment among people living in areas belonging to the highest quartile of natural environment availability. As the authors suggest, these findings point to the need to focus on the ways in which features of the environment influence cognitive outcomes in later life (Wu et al. 2015).

## Sensory impairment

A small number of studies relate indicators of socioeconomic status to vision loss and hearing difficulties. In an initial analysis, Zimdars et al. (2012) consider the influence of a range of social and economic factors on self-reported visual impairment of ELSA participants. People who report impaired vision in later life are more likely to experience poor housing conditions and have low incomes (Zimdars et al. 2012). These findings serve as a baseline for analysis of changing vision over the course of older adulthood. Following the vision trajectories over an eight-year period of people aged 60 and over who participated in ELSA, Whillans et al. (2016) consider the influence of a range of sociodemographic characteristics on the progression of older adults' vision. Not only do vision trajectories vary distinctively with age, the influence of age varies according to older people's social position (measured in terms of wealth quintiles and quintiles of subjective social status). Lower levels of wealth and lower subjective social status are more strongly associated with poorer vision trajectories, even when accounting for the influence of age (Whillans et al. 2016).

In relation to hearing loss, Benova et al. (2015) use ELSA data to explore the association between socioeconomic position, self-reported hearing difficulty and subsequent health-seeking behaviours leading to acquisition and use of a hearing aid. People of higher status are less likely to report having a hearing difficulty than those of lower status. However, these differences do not translate into markedly different health-seeking behaviours (Benova et al. 2015).

## Miscellaneous conditions

A number of other papers consider inequalities as they apply to a miscellaneous range of health conditions affecting older adults. Typically, these papers relate poor health outcomes to lower socioeconomic status or community characteristics. For example, using data from participants in the Whitehall II Study who were aged 55-79 years, Al-Qaoud et al. (2011) show that the likelihood of having reduced kidney function is much greater among people who have a lower as opposed to a higher occupational grade (Al-Qaoud et al. 2011).

Tsakos et al. (2011) explore social gradients in oral health of people aged 50 and over. Regardless of the specific measure of socioeconomic position used, whether this is household wealth, education or subjective social status, not having one's natural teeth is associated with a lower socioeconomic position. People with a lower socioeconomic position also rate their oral health as worse than people with a higher socioeconomic position, pointing to a clear social gradient in older adults' oral health (Tsakos et al. 2011). In their analysis of the association between invasive pneumococcal disease and socioeconomic deprivation, Chapman et al. (2013) draw on data from the north east of England to show that, for people aged 65 and over,

the incidence of this disease increases in line with increasing levels of deprivation. This, the authors suggest, highlights the value of vaccination programmes aimed at older people living in socially deprived communities (Chapman et al. 2013).

In a study of the prevalence and sociodemographic correlates of perceived weight discrimination – reflected in such experiences as receiving poorer treatment in medical settings or being threatened or harassed on the basis of one's weight – Jackson et al. (2015) use ELSA data to show that while overall prevalence of weight discrimination is low in later life, such discrimination is more likely to be perceived by people who are younger and who are less wealthy. Examining correlates of eating disorders in older age, Ng et al. (2013) draw on the 2007 British National Psychiatric Morbidity Survey of 2,870 people aged 50 and over to show a greater prevalence of such disorders amongst younger age groups, women, and people who report having experienced a stressful life event.

## Health of 'at-risk' groups

Eight papers consider the physical and/or mental health of specific groups of older people who are regarded as being in some way 'vulnerable' or 'at risk' of poor outcomes. Largely drawing on findings from qualitative studies, the papers draw attention to unequal outcomes that can emerge for groups that may be overlooked in the major surveys that underpin much of the evidence relating to inequalities in health.

The exceptions in this section, in terms of methodological approach, are two linked papers arising from secondary analysis of baseline data collected from 2,641 people aged 65 and over in suburban London within the context of a randomised controlled trial of health risk appraisal. In the first paper, Kharicha et al. (2007) examine potential health risks associated with living alone. After adjusting for sociodemographic characteristics of age, sex, income and educational level, living alone is associated with a range of poor health outcomes, including risk of falling, functional impairment, and three chronic conditions (arthritis and/or rheumatism, glaucoma, and cataracts). The authors argue that these outcomes point to the value of targeted population screening with a focus on living alone in later life (Kharicha et al. 2007). In the second paper, attention is paid to older people at risk of social isolation (Iliffe et al. 2007). In multivariate analysis, the risk of isolation is associated with depressed mood, living alone, being male, having memory impairment and perceiving one's health as poor. In this case, the authors suggest that population screening for older adults at risk of social isolation might not be worthwhile. Instead, awareness of the risk of isolation should act as a trigger for further assessment (Iliffe et al. 2007).

Four qualitative studies explore the health of diverse groups of older adults who may be at risk of poor health outcomes. In a study connecting health, gender and social capital, Boneham and Sixsmith (2006) conducted interviews with 19 women aged 55-78 years, living in a socially disadvantaged community in the north of England. Participants' accounts demonstrate women's ability to manage their own health and that of other people in their social networks and the wider community, challenging ideas of a lack of agency on the part of socially disadvantaged groups. At times, women draw on their own lay knowledge of health matters to challenge advice from health professionals (Boneham and Sixsmith 2006).

The health-sustaining relevance of social networks also feature in Owen and Catalan's (2012) study of biographical accounts of ten HIV-positive gay men aged 50-78 years living in London. Analysis shows differences according to participants' experience of the HIV epidemic rather than age. Those who had lived through a period preceding the availability of antiretroviral therapies have gaps in their social networks arising from bereavement. This group are additionally disadvantaged by periods spent outside of the labour market as a result of illness. Younger cohorts of gay men require less support in adapting to challenges associated with being HIV positive in later life (Owen and Catalan 2012).

Contrasting with this more positive account, a novel study of older users of illicit drugs highlights the vulnerability of this group to poor mental and physical health outcomes (Beynon et al. 2009). In-depth interviews with ten people aged 54-61 years living in Merseyside who had been using drugs continuously or intermittently for at least 30 years reveal high levels of ill health. Among those interviewed, hepatitis C and depressive symptoms are common. Participants were identified as being socially isolated and often commented in interview on the death of friends who were also drug users. The authors note high levels of unmet needs among older illicit drug users aligned with low expectations of health services (Beynon et al. 2009). Concerns about meeting health and social care needs are also a notable feature of a study of 62 older men awaiting discharge from prison (Forsyth et al. 2015). In this study, prisoners indicate a high degree of anxiety associated with the uncertainties of the period following discharge. Those released into probation-approved accommodation tend to have their post-discharge health and social care needs better met than people who move into other accommodation. Forsyth et al. (2015) conclude by arguing for better release planning to meet the unmet needs of older people who are about to leave prison.

The last two papers in this section focus on groups also often overlooked in policy and practice. Halley et al. (2010) draw on a mapping exercise to explore risks facing older Irish people with dementia in England. The older Irish population typically has poorer mental and physical ill health than the general older population, and also have a higher incidence of dementia. Noting the reluctance of older Irish people to access services that are not regarded as being culturally appropriate, the paper highlights the role played by Irish third sector organisations in meeting the needs of Irish people with dementia (Halley et al. 2010).

A final group regarded as especially vulnerable in terms of physical and mental health are the oldest old. Using data from a cohort study conducted among people aged 75 and over in Cambridge, Zhao et al. (2010) examine the health of those aged 85 and over in the final year of their lives. People dying after the age of 90 years are shown to have a greater degree of functional and cognitive impairment than those dying aged 85 to 89 years. At least half of people in the 90-plus group require the greatest level of assistance with almost every activity of daily living. For people aged 85 to 89 years, such assistance is confined to shopping and laundry tasks. Despite a high level of physical and mental health impairment, around three-fifths of people aged 90 and over (60.5%) in the final year of life self-rate their health positively. The equivalent proportion for those aged 85 to 89 years is over two-thirds (67%) (Zhao et al. 2010).

# Unequal access to and/or use of health-care services

A substantial body of evidence addresses inequalities relating to older adults' access to and use of a variety of health-care services. The 27 papers in this section fall into two broad areas, with overlaps between them. Most papers ( $n=16$ ) consider unequal access to health-care treatment, based on individual characteristics (e.g. age, gender, ethnicity) or on particular physical and mental health conditions. A further set of papers ( $n=11$ ) address inequalities associated with place of residence.

## Access to health-care treatment

A number of studies point to chronological age acting as a barrier to accessing health-care treatments. Treatment can also vary according to such factors as gender and place of residence, sometimes acting in combination. For example, Bates et al. (2014) examine differences in operation rates for breast cancer in older women. Using hospital episode statistics and cancer registrations for 2007, the researchers show that the proportion of women not having surgery for operable breast cancer increases from 7-10% at ages 35-69 years to 82% for women aged 90 and above. Every additional year of age after 70 is associated with an increase of 3.1% in the proportion of women not having surgery (Bates et al. 2014).

There is parallel evidence with regard to non-metastatic prostate cancer treatment among men aged 55 and over in northern England (Fairley et al. 2009). Analysis of 21,334 diagnoses between 2000 and 2006 shows that the type of treatment received is strongly associated with age. Men aged 75 and over are much less likely to receive radical forms of treatment than those aged 55-64 years; the older group are significantly more likely to receive hormone therapy or no treatment than the younger group (Fairley et al. 2009). For both men and women in the same region of northern England, Forrest et al. (2014) show that older patients are significantly less likely than younger patients to receive treatment for lung cancer within the 31-day target period from diagnosis and the 62-day target period from urgent general practitioner referral. This finding is corroborated by analysis of factors influencing use of chemotherapy for the initial six-month treatment of lung cancer in South East England. Patel et al. (2007) show that age has a strong influence on use of chemotherapy, with treatment declining progressively with age. While the proportion of people aged 60-64 years accessing this treatment is 20.9%, the respective proportion of those aged 65-69 years is 16.6%, and of those aged 70-74 years 10.9% (Patel et al. 2007).

Inability to access coronary angiography for suspected stable angina pectoris (chest pain) is associated with a heightened risk of coronary mortality and acute coronary syndrome events. In their study of 1,375 patients admitted to six ambulatory care clinics in England, Sekhri et al. (2008) find that coronary angiography is significantly less likely to be performed in patients aged over 64 compared with those aged under 50 years. A subsequent study of patients referred from primary care to five rapid access chest pain clinics across England offers further evidence of an underutilisation of such clinics by older people (Sekhri et al. 2012).

In general practice, age has been shown to play a role in prescribing practices for people with coronary heart disease. Data from 98 general practices in East London shows that patients aged over 84 years are prescribed fewer recommended coronary heart disease drugs, such as lipid modifying drugs and beta blockers, than those aged 45-54 years (Mathur et al. 2011). In another study on the management of stroke patients admitted to English public hospitals, access to brain-imaging scans is shown to be significantly higher for patients who are younger, male, less socioeconomically deprived and have fewer comorbidities (Lazzarino et al. 2011). Differential access to health treatment according to age is also evident in relation to common mental health disorders. Using data from 7,461 people interviewed as part of the 2007 English Adult Psychiatric Morbidity Survey, Cooper et al. (2010) find that older people are less likely than younger people to have visited a general practitioner to discuss mental health issues and to receive talking therapies. Older adults are more likely to be prescribed benzodiazepines and less likely to receive evidence-based treatment for common mental disorders (Cooper et al. 2010).

Reflecting the social gradient in physical and mental health in later life, one might anticipate a large number of studies that directly relate access to treatment to individual socioeconomic status. We found relatively few studies of this type. A notable exception is a study of the impact of socioeconomic deprivation on screening for cardiovascular disease risk amongst 7,987 people aged 50-74 years registered with nine general practices in England (Lang, S.J. et al. 2016). This study shows that people who have the most to gain from attending screening, based on deprivation scores and risk of cardiovascular disease, are actually the least likely to participate in a screening programme (Lang, S.J. et al. 2016). In contrast, socioeconomic position does not significantly predict uptake of cataract surgery amongst 2,091 ELSA participants (Whillans and Nazroo 2014).

Moving beyond social gradients, some evidence suggests that domestic living arrangements may influence access to care services. In exploring characteristics of frail older people receiving community support, Sutcliffe et al. (2014) find that service users who live with an informal carer are less likely to receive formal care in the home, but more likely to have access to respite care or day care than service users who live alone. This leads the authors to argue that it is not only the sociodemographic characteristics of frail older people that shapes their access to care services, but also the availability of social support (Sutcliffe et al. 2014).

In other studies, access to health -care treatment is related to cognitive ability and/or personality traits. Examining predictors of participation in a national colorectal cancer screening programme, aimed at people aged 60-74 years, Gale et al. (2015) draw on ELSA data to show that better cognition and higher conscientiousness are associated with higher uptake of bowel cancer screening. When household wealth and health literacy are taken into account, the relationship of participation in the screening programme to cognition and conscientiousness is increased further (Gale et al. 2015). In a related analysis of ELSA data, Solmi et al. (2015) show that non-pension household wealth, partner screening status, sickness/disability and health literacy largely explains the unequal take up of bowel cancer screening between people of higher and lower socioeconomic status.

Parallel findings emerge from two other empirical studies. Von Wagner et al. (2011) identify much lower uptake of colorectal cancer screening in socially disadvantaged areas. While more women than men returned a test kit within 13 weeks of being invited to take part in screening, uptake increases with age in men but not in women; 49% of men aged 60-64 years participated, compared with 53% of men aged 65-69 years; for women the respective proportions are 57% and 56% (von Wagner et al. 2011). In a population-based omnibus survey involving interviews with 1,309 people aged 60-70 years living in England, Lo et al. (2015) establish that screening for colorectal cancer differs according to age, socioeconomic status, marital status and ethnicity. While sociodemographic differences in uptake of bowel cancer screening are generally mediated through social cognitive factors, such as knowledge, social norms and perceived barriers, this does not apply in the case of age differences. Of people aged 65-70 years, 74.3% participated in the screening programme, compared with 62.6% of those aged 60-64 years (Lo et al. 2015).

## Place of residence

In general, drawing on comparative data from England and the United States, older people in England are seen to have good access to primary care services, but such access varies significantly according to the degree of area deprivation. Reflecting the findings of many earlier studies, older adults living in socially disadvantaged areas have less access to health care than those living in more advantaged communities (Gusmano and Allin 2011). Analysing hospital episode statistics, population data and data relating to area deprivation, Asaria et al. (2016) seek to measure the economic costs arising from inequalities in healthcare use and life expectancy in England. Reflecting the steep social gradient between the most and least deprived area quintiles in inpatient hospital admissions, the authors estimate the total cost of inequality to be £4.8 billion for 2011/2012. Lifetime costs of health care are also higher in more deprived communities, even though life expectancy of men and women in such communities is lower. This leads the researchers to suggest that efforts to reduce the cost of health systems should focus on interventions to reduce inequalities and improve health of people who live in socially disadvantaged neighbourhoods (Asaria et al. 2016).

Information collected from 17,680 forms used by patients in Leeds to claim the cost of eye examinations over a two-month period in 2011 were used to identify geographical inequalities in uptake of NHS-funded eye tests (Shickle and Farragher 2015). While everyone over the age of 60 years is entitled to an NHS-funded eye examination, uptake by older people in the least deprived quintile of neighbourhoods is 71% higher than in the most deprived neighbourhoods. This pattern is repeated in a study by Day et al. (2010), which uses equity profiling methods to examine the scale of glaucoma inequity in a community in northern England. Geographical information systems software was used to show a mismatch between areas of social deprivation and the location of optometry services. Residence in disadvantaged communities is associated with late presentation for treatment, a factor linked especially to older age. The mean age of late presenters is 76.4 years, compared with 72.4 years for early presenters (Day et al. 2010).

Geographical information systems software has also been used to consider area-based inequalities in the provision of elective hip and knee replacement surgery. Steel et al. (2006) demonstrate a mismatch between the need for and receipt of hip and knee replacements, with people aged 60 and over in northern England, women, and those in the least wealthy quintile

having the greatest need but receiving lower levels of treatment. In addition, Judge et al. (2009) establish that rates of joint replacement increases with age until 80 years, when rates begin to fall. Geographic variation occurs across a range of factors, leading the authors to suggest that while evidence exists of inequality in provision of hip and knee replacement surgery in England, it is unclear whether this is associated with inequity in the receipt of health care (Judge et al. 2009). In a follow-up paper, Judge et al. (2010) therefore seek to examine inequities in access to hip and knee replacement. In terms of age, an 'n'-shaped curve is identified, with people aged 50-59 years and those aged 85 and over receiving less total hip replacement and less total knee replacement surgery than people aged 60 to 84 years. People living in the most disadvantaged areas are much less likely to receive treatment than those in the least deprived areas. According to the authors, these findings point to inequity in access to surgery based on age and area of residence, which co-exist with other forms of inequity linked to sex, degree of rurality, and ethnicity (Judge et al. 2010).

Area deprivation also features strongly in terms of older adults' use of dental services (Lang, I.A. et al. 2008). Analysis of data from the 2005 Health Survey for England suggests that people aged 65 and over living in the most deprived quintile of neighbourhoods are much more likely than those in the least deprived quintile to use dental services only when they experience trouble with their oral health (Lang, I.A. et al. 2008).

Two linked papers explore in greater depth issues concerning older adults' access to dental care in socially disadvantaged neighbourhoods of London (Borreani et al. 2008; Borreani et al. 2010). Drawing on focus groups and individual interviews involving 39 older people, Borreani et al. (2008) highlight five perceived 'active' barriers to accessing dental care – cost of treatment, fear of care, lack of availability, lack of accessibility and characteristics of the dentist – and a 'passive' barrier of lack of a perceived need. This leads the authors to suggest the need for action at the level of individuals, society and health systems in order to improve older people's access to dental care (Borreani et al. 2008). The focus of a follow-up paper is on exploring older adults' views on their oral health and oral health care (Borreani et al. 2010). The evidence points to the importance of people's experience of health care across their lives in shaping perceptions of oral health and attendance for dental treatment in later life. A key consideration is older adults' perception that they should have access to free health care and be supported by the National Health Service during their later years (Borreani et al. 2010).

A similar approach is adopted by Shickle and Griffin (2014) in seeking explanations for older people's attendance or non-attendance for eye examinations. Drawing on ten focus groups with mainly older participants in socially disadvantaged areas of Leeds, researchers identify a range of barriers to uptake of eye examinations. Barriers include concerns about the cost of spectacles, a lack of trust in optometrists deriving from opaque pricing and experiences of 'hard-sell' techniques, and poor access to local optometrists. Shickle and Griffin (2014) use these findings to emphasise the importance of raising public understanding about the purpose of eye examinations not just in terms of refractive error and need for spectacles, but also other causes of preventable sight loss.

In the next section we consider gaps in the evidence relating to the topic of inequalities in physical and mental health in later life.

## Gaps and looking ahead

In this chapter, a considerable body of evidence has been explored in relation to unequal physical and mental health outcomes in later life. The papers that form the basis of the review draw on a wide range of methods, encompassing analysis of nationally representative datasets, major longitudinal studies, local and regional surveys, and a variety of qualitative approaches. In considering the evidence presented, there are nevertheless a number of gaps that warrant further investigation.

A major focus of current work has been on exploring associations between socioeconomic and sociodemographic factors, both in older age and across the life course, and a range of health outcomes in later life. While such a focus is necessary in drawing attention to the need for public health responses to tackle health inequalities in older age, a gap in evidence relates to individuals' experiences of particular health conditions in later life. In this respect, much of the evidence presented here derives from quantitative analysis of large-scale surveys. Evidence from the small number of qualitative studies reviewed highlights the value of capturing older people's own perceptions of their health and personal experience of inequalities in health outcomes. Qualitative approaches appear especially well suited to exploring the physical and mental health of potentially marginalised older populations.

Linked to this point, the health of particular groups of older people merit closer attention in future research. Relatively few studies addressed, for example, inequalities associated with the health of older people from a range of BME communities or who identify as being LGBT. Given the increasing numbers of people aged 85 and over, there is also value in exploring health inequalities associated with advanced old age.

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Enough

# Chapter 4

## Inequalities in life expectancy and healthy life expectancy

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### Introduction

This chapter considers inequalities in life expectancy and healthy life expectancy. There is a close connection to sources reviewed in Chapter 3, given the association between physical and mental health outcomes and those that relate to life and healthy life expectancy. The chapter draws on 34 papers that met the criteria for inclusion in the review (Figure 4.1).

The chapter is divided into three sections. The first section addresses inequalities at the individual or group level, reflecting different outcomes based on socioeconomic status, age, sex, ethnicity, or health characteristics of people in later life. The focus of the second section is on area-based inequalities in life and healthy life expectancies. The final section includes a small number of papers that are not easily classifiable and belong in a category of their own.

Paralleling the evidence presented in Chapter 3 on inequalities in physical and mental health, this chapter identifies a number of key findings that relate to inequalities in life expectancy, healthy life expectancy, mortality and survival in later life:

- Across a range of measures, robust evidence exists of a strong association between socioeconomic status and inequalities in life expectancy, healthy life expectancy, and disability-free life expectancy. People belonging to more advantaged groups tend to live longer in better health and without functional impairment than people who are less advantaged.
- Individuals' own assessments of their social status and health are socially patterned, with evidence suggesting that people's subjective judgements about their future life expectancy relate to actual chances of survival.
- When particular health conditions are considered, socioeconomic and sociodemographic factors influence people's risks of mortality and/or their chances of survival following diagnosis of a condition. Depending on the condition, inequalities in survival relate closely to a person's wealth, age, sex and ethnicity.
- In England, powerful evidence connects inequalities in mortality and survival to area characteristics. At regional level and at the level of communities and neighbourhoods, residence in socially deprived locations tends to be associated with higher mortality and lower chances of survival.

- While average life expectancies for men and women have increased over time, this has not reduced significantly area-based inequalities in life expectancy. For men, the scale of such inequalities in mortality has remained relatively unchanged over many years. For women, there has been a modest reduction in area-based inequalities in recent decades.
- Evidence exists of marked area-based inequalities in relation to mortality and survival associated with particular health conditions that are common in later life. Such inequalities may be attenuated by such factors as age, sex and ethnicity.
- Emerging evidence points to a negative impact of policies associated with economic austerity on mortality and survival.
- Especially marginalised groups may experience especially poor outcomes in terms of life expectancy in England. In this respect, evidence points to a substantial gap between the average life expectancy of the general population and of people with intellectual disabilities.

#### **Figure 4.1 Inequalities in life expectancy and healthy life expectancy: review process**

The database search, using terms that reflect different approaches to conceptualising and measuring life expectancy and healthy life expectancy, identified 2,514 papers after the removal of duplicates. Following title and abstract review, and after examining review papers, 140 papers were then selected for full-text screening. Thirty-two papers met the criteria for inclusion in the review. In addition, two further papers that were identified through the search process that underpins Chapter 3 were regarded as fitting better the themes of this chapter. As a result, 34 papers provide the basis for this chapter.

Most papers included in this chapter can be divided into two broad categories, with overlaps between them. Eighteen papers relate to inequalities at the individual or group level, reflecting different outcomes based on socioeconomic status, age, sex, ethnicity, or health characteristics of people in later life. Fourteen papers focus on area-based inequalities in life expectancy and healthy life expectancies. Two final papers stand out as belonging in a category of their own; one reflects the influence of recent policy measures on mortality outcomes, the other an analysis of premature deaths of people with intellectual disabilities.

## **Individual characteristics and mortality**

Eighteen papers included in this chapter assess unequal mortality and/or survival in relation to a range of individual characteristics. Most of these papers connect mortality to different indicators of socioeconomic status. A small number of papers explore survival of people with a particular focus on ethnicity. In this section, a final set of papers considers inequalities in relation to mortality and specific health conditions, especially different forms of cancer.

### **Socioeconomic status**

The chapter on inequalities in physical and mental health in later life highlights the persistence of a strong association between socioeconomic status and health in England, with the general pattern relating poorer health outcomes to lower socioeconomic status across the life course. It is not surprising, therefore, that the relationship between socioeconomic factors and mortality

has been the focus of a number of empirical studies. In their comparative study of disease prevalence, disease incidence and mortality, also referred to in Chapter 3, Banks et al. (2010) show that age-specific mortality rates are broadly similar in England and the United States, despite the higher incidence and prevalence of disease in Americans aged 55-64 and 70-80 years.

While a variety of measures of life expectancy are used in the scientific literature, the general pattern points to better survival of more advantaged people. For example, a longitudinal study of 1,480 people aged 75 and over in 1988 who were followed up on a number of occasions until 2003, shows that disability-free life expectancy – the number of years remaining without having difficulty with five common activities of daily living – varied most according to housing tenure (R.J. Matthews et al. 2006). Men aged 75 and over who lived in a home that they either owned outright or with a mortgage could expect to live for almost 1.5 years longer than those who were living in a rented home; for women the equivalent difference was one year (R.J Matthews et al. 2006). In seeking to estimate the social distribution of quality-adjusted life years in England, Love-Koh et al. (2015) combine data collected in successive waves of the Health Survey for England from 2010 to 2012 and administrative data on mortality rates. This particular measure of life expectancy makes an adjustment for the quality of surviving years. The authors estimate socioeconomic inequality in quality-adjusted life expectancy at birth to be 11.87 quality-adjusted life years between the least and most deprived population quintiles; the respective difference between men and women was one quality-adjusted life year (Love-Koh et al. 2015).

Demakakos et al. (2016) explore mortality at older ages in relation to wealth. Using data from the English Longitudinal Study of Ageing (ELSA), they show that the mortality risk among people aged 50-64 years is 1.21 times greater in the intermediate wealth tertile and 1.77 times greater in the lowest wealth tertile compared with people in the highest third of the wealth distribution. Similar patterns are found in people aged 65 and over, albeit with a weaker association. The authors conclude that wealth is much more strongly associated with mortality than other measures of socioeconomic status (Demakakos et al. 2016).

In considering the association between actual and anticipated survival, subjectively defined by individuals as their estimated further lifespan, Adams et al. (2014) show that older individuals' perceptions of how long they expect to live for relates closely to the actual number of additional years lived. In addition, using data from wave 1 of ELSA and analysing demographic and socioeconomic characteristics of study participants over an average period of six years, the evidence points to a significant relationship between people's perceptions of their chances of surviving and actual survival. Alongside age, with younger ELSA participants being better able to predict actual survival than older participants, higher household income is also associated with an ability to predict more accurately actual survival (Adams et al. 2014). This tends to confirm the findings of an earlier cross-sectional study of 22,457 people aged 39-79 years recruited from general practices in Norfolk between 1993 and 1997 and followed-up for an average of 10 years. In assessing the relationship between self-rated health and mortality, McFadden et al. (2009) find that people with poor self-rated health are 4.35 times more likely to die during the follow-up period than those with excellent self-rated health. Interestingly, in this particular study, the researchers do not identify a difference in mortality outcomes relating to self-rated

health according to participants' social class. In both non-manual and manual social classes, self-rated health predicts mortality in similar ways (McFadden et al. 2009).

Two further papers explore the association between socioeconomic position and mortality under the influence of health behaviours (Stringhini et al. 2010; Stringhini et al. 2011). In a first analysis, mortality data were collected up to 2009 from 9,590 participants of the Whitehall II cohort study of British civil servants aged 35-55 at the time of first interview in 1985 and followed up at regular intervals thereafter. 654 study participants had died during the follow-up period. Confirming the association between socioeconomic position and mortality risk, and adjusting for age and sex, Stringhini et al. (2010) show that participants with a low civil service employment grade are 1.6 times more likely to die from all causes than those in a high grade position. Health behaviours, assessed in terms of smoking, alcohol consumption, diet and physical activity at different stages of follow-up, account substantially for the variation in mortality rates between people of higher and lower socioeconomic position. Smoking in particular acts as a strong mediator of all-cause mortality across the study population (Stringhini et al. 2010).

When evidence from England is compared with data collected in other European countries, similar socioeconomic differences in mortality emerge, confirming the strong predictive role of health behaviours in mortality (Stringhini et al. 2011). However, in a parallel French cohort study, the impact of health behaviours on mortality risk according to socioeconomic status is much lower than in the Whitehall II study; in France, only 19% of the association of socioeconomic status with mortality is attenuated by health behaviours, in England the respective proportion is 75%. This leads the authors to suggest that health behaviours are likely to be strong contributors to socioeconomic differences in health only in countries and contexts (such as England) where health behaviours vary markedly according to social circumstances (Stringhini et al. 2011).

## Sociodemographic characteristics

Three studies have a particular focus on mortality and ethnicity. Bellary et al. (2010) report on a study of mortality linked to cardiovascular events in south Asians with type-2 diabetes. They use data from the UK Asian Diabetes Study, involving 1,486 south Asian and 492 White European participants recruited from 25 general practices in the West Midlands and followed-up over a two-year period. While limited by the relatively short follow-up period, Bellary et al. (2010) identify a difference of 7.4 years in mean age of death between south Asians and White Europeans; mean age at death is 66.8 years for the former and 74.2 years for the latter. When adjusting for other factors, the chances of experiencing a premature cardiovascular event or death amongst south Asians is greater – but not statistically significantly greater – than among White Europeans (Bellary et al. 2010).

In order to study the effects of socioeconomic position, assessed at childhood and during adulthood, on rates of cardiovascular disease mortality in British south Asian men, Tillin et al. (2008) recruited 1,400 patients aged 40-69 years between 1988 and 1990 within the London Borough of Ealing and followed them up for mortality to 2006. Based on analysis of 143 deaths from cardiovascular disease, and consistent with findings for the general population of older people, the researchers demonstrate that south Asian men in non-manual adult occupations are less likely to die from cardiovascular disease than those in unskilled manual occupations and

also that more years of education are associated with a lower mortality risk. When occupation is combined with years of education, the mortality risk for the most advantaged south Asian men is just 39% of that for the least advantaged group (Tillin et al. 2008). A study by Koffman et al. (2014) focuses on mortality and place of death based on the ethnicity of people with cancer. Drawing on mortality data for 93,375 cancer deaths of people aged 65 and over in London between 2001 and 2010 and using country of birth as a proxy measure for ethnicity, the researchers show that place of death varies according to country of birth. While the general pattern is for a decline in hospital deaths and an increase in home deaths, people belonging to Black, Asian and minority ethnic groups born outside of the UK are much more likely to die in hospital and less likely to die at home or in a hospice than people born in the UK (Koffman et al. 2014).

## Specific health conditions

A further group of papers examine inequalities in mortality in relation to particular health conditions, focusing primarily on different forms of cancer. Three papers examine exclusively survival of patients with breast cancer, with evidence suggesting that inequalities in breast cancer survival are smaller when cancers are detected through the screening process. McKenzie et al. (2012) examine socioeconomic inequalities in breast cancer survival by drawing on a population of women in South West England who were eligible for breast screening and who were subsequently diagnosed with breast cancer. Of 11,018 women recruited to the study between 2002 and 2006, 1,176 died during the period 2002-2007. Analysis shows a strong social gradient in survival according to participating women's deprivation status. Women belonging to the most deprived quintile are much less likely to survive than women in the least deprived quintile, with this pattern also applying to a lesser extent to breast cancers detected during the screening process (McKenzie et al. 2012).

In a study of survival from screen-detected and non-screen-detected breast cancer in the West Midlands, Morris et al. (2015) consider the influence of both deprivation and ethnicity. The researchers use cancer registry data for 20,283 women aged 50-70 years, diagnosed with breast cancer between 1989 and 2011. While no significant variation in survival rates is found according to whether women belonged to Asian, Black or White groups, five-year net survival is 90% in the most advantaged group compared with 86.7% in the least advantaged group. As in the study by McKenzie et al. (2012), screening is associated with benefits for women regardless of their level of deprivation (Morris et al. 2015). Rutherford et al. (2015) explore the potential benefits of reduced mortality that can be associated with achieving earlier breast cancer diagnosis in older women. They model data from the east of England to consider survival patterns of women aged 70 and over, suggesting that for England as a whole 280 deaths within five years of breast cancer diagnosis in women aged 75 and over could be postponed if an earlier stage of cancer at diagnosis is achieved (Rutherford et al. 2015).

In addition to considering socioeconomic inequalities in survival from breast cancer, Nur et al. (2015) examine survival from colon and lung cancer. They draw on data relating to over 40,000 patients diagnosed with cancer between 2001 and 2005 across a wide age range to estimate net survival rates up to the end of 2012 based on individual-level deprivation, cancer site, sex and age group. This study reveals different patterns of survival for the different cancer

types based on age and level of deprivation. While the gap in one-year survival between the most and least deprived patients widens with increasing age at diagnosis for breast cancer, the opposite pattern occurs for patients diagnosed with lung cancer, with the pattern for colon cancer falling in between. The one-year deprivation gap in breast cancer survival is widest for women diagnosed between the ages of 75 and 99 years (the difference between the most and least deprived patients being -4.8%). In terms of colon cancer for men, the deprivation gap for one-, five- and ten-year survival is greatest in the 55-64 age group (Nur et al. 2015).

Survival of patients with lung cancer is also examined in a study that compares survival rates between England, Norway and Sweden (Holmberg et al. 2010). Using nationwide cancer registries as a data source and taking the years 2001-2004, the researchers explore excess mortality according to age, sex and follow-up period. They show that age-standardised survival rates for lung cancer patients are significantly lower in England than in Norway and Sweden; survival estimates for men in England are 6.5%, compared with 9.3% in Norway and 11.3% in Sweden; for women the respective proportions are 8.4%, 13.5% and 15.9%. The fact that excess mortality between countries occurs primarily in the first year of follow-up leads the authors to suggest that improved management of lung cancer may lead to improvements in survival rates especially during the early follow-up period (Holmberg et al. 2010).

In another comparative paper, on this occasion examining survival trends for patients with chronic leukemias in the United States and England, Pulte et al. (2015) calculate 'excess hazard ratios' by age for the treatable conditions of chronic lymphocytic leukaemia and chronic myeloid leukaemia. After adjusting the analysis for a range of potential confounders, such as gender and period of diagnosis, the authors demonstrate that while five-year survival rates for both conditions improved in England and the USA between 1996-2000 and 2006-2010, relative age-related disparities persisted. For chronic lymphocytic leukaemia, the excess hazard ratio for death in England is 6.14 for people aged 85 and over when compared with people aged 55-64 years. For chronic myeloid leukaemia, the excess hazard ratio is 4.54 for people aged 75 and over compared with people aged 45-64 years. The persistence of inequalities in survival of older adults with treatable chronic leukemias in England leads the authors to call for further research to explore reasons for lower survival rates in the older old age groups (Pulte et al. 2015).

Reaching beyond studies that examine survival of people with a cancer diagnosis, a final study in this section considers the impact of social deprivation on mortality following emergency admission with a hip fracture. Using routine hospital data, Thorne et al. (2016) find that, in England, the risk of mortality at 30, 90 and 365 days after hip fracture is 1.187, 1.185 and 1.154 times higher, respectively, in the most deprived fifth of patients than in the least deprived fifth of patients (Thorne et al. 2016).

## Area influences on mortality

In this section, the focus is on inequalities in mortality and survival based on a variety of spatial characteristics. Nine papers reviewed here address small-area and regional inequalities in a variety of measures of life and healthy life expectancy and mortality, drawing on differences in levels of area and neighbourhood deprivation. A second group of five papers considers area inequalities in mortality in relation to specific health conditions.

### Small-area and regional inequalities in mortality

Across Europe, recent evidence points to significant variation in life expectancy and survival rates across small geographic areas (Ribeiro et al. 2016). A study of 4,404 small areas in 18 European countries examines 10-year survival rates as a way of showing the proportion of people aged 75-84 years who live beyond average life expectancy and reach 85-94 years. In a European context, the chances of survival in parts of the UK are much lower than in parts of Spain and Italy (Ribeiro et al. 2016).

In England, powerful evidence connects mortality, region, and level of community deprivation. The most comprehensive analysis of trends in life expectancy across regions of England and according to level of area deprivation has been undertaken by Newton et al. (2015) with reference to data from the internationally comparative Global Burden of Disease Study. Taking the period 1990 to 2013, the authors compare a range of life-expectancy data for England with comparable data for the UK as a whole and other EU countries. They show that while life expectancy from birth increased in England by 5.4 years to 81.3 years over the period under review, the increase was significantly greater among men than women. This general increase in life expectancy is not matched by a reduction in geographic inequalities in male life expectancy, with the difference between the most and least deprived areas remaining at 8.2 years; for women, the difference between the most and least deprived areas decreased from 7.2 years in 1990 to 6.9 years in 2013 (Newton et al. 2015). These findings are consistent with analysis of small-area data aimed at estimating differences between geographic areas in disability-free life expectancy, measured for 2006-2008 using a variety of national data sources in terms of the prevalence of limiting longstanding illness (Smith et al. 2011). In their study, Smith et al. (2011) confirm the existence of substantial area-based inequalities in disability-free life expectancy across small areas based on their level of relative deprivation.

At regional level, the MRC Cognitive Function and Ageing Study shows that participants from Newcastle-upon-Tyne have a shorter life expectancy than participants from Oxford and Cambridgeshire. Variation in measures of self-perceived health across the five study locations is associated with the ranking of life expectancy differences; centres where people report having the poorest health also have the lowest life expectancy (F.E. Matthews et al. 2006). Collins (2013), in considering the appropriateness of moving from life expectancy data to alternative measures of wellbeing to assess health inequalities, draws on evidence from Wirral in north west England. He shows that the gap in life expectancy between Wirral and the most socially deprived areas is 4.45 years, contrasting this with a gap of 5.34 years in quality adjusted life expectancy and of 7.55 in healthy life expectancy (years lived in good health) (Collins 2013).

Several studies explore mortality trends over time. In addressing the north-south divide in all-cause mortality between 1965 and 2008, Hacking et al. (2011) use mortality data from the five northernmost and four southernmost government office regions of England. Analysis shows a substantial northern excess in deaths compared with the south, averaging 13.8% per year and with significantly higher excess mortality rates for men (14.9%) than for women (12.7%). The north experiences a fifth more premature deaths before the age of 75 years than the south. Regional inequality did decrease for men and women from the early 1980s to late 1990s, but despite the public health focus on reducing health inequalities, a steep increase was observed between 2000 and 2008 (Hacking et al. 2011).

Brown and Rees (2006) use data from Yorkshire and the Humber to show that while mortality decreased between 1990-92 and 1996-98 across the region, other than in the case of a few electoral wards, the rate of decrease in this region did not match the rate of decrease across wards in England and Wales as a whole. Indeed, inequalities in relation to mortality between electoral wards within the Yorkshire and the Humber region, measured in terms of deprivation quintiles, actually increased over the period of analysis (Brown and Rees 2006).

A slightly different focus is adopted in a study conducted by Riva et al. (2011) where consideration is given to residential mobility – reflecting the movement of people between areas of England – between 1981 and 2001 and inequalities in mortality between urban and rural areas. Drawing on data from the Office for National Statistics Longitudinal Study, and making a distinction between urban and rural local authority districts, the researchers seek to assess the role of residential mobility in deaths occurring between 2001 and 2005. They show that about 30% of the inequality in mortality that exists between urban and rural areas can be explained by mobility. People who are residentially mobile tend to be in better health than those who lived in urban areas for the duration of the period under analysis. In particular, rural in-migrants who are aged 65 and over tend to be healthier and have better mortality outcomes than other groups considered in the study. Riva et al. (2011) suggest that these urban-rural differences in mortality may be explained in part by processes of selective migration in and out of England's rural areas.

In terms of spatial characteristics, evidence also considers differences between institutional and non-institutional populations. Older people who are admitted to care homes are known to be at greater risk of mortality than the general older population. In an empirical study, which explored survival over a nine-month period of 308 people newly admitted to care homes in England, Sutcliffe et al. (2007) find that 27%, for whom outcomes are known, had died. Reduced survival is associated with having a higher depression score and a greater level of dependency on admission to the care home. The authors suggest that care homes should improve access to a range of specialist services, including old-age psychiatry and occupational therapy, in order to improve survival of people admitted to institutional settings (Sutcliffe et al. 2007).

## **Area inequalities in mortality and specific health conditions**

While the relationship between mortality and area characteristics occurs across a range of health conditions, it has been explored most comprehensively in relation to cardiovascular health. For example, considering trends in mortality associated with cardiovascular disease

for all 7,932 electoral wards in England between 1982 and 2006, Asaria et al. (2012) show that age-standardised mortality rates declined in most wards, but actually increased in 186 wards for women aged 65 and over. The rate of cardiovascular disease mortality declined most in those wards where mortality rates were greatest in 1982. When wards are grouped into quintiles according to their level of deprivation, absolute inequality increased for people aged 65 and over but decreased for younger cohorts aged 30-64 years. Relative inequalities increased for men and women across all age groups (Asaria et al. 2012).

Further analysis of small area data relating to deaths from coronary heart disease between 1982 and 2006 confirms that the steepest falls in mortality occurred in the most affluent fifth of areas (Bajekal et al. 2013). However, this general trend masks different patterns in age-specific mortality. From 2000, while mortality rates levelled off in the youngest age groups (those aged 35-44 and 45-54 years), they accelerated in middle aged and older groups (those aged 55 and over) (Bajekal et al. 2013). In a related study, Janghorbani et al. (2006) examine the association between excess coronary heart disease mortality and heart-related hospital admissions according to neighbourhood deprivation in small areas of Plymouth. Across all ages and gender groups, mortality and hospital admissions increase with level of deprivation. Age-adjusted excess mortality that could be associated with level of neighbourhood deprivation is 31.5% for men and 18.9% for women. The mortality and hospital admission risk is greatest in the most deprived neighbourhoods (Janghorbani et al. 2006).

Looking to the future, Allen et al. (2016) address anticipated trends and inequalities in premature deaths arising from coronary heart disease for men and women aged 35 and over in England. Their particular focus is on exploring differences over time in the rate of decline of such deaths according to gender, income and area deprivation. Taking the period 2007-2035, marked heterogeneities are shown based on the relative affluence of the areas in which people live. For both men and women, premature coronary heart disease mortality is predicted to fall more quickly in the most affluent deprivation quintiles compared with the least affluent quintiles. For men, the annual rate of mortality decline in the most affluent areas over the period 2006 to 2025 is predicted to be 7.5% compared with 5.4% in the least affluent areas; the respective rates for women are 6.3% and 5.9%. While absolute inequalities based on area deprivation continue to decrease, largely as a result of a fall in the notably higher premature mortality rates of the most deprived groups, the fact that these groups are experiencing a slower decline in mortality is likely to lead to a further widening of relative inequalities in coronary heart disease mortality in the decades ahead (Allen et al. 2016).

Alongside work on cardiovascular disease, one study considers area deprivation in terms of mortality rates for respiratory infections according to age and sex (Jordan et al. 2006). Linking mortality data to census data for the West Midlands health region, the authors show a statistically significant relationship between mortality and degree of area deprivation. In general, mortality rates increase with age and with level of area deprivation. While the relative risk of death is greatest in people aged 45-64 years living in the most deprived fifth of areas, the absolute risk is highest in people aged 75-84 years. At all ages, men have a greater risk than women of dying from respiratory infection (Jordan et al. 2006).

## Other

Two final, relatively recent, papers are not easily classifiable and are examined in a category of their own. Loopstra et al. (2016) seek to examine the impact of austerity measures, reflected in cuts in spending on Pension Credit and social care between 2007 and 2013, on mortality of people aged 65 and over. Examining annual percentage changes in mortality rates of people aged 85 years across 324 local authorities in England, the researchers show that each 1% decline in Pension Credit spending per beneficiary is associated with an increased mortality rate of 0.68%. While a 1% reduction in social care spending is also associated with a significant rise in mortality among people aged 85 and over, this association disappears when Pension Credit spending is taken into account. Patterns are similar for men and women, but vary across age groups. The association between reduced spending and mortality is weaker for people aged 75 to 84 years than for those aged 85 and over and is not observed at all in people aged 65 to 74 years. Loopstra et al. (2016) conclude by arguing that austerity measures have had a negative impact on mortality rates of some of England's most vulnerable older adults.

Heslop et al. (2014) present findings from the Confidential Inquiry that was established to examine evidence about factors that contribute to avoidable and premature deaths of people with intellectual disabilities in England. The inquiry was set up to review deaths of people aged four and over who were registered with general practitioners in five primary care trusts in the south west of England between 2010 and 2012. Of 247 deaths of people with intellectual disability that were recorded over the period of review, over three-quarters died after the age of 50 years, with a median age at death of 64 years. Among men, median age of death was 65 years, representing a difference of 13 years when compared with the median age of death of men in the general population (78 years). For women, the gap in median age of death was 20 years, with women with intellectual disabilities dying on average at 63 years compared with a figure of 83 years for the general population of women. In interpreting these inequalities, Heslop et al. (2014) highlight weaknesses in the quality of health care received by people with intellectual disabilities, including problems with advanced care planning, living in inappropriate accommodation, and informal carers not feeling listened to by professional carers. The authors argue that these factors can be addressed by addressing weaknesses in care and service provision (Heslop et al. 2014).

## Gaps and looking ahead

This chapter has presented a range of evidence concerning inequalities in life and healthy life expectancy in England. While powerful evidence concerns a range of individual-level and area-based factors that are associated with lower life expectancy and higher rates of mortality, there are several notable gaps in the evidence base. A particular area of concern relates to a lack of knowledge about the differential chances of survival that are associated with the different measures of life expectancy that are often used in research. The papers reviewed in this chapter suggest that measures of life expectancy, healthy life expectancy and disability-free life expectancy, for example, are associated with inequalities in differing ways. As a result, there are opportunities for research to delve deeper into the implications of using different measures of life expectancy. Moreover, taking advantage of the growing availability of high quality cohort data, researchers are now better positioned to consider sociodemographic and socioeconomic influences on changing life expectancy patterns over time.

Several papers in this chapter have addressed difference in mortality and survival relating to a range of individual sociodemographic characteristics. Some papers consider inequalities associated with race and ethnicity. Nevertheless, there is a lack of information about the life expectancy of particular black and minority ethnic groups in England, or about people who have migrated to England over the course of their lives. In parallel, similar gaps relate to other common sociodemographic characteristics, including sexual orientation and a range of minority statuses. For example, while one study highlights the substantially lower average life expectancy of people with intellectual disabilities in England, there is limited evidence relating to inequalities in life and healthy life expectancy of other groups who are potentially marginalised in later life.

A similar case can be made for work relating to the mortality and survival outcomes associated with specific physical and mental health conditions. While there is reasonable evidence about survival chances of different groups of older adults who have a cancer diagnosis, this review did not locate papers that report on mortality associated with other conditions that are common in later life. Moreover, a growing focus in ageing research on multi-morbidity is not reflected in parallel work that considers the mortality outcomes of people who are ageing with multiple health conditions.

A final gap in evidence relates to the socio-spatial dimension. A number of studies reported here show the connection between area deprivation, region and life and healthy expectancy data. This work could usefully be extended by considering variations in life expectancy across different types of geographic locations, including different types of urban and rural area, and different types of living environment (e.g. different types of housing and a range of institutional settings).

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# Chapter 5

## Inequalities in financial security

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### Introduction

In this chapter, the focus is on inequalities in financial security that characterise later life in England. The chapter draws on 15 papers that met the criteria for inclusion in the review (see Figure 5.1)

The evidence addresses four key themes in relation to financial security: gendered aspects of work, pensions and pay; socioeconomic status; the pension system; and intersectionality, with a focus on the interaction of ethnicity, socioeconomic status and gender.

Looking across the evidence, the review highlights a number of key messages around inequalities in financial security in later life:

- There is powerful evidence of gender inequalities in financial security in older age, with older women generally more vulnerable to financial difficulties than older men.
- Several studies suggest that marital status has more influence on the financial security of women than men in later life. This is especially the case for previously partnered women who go on to live alone.
- Employment history and socioeconomic background can compound the challenges faced by women when seeking financial security in later life. Women in part-time work or low-grade employment are particularly at risk of financial insecurity.
- Women who have spent most of their working lives in part-time employment are not financially better off in retirement than women who have been employed part-time for short periods or who have never worked.
- A gendered pension system ultimately means that women, who are more likely to be in part-time work or to take breaks from employment to care for family members, are restricted in their ability to accumulate personal and pension wealth.
- Much of the research finds there is an inter-sectional dynamic which can further diminish the prospect of women achieving financial security in old age, with women from ethnic minority backgrounds particularly at risk.
- Among groups of men who are disadvantaged under the current pension system, migrants and those from minority ethnic communities are identified as being less likely to achieve adequate pension savings, resulting in financial insecurity in later life.
- Migration incurs a penalty in terms of access to private pensions, regardless of the timing of migration and the length of time spent working in England.

### **Figure 5.1 Inequalities in financial security: review process**

The database search, using terms that reflect different approaches to conceptualising and measuring life expectancy and healthy life expectancy, identified 2,514 papers after the removal of duplicates. Following title and abstract review, and after examining review papers, 140 papers were then selected for full-text screening. Thirty-two papers met the criteria for inclusion in the review. In addition, two further papers that were identified through the search process that underpins Chapter 3 were regarded as fitting better the themes of this chapter. As a result, 34 papers provide the basis for this chapter.

Most papers included in this chapter can be divided into two broad categories, with overlaps between them. Eighteen papers relate to inequalities at the individual or group level, reflecting different outcomes based on socioeconomic status, age, sex, ethnicity, or health characteristics of people in later life. Fourteen papers focus on area-based inequalities in life expectancy and healthy life expectancies. Two final papers stand out as belonging in a category of their own; one reflects the influence of recent policy measures on mortality outcomes, the other an analysis of premature deaths of people with intellectual disabilities.

## **Gender: work, pensions and pay**

Paid employment is the dominant source of income for most people during their working life. It directly impacts on the ability of an individual to accumulate pension wealth, which is crucial for financial security in old age for the majority of people. The research evidence predominantly looks at how women face specific, enduring challenges in relation to pension and wealth accumulation. For example, research explores how family circumstances influence the life course and working patterns of women more profoundly than is the case for men, leaving women at a disadvantage and preventing them from enjoying financial security in old age.

In this context, Finch (2014) explores how either getting married or having children can impact on the choices women make when it comes to entering the workforce. Using historical data from the British Household Panel Survey (BHPS), containing over 20,000 observations over a 13-year period, the study suggests that marriage has a much more significant impact on the future financial situation of women than men, resulting in diminished financial security for women. In another study, Sefton et al. (2011) consider the financial security in old age of women who have worked part-time for most of their working lives. Analysis shows that this particular group of women are no better off than women who have had shorter part-time careers or those who were largely inactive during working age. Women in part-time employment are less likely to earn as much as women in full-time roles or to have access to occupational pension schemes, inhibiting their ability to accrue savings. Women are more likely to be in part-time work than men, thus placing them at an immediate financial disadvantage within the labour market. Finch (2014) elaborates on some of the reasoning behind this, concluding that women with long periods outside of the formal labour market are less likely to extend their working life, further reducing their ability to earn money which could otherwise be used in retirement. She argues that social convention is partially responsible for women being less likely to participate in full-time work; for example, many women take career breaks to raise children or care for

ageing parents. This gives way to policy recommendations calling for more incentives for women to continue working into older age and to ensure that those women who may not participate consistently in the formal labour market have some protections so they can enjoy financial security in later life (Finch 2014).

In a case study, which considers how different social welfare systems achieve financial security for older people, Fasang et al. (2013) compare the liberal welfare state of Britain with the corporatist system of Germany. The specific focus of this paper is on how women's retirement incomes differ under both systems, when taking into consideration employment and marriage history. Women in Britain are less likely to feel the negative effects of marriage on income compared with their German counterparts. The paper attributes this to the more liberal nature of the British system which fosters independence among women. In Britain, however, women are more likely to face low retirement incomes despite not facing the adverse effects of marriage on later-life income. According to Fasang et al. (2013), a key feature of the liberal welfare system is that it provides less financial support in older age. This feature primarily harms women who have a greater likelihood of spending more of their working life in low paid or part-time employment than men.

## Socioeconomic status

While studies of the gender divide in working life dominate the literature, there are also a number of studies that examine how occupational class, as an indicator of socioeconomic status and labour market position, influences financial security in later life. In particular, individuals' ability to extend their working lives varies according to socioeconomic status. People from poorer backgrounds or those in receipt of state benefits are likely to find it more difficult to work beyond traditional retirement ages in England.

Encouraging older people to work longer is considered to be one of the key solutions for people who face the prospect of retirement with inadequate funds. The removal of means-tested benefits as an incentive to work longer is the focus of an empirical study undertaken by Lain (2011). Using a sample drawn from the English Longitudinal Study of Ageing (ELSA), this particular study shows that being in the poorest quintile of older adults reduces the probability of working by more than half. Means-tested state benefits are identified as a likely factor in discouraging employment in older age. Lain (2011) provides examples from the USA to show how employment participation in older age can be improved. Policies that prohibit age discrimination and employers from imposing retirement on employees are identified as being effective in this regard. The paper offers several practical policy interventions centred around improving choice for retirement timing, and ensuring that poorer people who are capable and wish to continue working can do so without being penalised by having their benefits reduced (Lain 2011).

Loretto (2010) looks at the wider literature on employability, using the UK as a starting point. International research is critically appraised to emphasise the contemporary 'concerns and debates' surrounding employability for people aged 50 years and over. Drawing on the results of a comprehensive survey with over 2,000 participants, the review concludes that most men and women in the UK desire to retire at 63 and 62 respectively. The picture painted by the

review is one of 'ambivalence' with a noted disconnect between 'employer, attitudes, policy and behaviour'. Rhetoric and behaviour are deemed to be mismatched, and the law is recognised as inadequate in converting behaviours and attitudes. In contrast to Lain (2011), Loretto (2010) argues that key components of the debate, including retirement age, are 'illustrative of an overly narrow focus' that does not reflect the reality of work for many. Ultimately, there is an implicit reference to inequality in these papers, as the balance of power is unfavourable towards individual workers and their financial concerns in later life, with the debate instead being dominated by issues such as the age of retirement. These papers make a compelling case for broadening the debate surrounding retirement decision-making, and involving more people from socially disadvantaged backgrounds to detail their aspirations and fears regarding their financial security when they make the transition into retirement.

A study by Dewilde (2012) shows that occupational class has a 'pervasive' impact on old age incomes. Women are identified as being particularly vulnerable in terms of financial insecurity, especially if they had previously been married but were now living alone. This group has significantly lower incomes in older age than other groups of women. However, labour market variables used in the analysis are all statistically insignificant. The paper also makes a comparison between the British and Belgian welfare systems. It is noted that marital history, providing the couple remain together, is less influential in the UK, but employment interruptions have a greater 'scarring' effect. This corresponds with much of the research that confirms the close relationship between pension income and labour market participation. The liberal nature of the UK welfare system is brought into consideration, as social benefits are more likely to be influenced by labour market events throughout the life course, given that many benefits, such as the public pension, are dependent on personal contributions made through the taxation system.

Fasang (2012) also considers income inequality, and how such inequality affects retirement decisions. The paper concludes that while inequality is not directly related to decision making about the timing of retirement, across the life course inequality can have an adverse impact on post-retirement enjoyment. As a result, people from poorer backgrounds have access to fewer opportunities throughout the life course, leaving them unable to access the type of employment that would otherwise allow them to save for retirement.

## The pension system

As noted in previous sections, women face a number of obstacles which make it more difficult to access the labour market. This limits many women's ability to achieve financial security in older age as the UK pension system is inextricably linked to employment history. Receipt of public pensions requires a certain level of national insurance contributions over the course of an individual's working life. Such contributions cannot be made by people outside the formal labour market. Equally, the benefits of occupational pension schemes, such as employer contributions, are also denied to people whose employment histories are restricted.

Systemic barriers and a gendered pension system are consistent themes within the literature. Grady (2015) argues that the current pension system is 'gender blind', making use of government statements to justify the assertion. Although this paper offers no statistical analysis, it provides a perspective, based on the legislation surrounding UK pension policy, on the potential reasons

why women face greater financial risk in retirement. Key issues, such as pensions, reflect a 'gendered occupational life course'. Given that the pension system rewards uninterrupted, continuous full-time employment, it is argued that a public pension system linked to labour force participation and contributions discriminates against women whose employment histories are more likely than men's to be marked by breaks linked to taking on caring responsibilities or by work in low paid or part-time occupations. The paper concludes that there should be a greater exploration of extending pension coverage to people outside the formal economy. Women are disproportionately in such a position (Grady 2015).

This sets the overall tone for many of the other papers which examine how gender influences access to pensions and, in effect, financial security in old age. Gardiner et al. (2016) provide a comprehensive quantitative analysis that determines that being female is a 'major impediment' to private pension provision. Price (2006) offers another reason, related to marriage status, as a means of explaining the income divide that faces women in old age. She suggests that the combination of a less than full state pension and relatively few entitlements to private pensions is the major cause of poverty among older, divorced women. This is primarily attributed to women's historical dependency on men, which adversely affects women who were once married. Hidden poverty among older women with partners is recognised as a key area for future study, but the paper suggests that there is little evidence available on the ways in which income is distributed between couples. Current cohorts of older women are identified as being particularly vulnerable to poverty, due to a reduced likelihood of accessing a private pension throughout their working life. Urgent reforms are advocated to address the needs of this group (Price 2006).

In addition, while Clark and Strauss (2008) show that young men and women demonstrate no difference in attitudes towards risk when it comes to their pension savings, older women are much more risk averse, tending to avoid allocating pension wealth towards equities, for example, as they are known to be more volatile. Salary levels emerge as the only strong factor that influences willingness to take financial risks. While Clark and Strauss (2008) do not provide evidence of how differing levels of risk aversion significantly affect financial wellbeing, they do provide insights into how policy needs to improve to help individuals from diverse backgrounds to make the right decisions when saving. Policy change is needed to ensure that people can enter retirement secure in the knowledge that they have a desirable level of financial security.

Foster and Smetherham (2013) explore how characteristics, such as gender, occupation, age, fertility history and socioeconomic status, influence the decision to contribute to a private pension. Despite a wider array of interests, the paper is predominantly concerned with gender. It is argued that, unlike for men, there is a linear relationship between age and women's pension contributions; the older women are, the more they are likely to contribute to a pension fund. Various factors, such as the likelihood of being in a low-grade occupation and having low incomes, have a more significant impact on women than men, inhibiting their ability to contribute towards a private pension. Overall, Foster and Smetherham (2013) assert that, given women's pension contributions are more sensitive to things such as pay and the number of children they have, more strategies need to be implemented that can offer security during working life, to ensure financial security in old age.

## Intersectionality: ethnicity, socioeconomic status and gender

Several papers seek to explore how ethnicity affects the ability to save towards a pension. Vlachantoni et al. (2017) present a comprehensive, quantitative analysis which shows that individuals from all minority ethnic groups considered in the study are less likely to receive a private or occupational pension than White men. Bangladeshi and Pakistani people fare the worst across the sample. Individuals from ethnic minority groups are also more likely to receive pension credits than people belonging to the White majority, indicative of a lower level of income in retirement. As pensions are a major source of financial security in old age, it can be concluded that people belonging to black and minority ethnic groups are financially vulnerable due to disadvantages that occur across the life course. People with a BME background and migrants are more likely to be in lower paid occupations than other groups and to lack access to comprehensive occupational pensions. When it comes to receiving the State Pension, which is dependent on having made sufficient national insurance contributions, Vlachantoni et al. (2017) point to numerous penalties facing migrants regardless of the timing of their arrival in the UK.

In such cases, evidence points to the persistence of a gender divide, leading to further studies which are intersectional in their approach and conclusions. With reference to gender, only Pakistani and Bangladeshi women are less likely than White British women to receive an occupational pension, compared with all other groups of women belonging to black and minority ethnic groups. Again, this supports the wider literature reviewed which explores how the traditional employment patterns of women prove to act as a systemic barrier to accumulating private pension wealth. Ultimately, Vlachantoni et al. (2017) argue that rules on pensions and benefits put migrants and people from minority ethnic groups at a disadvantage. This compromises their financial security in later life, as they require a minimum number of years spent making National Insurance contributions, which many migrants and people belonging to minority ethnic groups are unable to achieve. The paper makes a case for reforming the pension system in a way that promotes inclusivity and closes the apparent pension gap.

Gough and Adami (2013) use descriptive analysis to examine whether ethnicity, gender and age influence employment histories, and relate this to the propensity to save towards a pension. The paper argues that Pakistani and Bangladeshi men spend consistently higher proportions of time out of work, and that time spent outside the labour market is even higher among women from these ethnic backgrounds. Significant variation across different ethnic groups in terms of employment status and income confirms that Bangladeshi and Pakistani women are most vulnerable to financial insecurity given their lack of access to both private and state pensions. Government reforms to incentivise private pension payments are deemed to have no effect on helping specific ethnic minority groups to attain pension wealth. Instead, it is suggested, policy should actively try to help people belonging to such groups. This study stresses the importance the working life in ensuring adequate pension incomes (Gough and Adami 2013).

In a review, Meyer and Bridgen (2008) seek to explore the extent to which occupational pension provision is distributed according to gender and/or occupational class. The authors conclude that socioeconomic deprivation throughout the life course forces individuals to make choices which ultimately inhibit the ability to save sufficiently, thereby diminishing financial security in

older age. To produce additional analysis alongside the available literature, micro-simulations are used on a series of constructed biographies, representing 18 different labour market experiences. This method allows the authors to approximate the returns on occupational pensions through the years for different types of workers and to determine the distributional consequences. Results show that the gradual spread of occupational pension schemes beyond 'privileged' workers would help to alleviate poverty, and by extension provide greater financial security in older age. However, the authors also note that chance, for example falling into a job where there are opportunities for saving towards retirement, is also important for individuals to achieve an adequate retirement income (Meyer and Bridgen 2008).

## Gaps and looking ahead

The review of evidence relating to inequalities in financial insecurity in later life highlights a major focus on differences between the experiences of men and women. Structural features of the labour market, along with gendered norms and behaviours, greatly influence access to incomes in later life.

While powerful evidence exists relating to gendered aspects of inequalities in financial security in older age, there are gaps in the evidence base. For example, more attention could be paid to assessing wealth accumulation, rather than a narrower focus on pensions and employment incomes, as a source of financial security in old age. It is clear that prevailing relationship and caring norms and patterns of labour market participation can severely hamper women's ability to save independently or to access pension schemes. However, there is scope to focus more closely on intersections between gender and other sociodemographic characteristics that are, as yet, under-explored. For example, the review identifies gaps in terms of the relative financial security of women belonging to different socioeconomic and ethnic backgrounds within the context of the current pension system.

Groups that are notable by their absence in debates about financial security in older age include people belonging to the LGBT community, those who have disabilities, and people with informal caring responsibilities. Understanding the issues faced by such overlooked groups will be crucial in identifying the scale of the challenge associated with securing decent incomes in later life.

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# Chapter 6

## Inequalities in social connections

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### Introduction

This chapter assesses the available evidence concerning various aspects of inequality that relate to social connections in later life. The chapter considers evidence from 44 papers that met the criteria for inclusion in the review (Figure 6.1).

As noted in Figure 6.1, the broad theme of social connections covers a broad array of topics. This is reflected in the structure of the chapter, which is organised into the following seven sections based on the key themes to emerge from the review process: race and ethnicity; lesbian, gay and bisexual people; disability; socioeconomic status; geography, residential area and neighbourhoods; residential care; and loneliness. The chapter concludes with a review of gaps in the evidence base and some suggestions for future research.

Many of the papers reviewed in this chapter examine specific aspects of inequality, often acting in combination with others. While these factors can lead to particularly nuanced findings and make it difficult to generalise across papers, several broad insights can be identified from the evidence about inequalities in social connections in later life:

- Higher education and wealth are associated with better social connections and leisure activity in later life, and may impact on participation to a greater extent than contacts.
- Area deprivation appears to influence social connections primarily when individuals' perceptions of their neighbourhood are poor.
- Local services play an important role in helping older people living in rural areas to maintain social connections.
- While organised activities can address issues of isolation and exclusion among people in residential care settings, frailty and disability can remain a barrier to social participation.
- While older adults belonging to most black and minority ethnic groups demonstrate no difference from their White British counterparts with respect to informal social support, older women from minority backgrounds experience difficulty accessing social services – thus experiencing a form of social exclusion – with language and communication acting as the greatest barriers.
- Older lesbian, gay and bisexual people experience challenges in their social connections that can be shaped by discriminatory attitudes from others as well as their own personal histories with respect to family, friends, and their own decisions around coming out.

- Health conditions, such as visual impairment or depression, are related to poorer social connections and greater risk of isolation in older age.
- Age is an important factor in the risk for loneliness, as the quality of social relationships plays a more important role in the risk of loneliness among adults aged 65 and over than for younger adults.

### **Figure 6.1 Inequalities in social connections: review process**

The initial database search yielded 7,249 articles after duplicates were removed, with 123 papers eligible for full-text review. Examination of full-text papers resulted in 41 papers being kept for analysis, while consideration of 28 review articles identified 3 further articles to be included in the review of evidence. As a result, this chapter considers 44 articles.

In assessing the available evidence, it is evident that social connections as a concept is described and analysed in various ways and with different terminology. The topic of social connections is wide-ranging, with different outcomes identified in the literature falling into four broad categories. Social contacts, networks, and support describe outcomes related to people's connections with others. Social isolation relates to an absence of these contacts, often paired with loneliness, as these both refer to negative experiences related to individuals' lack of social connections. Social participation and engagement describe people's activities in society, while social inclusion, exclusion, integration, and cohesion relate to people's access to social activities and experiences.

While these four areas are distinct in their perspectives, there is considerable overlap in their treatment within the scientific literature. Many studies address more than one area. With the exception of loneliness, the areas are viewed together in this chapter in order to emphasise the overarching theme of social connections that are observable from an outside perspective. In contrast, since loneliness relates to people's perceptions and feelings and is fully subjective, this topic is examined separately. There are, of course, close links between experiences of loneliness and other components of social connections.

Much of the evidence considered in this chapter explores social connections with respect to specific and often intersecting aspects of inequality. This includes, for example, older black and minority ethnic women or older lesbian, gay, and bisexual people in rural areas. Partly due to this, gender is not examined separately, but alongside other aspects of inequality where it features.

## Socioeconomic status

While this review focuses on outcomes in later life, the evidence highlights the reality that factors and experiences earlier in a person's life – particularly with respect to socioeconomic status – can shape outcomes later in life. In a study looking at social integration profiles – a component of which was defined as frequency of contact with family and friends – Harvey et al. (2014) show that higher education at age 26 is associated with a profile featuring high social contact and high levels of participation in group activities among men aged 60-64 years. Women all had profiles with high levels of social contact, but higher education at age 26 is associated with higher levels of group participation that are also maintained up to ages 60-64 years. Similar associations are found between the level of occupation for the head of household at age 36 for both men and women, with the exception of group participation for men. Participation in group activities demonstrates more change with age than the other social measures included (social contacts and marital status), suggesting that informal social networks (in contrast to formal social activities) are relatively stable as people age, despite people experiencing different changes in social connections (Harvey et al. 2014).

Education and wealth are also found to be related to participation in social activities in two studies using data on people aged 50 and over from the English Longitudinal Study of Ageing (ELSA). Scherger et al. (2011) identify social class as an important factor in participation in leisure activities as well as changes in participation over time, while living alone is associated with increased participation in cultural activities and club engagement but not having a hobby. Younger age groups show greater participation in social activities, although age is not related to changes in participation over time. Retirement is associated with taking up a hobby, while those who leave work due to ill health exhibit a significant decrease in all three areas of activity (Scherger et al. 2011). In the second study, Jivraj et al. (2016) consider social activities as well as social contacts. The authors find that older age, residence in a rural area, and poorer health are associated with persistently lower social connections over time. These findings underscore how various sources of inequality among older adults have a negative impact on social connections. The capacity for continued social participation therefore relates to advantages across the life course and may be difficult to change once adults reach later life (Jivraj et al. 2016).

According to Chatzitheochari and Arber (2011) socioeconomic status also plays a role in the likelihood of engaging in active leisure pursuits and community activities following retirement. In particular, those with higher social class and education are more likely to engage in leisure activity. Health is also an important factor, while men more often engage in leisure than women, reflected partly in more outdoor activity compared with housework among them. Despite the prevalent stereotype of retirement as a period of leisure and personal fulfilment, the authors note that these findings demonstrate this kind of retirement lifestyle is available for only a minority of older people in Britain and is very much shaped by patterns of socioeconomic inequality (Chatzitheochari and Arber 2011).

This theme also emerges from a study of lifelong learning in the context of the University of the Third Age (Patterson et al. 2016). Factors such as social class, gender, and education serve as exclusionary forces to participation, both consciously and unconsciously. The authors suggest that,

in order to encourage engagement in lifelong learning activities, there needs to be community outreach, work to counter stereotypes related to the activity's purpose and remit. Offers should be tailored to attract groups less likely to participate, such as men (Patterson et al. 2016).

The concept of perceived age discrimination relates to both inequality and social connections, and it is the focus in two studies identified through the review process (Rippon et al. 2014, 2015). The first finds that a third of English people aged 52 years and above experience age discrimination, with such discrimination associated with older age, higher education, lower wealth, and lack of employment (Rippon et al. 2014). The potential counterintuitive results of higher education and lower wealth are argued to reflect that people with higher education may more readily identify and report discrimination, while those with higher wealth may be able to shield themselves from exposure to discrimination. However, discriminatory attitudes were part of the explanation in another study for why older entrepreneurs may be more exposed to social exclusion (Kibler et al. 2015). In the second study, Rippon et al. (2015) compare the situation in England with the United States, finding similar results except for education and lack of work. The authors assert that this could suggest that patterns of age discrimination in England are more socially patterned.

## Geography, residential area, and neighbourhoods

Socioeconomic status is also inherently connected to where someone lives in later life, whether urban or rural or reflective of the level of affluence in their neighbourhood of residence. Such circumstances can shape the extent to which a person experiences disadvantage and how this disadvantage translates into different outcomes in their social relations.

Socioeconomic differences may also affect social participation to a much different extent than social contacts, especially when thinking about residential area. Bowling and Stafford (2007) explore the social contacts of people aged 65 and over with reference to a measure of 'neighbourliness'. The measure represents the sum of two ratings, each on a scale of 0-8, for the numbers of people the respondent knows and trusts in the neighbourhood, with the authors' model controlling for area characteristics (based on ACORN – A Classification of Residential Neighbourhoods), other perceptions of the area, sex, age, social class, education, housing tenure, access to a car, household size, perceived health status, and optimism-pessimism bias.

Following this approach, Bowling and Stafford (2007) show that older people who report low 'neighbourliness' where they live have nearly three (2.92) fewer social contacts per month than those who perceive their area as having high neighbourliness. However, no other factors are associated with the frequency of social contacts. A possible explanation for this is around trust; lower levels of trust may reduce people's efforts to connect with others. This research also finds that people living in more affluent areas are more socially active, independent of other factors, but that the level of area affluence is unrelated to social contacts. This could reflect the idea that the composition of social networks within different socioeconomic groups cancels out differences at the area level in terms of contacts, while higher area affluence confers greater opportunities for social participation. Still, the research also shows that more negative perceptions of one's residential area are associated with low social activity, possibly indicating that the perceived quality of area influences older people's social engagement (Bowling and Stafford 2007).

Area affluence and social connections are explored in three studies looking explicitly at socially disadvantaged communities (Boneham and Sixsmith 2006; Barrett and McGoldrick 2013; Buffel et al. 2013). These studies support the notion that area deprivation in and of itself is not the driving factor behind poorer outcomes in social connections, but that personal circumstances and perceptions of the area are important.

For example, Boneham and Sixsmith (2006) find community events to be important among women aged 55-78 years in the north of England, although health and mobility issues limit their ability to participate. These women also play important formal and informal leadership roles in their communities, serving as an integral and valuable part in the health of their community. Looking at people aged 50 and over in five of Liverpool's poorest neighbourhoods, Barrett and McGoldrick (2013) find that ill health and disability are the primary factors associated with lack of participation in social (and health) activity, although participation also varies by gender, social class, and the areas' geographies. Barriers to participation are shaped by gender, race, and religion, with certain areas and activities perceived as unwelcoming or 'no go' zones. Buffel et al. (2013) suggest that experiences of social exclusion are shaped by four key dimensions: 'community change', 'feelings of crime and security', 'management of urban space', and 'strategies of control'. The authors argue that efforts to encourage 'age-friendly' communities may face particular challenges in diverse, deprived inner-city areas, one of which is to address the inequality that exists in disadvantaged communities to improve the quality of life for older residents (Buffel et al. 2013).

While the studies reviewed so far consider area deprivation in the context of cities and towns, living in a rural area can also serve as a source of disadvantage for making and maintaining social connections, as noted earlier when looking at older LGB people. This is particularly relevant given that older people are overrepresented in the rural population. Thus, as shown by three studies, local services in rural areas play an important role for older people's social participation and inclusion.

Rural village services play a crucial role in promoting inclusion and reducing isolation among rural residents with limited opportunities for social connections, but there is a stark divide between men and women related to levels of engagement (Dwyer and Hardill 2011). Service users in this qualitative study were predominantly women, suggesting that service provision should do more to address the needs and interests of older men; otherwise interventions may inadvertently contribute to the social exclusion of this group. In addition, isolation (as well as loneliness) can be an issue for rural residents following the loss of a partner and reduction in mobility, so befriending schemes, lunch clubs, and warden services can offer particular benefits to older people living in dispersed rural settings (Dwyer and Hardill 2011).

Looking at specific services, Hamilton (2016) finds that changes to the provision of Post Office services in rural areas – that is, branch closures with a mobile replacement – indirectly impact on older people by creating a perceived loss of a social meeting place. This restructuring consequently has an indirect negative impact on older rural residents' access to social contacts as well as on their engagement in activities out in public. Older people in rural Lincolnshire also noted that the ability to get out and about can be a problem, and this lack of mobility contributes to isolation (Ward et al. 2013). The private car is the most preferred mode of transport,

even when driving might be unsafe, and many of the older people interviewed appear to be unaware of the range of transport options available to them. The authors suggest that public transport in rural areas should be promoted and awareness of the different schemes and options improved (Ward et al. 2013).

Considerations of neighbourhoods and residences go beyond just looking at the area in which people live. There is growing recognition of the diversity of experiences among older people, raising the risk of exposure to inequality among different groups. One such group identified in our review is older homeless people (Holt et al. 2012). A main theme around long-term homeless men's concerns is 'importance of connectedness to others'. Losing this sense of connectedness appears to be a precursor to becoming homeless for nearly all participants, but re-establishing these connections is often a part of individuals' vision for the future. In this sense, the qualitative study demonstrates that connectedness, rather than a safe and secure psychological space, as suggested by other work, is the priority of homeless people. The authors speculate that this may be due to the age profile of their sample, and they suggest that services could be fine-tuned to help older homeless people maintain a sense of connectedness to others (Holt et al. 2012).

## Residential care

Other studies in our review also consider the experiences of people living in residential care: two studies on care home residents and one on residents in extra care schemes. Investigating intergenerational practice and activities, Cook and Bailey (2013) find that connections with family are of great importance for residents in terms of connecting with younger generations, although contact is influenced by geographic distance and the transition of younger relatives into adulthood. Moreover, residing in a care home puts people at particular risk of exclusion from the outside community; intergenerational activities can increase the level of social interaction and foster meaningful connections with the local area (Cook and Bailey 2013).

The second study to examine gender-based social groups within a residential care setting, finds particular benefits from the groups for male participants, in terms of higher life satisfaction and fewer reported symptoms of depression and anxiety (Gleibs et al. 2011). The authors explain this with respect to social identity; with care settings often being majority female, men can feel marginalised and may experience a greater sense of loss in terms of their social networks. Opportunities for men in care settings to interact with other men may thus counteract such experiences (Gleibs et al. 2011).

The third study looks at residents in four extra care housing schemes in England (Barnes et al. 2012). Here, residents' care needs are directly discussed as impacting on their social connections. A number of respondents note the expectation that the move into the scheme would reduce the loneliness and isolation that they would have otherwise experienced. However, there are concerns that those residents reliant on carers are unable to participate in evening social events and that the range of social activities on offer is restrictive for those with disabilities, particularly wheelchair users. Overall, extra care schemes may serve the needs of ageing adults in relatively good health, but those with frailty and/or disability may be at greater risk of isolation and loneliness (Barnes et al. 2012).

## Race and ethnicity

As noted in the literature, there is a widespread assumption that cultural differences related to race and ethnicity mean that people from black and minority ethnic (BME) backgrounds are more likely to have stronger social networks. This perception has also fed into the notion that older BME people will rely on formal care support to a lesser extent than White British people due to family and community connections.

The review identified two studies that provide evidence to the contrary. Willis (2008) examines the extent to which people aged 65 and above of different ethnic backgrounds offer help to family members in and outside the household. The research finds no statistical differences between the seven different ethnic groups and the White majority British group, except for one: older Black Caribbean people are less likely than White people to provide support to others in the household.

In an extension of this work, Willis et al. (2013) use the same data, looking at people aged 55 and over, and find no evidence for ethnic differences in the provision of support to household members. However, when looking at receipt of support from household members, there is one difference; in bivariate analysis and in a multivariate model controlling for sociodemographic characteristics, older Indian people are more than twice as likely as White British people to receive support from a family member. Looking at support given to and received from relatives outside the household, and after controlling for sociodemographic characteristics, Indians again are the only group who are statistically less likely than White British to give support outside the household. No differences in receipt of support from outside the household are found when controlling for other factors (Willis et al. 2013).

As noted by Victor et al. (2012), the nature of migration to the UK during the post-war period means that nearly all older ethnic minority people today are migrants. Cook (2010) has looked at ethnic minority women in four distinct communities in Sheffield and their experiences of welfare citizenship, i.e. accessing rights and services in the welfare state. Language and communication barriers represent the most significant obstacle to accessing formal services, particularly for older Somali and Chinese women. However, cultural and community organisations do play a bridging role, both by fulfilling needs as well as facilitating access to rights and services and raising awareness of them. Moreover, culturally specific community centres are integral in promoting social participation for these groups. Consequently, the author suggests that informal social networks for older ethnic minority women play a key part in facilitating both social participation and social inclusion for older BME women (Cook 2010).

It is important to recognise that other circumstances also play a role when considering how ethnic identity relates to outcomes in social connections. For example, Elrick et al. (2014) find that older BME people in London think of their social experiences as being shaped by age, citizenship, and class. Ethnicity is not irrelevant, but these aspects are important drivers in individuals' sense of identity and personal situations. The findings demonstrate that the diversity of experiences among older people should be taken into consideration and that there is merit in examining simultaneously multiple characteristics.

## Lesbian, gay, and bisexual people

Relationships are linked to the topic of social connections. Consequently, sexual orientation – which shapes the nature of important relationships with others – is an aspect of identity that may play a significant role in influencing social relations. The notion of intersectionality – how multiple identities and characteristics overlap – also becomes strikingly apparent in the various studies included here, as gender, residence, health, and marital status all connect to shape lesbian, gay, or bisexual (LGB) people's experiences with respect to networks and participation (interestingly, no studies identified in this chapter looked at issues among trans\* individuals, so we use LGB rather than other variations like LGBT\* unless referring more generally to this community).

For example, among 22 people aged 50-73 who self-identified as LGB, Cronin and King (2014) show that both age and sexuality influences access to social networks and support. Older LGB individuals' biographies play a role, as negative attitudes toward homosexuality served to influence the timing of their 'coming out', with some developing heterosexual relationships and family. Rejection from friends and family after 'coming out' could be an additional burden, and many research participants chose to develop stronger bonds with other members of the LGB community rather than with family members. For those with concerns about expressing their same-sex attraction or without access to LGB organisations, this can compound marginalisation and exclusion. Access to social networks for older LGB adults is also influenced by the differences in this group, particularly related to gender and economic circumstances (Cronin and King 2014).

Similar findings are identified by Kneale (2016), who looks at social exclusion and includes measures of neighbourhood connectedness. LGB people are less likely than non-LGB people to have seen a friend the previous day, and the likelihood is lower for those in higher age groups and for men. With respect to other aspects of social exclusion in the analysis, LGB were not significantly different than non-LGB people, except for being less likely to be a homeowner. These social exclusion factors were driven more strongly by age, health, marital status, and income, and the overall findings further demonstrate how circumstances and identity both play significant roles in shaping social outcomes (Kneale 2016).

Another study examines two projects aiming to develop local networks of older lesbians and gay men (Ward et al. 2008). The primary goal of the projects, located in London and Dorset, was to facilitate the communication of participants' experiences of local and national services with respect to health and social care provision, all the while strengthening such networks. The review of these projects highlights that, despite perceptions among service providers and policy makers that older lesbians and gay men are 'hidden' or 'invisible', they are not silent by choice; rather, there is a great deal of exclusion and marginalisation inherent to many policies and practices. The projects also show that sexual identity is relevant for a range of policy issues, recommending that service providers proactively create environments that signal inclusivity in order to encourage lesbians and gay men to feel comfortable engaging them (Ward et al. 2008).

Living in a rural area can have an impact on older people's social connections, particularly among older LGBT\* people as most LGBT\* social spaces exist only in urban areas. To understand this further, Fenge and Jones (2012) developed participatory tools to capture the perspectives of older lesbian and gay men living in rural areas and noted that some older lesbians and gay men

in rural areas prefer to remain hidden due to concerns over intolerance where they live. As a consequence, it is important to recognise that the issues and perspectives of those who do come forward to participate in research may not reflect those who remain hidden and marginalised in rural communities. In other words, as suggested by the authors, research findings among this group could potentially underestimate or underemphasise the extent to which rural residence among sexual minorities impacts on their social connections (Fenge and Jones 2012). This again raises the point of intersectionality and personal frameworks around identity.

Westwood (2017) explores a particular area where identities intersect, looking at ageing, LGB people, and religion. The findings illustrate that older LGB people have found religion and religious spaces to be both inclusive and exclusive. Participants also do not think of past experiences as more negative than recent ones; i.e. perceptions are not substantially different despite the possibility of improved attitudes and acceptance today. To resolve the tension between sexuality and religion, these people employ strategies around finding new faith groups and moving toward a more personal spirituality. However, the research clearly identifies that LGB people feel they have uneven access to the social resources offered by organised religion (Westwood 2017).

Other studies also consider specific issues related to particular subgroups of older LGB adults. Ingham et al. (2017) identify three themes that appear to be influenced by sexuality among older bereaved lesbians, despite commonalities between their experiences and those among heterosexual widows: being left alone; navigating visibility; and finding new places to be authentic. The impact of losing a partner can be exacerbated by the absence of support from extended social contacts, with many women reporting family networks that are unsupportive. For some, their extended networks also perceive their bereavement as the loss of a friend rather than a partner; lack of validation for their loss can lead to further distress. The loss of social connections during this time gives rise to deeper feelings of isolation, multiplying the number of losses and potentially leading to 'bereavement overload' (Ingham et al. 2017).

Exploring another subgroup of older LGB adults, Suen (2017) considers the ageing experiences of self-identified single gay men aged 50+ in England. Referring to the ageing body, the prevailing perception is that it is standard in the gay community to marginalise the ageing body. Consequently, many of these men judge themselves severely with respect to their physical attractiveness, which negatively impacts on their self-esteem as well as their social interactions with other gay men. As a consequence, some of these men have given up on the idea of ever finding a partner, seeing this as an 'impossible dream' (Suen 2017).

Another specific group examined in one of the studies in our review is gay men aged 50-78 years living with HIV in London (Owen and Catalan 2012). An important theme to emerge is the loss of social contacts due to multiple AIDS-related bereavements prior to the introduction of highly active antiretroviral therapy (HAART) in 1996, leaving social networks damaged and difficult to repair. This theme appears more prominently among those research participants diagnosed prior to the HAART era. Some participants note that social connections have also been impacted by early exit from the workforce due to ill health. A lack of grassroots communities to support older HIV+ men – many of which disappeared after the introduction of HAART – is also mentioned as an influence on social isolation. As Owen and Catalan (2012) suggest, such diminished social networks may become a particularly important issue in the future when the need for formal adult social care arises.

# Disability

Issues around health and disability can potentially impact on older adults' social connections in a variety of ways, including through reduced mobility or access to social activities.

Several studies examine specific aspects of health and disability and their relation to social connections. Visual impairment, classified as having less than good vision, is associated with poorer social connections (Zimdars et al. 2012). More specifically, fair or poor vision is associated with a lower likelihood of having a 'good spouse' and 'good relationship with children' and a higher chance of 'negative relationships'. People reporting fair or poor vision are also much less likely than those with good, very good, or excellent vision to take part in a range of activities related to civic and cultural engagement (Zimdars et al. 2012).

The impact of services features in three studies. Iliffe et al. (2007) show that the characteristics of being male, having memory impairment, and reporting poor to fair health are weakly associated with a higher risk of social isolation, controlling for other factors. However, living alone and having a depressed mood are clearly associated with higher risk of isolation. There is no association between the use of health services and the risk of social isolation. The authors suggest that interventions or population screening for those at risk of social isolation would not actually have an impact in reducing the use of health services, although such efforts should take health conditions into consideration and lead to further assessments to improve the delivery of care (Iliffe et al. 2007).

Hacking et al. (2008) examine the impact of participatory arts projects for people with mental health needs. Although our review has an explicit focus on older people, this study, which involves surveys among people aged 18 years and over, is included on the grounds that the analysis shows no differences in outcomes between those aged 45 and over and those below this age, suggesting that age is not a factor in these circumstances. Three aspects of social inclusion – social isolation, social relations, and social acceptance – all show improvement over six months. Notably, the severity of mental health issues is not related to the social outcome, and experiencing a new source of stress has little impact. The authors caution, however, that the evidence with respect to social inclusion is promising but unclear, due to some of the methodological aspects of the analysis (Hacking et al. 2008).

Befriending services are a common intervention used to alleviate social isolation and loneliness among older people and to improve wellbeing of service users. Looking specifically at those approaching the end of life – who have increasing dependency, morbidity, and psychological concerns – Gardiner and Barnes (2016) find that meaningful interactions from the befriending service can have an important impact in terms of improving psychological wellbeing and quality of life. Notions of companionship and physical proximity also positively influence social isolation, particularly for those older adults who live alone. Being treated as a contemporary or friend rather than as a patient is key, while intellectual stimulation is also noted as important. The authors suggest that, while such interventions should be incorporated into comprehensive service provision for people at the end of life, the benefits identified are not specific to this group and would apply to any older person who has health issues or is experiencing isolation (Gardiner and Barnes 2016).

Given that certain health conditions may not necessarily be seen as a disability by some people, it is important to consider broader questions around health and illness and how these may serve as a source of inequality in later life. For example, one study looks at older drug users receiving treatment care in Merseyside (Beynon et al. 2009). The loss of friends, predominantly through drug use, represents a recurrent theme. This is compounded by lost connections with non-drug using family and friends over time. While this contrasts with the experiences of younger drug users (who tend to retain links with family), the research finds some participants in this qualitative study had fostered new friendships with younger drug users who acted as carers. This pattern demonstrates a degree of adaptation and resilience among older drug users with respect to social support. Nonetheless, older people dealing with the illness of drug dependency represent a 'hidden group' who are particularly vulnerable to isolation and loneliness (Beynon et al. 2009).

## Loneliness

In contrast to measures of social contacts or isolation, which look at how often people are in touch with others, loneliness is a subjective phenomenon that points to an individual's own evaluation of their social relations. For example, some isolated people (with few or no contacts) may feel lonely, while others may enjoy being alone. The aspect of personal assessment makes loneliness an important concept to examine on its own with respect to social connections, especially as loneliness and other aspects of social connections can themselves be interrelated. This subjective quality of loneliness may also mean that different groups at risk of inequality may hold different perceptions on what it means to be lonely.

The prevalence of loneliness in England, and how it has changed over time, has been analysed in two studies that met the criteria for inclusion in the review. Victor and Yang (2012) show that people aged 65 and over (and those aged under 25 years) report the highest levels of loneliness, but additional analysis suggests that poor physical health is only a factor associated with loneliness for younger (15-29 years) and middle-aged (30-59 years) adults. Social engagement is also an important factor in the risk of loneliness for all age groups, but there are variations according to the nature of social engagement; the frequency of social contact is not related to loneliness for the older age group (60 years and older). The quality of social relationships appears to play a more important role in the risk of loneliness among older adults than it does for younger adults, even when controlling for gender, marital status, and household size, all of which are also related to the risk of loneliness for older adults. Age thus appears as an important factor in the risk of loneliness, and it would be compounded by other inequalities that negatively affect social relationships in general (Victor and Yang 2012).

Looking specifically at people aged 65 and over, Victor and Bowling (2012) show that the overall prevalence of loneliness is similar in 1999/2000 and 2007/8. They note that longitudinal analysis of loneliness is affected by attrition, as people who are lonely at the start are more likely to be lost at follow-up due to higher mortality among lonely people. The research also finds that, while 60% of people had no change in their loneliness level over the eight-year period, 25% report less loneliness and 15% report increased loneliness. While changes in marital status and living arrangements are associated with changes in loneliness, reductions in loneliness are also linked to improvements in health and social relationships. The authors argue that efforts

to tackle and reduce loneliness among older adults may be enhanced by interventions that go beyond obvious social interactions to address long-term chronic health conditions. This also raises the notion that disability can serve as a further source of inequality that impacts on loneliness over time (Victor and Bowling 2012).

Loneliness and relationships are also driving themes behind another study that examines the perspectives of women aged 50 and over who are 'solo', i.e. not partnered and without children (Hafford-Letchfield et al. 2017). One of the two main themes identified in the research is labelled by the researchers as 'so-loneliness', which includes considerations of loneliness and social isolation. Within this theme, respondents refer to the negative stereotypes and stigma associated with solo women, which impacts on their identities as well as their participation in social activities. However, positive aspects are also noted, in terms of owned identity and decision making. Many women also underscore the difference between being alone and being lonely. Still, the authors note that various assumptions prevalent in public policy and service provision do not take solo women's experiences into account, risking greater isolation and insecurity among this group as they age (Hafford-Letchfield et al. 2016).

Interventions to address social isolation and loneliness are also a focus in a study by Milligan et al. (2015), which looks at three 'Men in Sheds' projects to consider their effectiveness in engaging lonely and isolated older men. The study highlights how the 'hands on' approach in an activity resembling a work environment, without any kind of performance pressure, can provide a particular appeal to participants. While isolated older men are by definition hard-to-reach and further efforts are needed to better identify them, the research suggests that gendered interventions such as this offer an engaging space to address this group. Providers of activities with similar objectives should therefore take such factors into consideration (Milligan et al. 2015).

Experiences of loneliness and social isolation among ethnic minority older adults are explored in two studies. Victor et al. (2012) find that of all the ethnic minority groups examined, only older people of Indian background report similar levels of loneliness as the general British population, while older people from African, Bangladeshi, Caribbean, Chinese, or Pakistani backgrounds all report much higher levels of loneliness. Comparing their findings with those from other studies, the authors suggest that the rates of loneliness among these groups actually reflect the levels of loneliness among older people in their countries of origin. Understanding why these groups differ to such a degree from the general British population and why the Indian group differs from them is a gap in the current evidence base (Victor et al. 2012).

Looking more closely at older people with a South Asian background, as part of a broader study Burholt and Dobbs (2014) draw on a typology of support networks in order to assess the relationship of such networks with loneliness and isolation. They find that people with 'Restricted Non-kin Networks' are the most vulnerable to social isolation and loneliness. This type of network is characterised by smaller households and fewer social connections, with the greatest proportion of non-kin members and members aged 65 and over. Recognising that there are older people with such vulnerability could help inform future planning and service provision for migrant communities (Burholt and Dobbs 2014).

It is also worth noting that some of the studies reported in previous sections also address loneliness, particularly in combination with social isolation. Insights to emerge from this evidence include:

- Many of the women living in a socially disadvantaged community in the north of England note that the goal of avoiding loneliness is a motivation for getting them together and socially engaged (Boneham and Sixsmith 2006).
- Among HIV+ gay men in London, being single is also related to feelings of loneliness, exacerbated by a reduction in sexual interactions and libido (Owen and Catalan 2012).
- Loneliness is a particular issue for rural residents aged 70+ who experience the loss of a partner or reduced mobility (Dwyer and Hardill 2011).

## Gaps and looking ahead

This chapter has covered a wide range of factors that relate to both potential sources of inequality as well as core aspects of social connections in later life. We have identified studies that look at multiple characteristics from major social surveys and their relationships to outcomes, while a number of other studies have looked at quite specific subgroups of the population. Nonetheless, there are still identifiable gaps in the evidence base.

Perhaps the most obvious gap in the evidence relates to aspects of relationships themselves. There are two studies not referred to in the preceding sections that consider family composition with respect to social connection outcomes:

- Glaser et al. (2008) show that the prevalence of divorce and remarriage increased among people aged 60-69 years between 1988/9 and 2001/2, but there was no clear association between these trends and the likelihood of receiving support from children or the frequency of contact with them.
- Grundy and Read (2012) find that parents have a higher likelihood of weekly face-to-face social contact (including contact with children, other relatives, or friends) than older people without children, controlling for other factors. They also show that the number of children confers no additional advantage in terms of social contacts, though having a daughter does.

However, there are lingering questions over how inequalities themselves relate to partnerships, divorce, and re-marriages in later life. We also found no reviews focused on grandparenting.

While some of the studies looked at particular health conditions, there is a further gap in the evidence focused on many other health conditions and disabilities, especially those that have a particular impact on older people. Examples include diabetes, cardiovascular disease, dementia, hearing impairment, and musculoskeletal conditions.

A range of findings among older LGB people were identified, although there is still a gap with respect to relationship formation and the notion of 'chosen families'. There also continues to be a gap in studies focused on bisexuality and trans\* identities.

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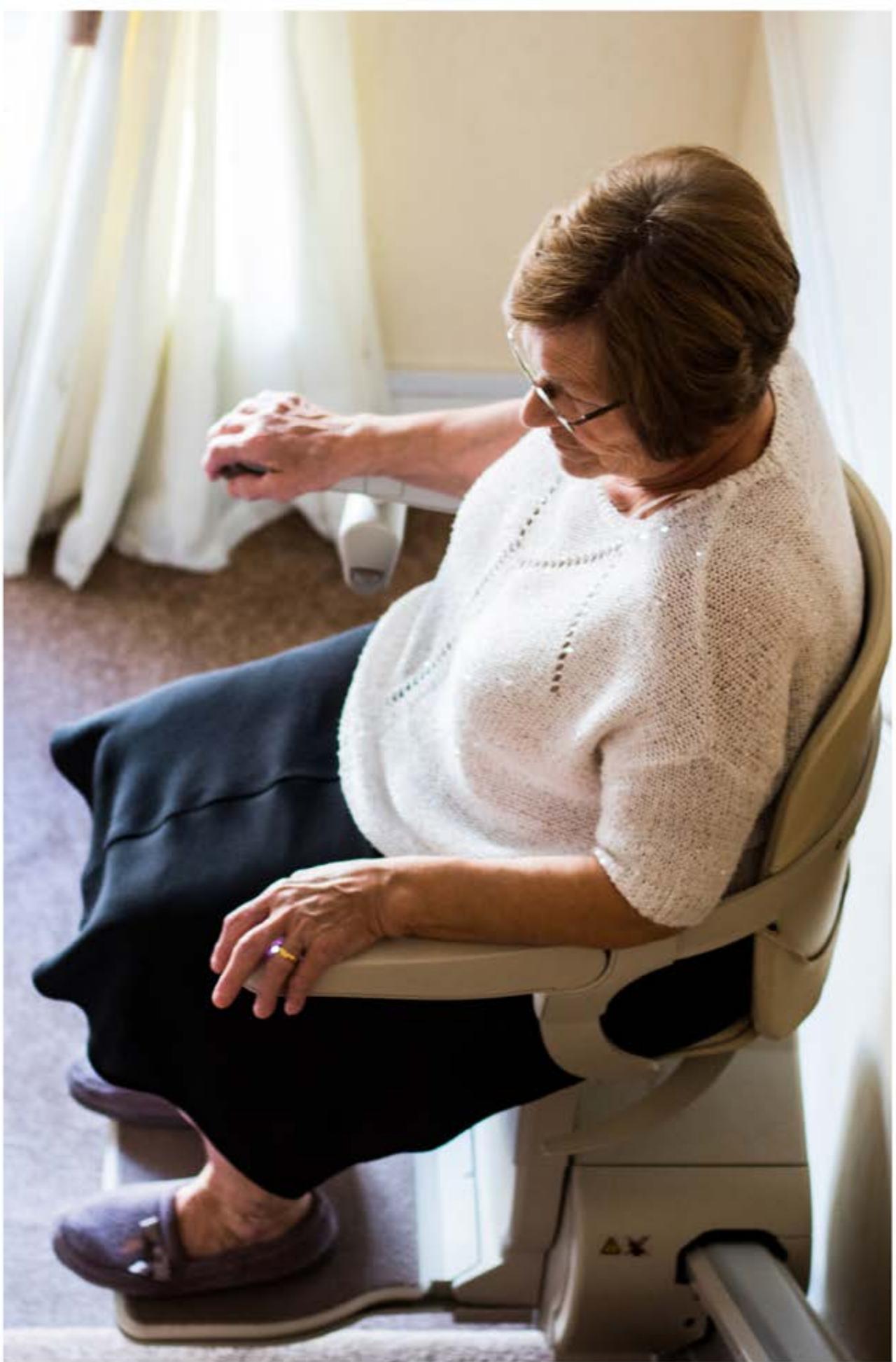
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# Chapter 7

## Inequalities and the living environment

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### Introduction

This chapter examines the evidence related to the living environment, encompassing home and neighbourhood, and how various aspects of inequality can influence outcomes in later life in this respect. The chapter draws on a limited body of evidence, with only 12 papers meeting the criteria for inclusion in the review (see Figure 7.1).

While housing design, home adaptation needs, housing wealth, and adequacy of homes represent important topics in the field of research on ageing, the review identified few studies which look at the relationship between living environments and inequalities in later life.

The evidence reviewed in this chapter is organised around four key themes: deprived areas; relationships with health and wellbeing; lesbian, gay, and bisexual people; and other sources of inequality.

Taking into account that much of the literature on the living environment in later life lacks an explicit inequality focus, the studies reviewed in this chapter do offer some insights that pertain to specific groups of older people or to specific circumstances:

- While living in a deprived area carries its own aspects of inequality, other inequalities with respect to gender and health also shape older people's experiences of their living environment in terms of safety, security, and mobility.
- Specific aspects of poorer health – depression and limitation in activities of daily living – are associated to varying degrees with socioeconomic differences in residential area and more negative perceptions of the neighbourhood.
- Visually impaired older people experience worse housing outcomes than people with good vision in terms of tenure and home conditions.
- Sources of inequality related to relationships and family can counteract the perceived health and wellbeing benefits of rural living.
- LGB older people are less likely to be homeowners and have specific concerns about future housing with care.

### **Figure 7.1 Inequalities in the living environment (home and neighbourhood): review process**

The database search identified 3,717 studies of which 46 satisfied the criteria for full text review. Of these, only 12 papers were subsequently retained for inclusion in the scoping review.

The relative paucity of research eligible for review highlights an important characteristic of the literature examining living environments in later life, namely that this area continues to look at older people as a single group rather than investigating how different subgroups of older people might experience different outcomes in housing and their surroundings. The review here focuses on literature that looks at how various sources of inequality are associated with different outcomes in the living environment rather than, for example, how poor housing conditions relate to outcomes in other areas, such as health. These topics are examined in other chapters of this document.

Still, 'ageing in place' has become an important goal to help fulfil older people's own desires as well as reduce transitions into residential care and the associated costs. And while design, adaptation needs, housing wealth, and adequacy of homes are all important subjects that feature in analysis for older people, the review process did not identify a significant body of literature that considers how this relates to inequality.

## **Deprived areas: safety and security in the neighbourhood**

Two studies to emerge from the review process consider older people living in socially deprived inner-city areas (Barrett and McGoldrick 2013; Buffel et al. 2013). While these studies examine issues around active ageing and social exclusion, similar themes emerge that address questions around safety and security in the older adults' living environment. Both studies also discuss the concept of gendered spaces and the different experiences of men and women in disadvantaged neighbourhoods. For example, fear of assault shapes people's decisions about which bus stop to use and which route to take when walking from home to other places; this is not an exclusive concern of women, but is expressed more strongly by female participants in one of the studies (Barrett and McGoldrick 2013). Such 'avoidance strategies' are cited as one way to manage risks when moving around the neighbourhood and to regain control of the living environment around the home (Buffel et al. 2013).

Insecurity is not limited to fear of crime or attack, however. Older people who have physical mobility issues also express fears about crowded areas or about falling without anyone to help (Buffel et al. 2013). The importance of public transport with good routes that are 'affordable, physically manageable and safe' is also highlighted with respect to potential inequality (Barrett and McGoldrick 2013). Only a small proportion of the sample in this study owned a car (14.3%), all of whom were homeowners men; gender and social class may therefore moderate mobility within the area.

While these studies do not compare the experiences of older people living in socially deprived urban areas with those who live in other residential settings, they demonstrate that there is a relationship between sources of inequality and the living environment. Notwithstanding the fact that socioeconomic factors likely play a role in whether one lives in a deprived area or not, this research points to the fact that the lived experiences of older people in deprived areas differ according to gender and health aspects, affecting older adults' sense of security, safety, and ability to move about.

## Housing and area: relationships with health and wellbeing

Aspects of health and wellbeing feature in five studies that look at various aspects of housing and the living environment. Two studies consider issues related to neighbourhood inequality and their associations with different health outcomes. While aspects of health are the outcomes of interest in these studies, rather than outcomes related to the living environment, the associations identified do not model the direction of causality; we include these studies in this review to highlight how people affected by health inequalities may also experience different outcomes related to their living environment.

Marshall et al. (2014) find that depression is associated with living in the most deprived neighbourhoods. Considering the range of factors that can influence experiences of depression, the research estimates that 10% of the variability in depression among older people can be attributed to the neighbourhood environment. The study also reports evidence that residence in mixed neighbourhoods, measured as those with a greater mix in house prices, is associated with a lower risk of depression, independent of other related factors; there is, however, no association between depression and the degree of wealth inequality within neighbourhoods. One potential explanation for this is the greater access to social and health resources for poorer people in mixed areas compared with those who lived in deprived areas. Taking this into consideration, we might think that people with depression may be in a more disadvantaged position to receive support based on where they live (Marshall et al. 2014).

Bowling and Stafford (2007) look at the relationship between limitations in activities of daily living (ADLs) and the level of affluence of one's residential neighbourhood. They find that older residents of 'striving' areas are nearly twice as likely to report limitations in ADLs as those in 'thriving' areas; however, this relationship disappears after controlling for individual factors. Perceptions of the neighbourhood, on the other hand, do demonstrate a robust relationship with limitations in ADLs. Reporting limitations is associated with rating local facilities as poor and saying that there is nowhere nice in the neighbourhood to take a walk. The authors suggest that since ADLs mainly occur within the home, they are less affected by aspects of the neighbourhood beyond the home. At the same time, the negative neighbourhood assessments may reflect the idea that people with limitations in ADLs have different needs and expectations for the kinds of facilities and outdoor spaces around them (Bowling and Stafford 2007).

Outdoor environments are the focus of a third study, which looks at the experiences of people with mild to moderate dementia (Blackman et al. 2007). The study recruited 38 participants to engage in two walks: one in the real environment of Middlesbrough, and a second using a virtual reality simulation. Among the findings, the research suggests that participants prefer areas that are free from traffic, but they are generally safe crossing roads in the real world although there is more difficulty for those with greater impairment. There are relatively few obstacles in the town centre, but clearer and more explicit signage could be a significant improvement. Overall, these findings suggest that older people with mild to moderate dementia should not be discouraged from taking walks in urban environments. However, improvements and adaptations to the outdoor environment could enhance this group's experience and ability to remain independent (Blackman et al. 2007).

Another aspect of impairment features in one study, this time looking at the home. Zimdars et al. (2012) explore the relationship between visual impairment and both housing tenure and bad housing conditions. They find that people with fair or poor vision are around twice as likely as those with good or better vision to be renting or to have bad housing conditions (controlling for sex and age). The overall results suggest that poorer vision is linked to lower wellbeing through disadvantages across a number of areas. People with vision impairment may therefore benefit from relatively simple improvements in economic and housing circumstances. We might also anticipate that people with poorer vision who rent could have less ability to improve their housing conditions (Zimdars et al. 2012).

The final study to consider the relationship between area and health and wellbeing looks at experiences of living in the countryside (Watkins and Jacoby 2007). While other studies that addressed urban-rural differences were excluded from the analysis on the grounds that they did not explicitly address how sources of inequality relate to this division, this particular study identifies how the perceived health and wellbeing benefits of rural living are moderated by inequalities related to sexual orientation, marital status, and childlessness. The positive image of the rural idyll is generally expressed by participants in the study, although moderated by particular experiences of certain individuals. Older women feel stigmatised when they could not be identified as wives or mothers, leading to various levels of social exclusion and marginalisation. Similar feelings are present among men who identified as gay or who were divorced. For both men and women, such characteristics are seen to deviate from normative ideas of what constitutes the rural idyll. The perceived benefits of rural living could not compensate for the negative impact on health and wellbeing from the stress stemming from such exclusion and marginalisation (Watkins and Jacoby 2007).

The studies featured in this subsection all point to issues linking aspects of health and wellbeing with the living environment. In some cases, health conditions themselves may serve as a source of inequality shaping people's experiences with respect to their home or residential area. In others, the relationship between health and living environment can be moderated by other facets of inequality. These studies further show the interconnected nature of health and the living environment, as well as the intersection of other identities.

## Lesbian, gay, and bisexual people's perceptions

Three studies address the experiences and perceptions of lesbian, gay, and bisexual (LGB) older people with respect to housing. Kneale (2016) conducted a quantitative analysis using the English Longitudinal Study of Ageing to explore exclusion from decent housing and neighbourhoods. The study shows that LGB people are less likely than non-LGB people to own their home, but there are no identifiable differences in the likelihood of having decent housing or plans to move in the future, controlling for other factors. The study notes it is a positive finding that the potential inequality arising from being an LGB older person does not appear to affect access to a decent home or underlying satisfaction with one's housing; however, differences related to home ownership may warrant concern. Home ownership is an important component of wealth in later life, so the lower likelihood of owning a home among LGB older people may reflect greater risk of financial vulnerability for them as they age (Kneale 2016).

The two other studies looking at LGB people in later life explore preferences and perceptions with respect to housing with care, reporting on the same sample (Westwood 2016a; Westwood 2016b). These studies highlight the lack of choice for older LGB people when it comes to sheltered housing and residential care. Through qualitative interviews with 60 older LGB people in England, Westwood (2016a) identifies four thematic concerns among this group with respect to mainstream (i.e. non-LGB) provision:

- Lack of visibility: such spaces are inherently heterosexual, therefore heteronormative and marginalising non-heterosexuality.
- Risky visibility: concerns over prejudice, discrimination, or homophobia, including from staff.
- Inequality of openness: concerns over a lack of a safe space or support for outside relationships and friends.
- Compulsory co-occupation: particularly among women not wanting to reside with men, partially due to concerns around unwanted sexual advances.

With respect to preferences for the type of housing, the majority of women in this particular sample wanted women-only or lesbian-only accommodation, while gay men preferred mixed mainstream provision with a second preference for gay men-only accommodation. The least popular option among both men and women was a mixed-gender LGBT facility. Therefore, while there are differences in terms of what LGB people want, there is consensus on the need for choice. The author also notes there may be legal implications from a lack of choice in this respect, referring to the National Minimum Standards (Care Standards) Act 2000, the Human Rights Act 1998, and the Equality Act 2010, as lack of specialist housing with care could be perceived as failing to meet the identity and cultural needs of LGB older people (Westwood 2016b).

Overall, the research findings relating to LGB older people suggest that there are particular needs for this group with respect to housing and the living environment in later life. Traditional models related to both finance and care in later life may require revisiting in order to prevent further exclusion and inequality for this group.

## Other potential sources of inequality

Two final studies to be considered in this chapter relate to specific forms of inequality and the living environment. Paralleling the evidence on LGB older adults, Holland and Katz (2010) look at attitudes toward extra care housing among Jewish people aged 50-70 in London and the southeast of England. While there are similarities between participants' attitudes and those of the majority population, several culture-specific concerns did emerge. Location appears to be an important factor in people's preferences, and although participants in this study would prefer specific Jewish provision, this desire was not stronger than that of staying close to their current geographic area. The idea of an affordable, accessible and well-designed facility that enabled people as they aged emerged as being especially important in this respect.

Moreover, a range of perspectives relate to the need for facilities to have a specifically Jewish character. Access to Jewish shops and community activities is regarded as desirable, but easy access to high street shops and the possibility for in-scheme Jewish activities are seen as more essential. There is consensus that Jewish organisations ought to provide extra care housing and that Jewish-run schemes would have a certain appeal over non-Jewish schemes; however, it is generally accepted that the ability to live according to Jewish customs and maintain links with the Jewish community are paramount. Thus, the details of an extra care scheme, especially concerning affordability and continuity of care, represent the driving concerns (Holland and Katz 2010).

Questions around inequality, home, and the living environment also include the idea of homelessness. We found one study that looks at homelessness among older people and the various factors associated with it (Warnes and Crane 2006). This qualitative study of 131 homeless people aged 50+ in four English cities explores the reasons and circumstances that lead people to this position in later life. The researchers found that around two-thirds of their sample had only first experienced homelessness in later life, thus not having experienced it as a lifelong issue. Individuals' behaviour and characteristics explain less than half of the reasons for homelessness, suggesting preventive services and support have an important role to play. For most of the respondents, a variety of personal disadvantages – psychological, social, and material – contributed to them becoming homeless, with further difficulties in coping with transitions such as marital breakdown, the death of an informal carer, deteriorating health, and retirement (Warnes and Crane 2006).

It thus appears that inequalities related to marital status, health, and socioeconomic status play a key role in homelessness in later life. Warnes and Crane (2006) conclude, however, that even strong risk factors such as loss of a relationship or low economic resources only influence homelessness in later life when there are additional problems and a progression of events, while service deficiencies among housing and welfare agencies contribute to a failure in identifying and supporting those vulnerable and at risk.

## Gaps and looking ahead

A prominent characteristic of the literature is the apparent lack of research examining outcomes in the living environment in later life through the lens of inequalities. While we did find a small number of papers that fit our criteria for inclusion, many of which looked at specific characteristics and sub-populations, there are significant gaps in the evidence base, taking into considerations both different aspects of inequality as well as a variety of outcomes in the living environment.

Fundamental to the idea of ageing in place is how older people's homes can be adapted to their changing needs. Our review found no evidence related to how different aspects of inequality – be it in socioeconomic resources or health conditions – relate to the presence, absence, or implementation of home adaptations. We therefore do not have evidence assessing which groups subject to inequality might need greater support in order to adapt their homes and be enabled to age in place.

In addition to home adaptations, we did not find extensive evidence on how various sources of inequality in later life relate to different outcomes in terms of housing tenure or related transitions, such as downsizing. Thinking toward future needs with respect to the broader housing market, such evidence would be important to help identify groups at potential risk of disadvantage, which in turn could help shape effective policy.

In terms of specific groups, there is also a gap in terms of directly exploring how people of ethnic minority and migrant backgrounds experience different outcomes in housing and the living environment. There are a variety of areas that could be explored in such work, particularly looking at housing conditions, neighbourhood amenities, and access to adaptations.

In some of the studies reviewed in this chapter, gender was identified as a factor related to neighbourhood experiences. However, there is a gap in evidence concerning how older women may have different living environments compared with older men.

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# Chapter 8

## Conclusion

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This report has presented the available evidence related to inequalities in later life in England and how inequalities are associated with various outcomes across a wide range of areas. The non-exhaustive scoping review of the scientific literature highlights the extent to which such inequalities manifest in cross-cutting ways, impacting on the lived experiences of ageing adults across multiple domains. This underscores the importance of focusing attention on later life inequalities in order to understand better the issues that older people face and how different groups may be at greater risk of disadvantage. Evidence about the current state of inequalities in later life is essential in enhancing efforts to improve later life and helping everyone to age better.

The findings in this report also demonstrate diversity in terms of the body of evidence relating to each inequalities theme, its strengths, and the gaps that remain. For example, our review identified a considerable body of evidence looking at inequalities in physical and mental health in later life, while a much more limited and nuanced evidence base was identified for the home and living environment theme. Some of these variations reflect the nature of available data pertaining to each of the themes, including, for example, differences between quantitative surveys and qualitative studies of particular groups of older adults. Moreover, the gaps that have been identified vary along different themes, reflecting the extent to which the existing body of research has looked into various sources of inequality, such as BME groups or the LGBT community, and how these have featured as areas of enquiry in scientific investigations.

## Examining inequality in later life

As the Centre for Ageing Better's own research has shown, there are distinct groups of older people who will have vastly different experiences of later life, with some more positive than others (Ipsos MORI 2015). It thus becomes imperative that all stakeholders interested in improving later life recognise the diversity among older people and engage with the task of understanding how differences in this group emerge, manifest, and influence other aspects of later life.

Our first aim in this research was to examine the scale and nature of inequalities in later life and how they relate to various outcomes in England. In addition to considering protected characteristics of sex, race, age, disability, sexual orientation and religion and belief, we also included other aspects of inequality that might lead to divergent outcomes for older people. Chapter 1 provided a basis for understanding how inequalities in later life have been conceptualised in previous literature. In this respect, our evidence review has been informed by life-course and intersectional approaches.

These two primary approaches, which were used to frame the research in many of the studies we examined, each demonstrate the logic underpinning the need to look at inequalities in later life. With respect to the life-course approach, some aspects of inequality do not emerge in later life but are experienced at earlier ages, inevitably shaping subsequent outcomes. This idea – the concept of cumulative advantage/disadvantage – has significant implications for the kinds of interventions that can actually make a difference for people who have already reached later life. In some cases, this strengthens the argument for policy mechanisms that can be applied earlier in the life course. However, such lessons on what might be effective (and when) rely on the kind of research presented here, which emerges from investigations on inequality in later life.

The intersectional approach also supports the need to examine inequality in later life. With such great and increasing diversity among the older population in England, there are a number of specific groups that may experience particular disadvantage as various aspects of inequality combine to shape a unique experience for them. A key argument of this approach is that multiple factors do more than add up, instead combining with each other to shape new forms of potential disadvantage. For example, women may experience a negative outcome, such as an average lower retirement income than men, and people belonging to BME groups may also be disadvantaged in terms of incomes. But BME women may be in an even worse position, and understanding this through an intersectional lens is key to effectively addressing such differences. Moreover, our research has also implicitly demonstrated that age itself may be an important potential source of inequality – it is a protected characteristic – so developing a greater awareness of the issues that impact on people in later life should incorporate an intersectional perspective to account for how multiple forms of diversity can influence outcomes.

## Reflecting on existing evidence – strength and gaps

As noted earlier, for each of the different outcomes we examined in the chapters of this review, the evidence that we identified was of varying depth and quality. Overall, we have highlighted an extensive body of knowledge with many consistent findings and clear conclusions. At the same time, variation in terminology in some cases means the evidence leads to less apparent conclusions. In addition, some significant gaps remain both in terms of particular outcomes and sources of inequality.

The theme in Chapter 2, subjective wellbeing, was characterised by a body of evidence that featured a wide range of conceptualisations, measurement approaches, and terms to describe these. While this created a challenge to draw direct comparisons across research, it did mean that more specific groups and aspects of inequality emerged in the review. In relation to subjective wellbeing, a number of papers only addressed inequalities in an implicit way, and there was some inconsistency in the findings associated with the variation in terminology and measurement. While some groups of interest, such as informal carers, featured in the review, other aspects of inequality, including BME or LGBT status, were largely absent from the available evidence.

For physical and mental health in Chapter 3, there was a substantial body of literature that drew on several methodological approaches and sources of data. In terms of inequalities, much of the literature considered socioeconomic characteristics as well as aspects of geography and

residential area. Some studies explored 'at-risk' groups, such as people living alone in later life or older Irish people with dementia, but there remain significant gaps in the research with respect to other aspects of inequality. Particular areas that merit more attention include BME groups, the LGBT community, and the oldest old (i.e. the growing number of people aged 85 and over).

There were close associations between the research identified in Chapter 3 and those for life expectancy and healthy life expectancy as presented in Chapter 4. Socioeconomic factors again featured prominently, but a small number of papers also explored ethnicity. However, an important finding from the research is the need to consider the measures of interest and how they may be associated with inequalities in differing ways. For example, overall life expectancy is conceptually distinct from disability-free life expectancy, and outcomes on these may be shaped substantially differently by particular sources of inequality. Furthermore, the body of evidence remains quite limited in terms of how those with varying protected characteristics and those in different geographies differ in terms of survival and mortality.

In Chapter 5 on financial security, there is a strong body of evidence looking at gendered aspects of income in later life. However, much of the evidence considers financial security in terms of pensions and employment, excluding the important component of wealth for people in later life. In addition, little evidence emerged that considered other groups and their financial experiences, such as people belonging to BME or LGBT communities or those with disabilities or with informal caring responsibilities.

Paralleling findings in Chapter 2, the evidence reviewed in Chapter 6 on inequalities in social connections drew attention to different ways of conceptualising and measuring such connections. While this made it difficult to compare findings across the studies, aspects of inequality were much more directly addressed in the social connections theme than in the subjective wellbeing theme. A number of studies explored intersections of identity and other characteristics among specific subgroups of the older population. However, the broad array of topics falling under social connections means that the identified evidence was limited when it came to any particular topic. This constellation of both inequality aspects and outcome measures, combined with the intersectional lens, gives rise to multiple gaps in the existing evidence base.

The chapter addressing the living environment features the most limited body of evidence in our review. The research explored in Chapter 7 considered some investigations along socioeconomic lines and among LGB people. However, most of the studies focus on a particular sub-group or circumstance, making broader, more generalised conclusions difficult to assert with confidence. The limited body of literature suggests that research on the home and living environment in later life includes considerable scope for future investigations across a range of inequalities.

Overall, our scoping review has identified multiple research findings to inform how inequalities in later life relate to outcomes across a broad spectrum of issues that impact on older people's experiences of older age. Later life itself is complex, and society is growing ever more diverse. Yet identifying solutions to and support for some of the challenges that can arise in later life requires a deep understanding of the issues that lead to different outcomes. Inequalities – in their multiple forms – play an important role in shaping this understanding.

However, the evidence base in our scoping review is not exhaustive. There remain gaps in the research, but the concepts of later life inequality and the diversity of the older population are stimulating ever greater interest and awareness. This generates new lines of inquiry that will enrich the knowledge base around issues in later life. Moreover, by also drawing on the lessons from existing studies, engaged stakeholders from across a range of sectors will be better placed to develop effective responses that can improve experiences in later life and help all members of society to age better.

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**Figure 1.1 Screening process for each scoping review**

	Conceptualising inequalities	Inequalities in subjective wellbeing	Inequalities in physical and mental health	Inequalities in life expectancy and healthy life expectancy	Inequalities in financial security	Inequalities in social connections	Inequalities in living environment
Records identified from database searching	2178	1527	5118	3287	5736	9600	5034
Records after duplicates removed	1625	1139	4039	2514	4157	7249	3717
Records after additional records identified via other sources	1626	1140	4039	2515	4157	7256	3730
Records selected for full text screening	82	106	167	140	72	123	46
Records included in data extraction	<b>48</b>	<b>30</b>	<b>88</b>	<b>34</b>	<b>15</b>	<b>44</b>	<b>12</b>



# Appendix 1

## Methodology

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### Study design and research questions

This report is based on a two-stage scoping review methodology, involving seven separate scoping reviews aimed at generating a knowledge synthesis of the relevant scientific literature relating to inequalities in later life. In this context, a scoping review represents a rigorous and transparent means of summarising current research knowledge and of identifying gaps in existing research (Arksey and O’Malley 2005; Davis et al. 2009). Unlike systematic reviews that aim to collate and augment analyses, a scoping review is considered exploratory and more comprehensive in nature with less emphasis on the direct comparability of the studies reviewed (Brien et al. 2010).

In broad terms, the approach adopted in this scoping review corresponds to the methodological framework initially developed by Arksey and O’Malley (2005) and expanded by Levac et al. (2010). The review process involved five steps:

- (1) Identification of the research question;
- (2) Identification of relevant studies;
- (3) Selection of studies;
- (4) Charting of data from selected studies; and
- (5) Collating, summarising and reporting the results.

The initial focus of the scoping review was on understanding how inequalities in later life have been conceptualised within the relevant literature. Particular regard was given to identifying conceptual frameworks that can help to understand the inequalities that form the basis for this report (i.e. subjective wellbeing; physical and mental health; life and healthy life expectancy; financial security; social connections; living environment). This approach recognises that the literature concerning inequalities in later life encompasses a wide range of themes and adopts a multiplicity of research designs and methods.

The two-stage scoping review identified targeted but interconnected research questions in each stage. In stage one, the focus was on identifying conceptual frameworks that specifically address inequalities in outcomes in later life. In this part of the review, evidence was collected from national and international literature in order to understand the factors which influence inequalities in later life and which present opportunities to intervene to mitigate inequalities.

The two research questions guiding this stage of the scoping review were:

- How are inequalities in later life conceptualised?
- What are the most significant influences on unequal outcomes in later life?

Findings from stage one fed into the second stage of the scoping review process. Here, the focus was on reviewing, separately, mainly empirical literature relating more specifically to six identified outcomes (i.e. subjective wellbeing; physical and mental health; life and healthy life expectancy; financial security; social connections; living environment). This involved six separate reviews, focusing on scientific literature relating to inequalities of outcomes in England. For each outcome, we considered in systematic fashion inequalities relating to: the protected characteristics of gender (including transgender), race, age, disability and sexual orientation and religion or beliefs; socioeconomic status; socio-spatial dimensions; and status as an informal carer. Where additional characteristics emerged, these were also documented.

The research questions for each of the stage two scoping reviews were:

- What is the scale and nature of inequalities in terms of specific outcomes in later life in England?
- What is the quality and strength of the evidence in this area, and where are there particular gaps or limitations in the evidence base?

## **Study selection, inclusion/exclusion criteria and screening material**

As recommended by Levac et al. (2010), study selection for each of the scoping reviews followed a team approach. Inclusion/exclusion criteria, data sources and search terms were agreed and refined by the research team, with decisions to exclude or include ambiguous texts confirmed by at least two team members. In consultation with the project's advisory groups, and the Centre for Ageing Better as commissioners of the project, the following inclusion criteria were adopted:

- Include literature from the last 10 years (i.e. 2006 to 2016 inclusive) in order to present the current state of the art. Papers published up until 11 November 2016, including papers published online ahead of print versions published at a later date, were included.
- Include scientific papers published in peer-reviewed journals.
- Include books that report on conceptual and empirical work.
- Include academic research reports that present conceptual and empirical work.
- Exclude grey literature.
- Exclude dissertations, theses and conference papers.
- Include documents that have a focus on older people (aged 50 years and over).
- Exclude documents published in languages other than English. (NB we were, however, willing to consider incorporating into the review additional materials published in languages other than English that were provided to the review team by members of the project Advisory Board).

- For stage one, include documents that present a conceptual framework relating to inequalities in later life.
- For stage two, include documents that present empirical or conceptual information relating to inequalities in specific outcomes.
- Exclude documents that review life-course social determinants of outcomes in later life.

Keywords for literature searches were derived from the literature relevant to inequalities in later life that the research team was already familiar with. Keywords relating to inequalities and later life were generated first. These included such terms as: social inequalities; social exclusion; disadvantage; vulnerability; risk; cumulative disadvantage. Keywords relating to later life, ageing and older people included: ag(e)ing; older persons; older adults; seniors; elderly; elders; senior citizens; later life; 50+. Keywords specific to stage one of the scoping review pertaining to conceptual frameworks included, for example: framework; model; conceptual model/framework; theoretical frame. Specific keywords relating to outcomes of inequalities were developed for each of the stage-two reviews. The search terms are presented in Appendix 2.

Different electronic bibliographic databases were selected to maximise the comprehensiveness and multidisciplinary reach of the scoping review(s). Within the time available to conduct the review, the research team was obliged to limit the number of databases searched to the following four: Applied Social Sciences Index and Abstracts (ASSIA); Scopus; Web of Science; and PsycINFO. Members of the review team received guidance from a specialist research librarians in order to assist the search.

Search results were sorted by and then examined for relevance. The decision to include or exclude articles started with a title and abstract review. This proved necessary because even fully-refined searches generate results that are clearly irrelevant to the guiding research questions. Titles and abstracts of papers were examined for relevance to the guiding research questions. After deciding which documents remained eligible for inclusion, and after deleting duplicate references, the full text of documents was acquired from electronic databases, internet sources or from library catalogues. A full review was then conducted on all texts. After completing this step, texts that still fulfilled the inclusion criteria were included in the final review sample. At each step of the review process, included references/documents were imported into the bibliographic management system EndNote.

## Data charting, analysis and reporting

In order to address the research questions, key information was extracted from each of the included documents and charted using a descriptive analytical method (Arksey and O’Malley 2005). To assist this process, as recommended by Levac et al. (2010), the review team developed data-charting forms: one for stage one; and one for each outcome of inequality addressed in stage two. All forms, created using Microsoft Excel, collected information on author name(s), year of publication, document source (e.g. journal title; volume; number), source country, and methodology (study design/approach; sample; data collection technique). The stage one form collected information on the structure of the conceptual framework. The stage two forms collected information on the empirical/conceptual findings pertaining to each inequality

outcome. As suggested by Levac et al. (2010), a qualitative content analysis was then performed on the information collected in the forms. This assisted in completing the information synthesis presented in each chapter of this report and identifying principal thematic areas, or dimensions, across the sources.

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# Appendix 2

## Search strategy

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- Include literature published between 1.01.2006 and 11.11.2016.
- Include scientific papers published in peer-reviewed journals.
- Include books that report on conceptual and empirical work.
- Include academic research reports that present conceptual and empirical work.
- Exclude grey literature.
- Exclude dissertations, theses, conference papers, notes, letters, short surveys and editorials.
- Include documents that have a focus on older people (aged 50 years and over).
- Exclude documents published in languages other than English.
- For stage one, include documents that present a conceptual framework relating to inequalities in later life.
- For stage two, include documents that present empirical or conceptual information relating to inequalities in specific outcomes.
- Exclude documents that review life-course social determinants of outcomes in later life.
- Databases: Applied Social Sciences Index and Abstracts (ASSIA); Scopus; Web of Science; and PsycINFO.

<b>Stage One</b>	
Keywords relating to social inequalities	(social* OR socio* OR depriv* OR cumulative) AND (inequalit* OR inequity OR unequal OR exclusion* OR inclusion* OR advantag* OR disadvantag* OR marginal* OR vulnerab*)
AND Keywords relating to later life	Ag*ing; Aged; "Old age"; "Older people"; "Older person*"; "Older adults"; Retir*; Seniors; "Senior citizen*"; Elder*; Geriatr*; "Later life"; "Mid life"; "Third age"; "Fourth age"
AND Stage One keywords	concept* OR theor* OR intersect* OR frame* OR model* (Titles only)

<b>Stage Two</b>	
Keywords relating to inequalities	(social* OR socio*economic OR income* OR economic* OR education OR occupation* OR depriv* OR cumulative OR gender* OR ethnic* OR race OR racial* OR sex* OR LGB* OR gay OR lesbian OR bisexual OR transgender OR "informal care*" OR religio* OR belief* OR disabilit*) AND (inequalit* OR inequity OR unequal OR exclusion* OR inclusion* OR disparit* OR discrim* OR advantag* OR disadvantag* OR marginal* OR vulnerab*)

<b>Stage Two</b>	
Keywords relating to later life	Ag*ing; Aged; "Old age"; "Older people"; "Older person*"; "Older adults"; Retir*; Seniors; "Senior citizen*"; Elder*; Geriatr*; "Later life"; "Mid life"; "Third age"; "Fourth age"
AND Country	"Great Britain" OR UK OR "United Kingdom" OR England OR Britain OR British OR English. (Titles and abstracts)
AND Publication Date	01.01.06 to 11.11.2016
AND Stage Two Keywords	
Subjective Wellbeing	Wellbeing Well-being Wellness Happiness Happy "Life satisfaction" "Satisfaction with life" "Good life" "Quality of life" Capabilit*

Stage Two	
Physical and Mental Health	"Physical health" "Physical function*" "Long*term illness*" "Chronic condition*" Morbidit* Comorbidit* Multi*morbidit* Symptom* Impairment* Frail* "Mental health" "Psychological well*being" "Mental well*being" "Mental capital" "Cognitive function*" "Lifestyle risk*factor*" Depress* Anxiet* "Substance *use" Coping Resilien* Stress* "Use of services" "Use of health*care" "Access to health*care" "Access to services" "Informal care" "Independent living" "Elder* abuse"
Life Expectancy and Healthy Life Expectancy	"Life expectanc*" "Healthy life expectanc*" "Disability*free life expectanc*" Longevity Mortality Death Morbidit* Disabilit*

## Stage Two

Financial Security	Wealth* Asset* Pension* Investment* "Living standards" Employ* Work* Unemploy* Retire* Financ* "Material resource*" "Intergenerational transfer*" "Social security" Poverty Income* "Material well*being" Depriv* "Housing cost*" "Fuel poverty" Benefit* "Means*test*" Bills Debt* Credit Saving* Affordab* Budget* "Money management" "Power of attorney"
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## Stage Two

Social Connections	Social* Intergenerational Isolat* Lonel* Loss Bereave* Famil* Child* Friend* Neighbo* Divorce* Separat* Widow* Marri* Cohabitat* Partner* "Living Apart Together" "Informal* Support*" "Informal* care*" "Digital media" "Digital* exclu*" Technolog*
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## Stage Two

Living Environment (Home and Neighbourhood)	"Living environment*" Home Homeless* Housing Tenure Rent* "Independent living" "Domiciliary care" "Residential care" "Institutional care" "Assisted living" Adapt* "Formal care" "Informal care" "Physical environment*" Neighbo*rhood* Communit* Local* Urban* Rural* Transport* "Leisure facilit*" Amenit* "Age*friendl*" Crime* Safety Secur* Insecur* Victimi* Mobilit*
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This report is available at [www.ageing-better.org.uk](http://www.ageing-better.org.uk) | For more info email [info@ageing-better.org.uk](mailto:info@ageing-better.org.uk)

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The Centre for Ageing Better received £50 million from the Big Lottery Fund in January 2015 in the form of an endowment to enable it to identify what works in the ageing sector by bridging the gap between research, evidence and practice.