Local Government Association

NEED TO KNOW

Review Number Five

Local Government Knowledge Navigator

Local Government and the Demography of Ageing

A Joint Commission by the
Local Government Knowledge Navigator
and the
Local Government Association

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March 2015

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THE NEED TO KNOW SERIES

This evidence review on **Local Government and the Demography of Ageing** is part of the 'Need to Know' series, and is a joint commission by the Local Government Knowledge Navigator and the Local Government Association.

'Need to Know' reports are summaries of available research-derived knowledge and evidence relevant to topics that have been identified to the Knowledge Navigator as priorities by local government. They:

- Highlight key areas of relevant knowledge
- Signpost where the evidence can be accessed in more detail, and
- Identify where research investment has potential to meet any gaps identified in that knowledge and evidence base.

We welcome feedback on this review. Please contact Professor Tim Allen at tim.allen@ukracs.co.uk

THE LOCAL GOVERNMENT KNOWLEDGE NAVIGATOR

The Local Government Knowledge Navigator is an initiative funded by the Economic and Social Research Council (ESRC), and steered by ESRC, Local Government Association and the Society of Local Authority Chief Executives.

It was launched in January 2013 with the aim of helping local government to make better use of existing national investment in research and research-derived knowledge and evidence, and to influence future research agendas, programmes and investment. The Knowledge Navigator team is Tim Allen, Dr Clive Grace and Professor Steve Martin.

Acknowledgements

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OVERVIEW

This review on the demography of ageing and the role of local government focuses on the main opportunities and challenges posed by population ageing for policymakers at the local level, and the ways in which such opportunities and challenges might be addressed.

The review starts with an **Introduction** which sets the context of population ageing with a focus on the United Kingdom and defines key terms used by academics and government statisticians in this area. This section also sets out the aim of the review, its potential for informing policymakers at the local level, and its limitations.

Section 2 turns to discuss the characteristics of population ageing in the United Kingdom, using key indicators which are currently used in this area. The changing composition of the older population is a particular focus of this section, pointing to the role of local government in safeguarding and improving the well-being of individuals across the life course and particularly in later life.

Our understanding of what constitutes healthy ageing is discussed in **Section 3**, drawing on national and European policy agendas in this area as well as those addressing 'Active Ageing'. The concept of 'need', and its measurement for academic and policy purposes, is also highlighted in this Section, and related to the role of local government as a regulator of appropriate social care services for older people in a context of changing providers.

Against this background, the review then turns in **Section 4** to examine the importance of independent living and choice in housing arrangements in later life, and the challenges posed in this area by changing family forms and living arrangements in the United Kingdom. The potential of innovative solutions such as tele-care and tele-medicine is also explored in this Section.

Finally, **Section 5** brings together evidence on the well-being and quality of life enjoyed by individuals across the life-course and in later life, drawing on different dimensions of well-being, such as economic and social well-being, and outlining the challenges associated with promoting well-being at the local level.

The review aims to point readers to key reports and resources in the field. In doing so it does not attempt to summarise each report, as this would take too much space; rather, it highlights the key contexts, allowing the interested reader to choose to then access the reports for themselves.

SUMMARY

In 2011, 10.4 million UK residents or 16% of the UK population were aged 65 years and over; by 2035 this is expected to increase to 17.3 million, representing 24% of the population.

Nevertheless, although the older population will account for nearly a quarter of the population by 2035 - the UK will be one of the least aged countries among the EU-27, with Germany projected to be the most aged with 31% of the population aged 65 and over. This offers potential for local government in the UK to learn best policy and practice from local and regional government elsewhere in Europe.

The 'oldest old' is the fastest-growing age group in the population. In 2013, it was estimated that there were over 475,000 people aged 90 and over in the UK, of whom 13,780 were aged over 100 and 710 were aged 105 or older. By 2035, it is expected that there will be nearly 1.5 million people aged 90 and over in the UK, of whom nearly 100,000 will be centenarians.

Over the next two decades, the older population is likely to become increasingly ethnically diverse as the cohorts of people who have migrated to the UK since the 1960s enter retirement. By 2051, there will be 3.8 million Black and Minority Ethnic people aged 65 and over compared with 675,000 today.

Improvements in mortality, and the associated reductions in widowhood, mean that the proportion of older people who are married has increased. At the same time, however, the proportion of those aged 65 and over who are divorced has almost doubled from 5.2% in 2001 to 8.7% in 2011 – reflecting a new group of 'silver splitters' who may face particular needs as they age.

Women continue to, on average, outlive men but the gender gap in life expectancy is narrowing. In England, life expectancy at birth in 2010-12 was 79.2 for males and 83 years for females. In Scotland, the equivalent figures are 76.6 years for males and 80.8 years for females.

In the UK, males and females can expect to spend more than 80% of their lives from birth in very good or good general health. This falls to 57% of remaining life at age 65 years. The proportion of life spent in very good or good general health is shown to be increasing in England and Wales, but has fallen in Scotland and Northern Ireland as gains in life expectancy are not fully matched by gains in healthy life expectancy.

Variations across local authorities are significant. Men and women in the most advantaged areas show a similar life expectancy at age 65, being expected to live a further 19.3 years and 20.1 years respectively. However in the most deprived areas, men have a life expectancy which is 9.2 years shorter than men in the least deprived areas; while females can expect to live 6.8 years less than females in the least deprived areas. Such disparities can pose significant challenges for the local provision of preventative and treatment services and have implications for wider policy objectives to alleviate the drivers of these poorer outcomes.

A critical aspect of understanding current and future patterns of morbidity among the older population relate to mental health. Approximately 7% of persons aged 65 and over live with dementia in the UK, and the Alzheimer's Society has estimated that the total number of people with dementia in the UK will increase to over 1 million by 2025 and over 2 million by 2051.

'Healthy ageing' is a concept that is gaining widespread currency, as is 'active ageing' and 'successful ageing'. Healthy ageing is concerned with the maintenance of good health. Active ageing is focused on the participation of older people in society and is therefore facilitated or enabled by healthy ageing. Successful ageing is linked to high 'social functioning'; to achieve this, older individuals need to ensure

their continued participation in social activities and networks from a young age. Local government can help facilitate successful ageing through the provision of facilities that support these activities.

Concepts such as successful ageing serve to highlight that among the oldest old, poor physical quality of life is not necessarily associated with poor mental health quality of life, and that with appropriate policies and programmes, individuals can remain healthy and independent well into old age and continue to contribute to their communities and families.

It is important to remember that large proportions of older people continue to contribute to the economy and to society in a range of ways, such as through economic activity in later life, volunteering and informal care provision. It is estimated that that over 1.2 million men and over 1.5 million women aged 50-59 provide unpaid care to a relative, friend or neighbour; 44% of people aged 65-74 had volunteered at least once in the past year as had 33% of those aged 75 and over.

Housing is a crucial determinant for the quality of life of older people, especially given that the majority of older people remain, and prefer to remain, living in the community. Housing and health are related and a key challenge of living independently and healthily in later life is fuel poverty. Older people living in cold, damp homes are at greater risk of a range of conditions including arthritic symptoms and rheumatism, which can result in prolonged immobility, making it even more difficult to keep warm; domestic accidents and falls, including fatalities; social isolation; and mental health problems.

Age-related physical and health limitations and / or the household structure in terms of co-residence and social isolation may also give rise to specific housing requirements. Local authorities need to be alert to the changing needs across the life course.

Supporting older people to age 'in place' can decrease the need for more costly interventions, such as the provision of care within a care home or nursing homes, and individuals' hospitalisation. For example, the availability and provision of services such as meals on wheels and warden-based accommodation may potentially contribute to the reduction of demand for formal care services. In addition, technologies can improve and facilitate the independent living of an ageing population with devices and interventions already in use such as: tele-care, touch-screen devices, technical aids for hearing, seeing etc., and other forms of technical assistance.

The WHO Age-friendly Environments Programme suggests that local communities should focus on eight main dimensions in order to become more supportive and adaptive to the needs of their ageing population. These include: the built environment; transport; housing; social participation; respect and social inclusion; civic participation and employment; communication and community support; and health services.

Data to support individual Local Authorities in evidence-based policy design are available from the 'Resources' section of this report.

1. INTRODUCTION

This Introduction sets the remit of this Review, as well as its aims and objectives. It also provides the context of population ageing in the United Kingdom and key definitions used to understand the phenomenon.

1.1 The aims and objectives of this Review

This Review summarises key evidence in the form of academic and policy publications in the area of population ageing in the United Kingdom. Its main aim is to inform policymakers at local government level of the main challenges and opportunities posed by a growing aged population, and to contribute to guidance which helps address such challenges.

The Review has three key objectives:

Firstly, the Review signposts key parts of the evidence base on population ageing, mostly from the UK context but also from abroad where appropriate.

Secondly, the Review outlines fundamental challenges associated with population ageing, and the ways in which such challenges affect the design of policies and services at the local government level.

Thirdly, the Review discusses the role of local government in responding to such challenges, and where appropriate, provides examples of policy solutions looking into the future.

1.2 Ageing: key definitions and concepts

The population of the United Kingdom, as in most countries of the developed world, is ageing, and this phenomenon is associated with both challenges and opportunities for individuals, families, societies and policymakers alike. Ageing is generally used to denote to population ageing, which refers to the increase over time in the proportion of the population of a specified older age (World Health Organization, 2004). Key to the underlying trend in global population ageing is a concept known as the 'demographic transition' whereby firstly mortality and then subsequently fertility declined from higher to lower levels, and have since remained relatively stable (Kirk, 1996). Across the developed world, decreasing mortality at younger ages has been followed by decreases in fertility; these trends have shifted the age structure of the population from younger to older ages (United Nations, 2002). In turn, persistent low fertility combined with increases in life expectancy at older ages has continued to drive an increase in ageing.

However, ageing is a concept which varies in its scope, speed and nature internationally and which can manifest itself differently in different country contexts (Sanderson & Scherbov, 2008). There are both biological and social aspects to ageing which can be considered (Wolf, 1959). Ageing should also be considered as both an individual phenomenon and a population or 'societal' phenomenon, and can therefore be described in both micro-level terms (i.e. lived personal experience and specific personal needs) and macro-level terms (i.e. population level change and societal needs) (European Commission, 2014). In addition, population ageing is an issue which is important to the whole population because of its pervasive nature which can affect the relative role of older people in society, family structures, employment, pensions, social care, housing and service demands (European Commission, 2014).

"Most older people do not suffer from serious levels of disability, and lead fulfilled and active lives which involve high levels of interaction with family and friends."

(Grundy, et al., 2007, p. 3)

The measurement of population ageing has generally focused around three main indices:

1. **the percentage of the population aged a specific age threshold (usually the official age of retirement);**
2. **the median age of the population (the age at which 50% of the population is older and 50% of the population is younger),**

and;

3. **the (average) life expectancy at birth.**

Notions of an ageing population tend to be focused around the increase in the median age of the population and the increase in the proportion of older people as part of the population as a whole. At the 2011 UK Census, the population aged 65 years and over was 10.4 million or 16% of the UK population in contrast to 2.2 million or 5% of the population in 1911. Interestingly, although the absolute number of older people has been increasing, the percentage of the population aged 65 years and over at 2011 was the same as in 2001, largely because of recent increases in fertility and high rates of migration in the 2001-2011 period (Office for National Statistics, 2012a). Looking forward over the next 20 years, however, we can expect to see a significant rise in the proportion of those aged 65 and over as the 'baby boom' cohorts (those born in the late 50s to mid-1960s) begin to enter retirement.

The point at which individuals are entitled to receive pension benefits is generally the age which is associated with being 'older' in many countries of the developed world (World Health Organization, 2000). Within the UK, this point has been the age of 60 for women and 65 for men for many years; however policy changes have recently brought a gradual increase to these ages which will reach 67 for both men and women by 2028 and this is being reviewed for a further increase thereafter (legislation.gov.uk, 2014).

Increasing life expectancies, longer durations of healthy life expectancy and a current policy debate on extending working lives, have challenged notions of individuals aged over 65 being dependent, whether physically or financially. Given changes in the conceptualisation of ageing it has been suggested that conventional measurements such as an arbitrary number of years lived (i.e. chronological age) should be reconsidered (Sanderson & Scherbov, 2008).

One indicator of population ageing, the old age dependency ratio which provides the proportion of older people of pension age relative to those of working age, has recently been challenged. Recent research has emphasised that this measure does not count the true number of dependent older people (who may not be dependent and actually work in some capacity) nor the number who support them (as not all of the working age population are employed), and instead suggests that because of increasing life expectancy at older ages, it is remaining life expectancy which should be the focus of research (Spijker & MacInnes, 2013), with pension and other benefit entitlement being linked to 'expected number of years to death' rather than the number of years already lived.

WHAT DO WE MEAN BY 'HEALTHY LIFE EXPECTANCY?'

In its simplest form, healthy life expectancy can be defined as follows:

"Healthy life expectancy is an estimate of the remaining years of life that will be spent in good health."

Indeed, the same source goes on to state that:

"There are important socio-demographic differences in healthy life expectancy. Not only can people from more deprived populations expect to live shorter lives, but a greater proportion of their life will be in poor health."

(The King's Fund Site, n.d.)

Therefore, it is increasingly recognised that the age of 65 years as the threshold of being 'older' should be considered as just one measure of the ageing process. Indeed, many reports use the age of 50 as a threshold for measuring older people, and the period between the years 50-64, often referred to as mid-life, is seen as being critical in terms of the trajectories into old age (Demey, et al., 2011). The years 60-74 are typically thought of as 'early later life' or 'young old' (World Health Organization, 2004), while the oldest old are usually those aged 80 or 85 and over (AgeUK, 2013).

There are also differing eligibilities and entitlements which are associated with old age – the free bus pass at age 65 in many local authorities in England is one example, the winter fuel allowance for those 75 years and over is another (gov.uk, 2014). However, age 65 remains a good signifier of changes in lifestyle, health and living arrangements and has become the most common measure of ageing in the UK for the official statistical agency in the UK (and internationally), government, academia and the charity and third sector (Office for National Statistics, 2013a; Office for National Statistics, 2012b; AgeUK, 2014).

2. THE AGEING POPULATION IN THE UNITED KINGDOM

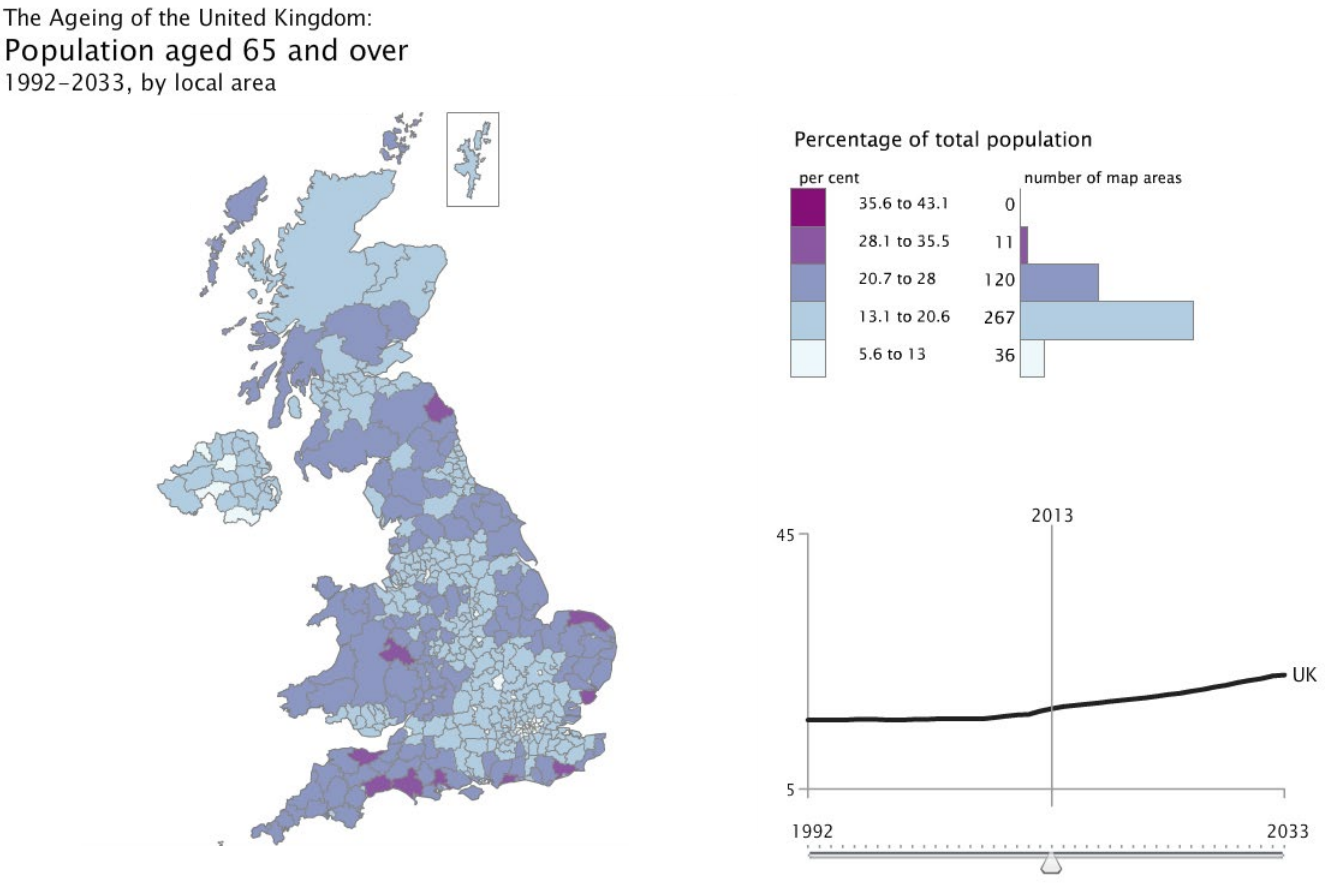
This Section discusses the characteristics of the ageing population in the United Kingdom, pointing to specific changes in its composition which are likely to pose challenges and opportunities for local government in the future.

2.1 The Ageing Population of the UK

Results from the 2011 UK Census provide an overview of the ageing of the UK population at a national and subnational level. In 2011, 10.4 million UK residents or 16% of the UK population were aged 65 years and over (Office for National Statistics, 2012a). This was the same in percentage terms as at the 2001 Census, but in absolute terms, there were a million extra people over the age of 65 at 2011.

There was a 7% increase in the population over the ten years from 2001 to 2011 and this headline figure also obscures some of the specific geographies of ageing (see Section 2.2). Among those aged 65 years and over, in 2011 the median age for the older population was 74 years in both 2001 and 2011. Continued increases in the percentage of the population aged 65 years and over in the UK are projected; by 2035 those aged 65 years and over are expected to account for 23.8% of the total population (Office for National Statistics, 2013).

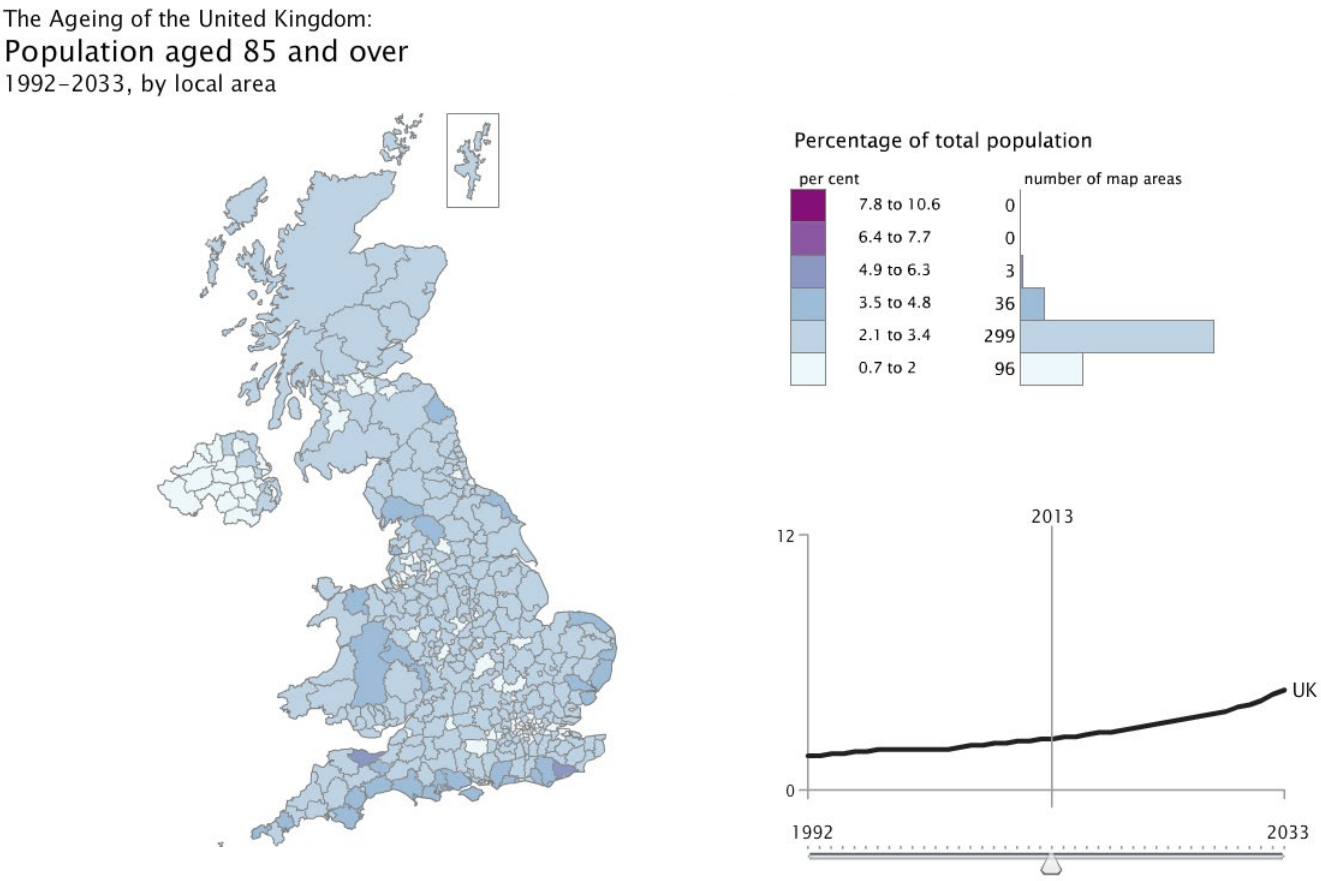
Figure 1: Population aged 65 and over, 2013



Source: ONS, WG, NRS, NISRA. Data: Pop. estimates 1992–2010; 2008-based National and Subnational projections 2011–
© Crown copyright and database rights 2011. Ordnance Survey 100019153.

Graphic by: ONS Data Visualisation Centre
Office for National Statistics, UK

Figure 2: Population aged 85 and over, 2013



Source: ONS, WG, NRS, NISRA. Data: Pop. estimates 1992–2010; 2008-based National and Subnational projections 2011–
© Crown copyright and database rights 2011. Ordnance Survey 100019153.

Graphic by: **ONS Data Visualisation Centre**
Office for National Statistics, UK

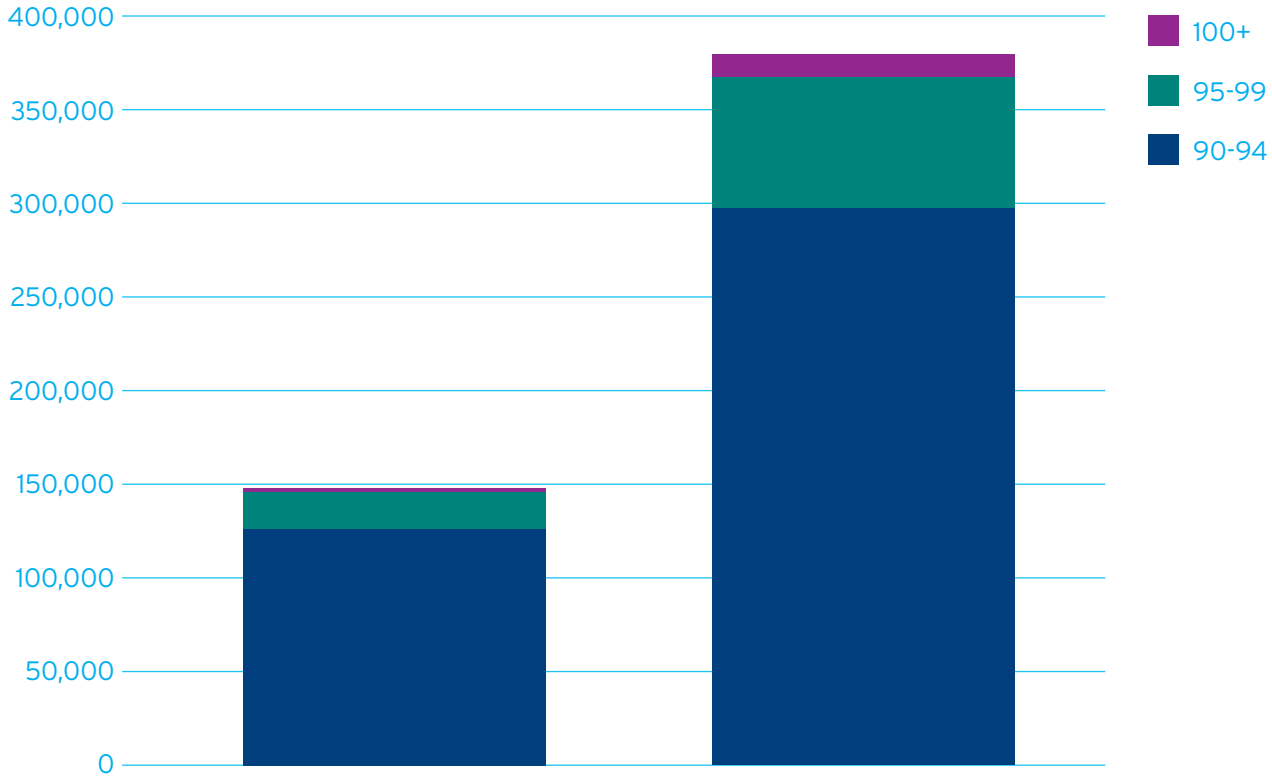
The rates of ageing in the UK constituent countries have varied, with Wales remaining the most aged of the four UK countries and Northern Ireland consistently remaining the youngest. In part, Wales has the highest aged population because of the out-migration of younger people, a rural geography (associated with an older population) and the fact that it has tended to attract retiree migrants (Office for National Statistics, 2012c).

Within the older population what have been termed the 'oldest old' (those aged 85 years and over) is the fastest-growing age group in the population (AgeUK, 2013), reaching 1.4 million by 2010 (2% of the total population) (Office for National Statistics, 2012c). Interest in very elderly individuals (those aged 100 years and over) has also increased, with separate estimates of this group made by the Office for National Statistics. See http://www.ons.gov.uk/ons/rel/mortality-ageing/estimates-of-the-very-old--including-centenarians-/2002---2013--england-and-wales--united-kingdom-/stb-2002-2013-estimates-of-the-very-old.html

In 2013 it was estimated that there were over 475,000 people aged 90 and over in the UK, of whom 13,780 were aged over 100 and 710 were aged 105 or older. Female centenarians have consistently outnumbered male centenarians due to higher life expectancies for women although since 2000 there has been a marked increase in male centenarians with the ratio of female to males decreasing.

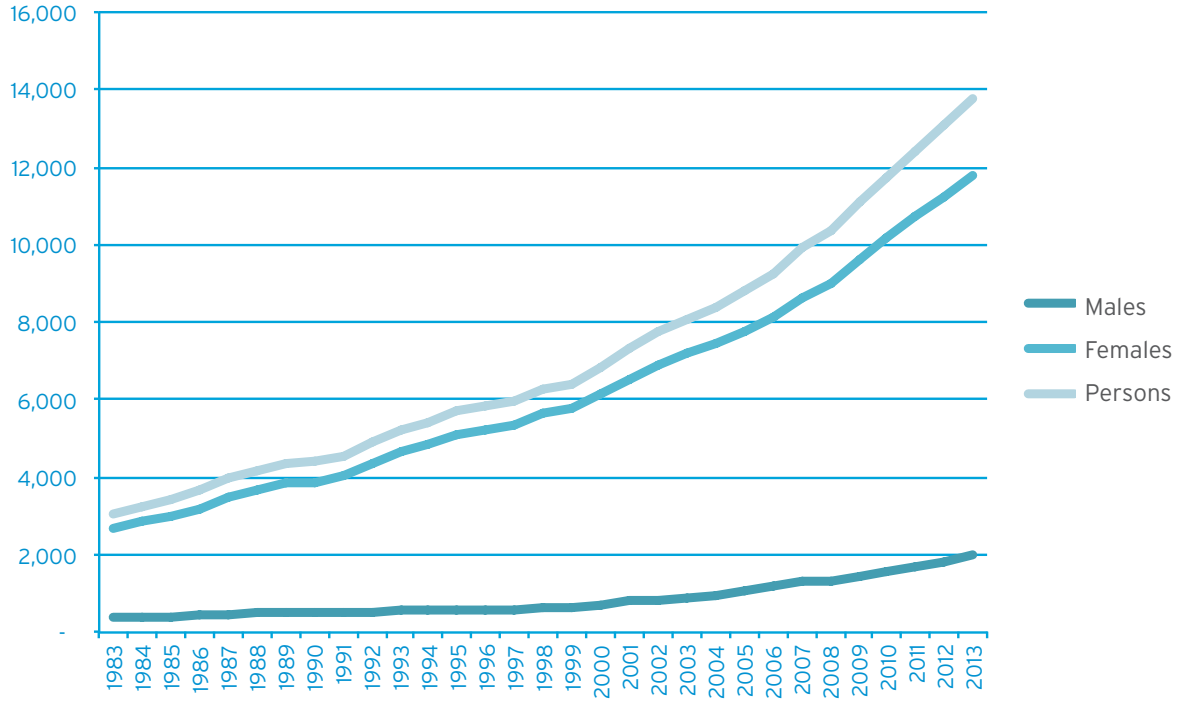
In part because of the relatively small numbers relating to this group, there have been very high percentage increases in recent years (for instance there has been a 100% increase in centenarians since 2000). The ONS report notes that, in common with the rising life expectancy at younger old ages, the main driver of the rising number of centenarians is increased survival due to improvements to medical treatment, housing and living standards (Office for National Statistics, 2011).

Figure 3: Population aged 90 and over, UK 2013



Source: http://www.ons.gov.uk/ons/rel/mortality-ageing/estimates-of-the-very-old--including-centenarians-/2002---2013--england-and-wales--united-kingdom-/stb-2002-2013-estimates-of-the-very-old.html

Figure 4: Population aged 100 and over, UK 2013



Source: http://www.ons.gov.uk/ons/rel/mortality-ageing/estimates-of-the-very-old--including-centenarians-/2002---2013--england-and-wales--united-kingdom-/stb-2002-2013-estimates-of-the-very-old.html

The oldest old population is projected to continue to increase in size over the next 30 years, from 1.5 million aged 85 and over in 2012 to 2.2 million in 2025 and 3.5 million by 2035. In 2035, it is estimated that there will be nearly 1.5 million people aged 90 and over (Office for National Statistics, 2013).

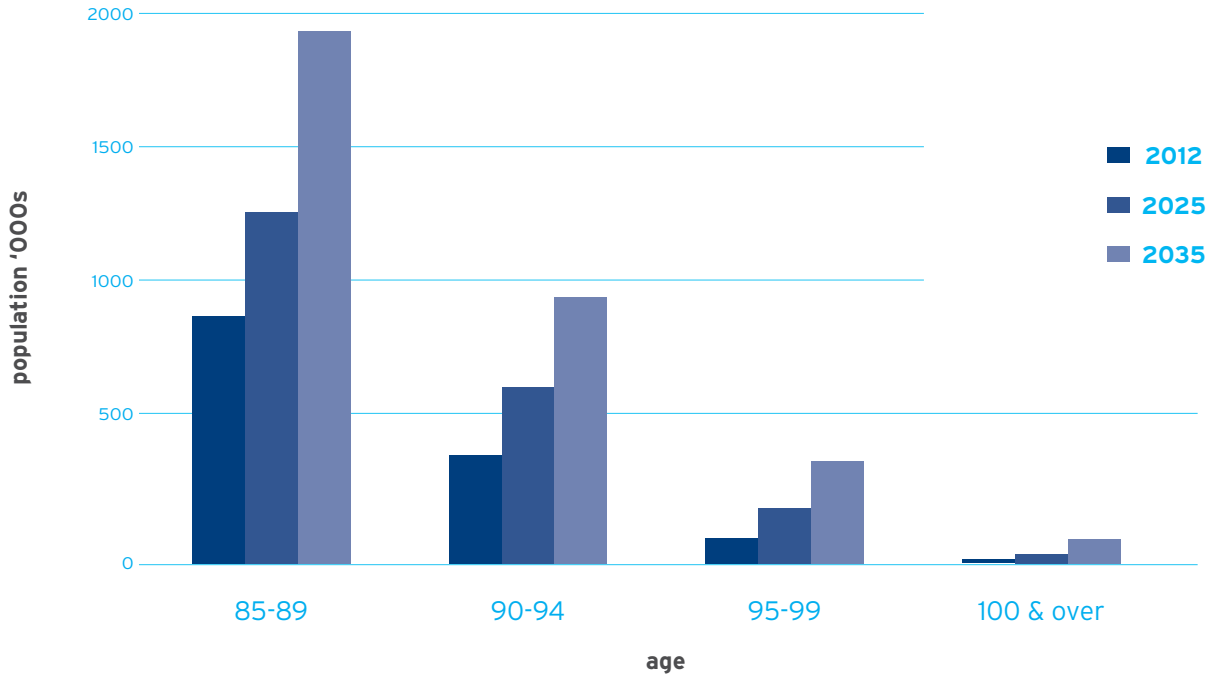
ONS reports have also contextualised UK ageing within European trends in this area (Office for National Statistics, 2012c). In the European context, the UK has aged less rapidly than the EU-27 average over the period 1990-2010, in part because of the relatively high fertility rate in the UK since 2001.

The Total Fertility Rate (TFR) (a synthetic measure of the number of children each woman would have if prevailing age group fertility was held constant for each woman across their entire reproductive years) has increased from a recent low of 1.63 in 2001 to a rate in the order of 1.9 from 2008 (Office for National Statistics, 2013). In 2013 the TFR was 1.85, a slight decrease from 1.94 in 2012 (Office for National Statistics, 2014a).

This contrasts with the mid-1980s when the UK was one of the more aged countries in Europe. Estimates suggest that by 2035 the UK will be among the least aged countries in the EU, with Germany projected to be the most aged and Ireland the youngest (Office for National Statistics, 2012c). Recent migration to England and Wales has also contributed to the slightly lower overall median age in this region (as migrants tend to be young adults in their 20s and 30s) and a slightly lower percentage of over 65s (Office for National Statistics, 2012c).

The European Commission has continued discussing the issue of demographic change (European Commission, 2005) as part of a broader strategy which, building on the Lisbon 2000 targets and as part of the renewed Europe 2020 targets, aims to include 75% of 20-64 year olds in the labour market (European Commission, 2011). The EU is also encouraging a focus on healthy and active ageing, contributing to the overall objective of improving living standards among an increasingly ageing population; this will be discussed in more detail later.

Figure 5: projected population aged 85 and over, 2012 / 2025 / 2035



Source: ONS Population Projections 2012 based

2.2 The changing characteristics of older people in the UK

Aggregate figures on ageing in the UK may obscure some of the detailed dimensions of ageing which are important for local governments to consider. In many cases the most recent, detailed sub-national data on older people in the UK can be drawn from the 2011 UK Census.

Up-to-date data on population age structures for individual local authorities is available at: http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-322718

With reference to the sex differential in average life expectancy, there has been a continued decrease in the gap between men and women (Office for National Statistics, 2014b). England still has the highest life expectancy of the UK countries, with male life expectancy having increased to 79.2 years in 2010-12 and for females to 83 years (Office for National Statistics, 2014b). In Scotland, the equivalent figures are 76.6 years for males and 80.8 years for females. (Office for National Statistics, 2014b). An increasingly important part of individuals' overall life expectancy is healthy life expectancy, which is explored further in subsequent sections (for subnational information on this see (Office for National Statistics, 2014c)). Both indicators of individuals' average life expectancy and average healthy life expectancy are crucial for local government to consider, as they relate to the cost of health and social care for an ageing population, as well as to policy debates on economic activity patterns and pension receipt among older people.

Ethnicity

On average, the ethnic minority populations of England and Wales are younger than the majority White British population in terms of median age (42.5 years) with only the White Irish population having a higher mean age (53.4 years) (Centre for Policy on Ageing, 2013). Ethnic minority populations do not form a homogeneous group and their ageing is very different from each other. Among research on the age structures of the ethnic minority groups at the 2011 Census, the Centre for Policy on Ageing has detailed the population pyramids for different ethnic groups. These show the older profile of the White Irish population resulting from children of White Irish parents leaving the group and their ethnicity being declared as White British. Black Caribbean forms the oldest non-white ethnic group, with a disproportionate number currently in the 40-54 years age range (Centre for Policy on Ageing, 2013).

Over the next two decades the older population is likely to become increasingly diverse as the cohorts of people who have migrated to the UK since the 1960s enter retirement. The Centre for Policy on Ageing, together with Runnymede, published a report examining the likely change in the age structures of the ethnic minority populations in England and Wales up to 2051 (Lievesley, 2010). According to their estimates, by 2051 the total BME population in England and Wales will have grown to 25 million, comprising 36% of the total population. The fastest growing ethnic population will be 'other white', reflecting the recent in-migration from the countries of eastern and central Europe, followed by the Black African, Pakistani and Indian ethnic groups. The same report predicts that by 2051, there will be 3.8 million BME people aged 65 and over compared with 675,000 today. This increasing diversity will have implications for local authorities and national agencies involved in the provision of services to older people.

RESOURCE 1

Understanding increasing diversity; ethnic elders

The ESRC Centre on Dynamics of Ethnicity (CoDE) has produced a range of Excel-based interactive profiler tools to create your own census data analyses, including the age structure of religion, ethnicity and national identity for local authorities in England, Wales and Scotland.

Available at: http://www.ethnicity.ac.uk/research/data-sources/area-profilers/

Living arrangements and marital status

For England and Wales at 2011 compared to 2001, among the population aged 65 years and over there is a higher percentage of the population who were married and divorced, and lower percentages of those who were widowed (Office for National Statistics, 2013a). This reflects increasing life expectancies with delays in mortality and therefore widowhood. Notably, the proportion of those aged 65 and over who were divorced almost doubled from 5.2% in 2001 to 8.7% in 2011; the corresponding increase for the population aged 16 years and over was from 8.2% in 2001 to 9.0% in 2011

(Office for National Statistics, 2013a). Possible reasons for such trends are the increased life expectancy which means that there are more married people at older ages, a loss of stigma attached to divorce (there are more divorced people in the population) and more women entering the labour market and maintaining financial independence outside a marriage (Office for National Statistics, 2013b).

Results from the 2011 Census show that while the proportion of older married individuals has increased overall, it has risen in all geographical areas of the UK. More notable and crucial for healthy life expectancy and the provision of informal care, is that 56% of individuals aged 65 years and over were living as a couple in a household, an increase from 52% in 2001 (Office for National Statistics, 2013a). One reason for this is increasing life expectancy, particularly among men. The chance of surviving from birth to age 85 years has more than doubled for men over the last three decades from 14% in 1980-82 to 38% in 2009-11 (Office for National Statistics, 2013c). This increasing male life expectancy is leading to longer co-residential living in later life (De Jong, et al., 2001). However, more recent increases in divorce among those aged over 65 years may lead to declines in such living arrangements (Office for National Statistics, 2013b). In addition, changes in mid-life continue to result in changing living arrangements at older ages, particularly related to divorce in mid-life. The mid-life has been identified as being a stage of the life course marked by increasing diversity because of changes in the patterns of family formation, dissolution and living arrangements (Demey, et al., 2011).

National and subnational geographies

Subnational figures on life expectancy at birth and at age 65 are produced by the ONS and highlight important differences within the UK (Office for National Statistics, 2014b). The relative number of older people is best considered in relation to the population as a whole in a particular area (e.g. major cities are most populated, but not necessarily where most ageing is 'happening' in percentage terms). These subnational figures are important as they relate to the likely future profile of the population over the age of 65 in the UK and what this means for smaller geographic areas. Official statistics showed that life expectancy for men aged 65 increased to 18.2 years in 2010-12 and for women increased to 20.9 years (Office for National Statistics, 2014b). In addition, regular publications from the ONS identify the expected healthy life expectancies for males and females and the geographies of these within the UK.

Headline results from the 2012 release (Office for National Statistics, 2012d) identified that in the UK males and females can expect to spend more than 80% of their lives in very good or good general health from birth, falling to 57% at age 65 years. In terms of geographies, the proportion of life in very good or good general health is shown to be increasing in England and Wales but falling in Scotland and Northern Ireland (Office for National Statistics, 2012d). There are then, specific trends of ageing and healthy ageing in particular areas of the UK, with associated implications for local governments relating to health and financial costs. Crucial caveats should be made that projections can be impacted upon by migration and nuances in the population which can play out at small geographic levels. In addition, such projections also need to take into account that significant parts of the older population are ageing 'well' and are more likely to be mobile due to increases in healthy life expectancy.

RESOURCE 2

Understanding and projecting ageing at a local authority level – the Office for National Statistics Interactive Ageing Tool

Maps help to highlight the specific geographies of ageing in the UK. Among resources available on the ageing of the population in the UK, the Office for National Statistics ageing tool is a valuable resource which displays the present and projected future composition of the older population. Data are shown at a Local Authority level and comparisons can be made to the national figures for different dimensions of ageing.

Mapping 2014 estimates of the percentage of the Local Authority aged 65 years and over show high percentages in costal and rural areas (e.g. Devon, Dorset, Shropshire, Somerset, Sussex) and low percentages in major cities (e.g. Birmingham, Bristol, Cambridge, Manchester, Nottingham). Refining this to those aged 85 years and over highlights a clearer patterning with higher percentages in rural and coastal areas.

Available at: http://www.ons.gov.uk/ons/interactive/theme-pages-1-2/age-interactive-map.html

RESOURCE 3

Mapping census data at Output Area level for Local Authorities in England and Wales – Census Open Atlas Project

2011 Census data by Output Areas (the most detailed Census geography) has been mapped and allow a finer-grained identification of geo-spatial demographics of ageing within England and Wales Local Authorities.

(Note that this was completed by the 'Open Atlas project' at the University of Liverpool, not the Office for National Statistics (ONS) but that it uses 2011 Census data from the ONS).

Available at: http://www.alex-singleton.com/r/2014/02/05/2011-census-open-atlas-project-version-two/

RESOURCE 4

What was the age profile of your local authority in 2011? The Office for National Statistics Interactive Population Pyramids from the 2001 and 2011 Censuses

Similar to the interactive ageing tool, 2011 Census data on the age profile of local authority populations at 2011 and 2001 can be compared to national level figures using the ONS interactive population pyramids.

Available at: http://www.ons.gov.uk/ons/interactive/vp2-2011-census-comparator/index.html

2.3 Why ageing matters for local government in the UK

Understanding the changing dimensions of ageing discussed above is critical for local governments tasked with planning for the future demand for and supply of appropriate services for older people. A critical part of such planning is the realisation that, although parts of the older population are likely to increase the demand for health and social care services in the future (e.g. those with high needs) (Falkingham, et al., 2010), nevertheless large proportions of older people contribute to the economy and to society in a range of ways, such as through economic activity in later life, volunteering and informal care provision.

The Community Life Survey (2012/13) found that 44% of people aged 65-74 had volunteered at least once in the past year and 33% had volunteered in the past month; the corresponding figures for those aged 75 and over were 33% and 27%, highlighting that even at older ages, a high proportion of older people remain active.

Recent research has shown that over 1.2 million men and over 1.5 million women aged 50-59 provide unpaid care to a relative, friend or neighbour (Office for National Statistics, 2006), and although more than half of these provide up to 20 hours of care per week, up to one quarter provide 50 hours of care per week (Hyde, 2004). The contribution of mid-life and older people to the provision of informal care in the UK is expected to becoming increasingly important in the light of ongoing demographic changes, such as changing living arrangements and changing family structures (Pickard, et al., 2000).

Therefore, in the same way that changing demography is important for provision of school places for children, ageing is an important consideration for the provision of services. At a local level, older people can necessitate specific public services and resources which may require additional or specific funding and planning. Local authorities also need to think about how they can best harness the 'volunteer' contribution to their community. A valuable resource for estimating the future demand for services alongside the availability of older volunteers is the ONS Interactive Ageing Tool showcased in 'Resource 2'.

There are specific financial implications of an ageing population for local authorities in terms of the delivery of services. The Audit Commission has considered the financial implications of an ageing population and noted that although there has been much recent policy, literature and analysis around the implications of an ageing population, nevertheless there has been a gap in estimating robust costings and taking a cross-cutting approach to financial planning (Audit Commission, 2009). Indeed, within this report it is argued that there is little evidence about strategy but more about particular services, social care in particular. With regard to social care, it is emphasised that there is a paradox as social care costs are one of the biggest challenges of an ageing population, yet relate to services for a minority of the older population.

The same Audit Commission report also highlights that older people are not purely a social care cost as older people make up much of the formal volunteer workforce in the delivery of services to older people (Audit Commission, 2009). In relation to housing older people, the provision of informal care may reduce the housing need in a particular local authority, therefore understanding older people's contribution in this area is of paramount importance.

In addition, adaptations and improvements within one's home have the potential to improve the housing for older people, while reducing inappropriate housing may also contribute to reducing social care costs and hospital admissions (Purdy, 2010). These issues are further discussed in Sections 3-5 below.

Future projections suggest that there will be an increase in the older population in the UK and that there is potential for increasing healthy life expectancy; for example within European Commission documentation, investing in the health of people of working age to enable activity and better health has been suggested as helping to optimise the 'social dividend' (European Commission, 2013a).

In a European context, ageing in the UK is projected to be less prevalent than in other countries; in 2035 it is projected 24% of the UK population will be aged 65 and over, yet the UK will be one of the least aged countries among the EU-27 (Germany is projected to be the most aged with 31% of the population aged 65 and over) (Office for National Statistics, 2012c).

This offers potential for local government in the UK to learn best policy and practice from local and regional government elsewhere in Europe. However, although the overall level of ageing in the UK will be lower than elsewhere in Europe, the specific geographies of ageing in the UK will mean that the associated social care needs are likely to be more intense in some locations than in others (e.g. the South West, South East and East of England (Office for National Statistics, 2012). It is for this reason that the resources highlighted in this Section are tools which can help local government to understand the current and future dynamics of ageing in their local area.

The implications of ageing are wide ranging and relate to issues high on the public policy agenda including healthy living, housing, social care, quality of life and service demands. These aspects are covered in the subsequent sections of this review before emerging issues are summarised and conclusions provided on the situation in the UK.

3. HEALTHY AGEING AND HEALTH AND SOCIAL CARE NEEDS

Understanding the interaction between individuals' health status and their needs over the life course – and especially in later life – is central to planning for services at the local government level.

3.1 Defining 'Healthy ageing'

Increases in life expectancy have driven the ageing of the older population to a large extent. A key question is whether the recent increases in life expectancy at older ages discussed in Section 2 have been accompanied by a concurrent postponement of functional limitations and disability.

Although people are living longer, nevertheless the chances of spending these years in good health, and the overall well-being of the population, varies between areas across the UK. Age-related health conditions, such as dementia or age-related macular degeneration, can influence individuals' experience of older age and the quality of life of individuals (Spijker & MacInnes, 2013).

Therefore, 'healthy ageing' (see definition in box below) is of increasing relevance because of the increase in life expectancy which has heightened the importance of the number of years spent in good health and disability-free. Within the research field on 'healthy ageing' there has been a transition from a concern with 'mortality' (and 'disability / illness coping') in the twentieth century to an approach which is more defined by concerns around 'healthier longevity' (Christensen, et al., 2009).

The ONS produce a number of statistics on the health expectancies for the population, which contrast the health status of different populations at specific points in time (see Table 1 below). A key indicator used in this area is that of the healthy life expectancy, already defined in Section 2. Alongside data on the life expectancy and number of older people in the population, such information will be increasingly important as it will provide more detail on the experience of the ageing process and what services might be needed to support healthy ageing.

Such concepts are useful for measuring the health status and experience of ageing for different populations at specific points in time, while the context to these changes can be monitored and used in the development of appropriate policy and planning. Indeed, healthy ageing is a concept which is multi-dimensional and differs from culture to culture.

Notions of healthy ageing have challenged characterisations of ageing as a 'negative' and created a need to reconsider the role or contribution of older people in society (Spijker & MacInnes, 2013).

DEFINING 'HEALTHY AGEING'

One of the most helpful definitions of healthy ageing comes from the World Health Organization and focuses on the maintenance of health. According to this definition, healthy ageing results from lifestyle choices and preventative measures (Davey, 2002). Overall the concept refers to the capacity of older people to function across many domains.

"Healthy ageing is the process of optimising opportunities for physical, social and mental health to enable older people to take an active part in society without discrimination and to enjoy an independent and good quality of life"

(World Health Organization, 2006, p.200)

Table 1: Life expectancy, healthy life expectancy and disability-free life expectancy 2000-02 to 2008-10, England & Wales

		Life Expectancy (years)	Healthy Life Expectancy (years)	Disability-free Life Expectancy (years)	Healthy Life Expectancy as a percentage of Life Expectancy (%)	Disability-free Life Expectancy as a percentage of Life Expectancy (%)
Males	2000-02	75.7	60.7	60.3	80.2	79.7
	2001-03	75.9	60.6	60.9	79.8	80.2
	2002-04	76.2	61.0	61.5	80.0	80.6
	2003-05	76.6	61.5	62.3	80.2	81.3
	2004-06	77.0	62.0	62.4	80.6	81.2
	2005-07	77.3	61.4	62.5	79.6	81.0
	2006-08	77.5	62.5	63.4	80.8	81.9
	2007-09	77.9	63.0	63.4	81.1	81.6
	2008-10	78.2	..	..	..	..
Females	2000-02	80.4	62.4	62.8	77.6	78.1
	2001-03	80.5	62.2	63.0	77.2	78.2
	2002-04	80.7	62.5	63.3	77.4	78.4
	2003-05	80.9	62.9	63.9	77.7	79.0
	2004-06	81.3	63.7	63.9	78.3	78.6
	2005-07	81.5	62.9	63.7	77.2	78.2
	2006-08	81.7	64.2	64.3	78.7	78.8
	2007-09	82.0	65.0	65.1	79.4	79.5
	2008-10	82.3	..	..	..	..

Source: ONS. Estimates are based on 3 year moving averages.

In Table 1 above, healthy life expectancy (HLE) is defined as expected years of life in good or fairly good health; and disability-free life expectancy (DFLE) is defined as expected years of life free from a limiting chronic illness or disability. These are calculated by combining data on life expectancy with either the prevalence of self-perceived fairly good or good health status (HLE) or limiting long-standing illness (DFLE), based on data from the General Household Survey and adjusted to include people living in communal establishments using a technique known as the Sullivan method (Jagger, 1999). As Table 1 illustrates, the proportion of years of life that will be spent in good or fairly good health or without a limiting long-standing illness has risen slightly over the past decade for both women and men. This is good news, supporting the notion that recent improvements in mortality and morbidity are both adding years to life and life to years. However HLE and DFLE only capture improvements in physical health; one of the major challenges of an ageing population is responding to the growing numbers of older people with dementia (see Section 3.3 below).

Data on health life expectancy for upper level Local Authorities in England was published in July 2014 and is available at:

http://www.ons.gov.uk/ons/rel/disability-and-health-measurement/healthy-life-expectancy-at-birth-for-upper-tier-local-authorities--england/2010-12/index.html

Healthy ageing as a concept has many linkages including links to 'active ageing' which is a different but related concept. Active ageing first came to prominence during the UN 'Year of Older People' (1999) (Davey, 2002). While healthy ageing is concerned with the maintenance of good health, active ageing is focused on the participation of older people in society and is therefore facilitated or enabled by healthy ageing. The active ageing concept includes the accessibility of appropriate health care and services for older people (World Health Organization, 2002). Encouraging and promoting healthy ageing throughout the life course can have a positive impact for independent living and quality of life among older people.

Within the US literature, healthy ageing is sometimes called 'successful ageing'. Among the studies which have sought to define this is that by Bowling & Dieppe (2005) which has identified the multifaceted or multidimensional nature of the concept by discussing three perspectives through which it can be viewed: biomedical theories, psychosocial approaches and lay views (Bowling & Dieppe, 2013; Rowe & Kahn, 1987).

While biomedical theories focus on the absence of chronic disease and risk factors for disease, bio-gerontologists have made contributions within this domain on understanding the process of ageing; on the other hand, psychosocial approaches emphasise life satisfaction, social participation, psychological resources and overall well-being (Bowling & Dieppe, 2013). Finally, lay views are older people's views of what successful ageing is and definitions include mental, psychological, physical and social health, as well as the development and maintenance of social capital such as retiring in a safe neighbourhood and with good community facilities (Bowling & Dieppe, 2013). Such classifications can help to identify the policy implications of healthy ageing. For example, Bowling & Dieppe (2013) provide the example of high social functioning, which as part of successful ageing, means that older individuals need to ensure their continued participation in social activities and networks from a young age, and that local governments are tasked with facilitating the provision of enabling facilities in these areas.

Another benefit of taking an approach which considers the dimensions of successful ageing is that it is possible to consider the interrelations between the dimensions. Where the Rowe and Kahn (1987) model considers all components as being necessary or high function in all components, Baltes & Baltes (1990) consider selective optimisation with compensation as a useful approach to ageing over the life course, where an individual's ageing experience is seen as subjective and unique (Baltes & Baltes, 1990). Research by Grundy et al. (2007) on the domains and their interrelation found that compensation can occur between different domains of quality of life such as physical health, maintenance of cognitive capacity and active engagement with life. In this sense, the study found that good mental quality of life is not necessarily dependent on good physical quality of life, and that social interaction is associated with good mental quality of life especially among the oldest old (Grundy, et al., 2007).

For policy makers, such research highlights that the process of successful ageing has several dimensions and that among the oldest old, poor physical quality of life is not necessarily associated with poor mental health quality of life. Therefore, the benefits of healthy and active ageing are numerous and can span the different domains of successful ageing.

BENEFITS OF HEALTHY AND ACTIVE AGEING

Healthy and active ageing is a global movement supported by the World Health Organization. In its contribution to the Second World Assembly on Ageing in 2002, the WHO recognised that when health, labour market, employment, education and social policies support healthy ageing, there will be:

- fewer premature deaths in the highly productive stages of life;
- fewer disabilities associated with chronic diseases in older age;
- more people enjoying a positive quality of life as they grow older;
- more people actively participating as they age in social, cultural, economic and political aspects of society, in paid and unpaid roles and in domestic, family and community life,

and;

- lower costs related to medical treatment and care services.

Source: (World Health Organization, 2002)

DEFINING 'ACTIVE AGEING'

Active ageing differs to healthy ageing. The WHO defines active ageing in the following way:

"Active ageing is the process of optimizing opportunities for health, participation and security in order to enhance quality of life as people age."

Source: (World Health Organization, 2002, p. 12)

THE MULTIFACETED NATURE OF 'HEALTHY AGEING'

"Healthy ageing relates to the activities you undertake, the environment in which you live, the services you have access to, how valued and valuable you feel and importantly, your social networks."

Source: (Birmingham Policy Commission, 2014, p. 11)

The WHO argues there is mounting international data or evidence to support the notion that with appropriate policies and programmes, individuals can remain healthy and independent well into old age and continue to contribute to their communities and families (World Health Organization, 2011). Such an approach is a reminder that the experience of ageing is complex and only loosely associated with how old someone is (Birmingham Policy Commission, 2014). Additionally, the cultural diversity of the ageing experience is not always appreciated, for instance the Birmingham Policy Commission on Healthy Ageing has noted that patterns of inequality at younger ages affect health as we age and therefore the issue of health inequality remains a challenge for policy makers in relation to healthy ageing.

The dimensions of successful ageing can be impacted upon by lifetime changes in individuals' health and their living arrangements. Government policy can therefore facilitate and encourage healthy ageing which may enhance the quality of life for older people across the range of successful ageing domains, reduce the need for public services for older people (such as social care) and enhance the role of older people in society as active citizens and contributors to society. Local NHS Trusts will also need to be mindful of the domains of successful ageing and consider these in their policy interventions and aims with reference to the composition of the populations within their area.

AGEUK 'HEALTHY AGEING EVIDENCE REVIEW' (2010)

Government policy in the UK has repeatedly committed to achieving healthy ageing. This has been articulated through the government setting standards on the aim to extend healthy life expectancy.

In 2010 AgeUK produced a review of key government documents in this area (AgeUK, 2010). This included a review of National Health Service (NHS) policy and noted the 2009 Darzi review which emphasised the need to focus on helping people to stay healthy as well as treating them when they are sick. The NHS committed to offering health checks to everyone aged between 40 and 74 as part of the drive to help people stay healthy as well as treatment when they are ill. Within the NHS the measure of healthy life expectancy at age 65 remains in the performance management system for the NHS but it is up to the NHS trusts whether to prioritise locally.

Source: (AgeUK, 2010)

3.2 Defining 'Healthy ageing'

Specific geographies of healthy ageing in the UK will relate to the percentages of the population aged over 65 years in a locality (Office for National Statistics, 2014b). Such concentrations of individuals with particular health statuses also have implications for the demand for formal health and care services and also the need for informal care provision. The recent 2014 release (Office for National Statistics, 2014d) showed that men and women in the most advantaged areas show a similar life expectancy at age 65 being expected to live a further 19.3 years and 20.1 years, respectively, but that in the most deprived areas, men have a life expectancy which is 9.2 years shorter than men in the least deprived areas; while females can expect to live 6.8 years less than females in the least deprived areas (Office for National Statistics, 2014d).

The Office for National Statistics provides statistics on healthy life expectancy at birth by birth cohort. In relation to healthy life expectancy, males in the most deprived areas can expect to spend a smaller proportion of their lives in good health (70.9% compared to 85.2% among those in the least deprived areas), with similar percentages for women (66.5% among women in the most deprived areas, compared to 83.4% among women in the least deprived areas) (Office for National Statistics, 2012d). Such disparities can pose significant challenges for the local provision of preventative and treatment services and have implications for wider policy objectives to alleviate the drivers of these poorer outcomes (see for example, the Birmingham Policy Commission).

As has already been explained earlier in this Review, the trajectories into old age are crucial in relation to the experience of older age. This is also true for healthy ageing. Reflecting the increasing importance of health in relation to government resource allocation, a question on self-reported general health was included at the 2001 and 2011 UK Censuses. This question was supplementary to that on whether the respondent reports a limiting long-term illness. In relation to the geographies of health at the 2011 Census, 81.2% of people in England and Wales reported their general health as 'very good' or 'good', with people living in London and the South East reporting the highest percentages in these categories, and those in Wales and the North East region the lowest (Office for National Statistics, 2013d). To some extent, such patterns reflect the age structure of the areas – for example, London tends to attract younger economic migrants, thereby affecting the extent to which individuals report good health in that area (Office for National Statistics, 2012).

RESOURCE 5

Understanding life expectancy and healthy life expectancy in England at a local authority level – the Office for National Statistics Interactive Healthy Life Expectancy Tool

Similar to the ONS ageing tool introduced in the previous section, the ONS have also created an interactive tool for life expectancy and healthy life expectancy in England. Disaggregated by males and females and covering the years 2009-2011, it shows the differing percentages of the population expected to reach different life expectancies and healthy life expectancies.

Higher average life expectancies and healthy life expectancies for both men and women are observed around London, particularly in 'the Shires' (e.g. Buckinghamshire, Gloucestershire, Hampshire and Wiltshire), although significant diversity is observed within the Greater London area.

Available at: http://www.ons.gov.uk/ons/interactive/healthy-life-expectancy-at-birth-for-upper-tier-local-authorities--england-2009-11/index.html

Other analyses of the 2011 Census data (Office for National Statistics, 2014e) have highlighted that deprivation in England is related to people's health at all ages but particularly among older middle-aged men and women. The evidence of a greater prevalence of ill health among individuals in lower social strata is abundant, for example General Household Survey data (2006), analysed by the Department of Health shows those from unskilled occupations (52%) suffer from long-term conditions more than groups from professional occupations (33%) (Department of Health, 2012).

Similar conclusions about the link between social and health inequalities have been drawn by the Marmot Report on 'Fair Societies, Healthy Lives' (Marmot, 2010). Analyses by the ONS point to the potential for public agencies and health organisations to focus their resources and actions to help improve the fitness and lifespan of the population, emphasising that if health is declining earlier and more dramatically among people in deprived areas then there are implications for fitness to work, productivity and dependency on state benefits and health care services (Office for National Statistics, 2014e).

Disability prevalence has been explored as part of this work, with a large divergence in disabilities between more and less deprived areas after the mid-30s. The gap in disability between individuals living in more and less deprived areas grows steadily up to ages 65-69 when the percentage difference between the most and least deprived areas is more than two and a half times greater (Office for National Statistics, 2014e).

The prevalence of disability for people aged 65-69 years in the least deprived areas is under 25%, yet in the most deprived areas it is over 50%. In relation to ageing and the implications for local government, differences such as those in the prevalence of disability suggest that fitness and continuing in employment at older ages are more likely among those experiencing less deprivation. Among men living in deprived areas, health declines much earlier in life and a health divide increases through the key working ages 20-64. The analysis also points to men aged 35-39 in the most deprived areas as having similar levels of poor health to 60-64 year olds in the least deprived areas, and for women, those aged 30-34 in the most deprived areas having worse health than 55-59 year old women in the least deprived areas (Office for National Statistics, 2014e). More broadly, the results show that in relation to health and healthy life expectancy, individuals' life courses and locations interact to create critical challenges for providers of health services.

Among other subnational studies on the health of older people is that by Marshall & Norman (2013) which considered the geographies of the impact of retirement on health in the UK (Marshall & Norman, 2013). This research is valuable in relation to ageing and health as it identifies the degree to which districts exhibit a 'retirement kink' whereby the increase in long-term limiting illness rates slows or declines after retirement age in some places but not in others. The kink may be attributable to improved post-retirement health particularly for those in lower occupational grades or poor work environments.

However, it may also work the other way for some groups; some men retiring after an active professional life thrive because they successfully make the transition, but others may suffer poorer health because they don't. Such work therefore highlights the importance of retirement, and supporting 'successful retirement' planning, in relation to health and healthy life expectancy.

Finally, informal caring relates to healthy life expectancy as health can facilitate and sustain informal caring for another person, and is important in relation to the carer's selection into a caring role. Informal caring is of substantial and increasing importance within the social care mix in the UK. At the 2011 Census, the prevalence of caring was found to have increased in the UK at a faster rate than population growth (Office for National Statistics, 2013d).

3.3 Changing patterns of morbidity and their implications for local government

Changing patterns of morbidity have implications for local government in relation to the need for health and social care. As a result of increasing life expectancy, there are substantial changes occurring to the patterns of disease and morbidity – sometimes referred to as an 'epidemiological transition' (Fries, 1980) and more recently as the 'health transition' (Vallin & Meslé, 2004). The compression of diseases and health-related limitations towards older ages implies that older people are more likely to develop ill health, long-term conditions or experience more than one long term-condition which may increase the need for health and social care at these ages (Ham, et al., 2010; Sweet, 2011). Such changes in health relate to limitations in activities of daily living, self-reported health and engaging within the community. Degenerative diseases, for example circulatory diseases and cancers have also become increasingly significant causes of death (Christensen, et al., 2009). Therefore, the morbidity of older people is crucial in relation to active and healthy ageing and the contributions older people make to society but also to the health and social care needs in a particular local area.

A critical aspect of understanding current and future patterns of morbidity among the older population relate to mental health. Approximately 7% of persons aged 65 and over live with dementia in the UK, and the Alzheimer's Society has estimated that the total number of people with dementia in the UK will increase to over 1 million by 2025 and over 2 million by 2051, if age-specific prevalence rates remain stable (Alzheimer's Society, 2014). The same organisation has estimated the total cost of dementia to society in the UK at £26.3 billion, of which £4.3 billion is spent on healthcare costs; £10.3 billion is spent on social care (publicly and privately funded); and £11.6 billion is contributed by the work of unpaid carers of people with dementia. A significant part of such costs is borne by local authorities, as it relates to the organisation and delivery of social care services (see also Section 3.4).

In September 2014, The Alzheimer's Society published estimates of the number of people with dementia for each local authority, clinical commissioning group (or equivalent) and parliamentary constituency in the UK. These are available at: http://www.alzheimers.org.uk/site/scripts/download_info.php?downloadID=1490

In addition, changes in demography and the ageing of the population bring about crucial issues in relation to living arrangements and the health and well-being of older people, which can directly affect service provision at local government level. For example, increases in divorce in mid-life and at older ages will have implications for the ability to, and experience of, 'ageing in place' and caring arrangements at older ages (Robards, et al., 2012). Ageing in place has been defined as "the ability to live in one's own home and community safely, independently, and comfortably, regardless of age, income, or ability level" (National Center for Environmental Health, 2013).

Key to understanding individuals' ability to experience 'ageing in place' are the indicators of 'Activities of Daily Living' (ADLs) and 'Instrumental Activities of Daily Living' (IADLs), which are used to indicate difficulty with day-to-day activities in and outside the home. By extension, such indicators, often in combination with a range of other socio-economic characteristics, can usefully point to individuals who are likely to require formal support from local governments.

DEFINITION I

ACTIVITIES OF DAILY LIVING (ADLs)

A concept of functioning – activities of daily living are basic activities that are necessary to independent living, including eating, bathing and toileting. This concept includes several assessment tools to determine an individual's ability to perform the activity with or without assistance.

Source: (World Health Organization, 2004)

DEFINITION II

INSTRUMENTAL ACTIVITIES OF DAILY LIVING (IADLs)

Activities with aspects of cognitive and social functioning, including shopping, cooking, doing housework, managing money and using the telephone.

Source: (World Health Organization, 2004)

Table 2: percentage of older people reporting difficulties with one or more ADLs and IADLs (percentage by age and sex, England 2013-13)

	50-54	55-59	60-64	65-69	70-74	75-79	80	All
MALES								
ADLs	9.8	11.0	13.3	15.2	19.0	22.7	33.6	16.0
IADLs	8.0	11.5	11.8	13.9	19.5	23.2	36.3	15.7
FEMALES								
ADLs	10.3	14.9	13.3	17.3	20.0	26.9	39.1	19.4
IADLs	12.8	16.7	16.0	19.2	21.5	27.4	52.8	23.0

Source: ELSE wave 6

New technologies have assisted with independent living for those with long-term health problems (National Housing Federation, 2012). In the future, it is likely that technology will continue to further shape health care and the monitoring of older individuals' health. In addition, new technologies are also expected to contribute to the creation of housing which is appropriate for addressing older people's needs and sustaining 'ageing in place' (see also Section 4.3 below).

In relation to the higher overall level of ageing in Europe (compared to the UK) and the specific geographies of such a phenomenon, the European Commission is taking a proactive approach to tackling the future needs posed by an ageing population (European Union, 2014). Such initiatives, which are part of the Europe 2020 strategy, have stressed the importance of promoting health throughout the life course. These include the 'European Innovation Partnership on Active and Healthy Ageing' (European Commission, 2013b) and other funded initiatives such as 'Progress Towards Healthy Ageing in Europe' (Gibson, 2014).

DEFINITION III

ASSISTIVE DEVICE(S)

Equipment that enables an individual who requires assistance to perform the daily activities essential to maintain health and autonomy and to live as full a life as possible. Such equipment may include motorized scooters, walkers, walking sticks, grab rails and tilt-and-lift chairs.

Source: (World Health Organization, 2004)

DEFINITION IV

ASSISTIVE TECHNOLOGY

An umbrella term for any device or system that allows individuals to perform tasks they would otherwise be unable to do or increases the ease and safety with which tasks can be performed.

Source: (World Health Organization, 2004)

CASE STUDY EUROPEAN INNOVATION PARTNERSHIP ON ACTIVE AND HEALTHY AGEING

The innovation partnership is pursuing a 'triple win':

- enabling EU citizens to lead healthy, active and independent lives while ageing;

- improving the sustainability and efficiency of social and health care systems;

- boosting and improving the competitiveness of the markets for innovative products and services, responding to the ageing challenge at both EU and global level, thus creating new opportunities for businesses.

The overarching target of the pilot partnership is to increase the average healthy lifespan by two years by 2020.

Available at: http://ec.europa.eu/research/innovation-union/index_en.cfm?section=active-healthy-ageing

Source: (European Commission, 2013b)

CASE STUDY PROGRESS TOWARDS HEALTHY AGEING IN EUROPE

As part of the 'Progress Towards Healthy Ageing in Europe' initiative, Suffolk County Council led a consortium to improve understanding on how best to help 45-85 year old people maintain their good health. The overall aim of the project has been to develop and uncover innovative approaches to healthy ageing. This has been done by trying to promote active and healthy lifestyles; each project has a particular focus on targeting 45-68 year olds through workplace interventions.

Available at: http://www.progresshealthyageing.eu/about-the-project/

Source: (Gibson, 2014)

3.4 The provision of adequate social care

Success in the promotion of healthy ageing in contemporary societies means adding value, quality of life and independence to the years gained as we survive longer into old age. In order to accomplish this, it is not only individuals' attitudes which can make a difference, but also and more importantly, how society as a whole can be engaged, with policy initiatives which include and support people of all ages. Healthy ageing is an important issue if one is to experience an independent and active life well into old age; but it is also related with the demands for health services and social care, especially with a growing proportion of the population achieving very old ages, with an associated increase in dependence and need for long-standing care support (Falkingham, et al., 2010). In this sense, the organisation of social care and the cost of providing healthcare for older people are critical policy challenges for the future.

Population ageing and resulting changes in the population's age structure will result in varying needs for services and products among different sub-groups and cohorts of the population (European Commission, 2005; Falkingham, et al., 2010). Policymakers and planners need to be aware of the increasing demand for social care for the older population, especially the demand for formal or informal help to support the independent living of those in need because of limited mobility, frailty or other physical or mental health problems. Data from the Department of Health showed that although people aged 75 or older represent around 8% of the population, they nevertheless account for around 28% of NHS expenditure (Department of Health, 2013).

During the last decades, an increase in the demand for formal and informal care for the older population has been observed, which has not been met in full by the supply of care by the government, private services or families (Vlachantoni, et al., 2011). Research has shown that there is significant unmet need for caring among older people in England, and that such gap is higher for Activities of Daily Living than for Instrumental Activities of Daily Living. For example, this research showed that using three different datasets with information related to the need for care, between 15% and 61% of people aged 65 and over with a need for help with bathing/showering did not receive any support at all.

Particularly important are the policy reforms to social care provision and cuts in delivering services to the community, which have taken place over the last decade or so (Audit Commission, 2009). While support from informal sources faces the challenge of a decline in the amount of people available to provide care (because of an ageing population, decreasing fertility and increasing female labour market participation), the supply of such support is also affected by the shift in living arrangements, family formation and dissolution among others (Pickard, et al., 2007).

Moreover, the previous study showed that informal care, which is usually provided by relatives aged 50 and over, has been and will continue to be the main source of caring for many older individuals. Such unpaid work can reduce the demand for formal support and can also facilitate the engagement in the formal labour market of other individuals in the household. According to AgeUK, people over 50 make an unpaid contribution to the economy of approximately £15.2 billion per year as carers; £3.9 billion in childcare as grandparents and £5 billion as volunteers (House of Lords, 2013). As a result, the importance of facilitating and supporting unpaid carers has been consistently called for (Department of Health, 2011; House of Lords, 2013).

Local authorities have the responsibility for setting and assessing individuals' needs and their eligibility for receiving social care, as well as investing in services and information that can help in preventing high care need in the long run (Department of Health, 2011). However, the increasing needs of the older population contrast with the fall in the amount of services provided and the decreasing intervention of local councils to provide many of these services (Vlachantoni, et al., 2011). For instance, 35% fewer older people received publicly-funded care in 2012-13 compared to 2005-06 (Fernandez, et al., 2013). At the same time, data from the NHS Information Centre showed that the gross expenditure on people aged 65 and over in England (from the Councils with Adult Social Services Responsibilities, CASSRs) increased to 56% in the period between 2003-04 and 2008-09, followed by a decline to 51% (£8.8 billions) in 2013-14 (HSCIC, 2014).

A key element of improving service provision in the future remains the balance and interaction between health and social care. As long-term care can include both health and social care, researchers have highlighted the challenge for local governments in navigating between the system of publicly-funded social care provided through local authorities on a means-tested basis, and the system of nursing (health) care which is regulated through the National Health Services (Van Leewwen, et al., 2014). The need for an improved, unified and joint system between the health and social care systems has been recognised by national government, who have set several commissions over the last years against the background of population ageing and its impact on the provision of services. Within this context, the Dilnot Commission was created to provide recommendations on the future organisation and funding of social care (Department of Health, 2011). Key recommendations of the Dilnot Report, such as the setting of a cap on the lifetime contribution by individuals to adult social care costs, greater support for carers and the improved integration of adult social care with other services, were included with amendments in the recent Social Care Act (HM Government, 2014), albeit the policy debate on the long-term sustainability of the social care system continues (Department for Work & Pensions, 2014a).

Also contributing to the current debate on the impact of an ageing population in the UK is the "Ready for Ageing?" report produced by Lord Filkin in March 2013 (House of Lords, 2013), including evidence and recommendations relating to issues such as pensions and savings, health and social care, housing and attitudes towards older adults. Finally, the government launched in 2013 a project for Integrating Health and Social Care by 2018 (Department of Health, 2013), which will contribute to the aim of providing a more unified service to older people in need. Such expert interventions and policy initiatives on the one hand stress the need to respond more decisively to the challenge of an ageing population, but they also highlight the importance of local government in playing a central role for the effective delivery of appropriate services towards older people.

INTEGRATING HEALTH AND SOCIAL CARE BY 2018 PROGRAM

The plan aims to connect health and community care to avoid situation such as: "older people discharged from hospital to homes not adapted to their needs, only to deteriorate or fall and end up back in A&E".

Source: (Department of Health, 2013)

Among such initiatives, bringing health and social care service providers together to make joint decisions and providing personalised care closer to home is expected to help reduce hospital admissions (Department of Health, 2014a). Moreover, in a review of the first plan of the 'Better Care' plans of NHS England and the Local Government Association (LGA), it was found that more than 80% of local areas are on course to transform 'out of hospital' services to provide better service to patients enabling better data sharing; joint assessments among others responsibilities (Department of Health, 2014a). Along the same lines, several initiatives have been launched at the national and local level, aimed at supporting and enhancing the well-being of the older population. For example, the Welsh Assembly Government launched the 'Healthy Ageing Action Plan for Wales' in response to health challenges facing modern societies. The Plan is now in its third phase relating to a Strategy for Older People in Wales 2013-2023, including guidance for local governments on health promotion interventions, starting from the age of 50 and taking into account factors and events at early ages that may have effects later in life (Welsh Government, 2013).

4. HOUSING NEEDS OF OLDER PEOPLE

This Section discusses the link between individuals' health status and their need for appropriate housing arrangements across the life course, and in particular in later life.

4.1 Changing family forms and living arrangements

Housing is a crucial determinant for the quality of life of older people (Wiles, et al., 2012). Housing can be considered as being 'multi-level' for the experience of ageing as the community, neighbourhood, household composition and housing quality can all determine the quality of life of an older person and in many cases they are interrelated. In large part, the role of housing is crucial because of the amount of time spent in the home – it has been identified that older people spend 70-90% of their time in their home (Office of the Deputy Prime Minister, 2006). Therefore, housing intersects with an individual's health, socio-economic position and demographic characteristics, and to a greater extent in later life than in earlier parts of the life course. A central part of the debate on appropriate housing in later life relates to the concept of ageing in place, which has been defined as "remaining living in the community, with some level of independence, rather than in residential care" (Davey, et al., 2004:133). With respect to ageing and implications for local government, there are two aspects of housing which are crucial: firstly, the amount and type of housing within a local area; and secondly, the quality and appropriateness of the housing stock for older people.

As discussed in Section 2, demographic change has resulted in a change in the living arrangements of older people. Improved mortality has resulted in decreased widowhood, but this is likely to be offset in future by rising divorce, reflected in an increase in solo living, especially amongst older men. The number of people over 85 living on their own is expected to grow from 573,000 today to 1.4 million in 2032. A key consideration for living alone at older ages is the challenge of social isolation and loneliness, and research on this topic has highlighted gender differentials as older women are currently more likely to live alone than older men (Victor, et al., 2006). However, a recent report by ILCUK has highlighted the emerging crisis of loneliness for men.

See **http://www.ilcuk.org.uk/index.php/publications/publication_details/isolation_the_emerging_crisis_for_older_men**

Demography 'drives' the demand for specific types of housing within local authority areas and has a more significant role in some locations more than others (e.g. ageing in particular localities where younger people generally move away yet retirement age migrants are attracted in, some parts of Wales for example) (Bayliss & Sly, 2010). The appropriateness of the existing housing stock in a local authority may therefore make a significant difference to the people who live in a particular place.

Specific housing requirements and designs may arise from age-related physical and health limitations and / or the household structure in terms of co-residence and social isolation (Guihen, 2013). When considering housing for older people, it is helpful to distinguish between 'general housing', which refers to dwellings owned or rented where older individuals live independently or with family, and 'specialist housing' which relates to housing built specifically for older people such as sheltered housing or residential housing where some form of care or support is offered to the residents (Ferreira, 2013).

Defining specific housing needs as being age-related may become less helpful in the future because of a wider range of experiences of the ageing process where someone younger in ill-health might require housing of a specific type which is normally associated with older people, compared to that 'normal' for the age group.

As such, housing for older people relates to current and future patterns of healthy ageing which can shape the demand at the local level. For example, increasing healthy life-expectancy may lead to longer co-residential informal caring arrangements, which may delay the need for formal care to older ages. In this respect, local government may have a role indirectly via statutory needs assessments, planning permissions for the type of housing required and directly through the provision of social housing, sheltered and residential housing and the provision of age-related services such as care and catering.

For local government, housing for older people is an important issue because of the increasing share of older people in the population and related statutory responsibilities. Within the range of 'specialist housing' there is an increasing diversity of housing types for older people. Broadly speaking, three main types of housing can be distinguished (NHS, 2013). Residential housing is a type of living arrangement where older persons with physical and / or mental frailty move into a residential home providing board and personal care 24 hours a day, 7 days a week following the assessment of their needs. Sheltered housing usually takes the form of a group of small bungalows or flats supervised by a Scheme Manager, who can offer help in an emergency. Extra care housing, or sometimes called 'vey sheltered housing' or 'housing with care', is social or private housing modified to suit people with long-term conditions or disabilities which make living in one's own home difficult. This can consist of large-scale villages and this housing type is seen as a long-term solution (NHS, 2013). Extra-care housing has emerged as a model for independent living which is promoted and funded by the government (Department of Health, 2010a; Department of Health, 2010b). Research by (Croucher, et al., 2007; Bäumker, et al., 2008; Netten, et al., 2011) and (Kneale, 2011), and more recently (Burns, 2014) has found that extra-care delivers positive outcomes for older people. More details on the range of options on offer have been discussed by Shelter in their 2007 report which included a discussion of the range of specialist housing options (Shelter, 2007).

Recognising the increasing number of older people, the National Housing Federation (NHF), which represents housing associations, has made a number of contributions on understanding the best national 'housing routes' for better health outcomes for older people. The NHF report 'On the Pulse' (National Housing Federation, 2012) provides useful analyses of the current health and care priorities and how housing associations can work with health and social care commissioners, which include case studies of innovative solutions developed by members of the NHF.

Reflecting the importance of this topic for local planning, the report is a follow-up to 'Breaking the Mould' (National Housing Federation, 2011) which encouraged all local authorities and housing providers to enhance housing options available to people in later life. Included in this report were details of a number of business opportunities an ageing population brings to the wider community. For example, the project 'Housing 21's portable care packages' was created to provide extra care in hospital and after discharge (National Housing Federation, 2012). Funded through the NHS Innovation and Excellence Fund, the Housing 21 scheme provides extra care for patients, particularly those with dementia, who need extra care and support with basic activities. In this way, the scheme ensures a better experience of hospital and return to home, preventing the need for moving into more expensive residential or nursing care; enabling early discharge; and preventing readmissions.

4.2 Independent living, housing need and housing stock

Housing is a crucial part of the capacity for 'ageing in situ'. The appropriateness of housing is crucial because of durations of time spent at home and in relation to provision of social care. Successive government policy has focused on the themes of housing quality and choice (Department for Communities and Local Government, 2008; Department for Communities and Local Government, 2011). An earlier example of such policy is the 2001 publication – 'Quality and Choice for Older People's Housing – A Strategic Framework' (Office of the Deputy Prime Minister, 2001) which is particularly notable as it considered housing policy in the specific context of an ageing population.

This is also notable as it considered some of the more nuanced and emerging demographic changes such as the increasing number of the older old, changes in solo living and the trend towards home ownership among older people. Overall, this document argued for a more integrated approach to address demographic change where housing, support and healthcare are all considered. Such an approach would therefore assist with the choices open to older people about housing. Other policy documents have been concerned with the type of housing and lifetime home standards – a quality standard for older people's homes and neighbourhoods. As already highlighted, housing is connected to health and therefore has the potential to complement health and care systems; where this is not the case, it can create health problems rather than solve them.

One of the key questions in relation to housing and older people is 'what can be done to make sure housing stock is appropriate for older people to live comfortably and safely?' and research in this area has outlined the housing needs of older people.

In 2009 the then government established an investigative panel on the necessary reforms to ensure that new build housing meets the needs and aspirations of older people. The Housing our Ageing Population Panel for Innovation (HAPPI) questioned whether there are enough attractive options to encourage people to move house as they grow older. HAPPI suggested that the lack of alternatives reinforced resistance to move among older people.

The consortium identified the housing characteristics needed for older people and that many present developments failed to integrate with local communities. At the same time, provision of housing for the 'younger old' (generally referred to as those aged 60-74) was criticised and it was noted that this group makes up most of the people aged over 65 (Homes and Communities Agency, 2009).

As already noted, individuals' housing and health are related, yet the relationship is complex and not necessarily causal (Institute for Public Care, 2012a). Poor housing can be a contributory factor to poor health or health conditions, just as good housing may help to limit the effects or incidence of health conditions (Institute for Public Care, 2012b).

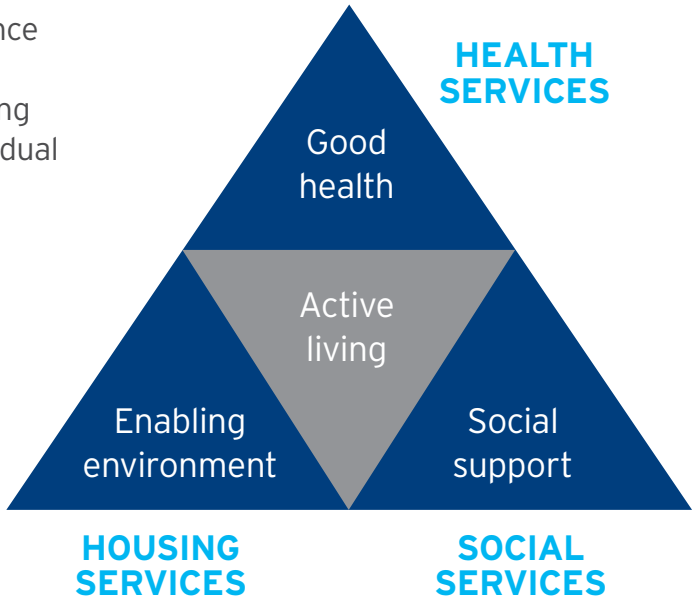
Indeed, older people living in cold, damp homes are at greater risk of a range of conditions:

- **Arthritic symptoms and rheumatism, which can result in prolonged immobility, making it even more difficult to keep warm;**
- **Domestic accidents and falls, including fatalities;**
- **Social isolation;**
- **Mental health problems. (Institute for Public Care, 2012b)**

The government has emphasised the importance of housing in achieving and maintaining independence in later life (see Figure 6 below). At the same time, under-occupancy has been key among the issues within discussions on housing for older people in the UK. There are various different measures of under-occupancy but it is broadly defined as where a household lives in a property deemed too large for its needs by comparing the number of occupants to the number of bedrooms. In 2007, the ILC published a report on under-occupancy in the UK (Harding, 2007) which identified the term 'under-occupancy' as being contested and subjective. The report also suggested that under-occupancy has in part arisen from a decline in the number of new-build three bedroom homes and noted that wealth (rather than age) is the key factor in whether or not individuals choose to occupy more housing space than is essential.

Figure 6: The Triangle of Independence – Housing, Health and Care

The interdependence of health, social support and housing needs for an individual



Source: Lifetime Homes, Lifetime Neighbourhoods; A National Strategy for Housing in an Ageing Society (Department for Communities and Local Government, 2008, p. 122).

A Market Assessment of Housing Options for Older People from the New Policy Institute (Pannell, et al., 2012) also sheds light on under-occupancy. This identified that firstly, older under-occupying households make up just half of all under-occupying households (57% of older person households under-occupy compared to 27% of other households); and secondly, that most older people occupying three bedroom houses are defined as under-occupying. Almost two- thirds (63%) of dwellings have three or more bedrooms, which increases the likelihood of living in a dwelling which is under-occupied (Pannell, et al., 2012). In the ILC report the link between children moving out of the home and the occurrence of under-occupancy was also made, yet in recent years, the UK has also seeing increasing numbers of adult children returning to live within the parental home (Stone, 2014). Among the other key findings in the NPI report in relation to under-occupancy were that most of the housing 'released' by older people was as a result of mortality and not 'downsizing', while overall there does not seem to have been progress in creating a wider housing choice and improving housing affordability for older people (Pannell, et al., 2012).

'Arriving' at older ages is an experience that regularly occurs within the same dwelling or at least in a private setting. The definition of "Ageing in Place" supports the continuation of living in a private household independently and with autonomy. The basic premise of Ageing in Place is that helping older people to remain living at home fundamentally and positively contributes to an increase in well-being, independence, social participation and healthy ageing (Sixsmith & Sixsmith, 2008). Part of the government's support for homes aimed to last across the lifecourse relates to the homes built to Life Home Standards, which are designed to be inclusive and adaptable (Department for Communities and Local Government, 2008). Lifetime Neighbourhoods complement Lifetime Homes by being sustainable communities designed to offer everyone the best possible chance of health, well-being, and social civic and economic engagement regardless of age (Harding, 2007). In addition, government policy has been particularly directed towards supporting vulnerable groups of older people such as the poor and those with disabilities. The 'Supporting Older People' programme was launched in 2003 promoting independent living for those older people living in privately rented accommodation and home owners and by 2008 was assisting over 840,000 people each year (Department for Communities and Local Government, 2008).

A key challenge of living independently and healthily in later life is fuel poverty. In 2000, the government introduced the Warm Homes and Energy Conservation Act 2000, which defined fuel poverty as "living on a lower income in a home that cannot be kept warm at reasonable cost". Following this Act, the government published the 2001 UK Fuel Poverty Strategy, which set out a policy framework for ensuring that no-one lived in fuel poverty by 2016.

Around the same time, a Commission chaired by Professor John Hills to examine this issue produced a Report in 2012, in which it recommended a change in the way of measuring fuel poverty (from an indicator relating to households spending more than 10% of their income on fuel, to a 'Low Income High Costs' indicator, which defines fuel poverty as the combination of facing high costs and having a low income). The Report noted that whichever definition was used, fuel poverty was unlikely to be eradicated by 2016, and projected that between 2.6 and 3 million households would be in fuel poverty by that point (Hills, 2012).

As individuals age and the household composition changes (number of members in the dwelling), the needs of older individuals in the household change, thus the structure and physical conditions of the residential environments require monitoring (Homes and Communities Agency, 2009). In this sense, adjustments to the spaces, accessibility to rooms and other physical conditions, as well as accessibility within the community to services or health care can help enhance the autonomy and independence of older individuals in their own living environment (Department for Communities and Local Government, 2011).

Against this background, ageing in place can be promoted at the local level, as it can contribute to the improvement of the life conditions of older populations and can decrease the need for more costly interventions, such as the provision of care within a care home or nursing homes, and individuals' hospitalisation (Wiles, et al., 2012). For example, the availability and provision of services such as meals on wheels and warden-based accommodation may potentially contribute to the reduction of demand for formal care services. In addition, technologies can improve and facilitate the independent living of an ageing population with devices and interventions already in use such as: tele-care, touch-screen devices, technical aids for hearing, seeing etc., and other forms of technical assistance (Guihen, 2013).

DEFINITION V

'TELEHEALTH' AND 'TELEMEDICINE'

"the delivery of health care services, where distance is a critical factor, by all health care professionals using information and communication technologies for the exchange of valid information for diagnosis, treatment and prevention of disease and injuries, research and evaluation, and for the continuing education of health care providers, all in the interests of advancing the health of individuals and their communities".

Source: (World Health Organization, 2008)

CASE STUDY GIRAFFPLUS PROJECT

Funded by the European Union under Framework Programme Seven (FP7), GiraffPlus is a system for monitoring activities in the home and monitoring the body. Giraff, a 'telepresence robot' uses a Skype-like interface to allow relatives or caregivers to virtually visit the older person in their home. Services can be pre-selected and tailored to the requirements of the older person. The system is motivated by the desire of most people to live at home, keep a richer social life and maintain their habits. It therefore seeks to address the challenges of solo-living among older people. Sensors measure the health of the person and the home. Events trigger responses from the care provider or are analysed by a healthcare expert. The tool is responsive to early on-set health problems, therefore economical, and addresses concerns about isolation and safety by encouraging social contact.

Available at: http://www.giraffplus.eu/

GiraffPlus in the Ängen Research Apartment

5. QUALITY OF LIFE

The well-being of individuals relates to a complex set of health, social and economic prerequisites and dimensions, which can be challenging to measure. Understanding such measures is key to planning services which can enhance well-being across the life course.

5.1 Understanding Well-being

Nowadays progress in society involves not only indicators such as economic growth or life expectancy. Other indicators that go beyond the material conditions of people's life are increasingly taken into account: for instance, measuring subjective well-being and living conditions which contribute to one's quality of life (Clark & McGillivray, 2007). The need for evidence and the potential for improvements in general well-being has led to the emergence of several indices providing information at the national level (or within countries) to help policy makers, researchers and society in general to better understand the implications and capabilities of an ageing society.

WELL-BEING: MATERIAL CONDITIONS, QUALITY OF LIFE AND SUSTAINABILITY.

Economic resources, while important, are not all that matters for people's well-being. Health status, human contact, education, jobs, environmental quality, civic engagement, governance, security and free time are all fundamental to our quality of life, as are people's subjective experiences of life – including, for example, their feelings and emotions, and their satisfaction with life as a whole.

Source: (OECD, 2013)

The OECD launched in May 2011 the OECD Better Life Initiative (OECD, 2013), in order to create statistics that capture different aspects of quality of life and allow for comparisons across OECD countries and beyond. Measuring Well-being includes three broad domains: material conditions, quality of life and sustainability, across 11 dimensions. These dimensions include indicators from an individual perspective (i.e. job satisfaction, work-life balance, subjective well-being) and a national perspective (i.e. environmental quality, personal security, health status, income and wealth).

RESOURCE 6

Better Life Index: Comparison of Well-being across OECD countries

The Index is based on 11 domains related to material conditions, quality of life and sustainability. This index is set to include a wide range of individual and national indicators.

Interactive Index: http://www.oecdbetterlifeindex.org/

Country reports: http://www.oecd.org/newsroom/BLI2013-Country-Notes.pdf

For the UK, the Measuring National Well-being programme began in 2010, with the aim to develop and publish a set of National Statistics which help people to understand and monitor well-being (Randall, et al., 2014). The National Well-being is measured through 10 domains, including objective data (i.e. number of crimes per 1,000 adults) and subjective data (i.e. percentage of people who felt safe walking alone after dark).

The National Well-being index contains 10 domains:

- What we do (time use Work and Personal)
- Our relationships
- Health
- Natural environment
- Where we live
- Personal finances
- the Economy
- Education and skills
- Governance
- Personal well-being

RESOURCE 7

Measures of National Well-being, UK

The Index is based on 10 domains including objective data and subjective data in a wide range of individual and national indicators.

Interactive Index: http://www.neighbourhood.statistics.gov.uk/HTMLDocs/dvc146/wrapper.html

The 2014 Report on National Well-being showed that for the national debate a range of factors mattered, for instance economic security, job satisfaction, work-life balance, education and local and natural environment. Personal well-being was found to be associated with self-reported health; employment status and relationship status (Randall, et al., 2014). Moreover, the report also shows an increase in life satisfaction in the UK, with the proportion of individuals who reported being satisfied with their lives increasing from 75.9% in 2011/12 to 77% in 2012/13 (Randall, et al., 2014).

In addition to these measures, other indicators have been formulated to analyse how well our ageing population fares compared to countries from Europe and internationally. At the European level, the Active Ageing Index (AAI) was created in 2012, within the framework of the 2012 European Year on Active Ageing and Solidarity between Generations. Under the guidance of the European Commission, the AAI was created with the objective of measuring the level and potential to which older people live independent lives, participate in society as well as develop the capacity to actively age (European Centre Vienna, 2013). The index is based on 4 main domains relating to the participation and conditions of the older population and focusing on: employment; social activity and participation; independent and autonomous living; and capacity and enabling environment for active ageing.

RESOURCE 8

Active Ageing Index, 2012

The Index is based on 4 domains: Employment; Participation in society; Independent, healthy and secure living; Capacity; and Enabling active ageing. The domains involve 22 indicators measuring different aspects like employment rates of older adults, informal participation, physical conditions, life expectancy, financial security and education among others.

Available at: http://www1.unece.org/stat/platform/display/AAI/Active+Ageing+Index+Home

At the international level, the Global AgeWatch Index was created in 2012, aiming to measure the evolution and drivers of well-being of the older population. This relatively new index measures and compares the well-being of the older population across the world (HelpAge International, 2014), combining data on income, pensions, employment, health, education and social and natural environment for 96 countries.

RESOURCE 9

The Global AgeWatch Index measures the Social and Economic Well-being of older people across 96 countries. It is the first-ever overview of the well-being of older people around the world.

The Index is based on 4 main domains: Income security; Health status; Capability and Enabling environment. The domains involve 13 indicators measuring different aspects like resources, satisfaction, health, social connection and capacity of older adults.

Available at: http://www.helpage.org/global-agewatch/

5.2 Personal well-being

Returning to the individual level, the personal well-being or subjective well-being are indicators that has been used on its own to measure overall life satisfaction as perceived by individuals, evaluating their life as a whole and not due to recent subjective states or particular objective health or wealth condition (Hellinwell, 2008). Personal well-being is composed of 5 indicators: life satisfaction; feeling of life worth; happiness; anxiety; and population mental well-being. The report 'Personal Well-being across the UK 2013' includes different geographical desegregation levels and compares results from 2011/12 with 2012/13 (Office for National Statistics, 2013e). Moreover, an interactive visualization of the first four dimensions of Personal Well-being can be set for different local areas in order to compare the evolution of indicators over time and with other areas.

RESOURCE 10

Personal Well-being indicators by Local Authority

The indicator is based on 4 main domains: Life satisfaction; Life worthwhile; Happiness; and Anxiety. It gives the results at three points in time – 2011/12, 2012/13 and 2013/14 – for each local authority and the UK as the average.

Available at: http://www.neighbourhood.statistics.gov.uk/HTMLDocs/dvc124/wrapper.html

5.3 Economic well-being

As was mentioned before, economic conditions are an important aspect of the individual welfare as well as for the well-being of the society in general. A minimum of income security, especially in an ageing population, includes sources like pension schemes, but also social protection, disability, unemployment and family benefits. This has been widespread in developed countries, and as the 2014 Global AgeWatch report shows, an expansion has been witnessed of social pension coverage in several developing countries (HelpAge International, 2014).

The ageing population process implies that a smaller young population will arrive to working ages (due to the decrease in fertility) and also a larger proportion will arrive to retirement ages (due to mortality decline and past patterns of fertility, including the post-war baby booms (Gavrilov & Heuveline, 2003). The European political agendas of the last decade, have been characterised by a growing alarm with regard to the economic consequences of an ageing population, such as the decline of the active population who can contribute to the welfare state and 'sustain' the population over a specific age threshold (Berry & Jopling, 2013; Fésus, et al., 2008; Johnson, 2005; Pickard, et al., 2007) . However, such arguments need to be considered critically, as was discussed previously, since the dependency ratios which are routinely used to illustrate such challenges do not accurately reflect the number of working-age individuals who are contributing or the number of older individuals who are not (and vice versa).

To counteract the effects of an ageing population, the need for changing behaviours towards working longer has been emphasised, both from the individual perspective and from governments and employers (Bloom, et al., 2011).

However, such a view contrasts with the fact that for most of the European countries, the employment rate for the population between 55 and 64 years old is relatively low, with a decline in the mean age of retirement in most of the OECD countries. In the UK, employment rate of 55-64 years old is currently around 60%, while the average age of withdrawal from the labour market was 64.9 for males and 63.3 for females in the last quarter of 2013, both below the official state retirement ages, although increases in such ages have been occurring during the last 10-15 years (Department for Work & Pensions, 2014b).

From an individual point of view, the ageing process has implied important transformations in the occurrence and transitions of vital events which have led researchers to move from a life-cycle approach (widely used from the 60s and 70s) to a lifecourse perspective (Bengtson, et al., 2012). From a lifecourse perspective, ageing is mediated through the changing family relations and the historical context in which an individual experiences their transition from childhood to adulthood, blurring the phases or events occurring in each stage. For instance, education and work can be developed simultaneously in different life stages, as can paid work and partial retirement (Bengtson, et al., 2012). The delay of such events together with a higher population survival and improvements in health conditions influence the way people experience reaching the older stage of life.

In this sense, ageing has changed from a transition that was experienced as an inevitable loss of capacities and good health, and a declining number of years left to live, to a transition to a state with more years to live and in better physical condition (Christensen, et al., 2009).

A key part of the government's strategy for highlighting the benefits of an ageing population has been around the agenda of extending working lives, which has implications for increased flexibility not only in older individuals' working patterns, but also their saving patterns and arrangements for the receipt of pensions (House of Lords, 2013). Indeed, recent pension reforms which have set in motion the rise in the state pension age for both men and women to 67 by 2028; have been considered essential for the UK's response to an increasingly ageing population (Department for Work & Pensions, 2014c). However, a critical policy debate is currently underway about the inequalities permeating estimates of life expectancy and healthy life expectancy and the differential risk of experiencing a low income or poverty in later life by specific groups in the population.

For example, about 15% of all pensioners faced a poverty risk in 2012-13; however such risk was greater among older women compared to men, among individuals from ethnic minorities compared to the White British majority, and among disabled individuals compared to able-bodied individuals (Department for Work & Pensions, 2014d). Such differentials pose important challenges for the economic security of individuals in socially diverse regions of the country; the challenge for local authorities as employers is to ensure that older people are given opportunities to remain in the workforce through training and other activities and are facilitated to combine work with family responsibilities including caring for older parents, frail spouses as well as grandchildren. This also raises the question about the extent to which the elderly also contribute economically (and socially) by providing voluntary services, informal care, etc.

The Pensioner Income Series 2012-2013 was published on 19th December 2014 and is available here:

https://www.gov.uk/government/statistics/pensioners-incomes-series-2012-to-2013

EXTENDING WORKING LIVES

"If our society and economy are to maximise the benefits of longer lives, older people must be enabled to stay in employment for longer... employers and government should remove disincentives for older people to work for longer, although the choice to continue in work must remain entirely with the individual."

Source: (House of Lords, 2013) p.32.

5.4 Social well-being

In spite of the introduction of anti-ageing discrimination by the government with the 2010 Equality Act (legislation.gov.uk, 2010), there remains a concern about the manner in which older people are viewed in a range of social domains, such as the labour market. Ageist behaviours usually result in the marginalisation of older persons, although in a broader sense, ageism can have diverse consequences for any age group. More broadly, ageism has been increasingly reflected in many cultural and behavioural attitudes, from the individual perspective as well as at the societal and institutional level (Johnson, 2005).

DEFINITION VI

AGEISM

"the stereotyping of, and discrimination against, individuals or groups because of their age".

Concept first introduced by Butler in 1969. These stereotypes can prevent older men and women from fully participating in social, political, economic, cultural, spiritual, civic and other activities. Younger people may also influence these decisions in the attitudes they convey to older people, or even by building barriers to their participation.

Source: (World Health Organization, 2012)

In a study concerning experiences and the expression of ageism in the UK (Abrams & Swift, 2012), Abrams and Swift found that having experienced ageism is associated with a lower life satisfaction and happiness, which both affect personal well-being. The study also showed that social networks are divided by age, as younger people and older people are more likely to form friendships with others of a similar age, and yet at the same time friendships across different age groups reduce negative stereotyping (Abrams & Swift, 2012).

What it means to be old has changed over time, so that individuals in their early 60s are not necessarily perceived as being old and frail. Thus the tendency to assume that all older people are dependent on the rest of society and public services should change (House of Lords, 2013). In order to maintain an active life well into older ages, and stay independent for longer, several studies have shown that not only health, but also how socially active or connected one is, should be taken into account. In relation to social networks and ageing, research showed that those who have higher social interaction and relationships performed better in health and personal well-being (Abrams, et al., 2006). Social interactions and specifically intergenerational relationships have been key in terms of the well-being and health of the older population as well as in combating the effect of ageism (Abrams & Swift, 2012). This is an important issue to target for its implications on the individuals' physical, social or geographical isolation.

AGEING AND SOCIAL CONNECTIONS

"Being lonely or isolated has been associated with health problems and early death (...) In Wales 43% of people aged 75 and older live alone".

The importance of healthy living on individuals' well-being is well recognised. However, having regular access to social activities and networks is less frequently acknowledged.

Source: (Welsh Assembly Government, 2008)

It has also been demonstrated that positives views of ageing (from the individual and the society) not only improve well-being and health, but also life expectancy (Levy & Langer, 1994). Having a positive vision, involving older people in activities and social networks can improve their well-being and health (Department of Health, 2014b). With a global population life expectancy of 70 years (World Health Organization, 2014), there is a wide range of heterogeneity between and within countries. This in turn stems from a wide ranging variability in mortality and health determinants of the individuals, belonging as they do to (among others) different countries, regions, family structures, social networking, qualification, health, life styles and resources (Crimmins, et al., 2011; Meslé & Vallin, 2006).

The mortality reduction in the 20th century has led to a longevity revolution, where longer lives should be seen as an opportunity to share a range of human and economic resources that older people can offer such as time, experience, knowledge, informal help, assets, advice and support among others (AgeUK, 2010). If we manage to ensure that part of these years gained are lived in healthier states, then such 'extra' years can be as active and productive as those spent during other parts of the life-course.

5.5 Neighbourhood matters (transport, accessibility, safety)

As stated in Section 4, one key issue of the ageing population is that people at older ages spend most of their time at home (Office of the Deputy Prime Minister, 2006). At the same time, the housing composition, structure and needs of the person change over time. In order to achieve a quality of ageing within a private dwelling, it is not only necessary to meet the requirements (in physical space and structure of the house) that arise with age-related illnesses and activity limitations, but also to guarantee that the physical and social environments in the neighbourhood are accessible and responsive to the needs of older adults (World Health Organization, 2007). Together with the ageing population process occurring all around the world, the urban population is increasing; by 2030, 3 out of 5 individuals will live in urban areas (World Health Organization, 2007). This means that cities will play an important role in the well-being and independent living of older population, and in particular local policies will be required to ensure the inclusiveness and safety of all individuals.

As was shown earlier, life expectancy and health are closely related with the place where one lives, thus geographical information helps to identify regions which are doing better compared to others. For instance, the more deprived areas in UK have lower life expectancy and fewer remaining years in good health than the least deprived areas (Communities and Local Government, 2011). Statistics on the relative level of deprivation in England are calculated for small areas called Lower Layer Super Output Areas (LSOAs), the last available being from 2010. The Deprivation Index used in such statistics covers a broad range of issues across 7 domains: income; employment; health deprivation and disability; education, skills and training; barriers to housing and services; crime and living environment (Communities and Local Government, 2011). In their report for 2010, this research team found that 56% of Local Authorities contain at least one small area amongst the 10% most deprived in England. Liverpool, Middlesbrough, Manchester, Knowsley, the City of Kingston-upon Hull, Hackney and Tower Hamlets are the local authorities with the highest proportion of small areas amongst the most deprived.

RESOURCE 11

Statistics on relative levels of Deprivation in England

Seven domains are combined for the Index of Multiple Deprivation: Income; Employment; Health deprivation and disability; Education, skills and training; barriers to housing and services; crime and living environment.

Statistics on deprivation indices can be downloaded from the ONS website, for the index in overall as well as for the different domains that are involved and supplementary indices.

Source: Communities and Local Government (2011).

Available at: https://www.gov.uk/government/statistics/english-indices-of-deprivation-2010

In addition, another resource very useful to visualise and compare deprivation levels across local authorities is the map created by Alasdair Rae (Rae, 2011). Using the overall Index of Deprivation calculated for England, the map shows a range of 5 quintiles, from the 20% most deprived areas to the 20% least deprived. Moreover, the map can show the evolution of the index (between 2004-2010) on individual areas where data is available.

RESOURCE 12

Mapping the Deprivation Index in England by small areas

Map created by Alasdair Rae, Senior Lecturer at the University of Sheffield, using the overall Index of Deprivation calculated for England. It shows the index distribution in a range of 5 quintiles, and also offers information on specific areas for previous years (where available).

Available at: http://imd040710.blogspot.co.uk

The WHO launched the Age-friendly Environments Programme [14] under the scope of the active ageing framework to help cities and communities to become more supportive and adaptive to the needs of their ageing population. According to this programme, local communities should focus on eight main dimensions to achieve this goal: the built environment; transport; housing; social participation; respect and social inclusion; civic participation and employment; communication and community support and health services.

WHO AGE-FRIENDLY ENVIRONMENTS PROGRAMME

Making cities and communities age-friendly is one of the most effective local policy approaches for responding to demographic ageing. The physical and social environments are key determinants of whether people can remain healthy, independent and autonomous long into their old age.

Source: World Health Organization (2007).

The programme analyses the different dimensions within the cities that should be taken into account, and checklists allow local governments to address such issues. Below is a selection of indicators used to assess whether a community is a friendly and safe environment for older adults.

Age-friendly community checklist in different domains:

- Service facilities are safely constructed and are fully accessible for people with disabilities.
- An adequate range of health and community support services is offered for promoting, maintaining and restoring health.
- Employee organisations (e.g. trade unions) support flexible options, such as part-time and voluntary work, to enable more participation by older workers.
- Opportunities for voluntary or paid work are known and promoted.
- Policies, programmes and plans for older people include contributions from older people.
- Activities that bring generations together for mutual enjoyment and enrichment are regularly held.
- Community action to strengthen neighbourhood ties and support include older residents as key informants, advisers, actors and beneficiaries.
- Organisations make efforts to engage isolated seniors through, for example, personal visits or telephone calls.
- Activities and events are well-communicated to older people, including information about the activity, its accessibility and transportation options.
- Public housing, rented accommodation and common areas are well-maintained.
- Housing is appropriately equipped to meet environmental conditions (e.g. appropriate air-conditioning or heating).
- Vehicles are accessible, with floors that can be lowered, low steps, and wide and high seats.
- Pedestrian-friendly walkways are free from obstructions, have a smooth surface, have public toilets and can be easily accessed.
- Public safety in all open spaces and buildings is a priority and is promoted by, for example, measures to reduce the risk from natural disasters, good street lighting, police patrols, enforcement of by-laws, and support for community and personal safety initiatives.

Source: Selection taken from (World Health Organization, 2007).

RESOURCES

List of resources in order of appearance

RESOURCE 1

Understanding increasing diversity; ethnic elders

http://www.ethnicity.ac.uk/research/data-sources/area-profilers/

RESOURCE 2

Understanding and projecting ageing at a local authority level – the Office for National Statistics Interactive Ageing Tool

http://www.ons.gov.uk/ons/interactive/theme-pages-1-2/age-interactive-map.html

RESOURCE 3

Mapping census data at Output Area level for Local Authorities in England and Wales – Census Open Atlas Project

http://www.alex-singleton.com/r/2014/02/05/2011-census-open-atlas-project-version-two/

RESOURCE 4

What was the age profile of your local authority in 2011? The Office for National Statistics Interactive Population Pyramids from the 2001 and 2011 Censuses

http://www.ons.gov.uk/ons/interactive/vp2-2011-census-comparator/index.html

RESOURCE 5

Understanding life expectancy and healthy life expectancy in England at a local authority level – the Office for National Statistics Interactive Healthy Life Expectancy Tool

http://www.ons.gov.uk/ons/interactive/healthy-life-expectancy-at-birth-for-upper-tier-local-authorities--england-2009-11/index.html

RESOURCE 6

Better Life Index – Comparison of Well-being across OECD countries

Interactive Index: http://www.oecdbetterlifeindex.org/

Country reports: http://www.oecd.org/newsroom/BLI2013-Country-Notes.pdf

RESOURCE 7

Measures of National Well-being, UK

Interactive Index: http://www.neighbourhood.statistics.gov.uk/HTMLDocs/dvc146/wrapper.html

RESOURCE 8

Active Ageing Index, 2012

http://www1.unece.org/stat/platform/display/AAI/Active+Ageing+Index+Home

RESOURCE 9

The Global AgeWatch Index measures the Social and Economic Well-being of older people across 96 countries

http://www.helpage.org/global-agewatch/

RESOURCE 10

Personal Well-being indicators by Local Authority

http://www.neighbourhood.statistics.gov.uk/HTMLDocs/dvc124/wrapper.html

RESOURCE 11

Statistics on relative levels of Deprivation in England

https://www.gov.uk/government/statistics/english-indices-of-deprivation-2010

RESOURCE 12

Mapping the Deprivation Index in England by small areas

http://imd040710.blogspot.co.uk

REFERENCES

Abrams, D., Eller, A. & Bryant, J., 2006. An age apart: The effects of intergenerational contact and stereotype threat on performance and intergroup bias. Psychology and Aging, Volume 21, pp. 691-702.

Abrams, D. & Swift, H., 2012. Experiences and Expressions of Ageism: Topline Results (UK) from Round 4 of the European Social Survey, ESS Country Specific Topline Results (2), London: Centre for Comparative Social Surveys.

AgeUK, 2010. Healthy Ageing Evidence Review, s.l.: AgeUK.

AgeUK, 2013. Improving later life. Understanding the oldest old. London: AgeUK.

AgeUK, 2014. Later Life in the United Kingdom. [Online] Available at: **http://www.ageuk.org.uk/Documents/EN-GB/Factsheets/Later_Life_UK_factsheet.pdf?dtrk=true**

Alzheimer's Society, 2014. Dementia UK: Second edition - Overview, London: Alzheimer's Society.

Audit Commission, 2009. Financial implications of an ageing population. Policy and literature review, s.l.: s.n.

Baltes, P. & Baltes, M., 1990. Psychological perspectives on successful aging: The model of selective optimization with compensation. In: P. Baltes & M. Baltes, eds. Successful aging: Perspectives from the behavioral sciences. New York: Cambridge University Press, pp. 1-34.

Bäumker, T., Netten, A. & Darton, R., 2008. Costs and outcomes of an extra-care scheme in Bradford, York: The Joseph Rowntree Foundation.

Bayliss, J. & Sly, F., 2010. Ageing across the UK, Newport: Office for National Statistics.

Bengtson, V., Elder, G. & Putney, N., 2012. The life course perspective on ageing: Linked lives, timing, and history. In: J. Katz, S. Peace & S. Spurr, eds. Adult lives. A life course perspective. Bristol: The Policy Press, pp. 9-17.

Berry, C. & Jopling, K., 2013. Extending working lives: a provocation, London: International Longevity Centre - UK.

Birmingham Policy Commission, 2014. Healthy Ageing in the 21st Century: the best is yet to come, s.l.: s.n.

Bloom, D., Canning, D. & Fink, G., 2011. Implications of Population Aging for Economic Growth, Oxford: Oxford Review of Economic Policy.

Bowling, A. & Dieppe, P., 2013. What is successful ageing and who should define it?. BMJ, Volume 331, p. 1548.

Burns, J., 2014. The impact of living in Campbell Place Extra Care Housing Scheme on the quality of life residents. Centre for Research on Ageing Discussion Paper, Volume 1401.

Centre for Policy on Ageing, 2013. The Ageing of the ethnic minority populations of England and Wales: findings from the 2011 Census, London: s.n.

Christensen, K., Doblhammer, G., Rau, R. & Vaupel, J., 2009. Ageing populations: the challenges ahead. The Lancet, 374(9696), pp. 1196-1208.

Clark, D. & McGillivray, M., 2007. Measuring Human Well-being: Key Findings and Policy Lessons. UNU Policy Brief, June, Volume 03/2007, pp. 1-7.

Communities and Local Government, 2011. The English Indices of Deprivation 2010. Neighbourhoods Statistical Release, s.l.: s.n.

Crimmins, E., Preston, S. & Cohen, B., 2011. Explaining Divergent Levels of Longevity in High-Income Countries. Washington D.C.: The National Academies Press.

Croucher, K., Hicks, L., Bevan, M. & Sanderson, D., 2007. Comparative evaluation of models of housing with care for later life, York: The Joseph Rowntree Foundation.

Davey, J., 2002. Active Ageing and Education in Mid and Later Life. Ageing and Society, Volume 22, pp. 95-113.

Davey, J., Nana, G., Dejoux, V. & Arcus, M., 2004:133. Accommodation options for older people in Aotearoa/New Zealand. Wellington: NZ Institute for Research on Ageing/ Business & Economic Research.

De Jong, J., de Valk, H. & Blommesteijn, M., 2001. Living Arrangements of Older Persons and Family Support in More Developed Countries. In: Ageing and Living Arrangements of Older Persons: Critical Issues and Policy Responses. s.l.:s.n.

Demey, D., Berrington, A., Evandrou, M. & Falkingham, J., 2011. The changing demography of mid-life, from the 1980s to the 2000s. Population Trends, 145(1), pp. 16-34.

Department for Communities and Local Government, 2008. Lifetime homes, lifetime neighbourhoods: A national strategy for housing in an ageing society, London: Department for Communities and Local Government, DH and DWP.

Department for Communities and Local Government, 2011. Laying the Foundations: A Housing Strategy for England, London: Department for Communities and Local Government.

Department for Work & Pensions, 2014a. Single-tier Pension: A simple foundation for saving, London: Department of Work & Pensions.

Department for Work & Pensions, 2014b. Fuller Working Lives – Background Evidence, s.l.: Department for Work & Pensions.

Department for Work & Pensions, 2014c. Single-tier Pension: A simple foundation for saving, London: Department for Work & Pensions.

Department for Work & Pensions, 2014d. Households Below Average Income. An analysis of the income distribution 1994/95-2012/13, London: s.n.

Department of Health, 2010a. A Vision for Adult Social Care: Capable Communities and Active Citizens. [Online] Available at: **http://webarchive.nationalarchives.gov.uk/+/www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_121508**

Department of Health, 2010b. Extra Care Housing Fund. [Online] Available at: **http://webarchive.nationalarchives.gov.uk/+/www.dh.gov.uk/en/SocialCare/Deliveringadultsocialcare/Housing/DH_083199**

Department of Health, 2011. Fairer Care Funding. The Report of the Commission on Funding of Care and Support, s.l.: s.n.

Department of Health, 2012. Long Term Conditions Compendium of Information: Third Edition, **https://www.gov.uk/government/publications/long-term-conditions-compendium-of-information-third-edition** : s.n.

Department of Health, 2013. People will see health and social care fully joined-up by 2018, Press Release, **https://www.gov.uk/government/news/people-will-see-health-and-social-care-fully-joined-up-by-2018**: s.n.

Department of Health, 2014a. Better care plans to provide dignity, independence and reduce A&E admissions, Press Release, s.l.: s.n.

Department of Health, 2014b. A Compendium of Factsheets: Well-being Across the Lifecourse, s.l.: s.n.

European Centre Vienna, 2013. Active Ageing Index 2012. Concept, Methodology and Final Results, Vienna: UNECE.

European Commission, 2005. Green Paper: Confronting demographic change: a new solidarity between the generations, Brussels 16.3.2005: Commission of the European Communities.

European Commission, 2011. Europe 2020 targets. [Online] Available at: **http://ec.europa.eu/europe2020/targets/eu-targets/**

European Commission, 2013a. Investing in Health, Brussels: EC.

European Commission, 2013b. European Innovation Partnership on Active and Healthy Ageing. [Online] Available at: **http://ec.europa.eu/research/innovation-union/index_en.cfm?section=active-healthy-ageing**

European Commission, 2014. Population ageing in Europe: facts, implications and policies: Outcomes of EU-funded research, Brussels: Directorate-General for Research and Innovation, European Commission.

European Council, 2001. Presidency Conclusions, 23 and 24 March 2001, Stockholm: Stockholm European Council.

European Union, 2014. EuroHealth Net. Healthy Ageing. [Online] Available at: **http://www.healthyageing.eu/initiatives/european-policies-and-initiatives**

Falkingham, J. et al., 2010. JRF Programme Paper: A Better Life - Demographic issues, projections and trends: Older people with high support needs in the UK, York: Joseph Rowntree Foundation.

Fernandez, J., Snell, T. & Wistow, G., 2013. Changes in the Patterns of Social Care Provision in England: 2005/6 to 2012/13. Personal Social Services Research Unit Discussion Paper, Volume 2867.

Ferreira, M., 2013. Housing for older people globally. What are best practices? An ILC Global Alliance Discussion Paper, London: International Longevity Centre.

Fésus, G., Rillaers, A., Poelman, H. & Gáková, 2008. REGIONS 2020. Demographic Challenges for European Regions, Brussels: Directorate General for Regional Policy.

Fries, J., 1980. Aging, Natural Death, and the Compression of Morbidity. The New England Journal of Medicine, Volume 303, pp. 130-135.

Gavrilov, L. & Heuveline, P., 2003. Aging of Population. In: P. Demeny & G. McNicoll, eds. The Encyclopedia of Population. New York: MacMillan Reference USA.

Gibson, E., 2014. Progress towards Healthy Ageing in Europe: to promote active healthy lifestyles in 45-68 years olds through workplace, rather than traditional health-related settings. Working with Older People, 18(2), pp. 51-57.

gov.uk, 2014. Winter Fuel Payment. [Online] Available at: **https://www.gov.uk/winter-fuel-payment/overview**

Grundy, E., Fletcher, A., Smith, S. & Lamping, D., 2007. Successful Ageing and Social Interaction- A Policy Brief, **www.ilcuk.org.uk/files/pdf_pdf_41.pdf: International Longevity Centre-UK**.

Guihen, B., 2013. Human Issues related to housing design for elderly and smart homes. 2nd Reporting Period, s.l.: TECNICALIA.

Ham, C., Dixon, A. & Brooke, B., 2010. Transforming the Delivery of Health and Social Care, London: The Kings Fund.

Harding, E., 2007. Older People's Housing and Under-Occupancy. A Policy Brief, London: International Longevity Centre – UK.

Hellinwell, J., 2008. Life Satisfaction and Quality of Development. NBER Working Paper Series, November, Volume 14507.

HelpAge International, 2014. Global AgeWatch Index 2014: Insight Report, London: HelpAge International.

Hills, J., 2012. Getting the measure of fuel poverty. Final Report of the Fuel Poverty Review. Case Report No. 72, s.l.: Centre for the Analysis of Social Exclusion.

HM Government, 2014. Care Act 2014. [Online] Available at: **http://www.legislation.gov.uk/ukpga/2014/23/contents/enacted**

Homes and Communities Agency, 2009. Housing our Ageing Population: Panel for Innovation, Final Report, s.l.: s.n.

House of Lords, 2013. Ready for Ageing? Report of Session 2012-13, London: s.n.

HSCIC, 2014. Personal Social Services: Expenditure and Unit Costs, England 2013-14, Provisional release NS, s.l.: Health & Social Care Information Centre.

Hyde, M. J. M., 2004. Social activity. In: Health, wealth and lifestyles of the older population in England. The 2002 English Longitudinal Study of Ageing. London: The Institute for Fiscal Studies, pp. 167-179.

Institute for Public Care, 2012a. Health, Well-being, and the Older People Housing Agenda, s.l.: Oxford Brookes University.

Institute for Public Care, 2012b. Identifying the Health Gain from Retirement Housing, s.l.: Oxford Brookes University.

Johnson, M., 2005. The Cambridge Handbook of Age and Ageing. Cambridge: Cambridge Unviersity Press.

Kirk, D., 1996. Demographic Transition Theory. Population Studies, 50(3), pp. 361-387.

Kneale, D., 2011. Establishing the extra in Extra Care Perspectives from three Extra Cre Housing Providers, s.l.: The International Longevity Centre- UK.

legislation.gov.uk, 2010. Equality Act 2010. [Online] Available at: **http://www.legislation.gov.uk/ukpga/2010/15/contents**

legislation.gov.uk, 2014. Pensions Act 2014. [Online] Available at: **http://www.legislation.gov.uk/ukpga/2014/19/contents/enacted**

Levy, B. & Langer, E., 1994. Aging free from negative stereotypes: Successful memory in China and among the American deaf. Journal of Personality and Social Psychology, Volume 66, pp. 989-997.

Lievesley, N. (2010) The future ageing of the ethnic minority population of England and Wales. London: Runnymede and Centre for Policy on Ageing.

Lutz, W. & Skirbekk, V., 2005. Policies addressing the tempo effect in low-fertility countries. Population and Development Review, 31(4), pp. 703-723.

Marmot, M., 2010. Fairer Societies, Healthy Lives - The Marmot Review, London: s.n.

Marshall, A. & Norman, P., 2013. Geographies of the impact of retirement on health in the United Kingdom. Health & Place, March, Volume 20, pp. 1-12.

Meslé, F. & Vallin, J., 2006. The health transition: Trends and prospects. In: G. Caselly, J. Vallin & W. Guillaume, eds. Demography: Analysis and Synthesis. s.l.:Elsevier, pp. 247-266.

National Center for Environmental Health, 2013. Healthy Places Terminology. [Online] Available at: **http://www.cdc.gov/healthyplaces/terminology.htm** [Accessed 10 2014].

National Housing Federation, 2011. Breaking the Mould, London: National Housing Federation.

National Housing Federation, 2012. On the Pulse: Housing routes to better health outcomes for older people, London: National Housing Federation.

Netten, A., Darton, R., Bäumker, T. & Callaghan, L., 2011. Improving housing with care choices for older people: an evaluation of extra care housing, s.l.: University of Kent.

NHS, 2013. Extra Care (Care and support), s.l.: National Health Service.

OECD, 2013. Measuring well-being and progress, s.l.: OECD Statistics Directorate.

Office for National Statistics, 2006. Focus on Health, Basingstoke: Palgrave Macmillan.

Office for National Statistics, 2011. Estimates of Centenarians in the UK, 2010, s.l.: s.n.

Office for National Statistics, 2012. 2011 Census - Population and Household Estimates for England and Wales, March 2011. [Online] Available at: **http://www.ons.gov.uk/ons/dcp171778_270487.pdf**

Office for National Statistics, 2012a. 2011 Census: Population Estimates for the United Kingdom, 27 March 2011, s.l.: Office for National Statistics.

Office for National Statistics, 2012b. Guide to: Life expectancy in the United Kingdom, s.l.: Office for National Statistics.

Office for National Statistics, 2012c. Population Ageing in the United Kingdom, its Constituent Countries and the European Union, s.l.: s.n.

Office for National Statistics, 2012d. Health Expectancies at Birth and Age 65 in the United Kingdom, 2008-10, s.l.: s.n.

Office for National Statistics, 2013. Why has the fertility rate risen over the last decade in England and Wales?. [Online] Available at: **http://www.ons.gov.uk/ons/rel/vsob1/birth-summary-tables--england-and-wales/2011--final-/sty-fertility.html**

Office for National Statistics, 2013 National population projections (2012 based) **http://www.ons.gov.uk/ons/rel/npp/national-population-projections/2012-based-reference-volume--series-pp2/executive-summary.html**

Office for National Statistics, 2013a. What Does the 2011 Census Tell Us About Older People, s.l.: s.n.

Office for National Statistics, 2013b. The number of people age 60 and over getting divorced has risen since the 1990s. [Online] Available at: **http://www.ons.gov.uk/ons/rel/family-demography/older-people-divorcing/2011/sty-divorce.html**

Office for National Statistics, 2013c. Interim Life Tables, England and Wales, 2009-2011, s.l.: s.n.

Office for National Statistics, 2013d. General Health in England and Wales, 2011 and Comparison with 2001, s.l.: s.n.

Office for National Statistics, 2013e. Personal Well-being Across the UK, 2012/13, London: Experimental Statistics, Office for National Statistics.

Office for National Statistics, 2014a. Births in England and Wales, 2013. [Online] Available at: **http://www.ons.gov.uk/ons/rel/vsob1/birth-summary-tables--england-and-wales/2013/stb-births-in-england-and-wales-2013.html**

Office for National Statistics, 2014b. Life Expectancy at Birth and at Age 65 by Local Areas in the United Kingdom, 2006-08 to 2012-12, s.l.: s.n.

Office for National Statistics, 2014c. Statistical bulletin: Healthy Life Expectancy at Birth for Upper Tier Local Authorities: England 2010-12, s.l.: s.n.

Office for National Statistics, 2014d. Inequality in Healthy Life Expectancy at Birth by National Deciles of Area Deprivation: England, 2009-11, s.l.: s.n.

Office for National Statistics, 2014e. Health inequality widest in older middle-aged census analysis shows. What are the health differences between residents of more and less disadvantaged areas in England?, England 2011 Release, s.l.: s.n.

Office of the Deputy Prime Minister, 2001. Quality and Choice for Older People's Housing – A strategic Framework, s.l.: Office of the Deputy Prime Minister.

Office of the Deputy Prime Minister, 2006. A sure start to later life: ending inequalities for older people, London: Office of the Deputy Prime Minister.

Pannell, J., Aldridge, H. & Kenway, P., 2012. Market Assessment of Housing Options for Older People: A report for Shelter and the Joseph Rowntree Foundation, s.l.: New Policy Institute.

Pickard, L. et al., 2000. Relying on informal care in the new century? Informal care for elderly people in England to 2031. Ageing & Society, pp. 745-772.

Pickard, L. et al., 2007. Care by Spouses, Care by Children: Projections of Informal Care for Older People in England to 2031. Social Policy and Society, Volume 6, pp. 353-366.

Purdy, S., 2010. Avoiding hospital admissions - what does the research evidence say?, London: The King's Fund.

Rae, A., 2011. Local Deprivation in England. [Online] Available at: **http://imd040710.blogspot.co.uk/** [Accessed October 2014].

Randall, C., Corp, A. & Self, A., 2014. Measuring National Well-being: Life in the UK, 2014, s.l.: Office for National Statistics.

Robards, J., Evandrou, M., Falkingham, J. & Vlachantoni, A., 2012. Marital status, health and mortality. Maturitas, 73(4), pp. 295-299.

Rowe, J. & Kahn, R., 1987. Human aging: usual and successful. Science, 237(4811), pp. 143-149.

Sanderson, W. & Scherbov, S., 2008. Rethinking Age and Aging. Population Bulletin, December.63(4).

Shaw, M. & Dorling, D., 2004. Who cares in England and Wales? The Positive Care Law: cross-sectional study. British Journal of General Practice, 54(509), pp. 899-903.

Shelter, 2007. Shelter Factsheet, Older people and housing, s.l.: Shelter.

Sixsmith, A. & Sixsmith, J., 2008. Ageing in Place in the United Kingdom. Ageing International, 32(3), pp. 219-235.

Spijker, J. & MacInnes, J., 2013. Population ageing: the timebomb that isn't?. BMJ, p. 347:f6598.

Stone, J. B. A. a. F. J., 2014. Gender, turning points, and boomerangs: returning home in young adulthood in Great Britain. Demography, 51, (1), pp. 257-276.

Suffolk County Council, 2012. PROGRESS towards healthy ageing in Europe. [Online] Available at: **http://www.progresshealthyageing.eu/**

Sweet, D., 2011. Health. Social Trends, Office for National Statisitics, Volume 41.

The King's Fund Site, n.d. Life expectancy. [Online] Available at: **http://www.kingsfund.org.uk/time-to-think-differently/trends/demography/life-expectancy** [Accessed October 2014].

United Nations, 2002. World Population Ageing: 1950-2050, New York: United Nations, Department of Economic and Social Affairs Population Division.

Vallin, J. & Meslé, F., 2004. Convergences and divergences in mortality. A new approach to health transition. Demographic Research, Volume Special Collection 2, pp. 11-44.

Van Leewwen, K. et al., 2014. What can local authorities do to improve the social care-related quality of life of older adults living at home? Evidence from the Adult Social Care Survey. Health & Place, Volume 29, pp. 104-113.

Victor, C. et al., 2006. Older People's Experiences of Loneliness in the UK: Does Gender Matters?. Social Policy & Society, pp. 27-38.

Vlachantoni, A. et al., 2011. Measuring unmet need for social care amongst older people. Population Trends, 145(1), pp. 60-76.

Welsh Assembly Government, 2008. The Healthy Ageing Action Plan for Wales, s.l.: s.n.

Welsh Government, 2013. The Strategy for Older People in Wales 2013-2023. [Online] Available at: **http://wales.gov.uk/topics/health/publications/socialcare/strategies/older/?lang=en**

Wiles, J. et al., 2012. The Meaning of "Aging in Place" to Older People. The Gerontologist, 52(3), pp. 357-366.

Wolf, K., 1959. The Biological, Sociological and Psychological Aspects of Aging. Oxford: Blackwell.

World Health Organization, 2000. Information Needs for Research, Policy and Action on Ageing and Older Adults. Harare, s.n.

World Health Organization, 2002. Active Ageing: A Policy Framework, Geneva: s.n.

World Health Organization, 2004. Ageing and Health Technical Report, Volume 5, A Glossary of Terms for Community Health Care and Services for Older Persons, Kobe: WHO Centre for Health Development.

World Health Organization, 2006. Healthy Ageing: A Challenge for Europe, s.l.: s.n.

World Health Organization, 2007. Global Age-friendly Cities: A Guide. Ageing and lifecourse, family and community health, France: World Health Organization.

World Health Organization, 2011. Global Health and Ageing, s.l.: s.n.

World Health Organization, 2012. Fighting Stereotypes, s.l.: s.n.

World Health Organization, 2014. Life expectancy. [Online] Available at: **http://www.who.int/gho/mortality_burden_disease/life_tables/situation_trends/en/** [Accessed November 2014].