



Population ageing: statistics

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There is great interest among Members of Parliament in regards to population ageing. Population ageing is seen as one of the greatest challenges facing contemporary society, because of its many social, economic and political implications. This Note focuses on future demographic trends in population ageing at national and regional level, and briefly examines the implications of these trends.

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A. Socio-demographic profile of the elderly

There are 10.3 million people aged 65 and over in the UK. This is an 80 per cent increase over six decades, from in 1951. Over the last 60 years there has been a substantial change in the age composition of older people. In 1951, those aged 65-74 represented 67 per cent, and those aged 85 and over made up just 4 per cent, of the 65 and over population. Today, the two age groups represent 51 per cent and 14 per cent respectively.

Older women outnumber men. The improvement in mortality rates among older men has led to a narrowing of the gap. There were 70 men in the UK aged 65 and over for every 100 women of the same age group in 1951. The sex ratio has increased to 79 men per 100 women. The greater number of women than men is most pronounced among the very old, as women tend to live older than men. In 2010, there were 2.56 women over the age of 90 for every man of that age.¹

Older women are more likely than men to live alone, and the proportion increases with advancing age. Among women aged 75 and over who live in private households in Great Britain, 60 per cent live alone compared with 36 per cent of men at the same age.² In 2001, 4.5 per cent of people aged 65 and over were resident in communal establishments in Great Britain. This proportion was greatest among people aged 90 and over at 20 per cent for men and 34 per cent for women.³

Women can expect to live longer than men, with life expectancy at birth in the UK being 78.1 years for men and 82.1 years for women in 2010.⁴ However, women are also more likely to live more years in poor health. In 2010, the expected years lived in poor health from age 65 onwards was 7.7 years for men and 8.7 years for women.⁵ Family members supply the majority of social care provided in the community. In 2001, over three-quarters (78 per cent) of all older people who reported suffering from mobility problems were helped by their spouse or other household members. As well as receiving informal care, older people are also major providers of care. In 2001, 1.2 million men and 1.6 million women aged 50 and over in England and Wales were providing unpaid care to family members, neighbours or relatives. This represents 16 per cent and 17 per cent of men and women aged 50 and over. Among 50- to 64-year-olds, a greater proportion of women than men provide unpaid care, and a higher proportion provide intensive care (50 or more hours a week).⁶

B. National population projections⁷

ONS produces national population projections for the United Kingdom and its constituent countries. The latest 2010-based principal projections for the United Kingdom and constituent countries were published in October 2011. New, 2012-based projections will be published in October 2013.

¹ ONS, Mid-2010 UK population estimate <http://www.ons.gov.uk/ons/publications/all-releases.html?definition=tcm:77-22371>

² ONS, General Lifestyle Survey 2009 <http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=5756>

³ ONS, Census 2001.

⁴ ONS, National Population projections 2010-based <http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-229866>

⁵ ONS, Health Expectancy at Birth and at age 65. <http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=12964>

⁶ ONS, Census 2001

⁷ Principal projection. Projections are based on current trends and do not take account of any future policy changes

The UK population will increase gradually from an estimated 62.6 million in 2010, to 65 million in 2017, passing 70 million in 2028, to reach 73 million by 2035. This represents an increase of 10.2 million over the period 2010 to 2035, equivalent to an average annual growth rate of 0.63 per cent, or 17.0 per cent over the 25 years. In the longer-term, the projections suggest that the population will continue rising beyond 2035 but at a much lower rate of growth; the population is projected to continue rising until 2060, the end of the primary projection period.

Of the 5.4 million increase in the UK population between 2010 and 2018, some 3.0 million (56 per cent) is projected natural increase (more births than deaths) while the remaining 2.4 million (44 per cent) is the assumed total number of net migrants. However, the projected numbers of future births and deaths are themselves partly dependent on the assumed level of net migration.⁸

Due to differences in demographic patterns, projected trends differ for the four countries of the UK. The population of England is projected to increase by 8.4 per cent by 2020, that of Northern Ireland by 6.2 per cent, that of Wales by 5.5 per cent, and that of Scotland by 5.1 per cent.

Table 1 - Projected population of the United Kingdom and constituent countries, 2008-2033

	<i>thousands</i>					
	2010	2015	2020	2025	2030	2035
United Kingdom	62,261	64,775	67,173	69,404	71,393	73,207
England	52,234	54,468	56,607	58,607	60,410	62,078
Wales	3,006	3,083	3,170	3,250	3,315	3,369
Scotland	5,222	5,365	5,486	5,596	5,686	5,755
Northern Ireland	1,799	1,859	1,910	1,951	1,982	2,005

Source: ONS 2010-based national population projections

The age structure of the UK population will gradually become older. The number of children aged under 16 is projected to increase by 6.2 per cent from 11.6 million in 2010 to 13.0 million by 2020 and then stabilise before starting a modest decline after 2025. The number of people of working age⁹ is projected to rise by 4.4 per cent from 38.4 million in 2010 to 40.1 million in 2015. Allowing for the change in women's state pension age between 2010 and 2020, the working age population will increase further to 41.6 million in 2020.

⁸ Projected natural change and assumed net migration are not independent of each other. The projected numbers of future births and deaths are themselves partly dependent on the assumed level of net migration. <http://www.ons.gov.uk/ons/rel/npp/national-population-projections/2010-based-projections/rep-2010-based-npp.html>

⁹ Allowing for the rise in women's pension age from 60 to 65 over the period 2010-2018.

Table 2 - Projected population by age, United Kingdom, 2010-2035

Ages	<i>thousands</i>					
	2010	2015	2020	2025	2030	2035
0-14	10,872	11,497	12,231	12,455	12,279	12,117
15-29	12,471	12,619	12,168	12,192	12,809	13,543
30-44	12,725	12,545	13,185	14,037	14,108	13,664
45-59	12,126	13,018	13,161	12,514	12,338	12,986
60-74	9,163	9,709	10,335	10,925	11,807	11,981
75 and over	4,905	5,388	6,093	7,279	8,051	8,918
All ages	62,262	64,776	67,173	69,404	71,392	73,208
Mean age (years)	40.0	40.4	40.9	41.6	42.3	43.0
Under 16	11,608	11,690	11,795	11,906	12,040	12,184
Working age*	38,426	40,243	41,192	42,234	43,616	44,127
<i>Under 40</i>	19,828	20,274	20,696	20,998	21,229	21,584
<i>40 & over</i>	18,598	19,970	20,496	21,236	22,387	22,543
Pensionable age*	12,228	12,843	14,186	15,264	15,736	16,896
Support ratio* (working age/pensionable age)	3.14	3.13	2.90	2.77	2.77	2.61

Source: ONS 2010-based population projections

Note: * Working age and pensionable age population based on state pension age for given year. Between 2010 and 2018, state pension age will change from 65 years for men and 60 years for women, to 65 years for both sexes. By 2028, state pension age will be 66 for both sexes

The number of people of ages 65 and over is projected to increase by 23 per cent from 10.3 million in 2010 to 12.7 million in 2018. Growth in this age group is projected to continue for the foreseeable future, with the 65+ population expected to reach 16.9 million by 2035.

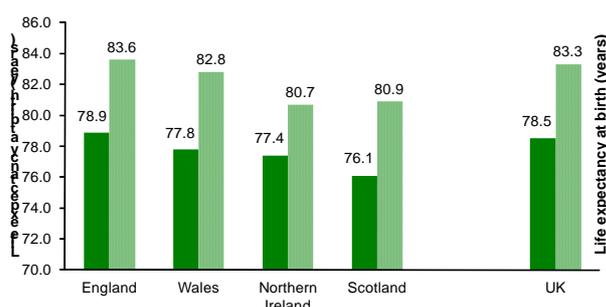
In 2010, there were just over 1.3 million more children aged under 16 than people aged 65+. However, this proportion is expected to reverse itself, and by 2035, there are projected to be 4.0 million more people aged 65+ than under 16s.

Population ageing means there will be greater numbers of elderly dependents in the future. There were 3.16 persons of working age for every person of state pensionable age in 2010. By 2018, allowing for existing (Pensions Acts 2007 & 2010) changes to women's state pension ages this demographic support ratio is expected to increase to 3.27. Without further changes in State Pension Age, the support ratio is expected to decline to around 2.9:1 in the 2040s, and continue declining for the duration of the projection period.

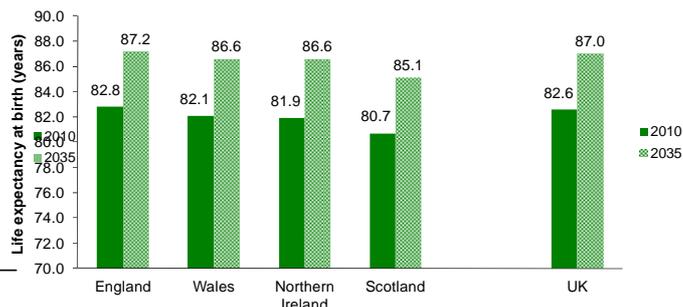
The population will gradually become older with the average (mean) age expected to rise from 40.0 years in 2010 to 43.0 years in 2035. In the longer-term, the projections suggest that the average age will continue to rise beyond 2035, reaching 44.7 years by 2060.

In terms of the projections' underlying assumptions, life expectancy at birth in the UK is projected to rise from 78.5 years in 2010 to 83.3 years in 2035 for men; and from 82.6 years in 2010 to 87.0 years in 2033 for women. Figures 1 and 2 show projected male and female life expectancy in 2008 and 2033 for the UK and its constituent countries.

**Figure 1 - Projected male life expectancy
2010 to 2035**



**Figure 2 - Projected female life expectancy
2010 to 2035**



Average completed family size, which has been falling from a peak of nearly 2.45 children for women born in the mid 1930s, is assumed to level off at 1.84 children for women born after 1990. Finally, long-term annual net migration for the UK is assumed to be +190,000 each year from 2014/15 onwards.

C. Subnational population projections

The ONS produces subnational population projections for England and Wales.¹⁰ Owing to increased data lags, the latest sub-national projections are based on 2008, rather than 2010 data. The projections provide population by age and sex from 2008 to 2033 for Government Office Regions, strategic health authority areas, counties (metropolitan and non-metropolitan), shire districts, unitary authorities and London boroughs.¹¹

The subnational population projections are trend-based. Assumptions for future demographic behaviour are based on observed levels of births, deaths and migration over the previous five years (2004 to 2008). They show what the population will be if recent trends continue, and do not reflect the impact of future housing and other development policies or of future changes in the components of demographic change at local level. Subnational projections can be used to anticipate future demand on health services, transport, housing and education at local level.

The projections show a continued general ageing of the population in all regions.

The local authority areas of West Somerset, South Shropshire, and Berwick-upon-Tweed are expected to have the highest proportions of people aged 65 and over by 2031, at over 45 per cent.

¹⁰ 2008-based sub-national population projections for [Scotland](#) are published by the General Register Office of Scotland, and for [Northern Ireland](#) are published by the Northern Ireland Statistics and Research Agency.

¹¹ http://www.statistics.gov.uk/downloads/theme_population/SNPP-2008/InteractivePDF_2008-basedSNPP.pdf

Projected % population 65+, local authorities, 2008 to 2033

	2008	2033
<i>(Bottom 10)</i>		
Tower Hamlets	8.5	8.1
Islington	10.6	11.1
Wandsworth	11.0	11.3
Lambeth	9.7	11.5
Newham	9.7	11.9
Southwark	10.5	12.1
Camden	10.9	12.1
Hackney	10.1	12.3
Manchester	12.6	12.9
Barking & Dagenham	13.8	13.3
<i>(Top 10)</i>		
West Somerset	33.7	47.7
South Shropshire	29.3	45.5
Berwick-upon-Tweed	29.4	45.1
West Dorset	30.1	45.0
Rother	32.6	43.7
North Norfolk	32.2	43.6
Christchurch	33.8	41.7
East Dorset	31.2	41.7
East Lindsey	28.9	41.3
East Devon	31.3	40.9

Source: ONS, Subnational population projections (2008-based)

D. Population ageing: an international phenomenon

Population ageing is an international phenomenon. In 1950, just 8 per cent of the world population was aged 60 years or over. By 2005 that proportion had risen to 10 per cent and it is expected to be more than double over the next 40 years, reaching 22 per cent in 2050. Globally, the number of people aged 60 and over will nearly triple in size, increasing from 894 million in 2010 to 2.43 billion in 2050.

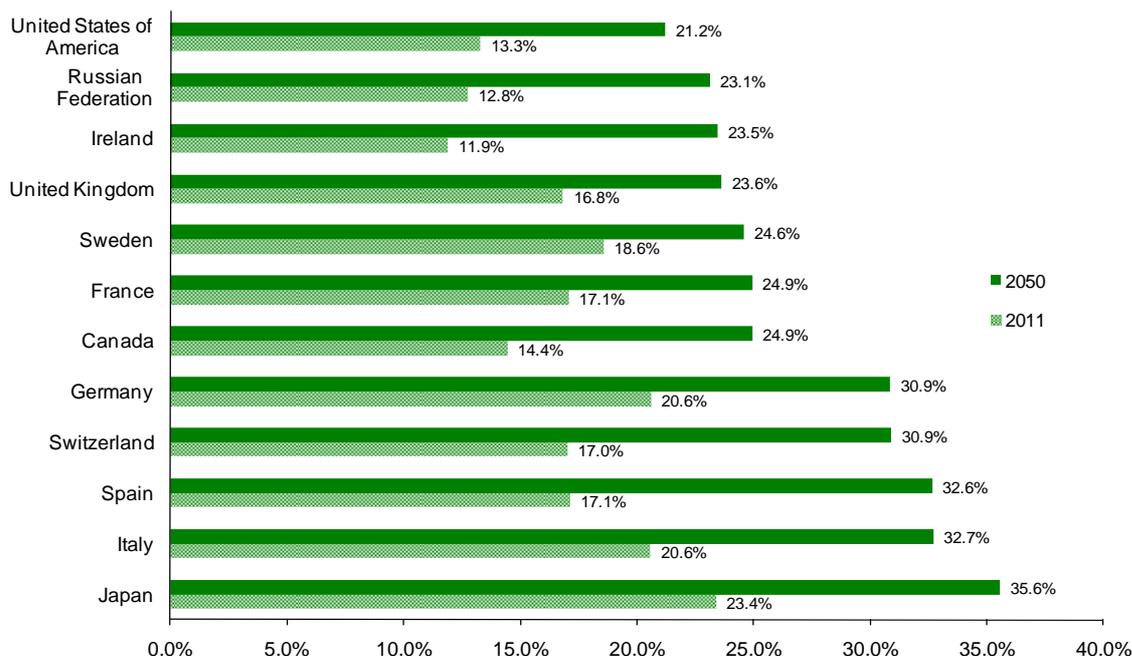
Increases in the median age are indicative of the ageing of the population. In 2010, 19 countries had a median age of over 40 years. Leading this group is Japan with a median age of 44.7 years, followed by Germany and Italy, at 44.3 and 43.2 years respectively.

The United Nations Population Division publishes population estimates and projections by country and world region.¹² Figure 4 shows that population ageing is not unique to the United Kingdom, and presents estimated and projected population aged over 65 in 2010 and 2050 in selected countries. Developed societies lead the process of population ageing. 38 per cent of Japan's population is expected to be over 65 by 2050.¹³ The United States has a younger age profile than other developed countries.

¹² United Nations Population Division, Department of Economic and Social Affairs, *World Population Prospects: The 2010 Revision*. <http://esa.un.org/unpp/>

¹³ Medium-variant projection

Figure 3 - % population aged 65+



Trends in the working age population are particularly important for all countries. The size of the working age population is an important factor related to the potential for economic growth. In more developed countries, the proportion of the population of working age increased between 1950 and 2011, but only slightly (from 61 per cent in 1950 to 67 per cent in 2011). However, it is expected to decline in the future. By 2050, the ratio of people of age 16-64 to those of age 65+ will be 1.4:1 in Japan, compared to 2.5:1 in the United Kingdom.

The proportion of oldest-old (aged 80 years and over) is currently highest in Japan, Italy, France, Sweden and Germany. By 2050 the proportion of oldest-old will constitute over 10 per cent of the population in 15 countries, led by Germany and Cuba.

E. Implications of population ageing

An exhaustive analysis of the implications of population ageing is beyond the scope of this Note. Instead, the aim is to briefly outline some of the implications of the demographic trends explained above.

The state pension system is currently funded on a 'pay as you go' basis, that is, through the contributions of the current workforce rather than through any accumulated reserve of previous contributions. A fall in the ratio of workers to pensioners means that the funding of the state pension has become a predominant issue.

Initial rises in the State Pension age, and the equalisation of the SPA between men and women were a part of the Pensions Act 2007. This was based upon the report of the Pensions Commission *A New Pension Settlement for the Twenty-first Century*, which was, in turn, based around the 2004-based ONS Population Projections. The revised 2008-based population projections suggested that the population was aging more rapidly, and this is the basis for the 2011 Pensions Act, which received Royal Assent in November 2011.

There is more to population ageing than just pensions, however. There has been a growing debate about how far changes in the demographic profile of society will constitute a burden on the National Health Service and social care. It is generally agreed that the increase in the elderly population, and in particular the number of people aged 85 and over, will put greater pressure on the National Health Service and care-home capacity. Understanding the demographic trends will help precipitate debate and fundamental changes in the way health and social care are managed and funded. The degree to which the health and social care needs of the elderly are provided for by the state or on a private basis will depend largely on future political decisions about the NHS and the appropriate role of the state.

Today, family members provide the majority of informal care to the elderly. While population ageing is largely a result of sustained low fertility levels, in the short term these trends have not implied an increase in the proportion of old people who lack close kin. On the contrary, those now attaining older ages include larger proportions who have had children, larger proportions not yet widowed, and smaller proportions who have never married. As yet the proportion of elderly people who are divorced is small, but this proportion is rapidly increasing. Cohorts born since the mid-1950s, however, have shown different patterns of family formation and dissolution, and the longer-term prospects for the familial support of old people are therefore likely to be less favourable.

Population ageing also has important implications for economic growth and productivity. Not only will the size of the working age population decrease, but increases in old age dependency may drain resources that may, otherwise, be used to support economic growth.

F. Further sources of information

Focus on Older People is part of the Office of National Statistics' *Focus on* series of publications which addresses various issues regarding older people's lives, including demographic changes, living arrangements, housing, health, income and lifestyles. The report draws on a variety of sources including the 2001 Census of Population, the General Household Survey, the Labour Force Survey, the Expenditure and Food Survey, the Family and Resources Survey and the 2002 English Longitudinal Survey of Ageing.

<http://www.statistics.gov.uk/focuson/olderpeople/>

The Office for National Statistics has taken over from the Government Actuary's Department (GAD) in producing national population projections for the United Kingdom and its constituent countries. The latest 2010-based principal projections for the United Kingdom and constituent countries were published in October 2011. The projections databases as well as information on methodological issues and demographic assumptions are available at <http://www.ons.gov.uk/ons/rel/npp/national-population-projections/2010-based-projections/index.html>

The ONS produces subnational population projections for England. The subnational projections are consistent with the official mid-2008 population estimates and with the 2008-based national population projections in terms of population and components of change. <http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=997>

The United Nations Population Division publishes population estimates and projections by country and world region. The United Nations Population Division Database is available at <http://esa.un.org/unpp/>