

# Life expectancy at birth and at age 65 by local areas in the United Kingdom, 2004–06 to 2008–10



Coverage: **UK**

Date: **19 October 2011**

Geographical Area: **Local Authority and County**

Theme: **Population**

## Key points

- Life expectancy was highest in Kensington and Chelsea and lowest in Glasgow City in each period between 2004–06 and 2008–10
- On average life expectancy at birth in local areas improved by 1.2 years for males and 1.0 year for females
- At age 65 the average increase in local areas was 1.0 year for men and 0.9 years for women
- The gap between the local areas with the highest and lowest life expectancies increased between 2004–06 and 2008–10
- At birth the gap increased from 12.5 to 13.5 years for males and from 10.1 to 11.8 years for females

## Summary

This bulletin presents male and female period life expectancy at birth and at age 65 for the UK, constituent countries, regions, counties and local areas. New figures are presented for 2008–10, with previously released figures for 2004–06 to 2007–09 for comparison purposes. The tables included show life expectancies for UK countries and regions in England, local areas with the highest and lowest life expectancies, and life expectancies for all local areas in rank order. Information is also given about the context, calculation and interpretation of life expectancy figures.

## Context of life expectancy statistics

Life expectancy at birth has been used as a measure of the health status of the population of England and Wales since the 1840s. It was employed in some of the earliest reports of the Registrar General to illustrate the great differences in mortality experienced by populations in different parts of the country. This tradition of using life expectancy as an indicator of geographic inequalities in health has been continued by ONS since 2001 with the publication of sub-national life expectancy statistics.

Geographic and periodic analyses of life expectancy in the UK are important for monitoring health inequalities between different areas and enabling policy makers to target their resources most effectively. Life expectancy figures are widely used to inform policy, planning and research in both public and private sectors in areas such as health, population, pensions and insurance. Key users include the Department of Health and other devolved health administrations, public health observatories, local and unitary authorities, and private pensions and insurance companies.

The [Department of Health Business Plan 2011-15](#) (Department of Health, 2011) sets out the vision and priorities for the Department. The Transparency section of this plan sets out key indicators on the costs and outcomes of health and social care services, including a draft indicator on inequalities in life expectancy and health expectancy, to be consistent with the equivalent indicator proposed for the Public Health Outcomes Framework.

The [consultation on the Public Health Outcomes Framework](#) was launched in December 2010 (Department of Health, 2010a). The proposals included two overarching indicators covering general health status and health inequalities, the inequalities indicator being differences in life expectancy and healthy life expectancy between communities. The Public Health Outcomes Framework will be published later in 2011.

The [NHS Outcomes Framework 2011/12](#) (Department of Health, 2010b) includes an objective to prevent people from dying prematurely. There are two overarching indicators which will be used to measure and monitor this; mortality from causes considered amenable to healthcare, and life expectancy at age 75. National life expectancy at age 75 is currently being monitored and this may extend to sub-national life expectancy at age 75 in the future.

Prior to these frameworks, a Public Service Agreement (PSA) target was in place to reduce inequalities in health outcomes by 10 per cent as measured by infant mortality and life expectancy at birth by 2010. Progress was reported in the last [Mortality Monitoring Bulletin](#) (Department of Health, 2010c).

## Geographic analysis of life expectancy statistics

Geographic analysis of life expectancy illustrates differences in health and mortality experienced by populations in different parts of the country. Although life expectancy in most areas continues to improve, there is a widening gap between the areas with the highest and lowest life expectancies. Over the 2004–06 to 2008–10 period the gaps increased from 12.5 to 13.5 years for males and from 10.1 to 11.8 years for females, showing that inequalities persist.

The relationships between individual- and area-level factors contributing to mortality risk are complex (White et al, 2005; Shaw et al, 2008; Griffiths and Fitzpatrick, 2001). Individual circumstances such as socio-economic status, genetic and biological factors, and health behaviour (for example, alcohol consumption and smoking) all have an impact on health and subsequent mortality. Area characteristics such as environmental conditions, the proportion of people living with deprivation, and the availability of local services and resources can also affect health outcomes.

The social class of an individual has been shown to have an effect on life expectancy. In a recent study by Johnson (2011), it was shown that the greatest growth in male life expectancy at birth between 1982–86 and 2002–06 was experienced by those in the lower managerial and professional class (such as school teachers and social workers) at 5.3 years. The least growth was experienced by those in the two least advantaged classes (semi-routine and routine occupations), at 3.8 and 3.9 years respectively. At age 65 the gap in life expectancy between men in higher managerial and professional occupations (18.8 years) and those in routine occupations (15.3 years) was 3.5 years in 2002–06. Similar results were found for females.

Area characteristics also have an impact on life expectancy. A study by Kyte and Wells (2010) examined life expectancy in rural and urban areas of England, taking area deprivation into account. During the 2001–07 period, life expectancy at birth was higher in rural area types than in urban areas. However, there was little difference between densely and less densely populated areas. Deprivation had a considerable impact on the results and inequalities were evident in all area types, particularly among men and in urban areas. Woods et al (2005) also found that area-based income deprivation largely explained geographical variations in life expectancy.

It is difficult to disentangle the impact of individual- and area-level factors on life expectancy. However, the geographic results presented in this bulletin show clear variations between different areas of the UK. Higher life expectancies in the south compared with lower life expectancies in the north are particularly evident. Improvements in life expectancy over time also vary geographically.

Geographic life expectancy statistics can be viewed in a series of interactive animated maps which show changes in male and female life expectancy at birth for 1991–93 onwards. These are available at:

[www.ons.gov.uk/ons/guide-method/understanding-ons-statistics/interactive-content/interactive-content.html](http://www.ons.gov.uk/ons/guide-method/understanding-ons-statistics/interactive-content/interactive-content.html)

## National life expectancy

The [national interim life tables](#) provide life expectancy figures for the UK and its constituent countries. They are calculated using complete life tables (based on single year of age) for three-year rolling periods. The national life expectancy figures included in this statistical bulletin were calculated using the same methodology used for sub-national life expectancy figures and should be used when making national and sub-national comparisons (see 'Methods' below for more information). The difference in methodology means that the two sets of national figures may differ very slightly.

## Life expectancy at birth

Life expectancy at birth in the UK increased in each three-year period between 2004–06 and 2008–10, rising from 77.0 to 78.2 years for males and from 81.3 to 82.3 years for females. Among the constituent countries England had the highest male and female life expectancy in each period, peaking at 78.6 and 82.6 years respectively in 2008–10. Scotland had the lowest life expectancy at birth in each period, reaching 75.8 years for males and 80.4 years for females in 2008–10. However, the figures for Scotland improved at a similar rate to the other countries over the period.

**Table 1. Life expectancy at birth: by sex and country, 2004-06 to 2008-10**

Country	2004-06	2005-07	2006-08	2007-09	Years
					2008-10
<b>Males</b>					
United Kingdom	77.0	77.3	77.5	77.9	78.2
England and Wales	77.2	77.5	77.8	78.1	78.5
England	77.3	77.6	77.9	78.3	78.6
Wales	76.6	76.8	77.0	77.2	77.6
Scotland	74.6	74.8	75.0	75.4	75.8
Northern Ireland	76.2	76.2	76.4	76.8	77.1 <sup>p</sup>
<b>Females</b>					
United Kingdom	81.3	81.5	81.7	82.0	82.3
England and Wales	81.5	81.7	82.0	82.2	82.5
England	81.6	81.8	82.0	82.3	82.6
Wales	81.0	81.2	81.4	81.6	81.8
Scotland	79.6	79.7	79.9	80.1	80.4
Northern Ireland	81.0	81.3	81.3	81.4	81.5 <sup>p</sup>

**Table source:** Office for National Statistics

**Table notes:**

1. Three year rolling averages, based on deaths registered in calendar years and mid-year population estimates.
2. Figures for England and Wales include deaths of non-residents. Figures for England and Wales separately exclude deaths of non-residents.
3. p = provisional

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**Life expectancy at age 65**

Between 2004–06 and 2008–10 life expectancy at age 65 in the UK increased from 17.0 to 18.0 years for men and from 19.8 to 20.6 years for women. As with life expectancy at birth, expectation of life at age 65 was highest in England and lowest in Scotland in all periods for both sexes, although the figures in Scotland improved at a similar rate to other UK countries.

**Table 2. Life expectancy at age 65: by sex and country, 2004-06 to 2008-10**

Country	2004-06	2005-07	2006-08	2007-09	Years
					2008-10
<b>Males</b>					
United Kingdom	17.0	17.3	17.5	17.8	18.0
England and Wales	17.2	17.4	17.7	17.9	18.2
England	17.2	17.5	17.7	18.0	18.2
Wales	16.8	17.0	17.2	17.4	17.7
Scotland	15.9	16.1	16.3	16.5	16.8
Northern Ireland	16.7	16.9	17.0	17.2	17.4 <sup>p</sup>
<b>Females</b>					
United Kingdom	19.8	20.0	20.2	20.4	20.6
England and Wales	19.9	20.1	20.3	20.5	20.8
England	19.9	20.2	20.4	20.6	20.8
Wales	19.5	19.8	20.0	20.1	20.3
Scotland	18.6	18.8	18.9	19.1	19.3
Northern Ireland	19.6	19.8	19.8	20.0	20.2 <sup>p</sup>

**Table source:** Office for National Statistics**Table notes:**

1. Three year rolling averages, based on deaths registered in calendar years and mid-year population estimates.

2. Figures for England and Wales include deaths of non-residents. Figures for England and Wales separately exclude deaths of non-residents.
3. p = provisional

## Download table

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## Regional life expectancy

### Life expectancy at birth

Over the 2004–06 to 2008–10 period, life expectancy at birth was higher in the southern regions than in the northern regions of England. In 2008–10 male life expectancy was highest in the South East (79.7 years), East (79.6 years) and South West (79.5 years). For females life expectancy was greatest in the South East and South West (83.5 years), London (83.3 years) and East (83.2 years) regions.

The greatest overall improvement in life expectancy over the period was in London, where figures increased by 1.6 years for males and 1.3 years for females. These increases were statistically significant. Improvements in other regions varied between 0.8 and 1.4 years.

The apparent advantage in the London region is likely to be due to a combination of factors, including the relative affluence of many parts of London, the movement into London of healthy, employed individuals at low risk of death, and the statistical effects of migration and high population mobility.

**Table 3. Life expectancy at birth: by sex and region, 2004-06 to 2008-10**

Region	2004-06	2005-07	2006-08	2007-09	Years
					2008-10
<b>Males</b>					
North East	75.8	76.3	76.4	76.8	77.2
North West	75.7	76.0	76.3	76.6	77.0
Yorkshire and The Humber	76.6	76.9	77.1	77.4	77.7
East Midlands	77.3	77.6	77.8	78.1	78.4
West Midlands	76.6	76.9	77.2	77.5	77.9
East	78.3	78.7	78.9	79.3	79.6
London	77.4	77.8	78.2	78.6	79.0
South East	78.5	78.9	79.2	79.4	79.7
South West	78.5	78.7	79.0	79.2	79.5
<b>Females</b>					
North East	80.1	80.4	80.6	80.9	81.2
North West	80.3	80.5	80.6	80.8	81.1
Yorkshire and The Humber	81.0	81.1	81.3	81.5	81.8
East Midlands	81.3	81.6	81.8	82.1	82.4
West Midlands	81.1	81.4	81.6	81.9	82.2
East	82.3	82.6	82.7	83.0	83.2
London	82.0	82.4	82.7	83.1	83.3
South East	82.4	82.7	83.0	83.3	83.5
South West	82.7	82.9	83.1	83.3	83.5

**Table source:** Office for National Statistics

**Table notes:**

1. Three year rolling averages, based on deaths registered in calendar years and mid-year population estimates.

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**Life expectancy at age 65**

Life expectancy at age 65 was also higher in the south compared with the north over the 2004–06 to 2008–10 period. Life expectancy for men was greatest in the South East and South West (18.9 years) and in the East and London (18.7 years) regions. Life expectancy among women was highest in London (21.5 years), the South West (21.5 years) and the South East (21.4 years) regions.

Again London experienced the largest overall improvement in life expectancy at age 65 over the 2004–06 to 2008–10 period, where figures increased by 1.3 years for males and 1.2 years for females. These increases were statistically significant. Improvements in other regions ranged from 0.7 to 1.1 years.

**Table 4. Life expectancy at age 65: by sex and region, 2004-06 to 2008-10**

Region	2004-06	2005-07	2006-08	2007-09	Years
					2008-10
<b>Males</b>					
North East	16.2	16.5	16.7	17.0	17.2
North West	16.3	16.6	16.8	17.0	17.3
Yorkshire and The Humber	16.7	17.1	17.2	17.5	17.7
East Midlands	17.1	17.3	17.5	17.8	18.1
West Midlands	16.8	17.1	17.4	17.7	17.9
East	17.6	18.0	18.2	18.5	18.7
London	17.4	17.8	18.1	18.4	18.7
South East	17.9	18.2	18.4	18.7	18.9
South West	17.9	18.2	18.4	18.6	18.9
<b>Females</b>					
North East	18.8	19.0	19.2	19.5	19.7
North West	19.1	19.3	19.4	19.5	19.8
Yorkshire and The Humber	19.6	19.7	19.8	20.0	20.3
East Midlands	19.7	20.0	20.2	20.4	20.7
West Midlands	19.7	20.0	20.1	20.4	20.7
East	20.3	20.6	20.7	21.0	21.2
London	20.3	20.7	20.9	21.2	21.5
South East	20.5	20.7	21.0	21.3	21.4
South West	20.8	21.0	21.2	21.3	21.5

**Table source:** Office for National Statistics

**Table notes:**

1. Three year rolling averages, based on deaths registered in calendar years and mid-year population estimates.

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## Local area life expectancy

The local area life expectancy figures included in this statistical bulletin are based on the current geographical boundaries. Figures for the pre-1 April 2009 local authority boundaries in England are presented in the 'Results for England and Wales' reference table available at:

[www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-223356](http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-223356)

### Life expectancy at birth

The local areas with the highest and lowest life expectancy at birth in the UK for 2004–06 to 2008–10 for males and females are presented in tables 5 and 6 respectively.

Over the 2004–06 to 2008–10 period the local area with the highest male and female life expectancy at birth was Kensington and Chelsea. For males life expectancy in this area increased by 2.1 years from 83.0 years in 2004–06 to 85.1 years in 2008–10. At the same time female life expectancy improved by 2.7 years from 87.1 years to 89.8 years.

This part of London contains some very affluent populations who may be expected to have relatively good health at all ages. However, the figures for Kensington and Chelsea should be treated with some caution as their reliability may be affected by high population mobility.

The area with the lowest male and female life expectancy at birth in each period was Glasgow City. In 2008–10 male life expectancy in this area was 71.6 years, 13.5 years lower than in Kensington and Chelsea. For females life expectancy in Glasgow City was 78.0 years in 2008–10, 11.8 years lower than in Kensington and Chelsea.

Researchers in Scotland observe that while a number of dimensions of health are no different in the Glasgow area than elsewhere in Scotland – such as obesity, diabetes, certain causes of death, aspects of diet and alcohol consumption (women only) – many health indicators are elevated in the region. Although a substantial proportion of these differences can be accounted for by the distinct socio-economic profile of the area, there are aspects of health which transcend the socio-economic explanation and seem to represent a 'Glasgow effect' (Gray, 2007).

Between 2004–06 and 2008–10 the gap in life expectancy at birth between Kensington and Chelsea and Glasgow City increased by 1.0 year from 12.5 to 13.5 years for males and by 1.7 years for females from 10.1 to 11.8 years, suggesting that health inequalities across the UK are increasing.

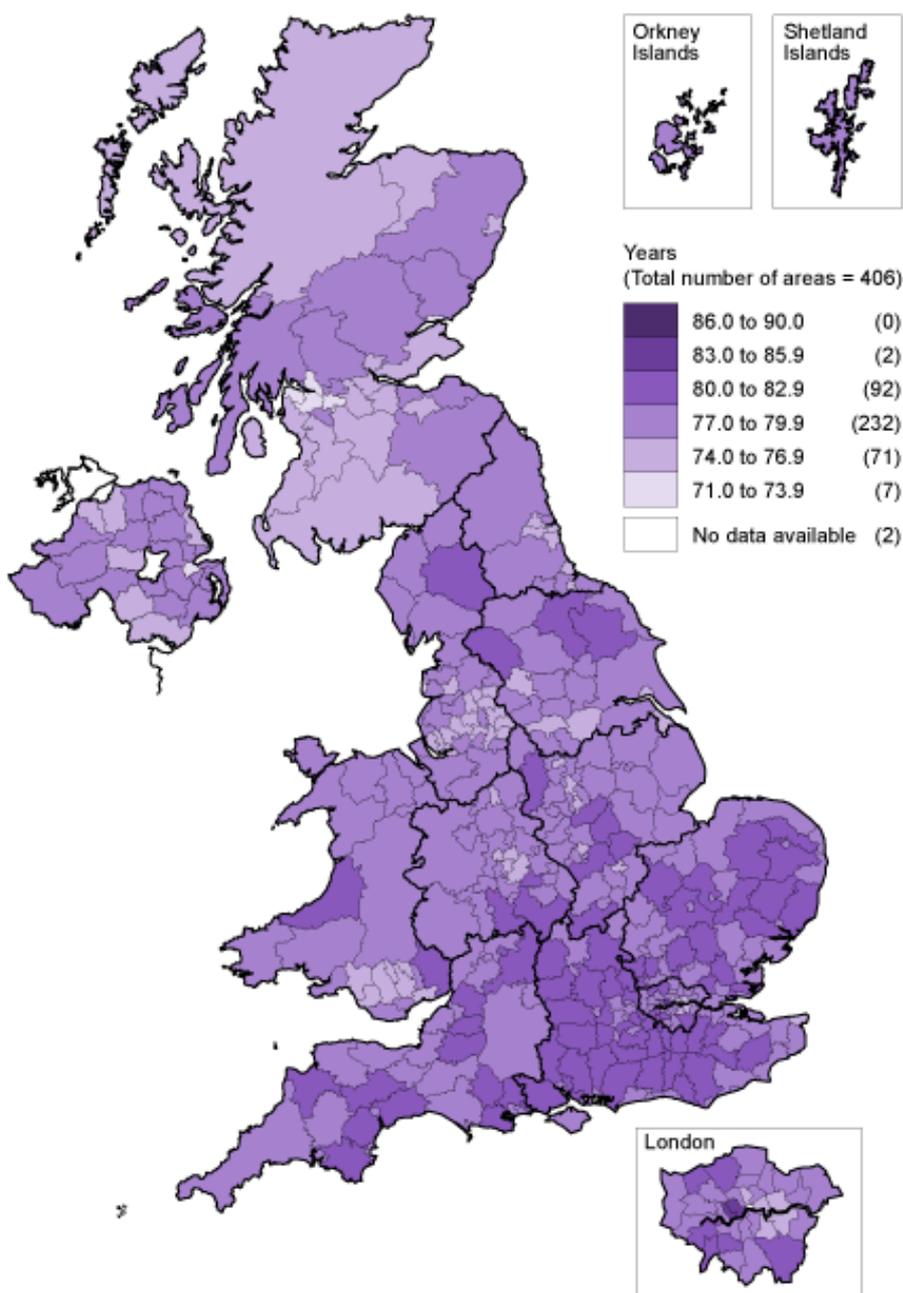
The wide variations in life expectancy between local areas may be due to various individual and area factors, including socio-economic status, health behaviour (for example, alcohol consumption and smoking), environmental conditions, the proportion of people living with deprivation, and the availability of local services and resources.

Tables 7 and 8 present male and female life expectancy at birth figures for all local areas in the UK and their relative rank order, for 2004–06 to 2008–08.

On average life expectancy in local areas improved by 1.2 years for males and 1.0 year for females over the 2004–06 to 2008–10 period. The area with the greatest increase for males was Westminster, where life expectancy rose by 3.6 years. This increased the area's ranking from 8th to 2nd. For females the areas with the largest increase were Hinckley and Bosworth and Limavady, where life expectancy rose by 2.9 years. This increased Hinckley and Bosworth's ranking from 223rd to 46th and Limavady's ranking from 332nd to 148th. These improvements were statistically significant.

Maps showing variations in male and female life expectancy at birth for local areas in the UK for 2008–10 can be found in maps 1 and 2 respectively below.

**Map 1. Male life expectancy at birth (years): by local areas in the United Kingdom, 2008-10**

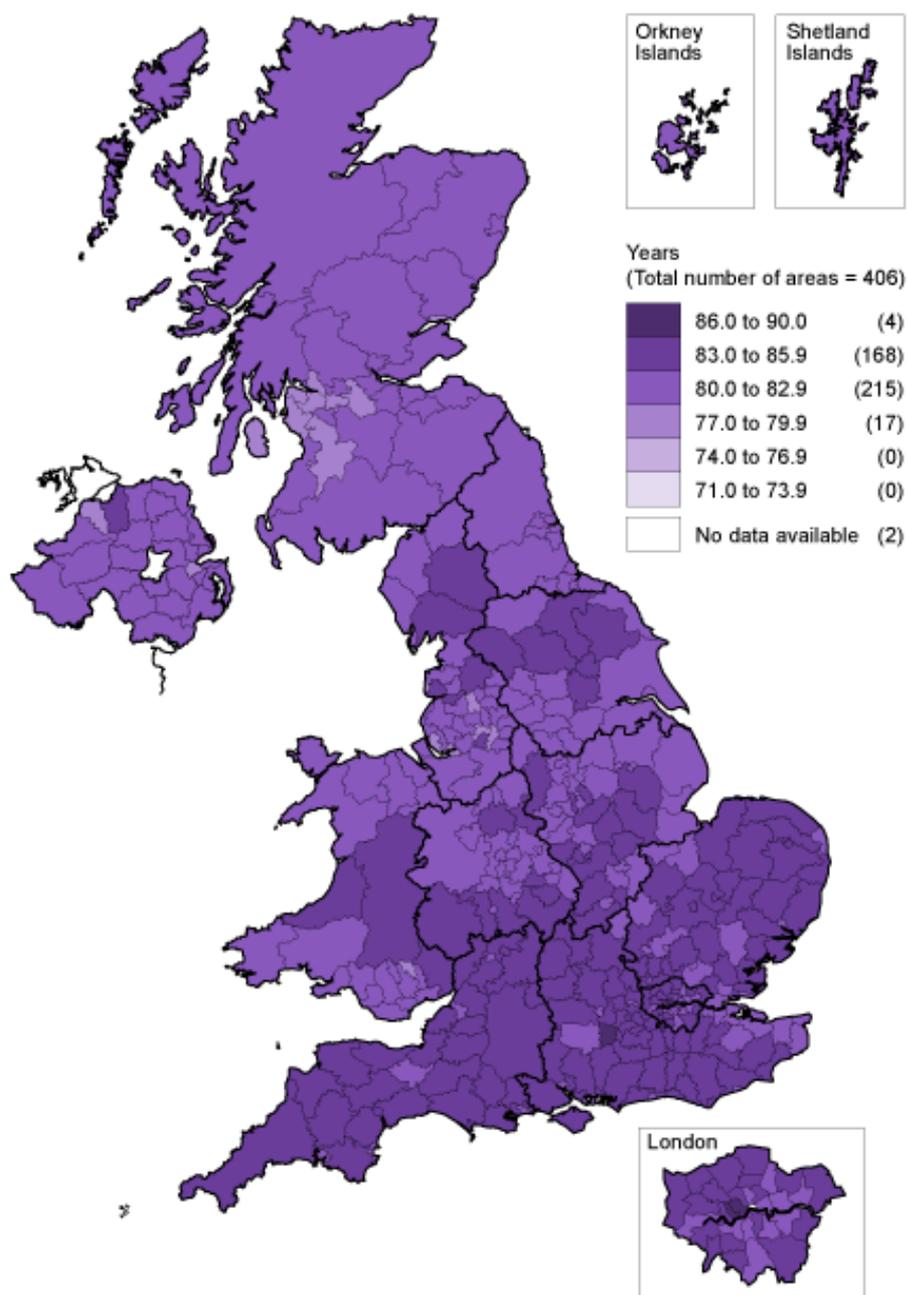


Source: Office for National Statistics, National Records of Scotland, Northern Ireland Statistics and Research Agency

**Notes:**

1. Based on local and unitary authority boundaries as of 2011.
2. Life expectancy figures are not available for City of London or Isles of Scilly due to small numbers of deaths and populations.
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**Map 2. Female life expectancy at birth (years): by local areas in the United Kingdom, 2008-10**



Source: Office for National Statistics, National Records of Scotland, Northern Ireland Statistics and Research Agency

**Notes:**

1. Based on local and unitary authority boundaries as of 2011.
2. Life expectancy figures are not available for City of London or Isles of Scilly due to small numbers of deaths and populations.
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## Life expectancy at age 65

The local areas with the highest and lowest life expectancy at age 65 in the UK for 2004–06 to 2008–10 for males and females are presented in tables 9 and 10 respectively.

Consistent with the results at birth, life expectancy at age 65 was highest in Kensington and Chelsea for both men and women in each period between 2004–06 and 2008–10. Male life expectancy in this area increased by 2.4 years from 22.0 to 24.4 years and female life expectancy increased by 2.7 years from 24.8 to 27.5 years.

Glasgow City had the lowest life expectancy at age 65 in each period. For men in this area life expectancy in 2008–10 was 10.1 years lower than in Kensington and Chelsea at 14.3 years. Life expectancy for women was 17.8 years, 9.7 years lower than in Kensington and Chelsea.

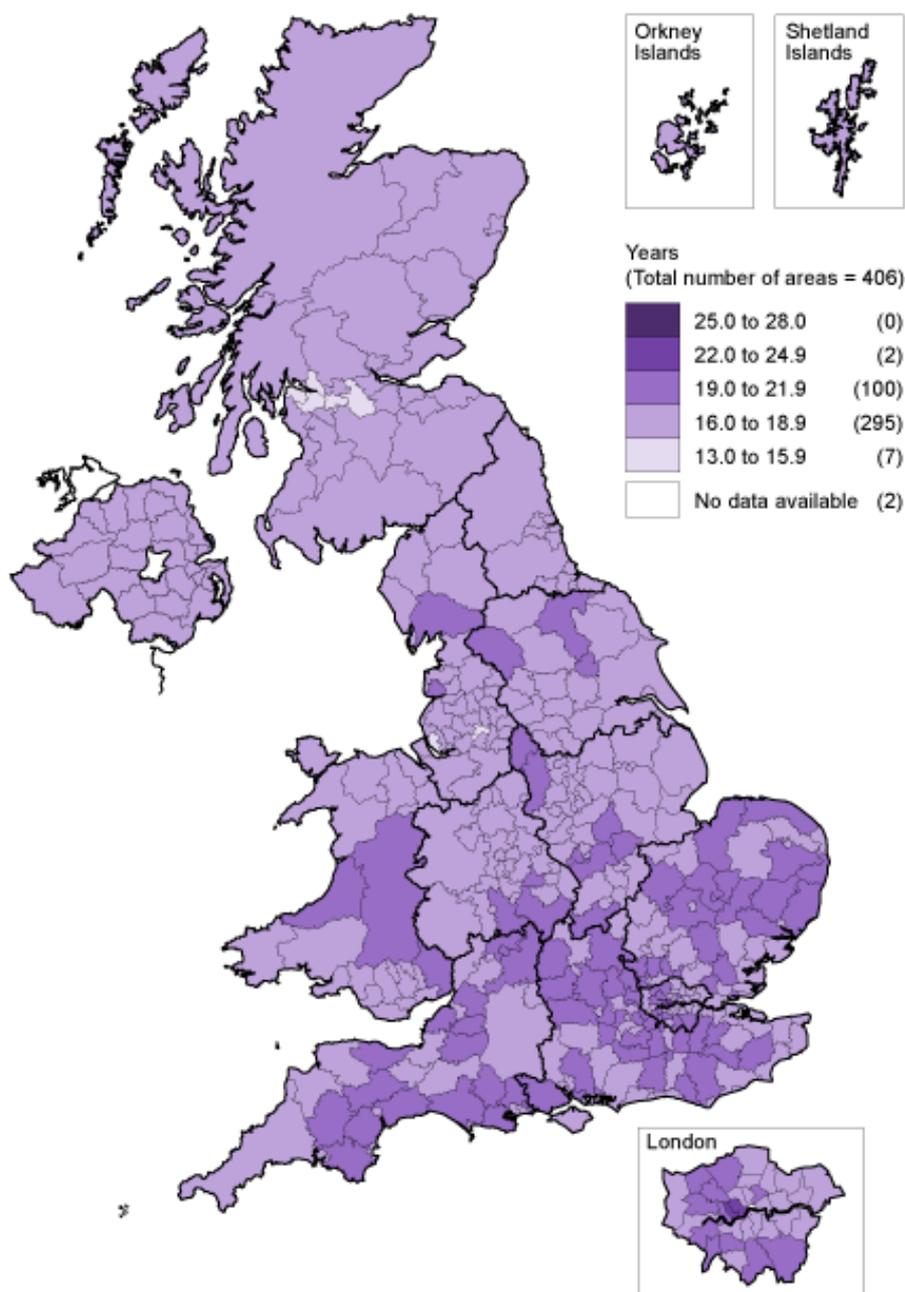
Between 2004–06 and 2008–10 the gap in life expectancy at age 65 between these areas increased by 1.9 years for males from 8.2 years to 10.1 years and by 2.2 years for females from 7.5 years to 9.7 years.

Tables 11 and 12 present male and female life expectancy at age 65 figures for all local areas in the UK and their relative rank order, for 2004–06 to 2008–10.

On average life expectancy at age 65 in local areas improved by 1.0 year for men and 0.9 years for women over the 2004–06 to 2008–10 period. The area with the greatest increase for males was Westminster, where life expectancy rose by 3.1 years. This increased the area's ranking from 3rd to 2nd. For females the area with the largest increase was Limavady, where life expectancy rose by 2.8 years. This increased Limavady's ranking from 372nd to 136th. These improvements were statistically significant.

Maps showing variations in male and female life expectancy at age 65 for local areas in the UK for 2008–10 can be found in maps 3 and 4 respectively below.

**Map 3. Male life expectancy at age 65 (years): by local areas in the United Kingdom, 2008-10**

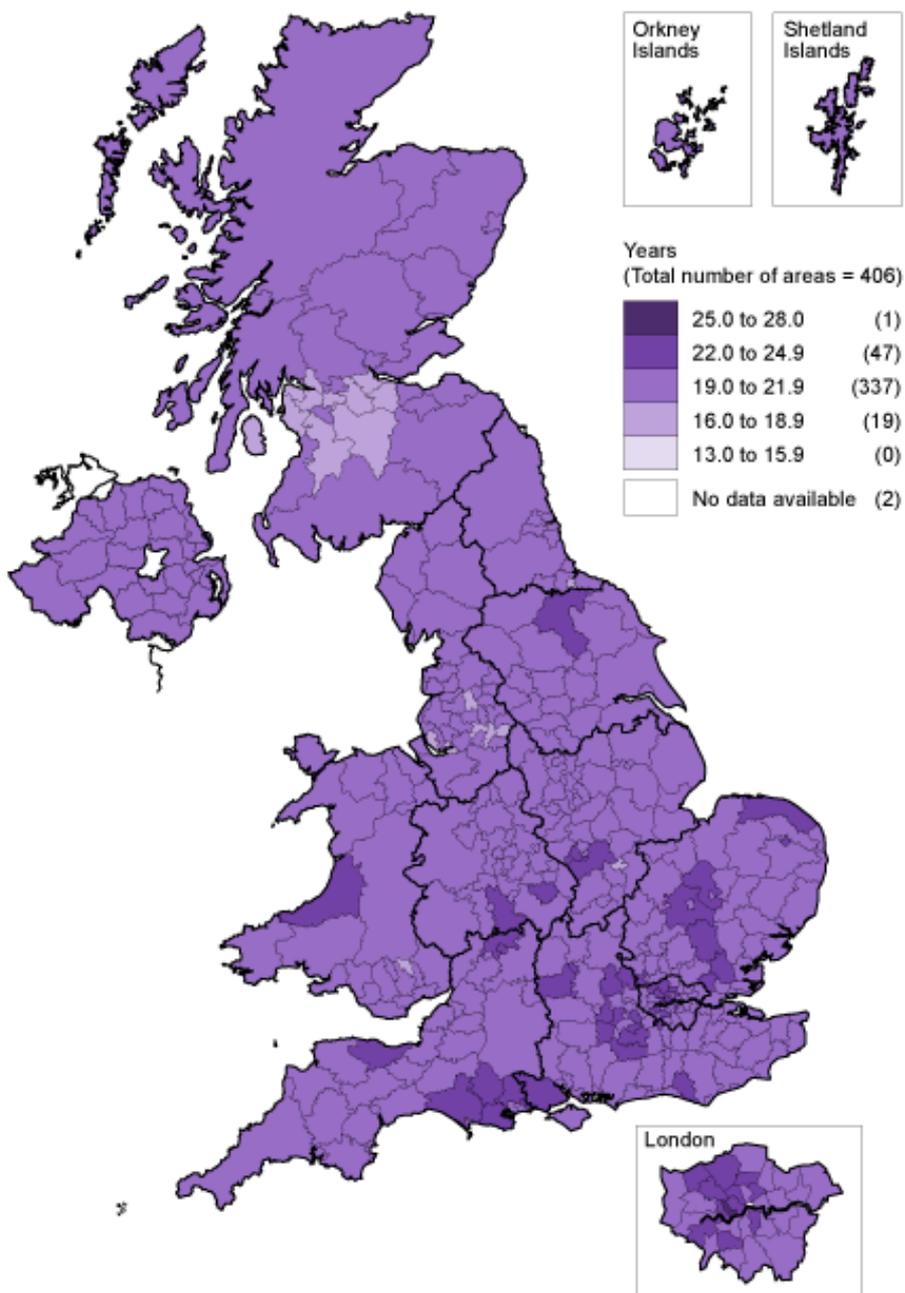


Source: Office for National Statistics, National Records of Scotland, Northern Ireland Statistics and Research Agency

**Notes:**

1. Based on local and unitary authority boundaries as of 2011.
2. Life expectancy figures are not available for City of London or Isles of Scilly due to small numbers of deaths and populations.
3. Contains National Statistics data © Crown copyright and database right 2011, Contains Ordnance Survey data © Crown copyright and database right 2011

**Map 4. Female life expectancy at age 65 (years): by local areas in the United Kingdom, 2008-10**



Source: Office for National Statistics, National Records of Scotland, Northern Ireland Statistics and Research Agency

**Notes:**

1. Based on local and unitary authority boundaries as of 2011.
2. Life expectancy figures are not available for City of London or Isles of Scilly due to small numbers of deaths and populations.
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## Animated maps and reference tables

Life expectancy at birth results for 1991–93 to 2008–10 have been published as a set of interactive animated maps to show the change in life expectancy at local area level over time. These are available at:

[www.ons.gov.uk/ons/guide-method/understanding-ONS-statistics/interactive-content/interactive-content.html](http://www.ons.gov.uk/ons/guide-method/understanding-ONS-statistics/interactive-content/interactive-content.html)

The life expectancy results presented in this bulletin and additional results from 1991–93<sup>1</sup> can be found – presented with 95 per cent confidence intervals – in the following reference tables:

- Results for the United Kingdom – figures for the UK, England and Wales, England, Wales, Scotland and Northern Ireland
- Results for England and Wales – figures for the UK, England and Wales, England, Wales, regions, counties and local and unitary authorities (current and pre-1 April 2009 local authorities)
- Results for Scotland – figures for the UK, Scotland and council areas
- Results for Northern Ireland – figures for the UK, Northern Ireland and local government district areas

These are available at:

[www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-223356](http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-223356)

## Notes

1. Not all periods are available for life expectancy at age 65 or for all areas.

## Methods

### Calculation

Life expectancy figures were calculated by the Office for National Statistics (ONS), except those for Scotland which were calculated by the National Records of Scotland (NRS) using the same method. Abridged life tables (based on five-year age groups) were constructed using standard methods (Shyrock and Siegel 1976; Newell 1994). Separate tables were constructed for males and females using numbers of deaths registered in calendar years and annual mid-year population estimates. An example of a life table which illustrates the method used to calculate life expectancy (and confidence intervals) for this bulletin, including a description of the notation, can be found on the ONS website at:

[www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-223356](http://www.ons.gov.uk/ons/publications/re-reference-tables.html?edition=tcm%3A77-223356)

Confidence intervals (available in the reference tables on the ONS website) were calculated using the method developed by Chiang (1968). A report detailing research undertaken by ONS to compare methodologies to allow the calculation of confidence intervals for life expectancy at birth has been published in the National Statistics Methodology Series No. 33 – Life expectancy at birth: methodological options for small populations – available at:

[www.ons.gov.uk/ons/guide-method/method-quality/specific/gss-methodology-series/index.html](http://www.ons.gov.uk/ons/guide-method/method-quality/specific/gss-methodology-series/index.html)

The report also presents research carried out to establish if there is a minimum population size below which the calculation of life expectancy may not be considered feasible.

### **Interpretation of life expectancy**

All figures presented in this bulletin are period life expectancies. Period expectation of life at a given age for an area in a given time period is an estimate of the average number of years a person of that age would survive if he or she experienced the particular area's age-specific mortality rates for that time period throughout the rest of his or her life. The figure reflects mortality among those living in the area in each time period, rather than mortality among those born in each area. It is not therefore the number of years a person in the area in each time period could actually expect to live, both because the death rates of the area are likely to change in the future and because many of those in the area may live elsewhere for at least some part of their lives.

Period life expectancy at birth is also not a guide to the remaining expectation of life at any given age. For example, if female life expectancy at birth was 80 years for a particular area, the life expectancy of women aged 65 years in that area would exceed 15 years. This reflects the fact that survival from a particular age depends only on the mortality rates beyond that age, whereas survival from birth is based on mortality rates at every age.

### **Differences between period and cohort life expectancies**

Expectations of life can be calculated in two ways: period life expectancy (as presented in this bulletin) and cohort life expectancy.

Cohort life expectancies are calculated using age-specific mortality rates which allow for known or projected changes in mortality in later years and are therefore regarded as a more appropriate measure of how long a person of a given age would be expected to live, on average, than period life expectancy.

For example, period life expectancy at age 65 in 2000 would be worked out using the mortality rate for age 65 in 2000, for age 66 in 2000, for age 67 in 2000, and so on. Cohort life expectancy at age 65 in 2000 would be worked out using the mortality rate for age 65 in 2000, for age 66 in 2001, for age 67 in 2002, and so on.

Period life expectancies are a useful measure of mortality rates actually experienced over a given period and, for past years, provide an objective means of comparison of the trends in mortality over time, between areas of a country and with other countries. Official life tables in the UK and in other countries which relate to past years are generally period life tables for these reasons. Cohort life

expectancies, even for past years, usually require projected mortality rates for their calculation and so, in such cases, involve an element of subjectivity.

More information on the differences between period and cohort life expectancies can be found on the ONS website at:

[www.ons.gov.uk/ons/rel/lifetables/period-and-cohort-life-expectancy-tables/2008-based/index.html](http://www.ons.gov.uk/ons/rel/lifetables/period-and-cohort-life-expectancy-tables/2008-based/index.html)

## References

Chiang C L (1968) 'The life table and its construction' in Introduction to Stochastic Processes in Biostatistics, Chapter 9, pp 189–214, John Wiley & Sons: New York.

Department of Health (2010a) Healthy Lives, Healthy People: transparency in outcomes, proposals for a public health outcomes framework, accessed 13 October 2011, available at:

[www.dh.gov.uk/en/Consultations/Closedconsultations/DH\\_122962](http://www.dh.gov.uk/en/Consultations/Closedconsultations/DH_122962)

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## Background notes

1. All figures presented in this bulletin are three-year averages, produced by aggregating the number of deaths and mid-year population estimates across each three-year period to provide large enough numbers to ensure that the figures presented are sufficiently robust.
2. The term 'local area' refers to local and unitary authorities in England and Wales, council areas in Scotland and local government district areas in Northern Ireland. Two local areas, City of London and Isles of Scilly, are excluded from the results because of the small numbers of deaths and populations.
3. To provide comparisons for local area, county and regional figures, national life expectancy results are also included in this bulletin. These were produced using the same method as the sub-national results, with abridged life tables in which death and population figures are aggregated into five-year age groups. Therefore, the two sets of national figures may differ very slightly.
4. Figures for England will also differ slightly from the national interim life table results because of a difference in the handling of deaths of non-residents. For this bulletin, the deaths of non-residents have been included in the mortality figures for England and Wales, but are excluded

from the data for England and Wales separately. However, for the national interim tables, the deaths of non-residents in England and Wales have been included in the mortality data for England (but not Wales).

5. Life expectancy figures for Scotland were calculated by the National Records of Scotland (NRS) using the same method used by the Office for National Statistics (ONS). Figures for Scotland are also available at:

[www.gro-scotland.gov.uk/statistics/theme/life-expectancy/index.html](http://www.gro-scotland.gov.uk/statistics/theme/life-expectancy/index.html)

6. Life expectancy figures for Northern Ireland were calculated by ONS using mortality data provided by the Northern Ireland Statistics and Research Agency (NISRA). Figures for 2008–10 are provisional. Final figures will be included in the next annual release.
7. Within this bulletin, a difference which is described as ‘statistically significant’ has been assessed using confidence intervals. Confidence intervals are a measure of the statistical precision of an estimate and show the range of uncertainty around the estimated figure. Calculations based on small numbers of events are often subject to random fluctuations. As a general rule, if the confidence interval around one figure overlaps with the interval around another, we cannot say with certainty that there is more than a chance difference between the two figures.
8. Life expectancy at birth and at age 65 figures for health areas in the United Kingdom, for 2001–03 to 2007–09 are available at:

[www.ons.gov.uk/ons/rel/subnational-health4/life-expectancy-at-birth-and-at-age-65-for-health-areas-in-the-united-kingdom/2003-05-to-2007-09/index.html](http://www.ons.gov.uk/ons/rel/subnational-health4/life-expectancy-at-birth-and-at-age-65-for-health-areas-in-the-united-kingdom/2003-05-to-2007-09/index.html)

9. Information about the quality of life expectancy statistics can be found in a Summary Quality Report available at:

[www.ons.gov.uk/ons/guide-method/method-quality/quality/quality-information/social-statistics/index.html](http://www.ons.gov.uk/ons/guide-method/method-quality/quality/quality-information/social-statistics/index.html)

10. ONS is currently conducting a review of the method used to calculate sub-national life expectancy statistics. It is expected that the findings will be published as part of a new Quality and Methods Information (QMI) paper in Spring 2012. If you would like to comment on the method, please e-mail: [healthgeog@ons.gsi.gov.uk](mailto:healthgeog@ons.gsi.gov.uk)
11. As a valued user of our statistics, we would welcome feedback on this release. In particular, the content, format and structure. This is in line with the Health and Life Events user engagement strategy, available to download from the ONS website at:

[www.ons.gov.uk/ons/guide-method/method-quality/user-engagement/index.html](http://www.ons.gov.uk/ons/guide-method/method-quality/user-engagement/index.html)

Please send feedback to:

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12. Details of the policy governing the release of new data are available from the Media Relations Office.
13. National Statistics are produced to high professional standards set out in the Code of Practice for Official Statistics. They undergo regular quality assurance reviews to ensure that they meet customer needs. They are produced free from any political interference.
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