

Statistical bulletin

# National life tables, UK: 2013 to 2015

Trends in the average number of years people will live beyond their current age measured by period life expectancy, analysed by age and sex for the UK and its constituent countries.



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# 1 . Main points

A newborn baby boy could expect to live 79.1 years and a newborn baby girl 82.8 years if mortality rates remain the same as they were in the UK in 2013–2015 throughout their lives.

Life expectancy at birth has increased by 13.1 weeks per year on average since 1980–1982 for males and 9.5 weeks per year on average for females in the UK.

In 2013–2015 a man in the UK aged 65 had an average further 18.5 years of life remaining and a woman 20.9 years.

The most common age at death in the UK for men was 85 and for women was 89.

There was an increase in deaths in 2015 and this has had a very slight impact on life expectancies, resulting in life expectancy at birth in 2013–2015 remaining virtually unchanged from the 2012–2014 life expectancy estimates.

## 2 . Statistician's quote

"Life expectancy has generally been increasing over the last 30 years. In 2013–2015 improvements were slower than in previous years, with life expectancy at birth in the UK remaining at 79.1 years for males and 82.8 years for females. This was partly because there were an increased number of deaths in 2015."

Pamela Cobb, Population Statistics Division, Office for National Statistics

## 3 . Things you need to know

These tables cover a 3-year rolling period to reduce the effect of annual fluctuations in the number of deaths caused by seasonal events such as flu. The increase in registered deaths in 2015 was large enough that it still had a small impact on life expectancies despite the smoothing effect of using a 3-year average.

National life tables are "period" life tables and therefore all figures referred to in this bulletin are "period" life expectancies. Period life expectancy is the average number of additional years a person would live if he or she experienced the age-specific mortality rates of the given area and time period for the rest of their life. Therefore it is not the number of years someone in the area in that time period is actually likely to live, because the death rates of the area are likely to change over time.

## 4 . Life Expectancy at birth

### United Kingdom

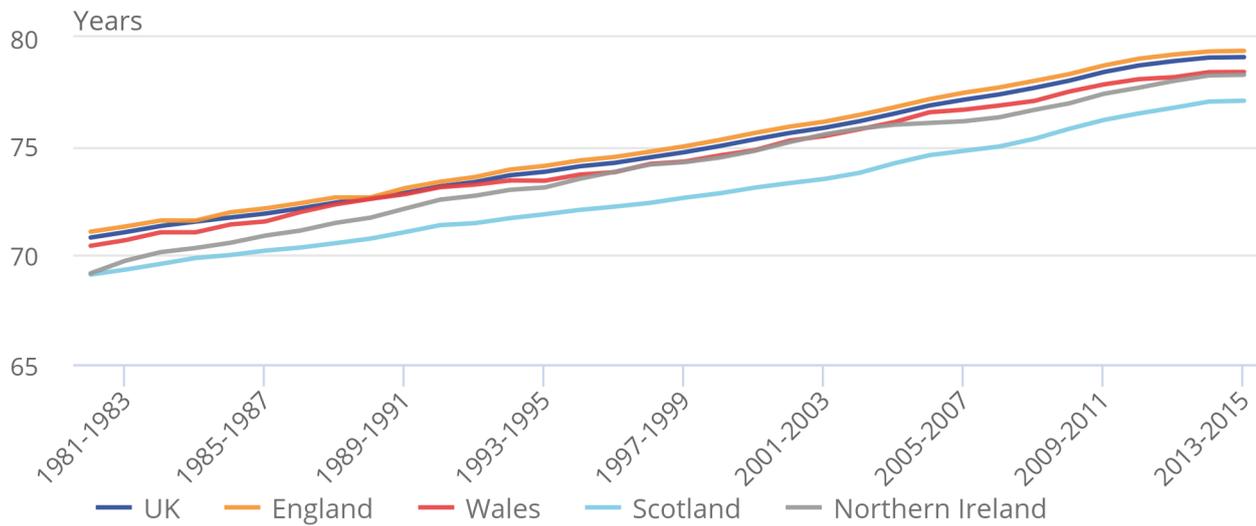
Life expectancy at birth for men in the UK was 79.1 years in 2013–2015 and for women it was 82.8 years. This is assuming that mortality rates remain the same as they were in 2013–2015 in the future. Overall UK life expectancy at birth remains virtually unchanged between the years 2012–2014 and 2013–2015.

**Figure 1a: Life expectancy at birth, UK and constituent countries, 1980–1982 to 2013–2015**

**Males**

Figure 1a: Life expectancy at birth, UK and constituent countries, 1980–1982 to 2013–2015

Males



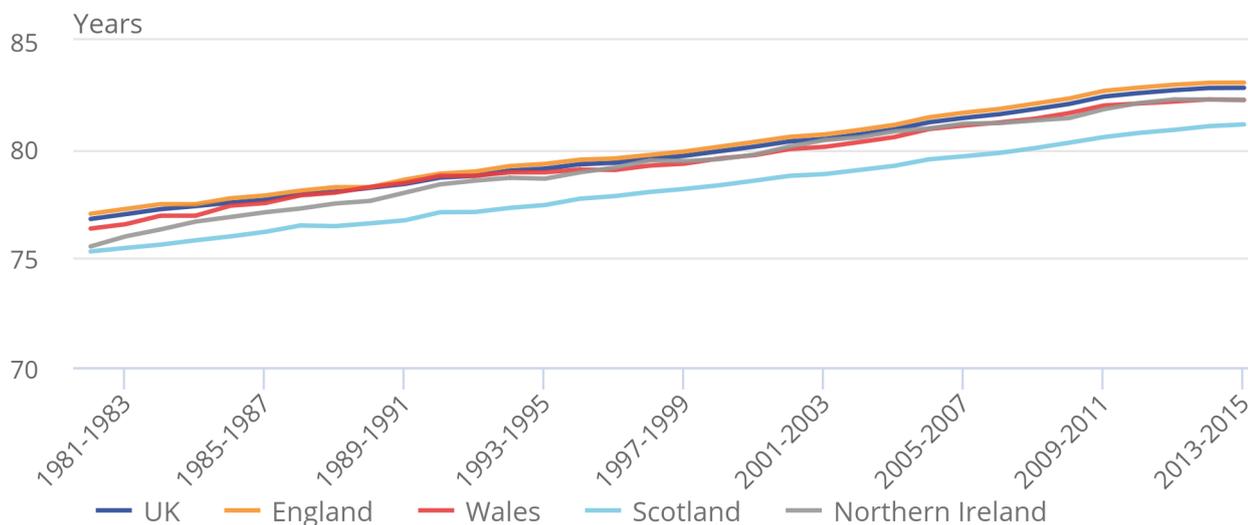
**Source: Office for National Statistics**

**Figure 1b: Life expectancy at birth, UK and constituent countries, 1980–1982 to 2013–2015**

Females

Figure 1b: Life expectancy at birth, UK and constituent countries, 1980–1982 to 2013–2015

Females



Source: Office for National Statistics

Male life expectancy at birth has increased by 8.3 years between the years 1980–1982 and 2013–2015 and female life expectancy at birth increased by 6.0 over the same time period.

On average, the increases in life expectancy at birth over the 33-year period are equivalent to an additional 13.1 weeks for men and 9.5 weeks for women per year.

The gap between male and female life expectancy at birth in the UK has been gradually narrowing over the past 33 years, from 6.0 years in 1980–1982 to 3.7 years in 2013–2015, with males showing faster improvements in mortality compared to females. The reduction in the proportion of men smoking, along with the decline of heavy industry and the move away from physical labour and manufacturing industries towards the service sector are likely factors<sup>1</sup>. However, life expectancy for females has also continued to increase and still remains higher than life expectancy for males.

## Comparing the UK constituent countries

Life expectancy at birth has increased over the period between 1980–1982 and 2013–2015 for all 4 of the constituent countries of the UK due to generally improving mortality at older ages. Improving mortality at older ages is a key factor in the ageing of the population of England, Wales, Scotland and Northern Ireland.

**Table 1: Life expectancy at birth, for the constituent countries, 2013–2015**

Country	Males	Females
England	79.4	83.1
Northern Ireland	78.3	82.3
Wales	78.4	82.3
Scotland	77.1	81.1

Source: National Life Tables, Office for National Statistics

Life expectancies at birth for the 4 UK constituent countries was lowest in Northern Ireland and Scotland in 1980–1982 but Northern Ireland has seen the greatest improvements over time. Improvements in Scotland have been similar to those seen in England and Wales at around 8 years for men and 6 years for women but the Scottish life expectancy remains lower than the other 3 nations due to their lower starting point in 1980–1982. The gains in life expectancy at birth over the 33-year period since 1980–1982 were higher for men than for women in all 4 countries.

Life expectancy for Scotland remained consistently lower, for both men and women, than in the other 3 constituent countries throughout the period 1980–1982 to 2013–2015. This could be associated with higher levels of alcohol consumption, a greater smoking prevalence and higher levels of cardio-vascular diseases in Scotland compared to the other constituent countries of the UK<sup>2</sup>.

### Notes for Life Expectancy at birth:

1. [How was life expectancy changed over time?](#)
2. [Scottish health survey- UK comparisons: The Scottish Government, 2012](#)

## 5 . Life expectancy at older ages

### Life expectancy at age 65

Life expectancy at age 65 for men in the UK was 18.5 years in 2013–2015 and for women it was 20.9 years. This means that a man aged 65 could now expect to live to age 83.5 and a woman to age 85.9.

The difference between male and female life expectancy at age 65 has decreased fairly steadily over the last 33 years. In 1980–1982 the difference between male and female life expectancy in the UK was 4.0 years and by 2013–2015 it was 2.4 years. This was caused by the faster rate of improvement in male life expectancy (5.5 years) than female life expectancy (4.0 years).

**Table 2: Life expectancy at age 65, United Kingdom and constituent countries, 1980–1982, 1997–1999 and 2013–2015**

	1980- 1982	1980- 1982	1997- 1999	1997- 1999	2013- 2015	2013- 2015
	Males	Females	Males	Females	Males	Females
United Kingdom	13.0	16.9	15.2	18.5	18.5	20.9
England	13.1	17.0	15.3	18.6	18.6	21.0
Wales	12.5	16.6	14.9	18.2	18.1	20.5
Scotland	12.3	16.0	14.2	17.5	17.3	19.7
Northern Ireland	12.5	16.3	14.9	18.3	18.1	20.5

Source: National Life Tables, Office for National Statistics

The gain in life expectancy at age 65 in Scotland over the 33 year period was 5.0 years for men and 3.6 years for women. This is 0.5 years lower for men and 0.4 years lower for women than the increases experienced in the UK as a whole. Despite the steady increase in life expectancy for Scotland, between 1980–1982 and 2013–2015, this lower rate of improvement increased its divergence from the other constituent countries of the UK.

## Life expectancy at age 85

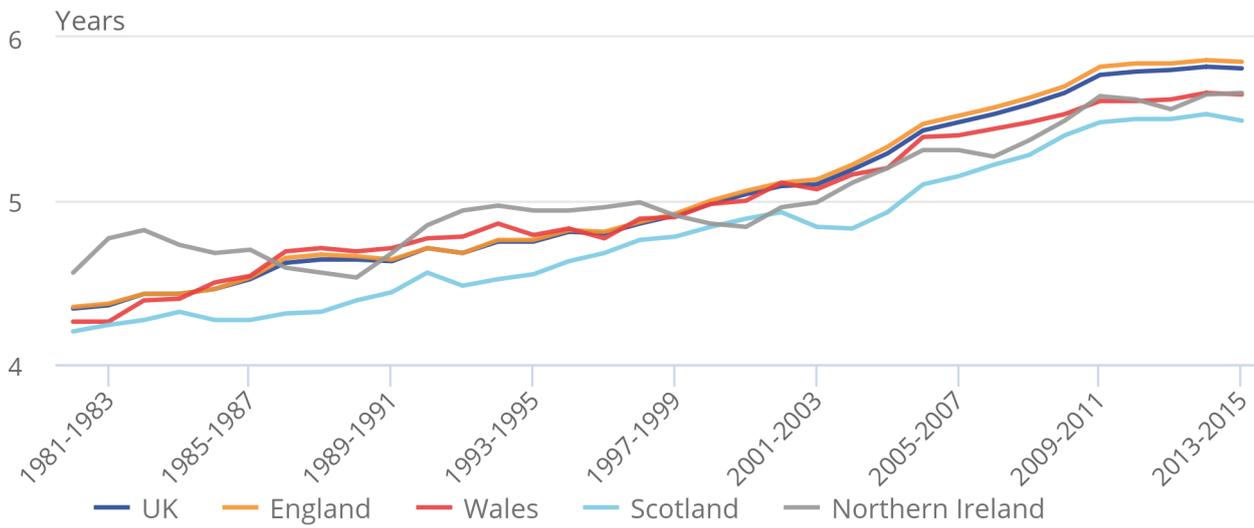
A man in the UK aged 85 had a life expectancy of 5.8 years in 2013–2015. For women the equivalent figure was 6.8 years. This means that a man aged 85 could expect to live to age 90.8 and a woman to age 91.8.

**Figure 2a: Life expectancy at age 85, UK and constituent countries, 1980–1982 to 2013–2015**

**Males**

Figure 2a: Life expectancy at age 85, UK and constituent countries, 1980–1982 to 2013–2015

Males



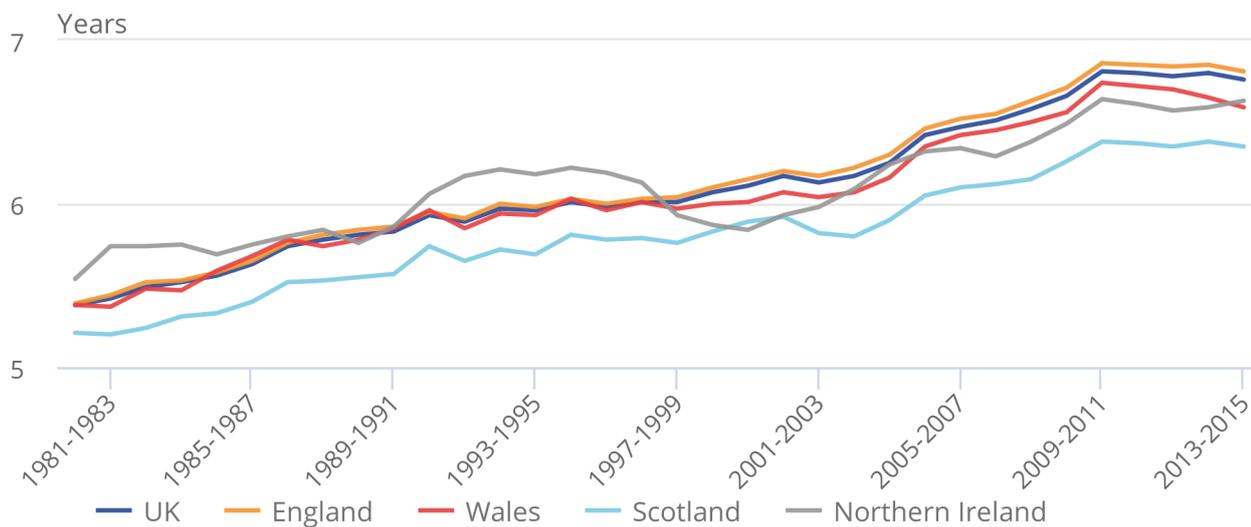
Source: Office for National Statistics

**Figure 2b: Life expectancy at age 85, UK and constituent countries, 1980–1982 to 2013–2015**

Females

Figure 2b: Life expectancy at age 85, UK and constituent countries, 1980–1982 to 2013–2015

Females



Source: Office for National Statistics

England saw the largest increases in life expectancy at age 85 over the period between 1980–1982 and 2013–2015, from 4.4 years to 5.9 years for men and 5.4 years to 6.8 years for women. Unlike the life expectancies at birth and at age 65, Northern Ireland saw the lowest increases in life expectancy (1.1 for men and 1.1 for women) at age 85 over this period. The trend for Northern Ireland was the most erratic of the UK constituent countries due to the low numbers of deaths and population at these ages.

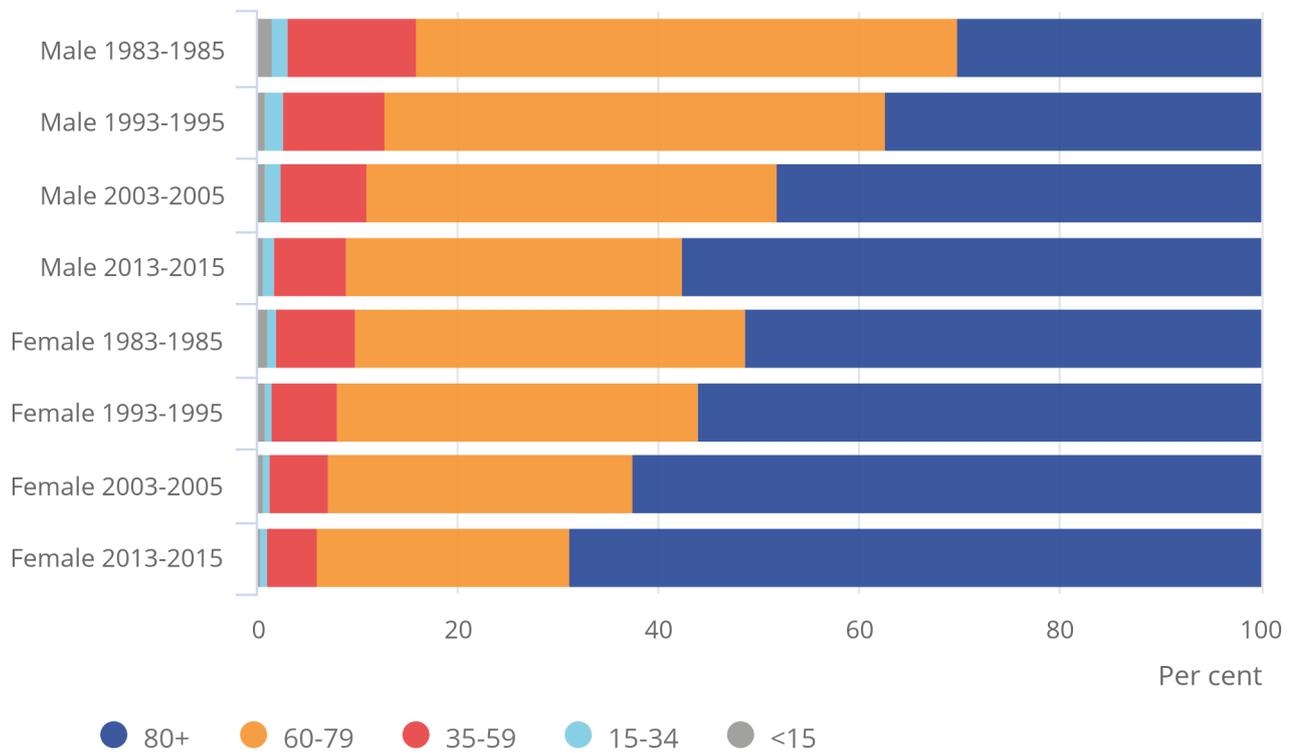
The gap between male and female life expectancies at age 85 is gradually narrowing; however the life expectancy gap between men and women from between 1980–1982 and 2013–2015 remained around 1 year, with women expected to live 1 year longer than men on average at this age.

## 6 . Surviving to older ages

Interest in population estimates at the oldest ages has increased as life expectancy has risen and the proportion of the UK population in these age groups has increased. Increasing life expectancy has important policy implications for example on the setting of the state pension age. In 2013–2015, the majority of all deaths fell in the 80 and over age group category, accounting for 57.4% of deaths for men and 68.8% for women in 2013–2015. This is in comparison to deaths at ages below 60 years accounting for just 9.1% of all male deaths and 5.9% of all female deaths. The most common age at death in 2013–2015 was 85 for men and 89 for women.

**Figure 3: Percentage distribution of all deaths by age-group for selected years, UK (from the period life table)**

Figure 3: Percentage distribution of all deaths by age-group for selected years, UK (from the period life table)



Source: Office for National Statistics

Notes:

1. Deaths are taken from the life table (dx) and are therefore age standardised; they do not represent the actual number of deaths registered in the United Kingdom in the selected years.

Mortality rates in the oldest age groups have been improving at a faster rate in recent years due to a combination of factors, including the improvements in mortality from circulatory diseases<sup>1</sup>, partly driven by changing smoking habits<sup>2</sup>, the diagnosis and treatment of cancers and medical and technological advances in the treatment of many other illnesses and diseases.

The cohort of people born between 1926 and 1935, often referred to as the “Golden Cohort”, have experienced improvement in mortality throughout their lifetime that no cohorts previously or since have experienced. This is another contributor to the overall improvements in life expectancy at older ages in the UK. The precise reasons for this are not fully understood but it may be relevant that this generation benefited from a combination of better childhood health, improving preventive and treatment regimes for infectious diseases affecting young and middle-aged adults, and, in later middle-age, improvements in the treatment of circulatory diseases. This generation was also subject to rationing in their adolescent and early adult years (between 1940 and 1954) which, across the whole population, may have improved general health during childhood and later<sup>3</sup>.

Despite an overall improvement in life expectancy over the last 33 years (between 1980–1982 and 2013–2015) it should be noted that there have been some small dips in life expectancies between 2012–2014 and 2013–2015 at some older ages. This is due to the increased number of deaths registered in 2015<sup>4</sup>, and is consistent with some previous years where there have been higher numbers of deaths affecting older people. For more information on the increased number of deaths in 2015, see the ‘Provisional analysis of the increase in death registrations in 2015’ article<sup>5</sup>.

### Notes for Surviving to older ages:

1. [Deaths registered in England and Wales \(Series DR\), 2013](#)
2. Murphy M, Di Cesare M, (2012) Use of an age-period-cohort model to reveal the impact of cigarette smoking in trends in twentieth century adult cohort mortality in England and Wales, Population Studies, Vol 66, issue 3
3. [Mortality of the ‘Golden Generation’: What can the ONS Longitudinal Study tell us?](#)
4. [Deaths by single year of age tables - UK](#)
5. [Provisional analysis of the increase in death registrations in 2015](#)

## 7 . What’s changed in this release?

Improvements have been made to this bulletin and its contents to provide a more concise summary of the key statistics. As part of its consolidation we’ve relocated the international comparison tables to the Quality and Methodology Information document. We welcome any feedback you might have on these changes to [pop.info@ons.gsi.gov.uk](mailto:pop.info@ons.gsi.gov.uk).

### Further information

1. Accompanying National life tables were published on 29 September 2016
2. Also available on our website are:
  - a [Quality and Methodology Information Report](#) on these statistics
  - information about [period and cohort life expectancy](#) projections
  - information about the [difference between period and cohort](#) life expectancies
3. Further information about [how life expectancy has changed over time](#) and [chances of survival to 100](#) can be found on our visual.ONS website
4. Further statistics on [healthy life expectancies](#) and life expectancy by [socio-economic classification](#) are available on our website
5. [Estimates of the very old \(including Centenarians\)](#) provide the estimated population by age group and sex for the ages 90 to 104 and 105 and over for the 4 constituent countries of the UK
6. Further information about the Golden cohort can be found in the article called “[Mortality of the ‘Golden Generation’: What can the ONS Longitudinal Study tell us?](#)”
7. Further information about the increased number of deaths in 2015 can be found in the article called “[Provisional analysis of the increase in death registrations in 2015](#)”

## 8 . Quality and Methodology notes

1. The [National Life Tables Quality and Methodology Information](#) document contains important information on:
  - the strengths and limitations of the data
  - the quality of the output: including the accuracy of the data, how it compares with related data
  - uses and users
  - how the output was created
2. In the 2013–2015 life tables, population estimates for those aged 90 and over (by single year of age) are calculated for England and Wales separately using the Kannisto-Thatcher (KT) methodology. In previous life tables these have been calculated by apportioning 90+ KT estimates at single years of age for England and Wales combined based on the respective 90+ population sizes of England and Wales. For more information see the Quality and Methodology Document for [Estimates of the Very Old \(including Centenarians\)](#). Comparing the life expectancies for 2013–2015 using both the old and new methodology demonstrates that the change in methodology has had a negligible impact on life expectancies at most ages.
3. Figures in the tables in this bulletin and commentary are rounded to 1 decimal place. Calculations in this bulletin have been done using unrounded figures and life expectancy estimates to 2 decimal places can be found in the reference tables for this release.
4. [Revisions policy](#) - specific to population, migration and life events statistics.