

Statistical bulletin

National life tables, UK: 2014 to 2016

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



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1. Main points

- A newborn baby boy could expect to live 79.2 years and a newborn baby girl 82.9 years if mortality rates remain the same as they were in the UK in 2014 to 2016 throughout their lives.
- Improvements in life expectancy at birth for males in the UK have slowed from 13.6 weeks per year between 1980 to 1982 and 2009 to 2011, to 6.0 weeks per year between 2010 to 2012 and 2014 to 2016; for females improvements have slowed from 10.0 weeks to 3.6 weeks per year for the same periods.
- In 2014 to 2016, a man in the UK aged 65 had an average further 18.5 years of life remaining and a woman 20.9 years.
- A male born in 2014 to 2016 had a 21% chance, and a female a 32% chance, of surviving to at least age 90.

2. Statistician's comment

"The rate of increase in life expectancy in the UK has slowed in recent years. In 2014 to 2016, improvements in life expectancy were higher than in 2013 to 2015 although they remained very slight with life expectancy at birth increasing by 0.1 years for both sexes to 79.2 years for males and 82.9 years for females."

Sophie Sanders, Population Statistics Division, Office for National Statistics

3. Things you need to know about this release

National life tables are produced annually for the UK and constituent countries and are based on three consecutive years worth of data to reduce the effect of annual fluctuations in the number of deaths caused by seasonal events such as "flu".

These 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 are likely to change over time.

4. Life expectancy at birth

Life expectancy at birth in the UK has slightly increased

In 2014 to 2016, life expectancy at birth in the UK was 79.2 years for males and 82.9 years for females. This was a very slight increase from 2013 to 2015 (79.1 years for males and 82.8 years for females) by 4.2 weeks for males and 2.1 weeks for females. Previously UK life expectancy at birth remained virtually unchanged between the years 2012 to 2014 and 2013 to 2015.

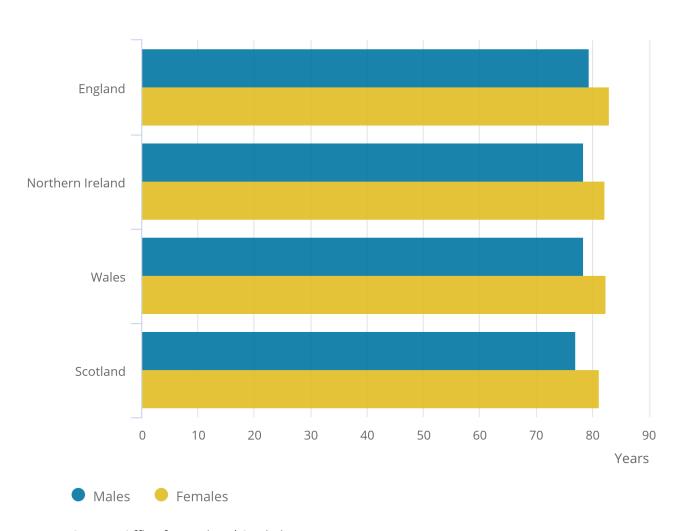
Life expectancy at birth for each of the constituent countries in 2014 to 2016 is shown in Figure 1. Life expectancy at birth remained highest in England and lowest in Scotland.

Figure 1: Life expectancy at birth, constituent countries

2014 to 2016

Figure 1: Life expectancy at birth, constituent countries

2014 to 2016



Source: Office for National Statistics

Source: Office for National Statistics

Improvements in UK life expectancy at birth have slowed

Figures 2a and 2b show life expectancy at birth in the UK and constituent countries between 1980 to 1982 and 2014 to 2016. Life expectancy in the UK steadily increased between 1980 to 1982 and 2009 to 2011 from 70.8 years to 78.4 years for males, and from 76.8 years to 82.4 years for females. This was equivalent to an average increase in male life expectancy of 13.6 weeks per year and for females 10.0 weeks per year over the period.

Between 2010 to 2012 and 2014 to 2016, the rate of increase in life expectancy at birth more than halved to 6.0 weeks per year for males and 3.6 weeks per year for females. Part of the reason for this could be that some of the factors that have historically driven life expectancy improvements, such as reductions in smoking and circulatory disease¹, may largely have been realised.

The gap between male and female life expectancy at birth has remained the same in 2014 to 2016

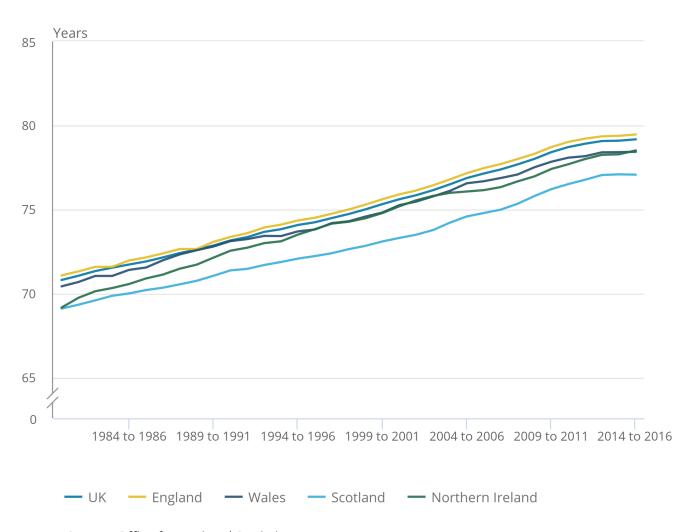
Due to faster improvements in male mortality compared with females, the gap in life expectancy at birth for males and females in the UK has steadily reduced over time, decreasing from 6.0 years in 1980 to 1982 to 3.7 years in 2012 to 2014. Factors such as a reduction in the proportion of men smoking, the decline of heavy industry and the move away from physical labour and manufacturing industries towards the service sector are all possible contributors. Since 2012 to 2014, the gap between male and female life expectancy has remained at 3.7 years and females have continued to have higher life expectancy than males.

Figure 2a: Life expectancy at birth, UK and constituent countries

Males, between 1980 to 1982 and 2014 to 2016

Figure 2a: Life expectancy at birth, UK and constituent countries

Males, between 1980 to 1982 and 2014 to 2016



Source: Office for National Statistics

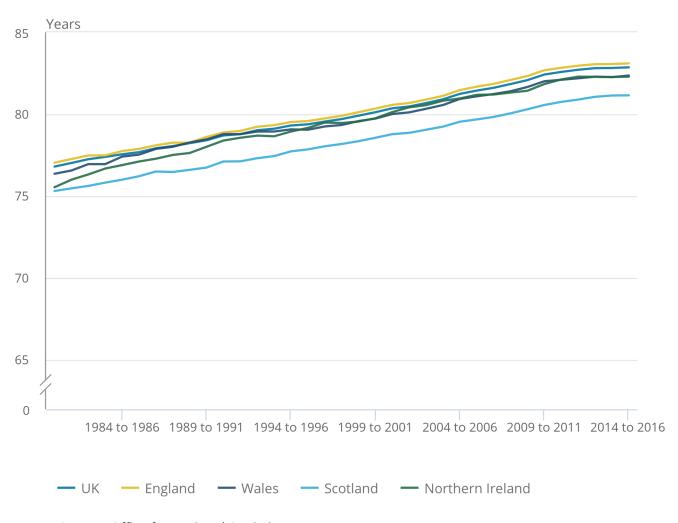
Source: Office for National Statistics

Figure 2b: Life expectancy at birth, UK and constituent countries

Females, between 1980 to 1982 and 2014 to 2016

Figure 2b: Life expectancy at birth, UK and constituent countries

Females, between 1980 to 1982 and 2014 to 2016



Source: Office for National Statistics

Source: Office for National Statistics

Life expectancy at birth for males has not increased in Scotland

In 2014 to 2016, male life expectancy at birth in Scotland was virtually unchanged from 2013 to 2015, remaining at 77.1 years. Female life expectancy at birth in Scotland in 2014 to 2016 also remained virtually unchanged at 81.2 years. Despite this, females in Scotland had the largest average increase between 2010 to 2012 and 2014 to 2016 at 5.2 weeks per year.

Life expectancy at birth in Scotland has continued to diverge from the UK

The gap in life expectancy at birth between Scotland and the UK has grown since 1980 to 1982. Possible causes for this may be higher levels of heart disease ², a greater smoking prevalence ³ and increased levels of alcohol ⁴ and drug-related deaths ⁵ in Scotland compared with the other constituent countries of the UK.

For males the difference in life expectancy at birth from the UK peaked in 2006 to 2008 at 2.4 years. Life expectancy in Scotland then began converging towards the UK up until 2014 to 2016, when the gap grew again to 2.1 years. For females the gap in life expectancy at birth between the UK and Scotland has also increased since 1980 to 1982, but by a smaller amount than for males. The gap for females peaked in 2009 to 2011 at 1.9 years before also starting to converge to the UK up to 2013 to 2015. In 2014 to 2016, the gap increased, however, to 1.7 years (Figure 3).

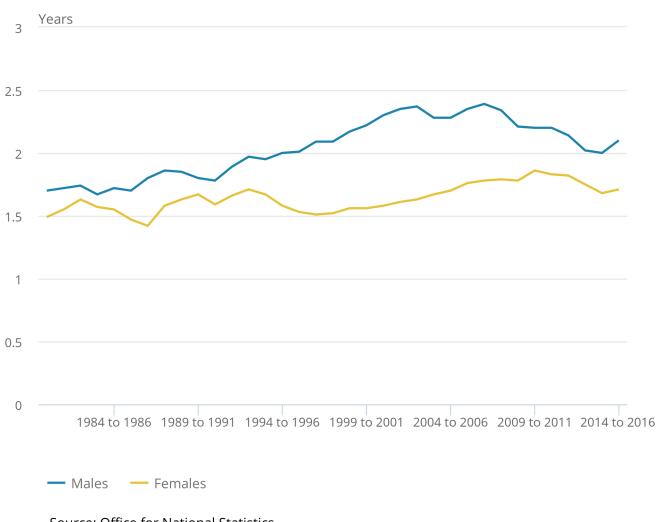
Life expectancy at birth in Scotland was broadly similar to Northern Ireland in 1980 to 1982. Since then life expectancy in Northern Ireland has improved at a faster rate than in Scotland and in 2014 to 2016 life expectancy in Northern Ireland was 1.4 years higher for males and 1.1 years higher for females than in Scotland.

Figure 3: Difference between life expectancy at birth between the UK and Scotland

Between 1980 to 1982 and 2014 to 2016

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Between 1980 to 1982 and 2014 to 2016



Source: Office for National Statistics

Source: Office for National Statistics

Life expectancy at birth for males in Northern Ireland has overtaken Wales

In 2014 to 2016, males in Northern Ireland could expect to live, on average, 78.5 years compared with 78.4 for males in Wales. This was the first time since 2002 to 2004 life expectancy at birth was higher for males in Northern Ireland than Wales. Males in Northern Ireland experienced the largest increase in life expectancy at birth since 2013 to 2015, having improved by 12 weeks. In comparison, male life expectancy at birth in Wales remained virtually unchanged from 2013 to 2015.

Between 2010 to 2012 and 2014 to 2016, improvements in male life expectancy at birth in England and Wales have slowed by around two-thirds of the historical rate of increase between 1980 to 1982 and 2009 to 2011. In Northern Ireland, the rate of increase also reduced but to a lesser extent, by just over a quarter.

Females in Northern Ireland also experienced the largest average improvements of all the constituent countries between 1980 to 1982 and 2010 to 2012. As a consequence, the gap in female life expectancy between the UK and Northern Ireland has more than halved from 1.3 years in 1980 to 1982 to 0.6 years in 2014 to 2016.

Notes for: Life expectancy at birth

- 1. Office for National Statistics, Deaths registered in England and Wales: 2016
- 2. Information Services Division Scotland, Scottish Heart Disease Statistics: year ending 31 March 2015
- 3. Office for National Statistics, Adult smoking habits in the UK: 2015
- 4. Office for National Statistics, Alcohol-related deaths in the UK: registered in 2015
- 5. National Records of Scotland, Drug-related deaths in Scotland in 2016

5. Life expectancy at older ages

Life expectancy at age 65 in the UK has slightly increased

Life expectancy at age 65 in the UK in 2014 to 2016 was 18.5 years for males and 20.9 years for females. In other words, a man aged 65 in 2014 to 2016 could expect to live to age 83.5 and a woman to 85.9. For males this was a slight increase of 4.7 weeks, and for females an increase of 3.6 weeks, from 2013 to 2015.

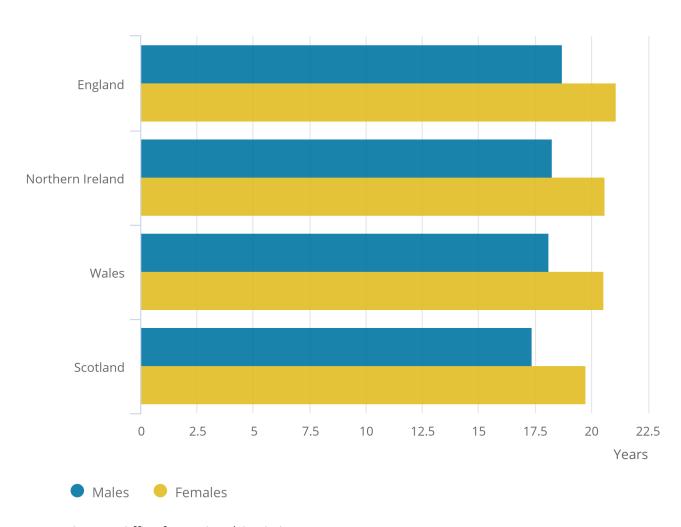
Life expectancy at age 65 for each of the constituent countries in 2014 to 2016 is shown in Figure 4. Life expectancy at age 65 remained highest in England and lowest in Scotland.

Figure 4: Life expectancy at age 65, constituent countries

2014 to 2016

Figure 4: Life expectancy at age 65, constituent countries





Source: Office for National Statistics

Source: Office for National Statistics

The rate of increase in life expectancy at age 65 has slowed

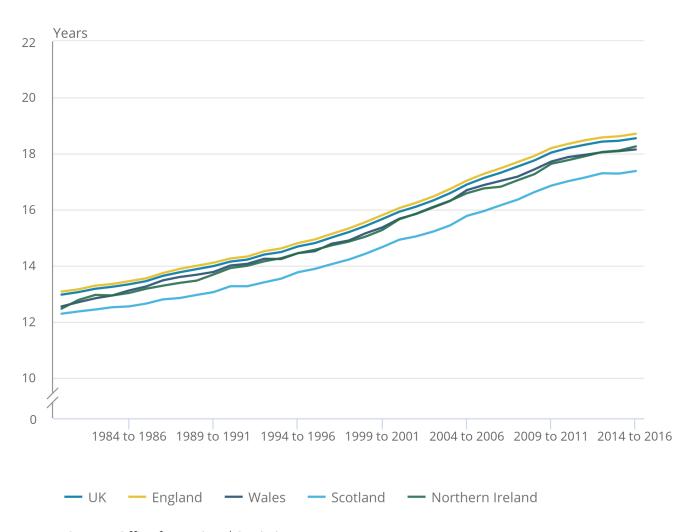
Mortality rates in the oldest age groups have traditionally been improving at a faster rate over time due to a combination of factors, including the improvements in mortality from circulatory diseases, driven partly by changing smoking habits, the diagnosis and treatment of cancers, and medical and technological advances in the treatment of many other illnesses and diseases. However, as for life expectancy at birth, improvements in life expectancy at older ages have also slowed in recent years.

Figure 5a: Life expectancy at age 65, UK and constituent countries

Males, between 1980 to 1982 and 2014 to 2016

Figure 5a: Life expectancy at age 65, UK and constituent countries

Males, between 1980 to 1982 and 2014 to 2016



Source: Office for National Statistics

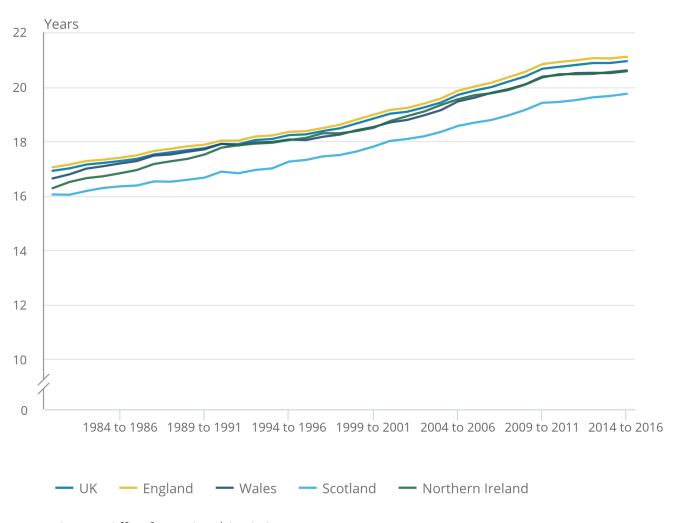
Source: Office for National Statistics

Figure 5b: Life expectancy at age 65, UK and constituent countries

Females, between 1980 to 1982 and 2014 to 2016

Figure 5b: Life expectancy at age 65, UK and constituent countries

Females, between 1980 to 1982 and 2014 to 2016



Source: Office for National Statistics

Source: Office for National Statistics

Life expectancy at age 65 in the UK steadily increased between 1980 to 1982 and 2009 to 2011 from 13.0 to 18.0 years for males (Figure 5a) and from 16.9 to 20.7 years for females (Figure 5b). This was equivalent to an average increase in male life expectancy of 9.0 weeks per year and for females 6.8 weeks per year.

Between 2010 to 2012 and 2014 to 2016, the rate of increase in life expectancy at age 65 slowed to 4.6 weeks per year for males and 2.6 weeks per year for females.

The gap between male and female life expectancy has remained the same

The gap between UK male and female life expectancy at age 65 in 2014 to 2016 remained the same as in 2013 to 2015 at 2.4 years. The gap between male and female life expectancy at age 65 for each of the constituent countries also remained equal at 2.4 years.

Life expectancy at age 90 has remained unchanged

In 2014 to 2016, life expectancy in the UK at age 90 was 4.0 years for males and 4.6 years for females. A male aged 90 could therefore expect to live on average to age 94 and a female to 94.6, approximately seven months longer than a 90-year-old male. Life expectancy at age 90 has remained virtually unchanged for the last four years although it has decreased slightly by 3.6 weeks for males and 3.1 weeks for females from its peak in 2009 to 2011.

Life expectancy at age 65 in Scotland has continued to diverge from the UK

In 2014 to 2016, the gap between life expectancy at age 65 in Scotland and the UK was smaller than the gap in life expectancy at birth but has grown at a faster rate over time for both males and females. In the past the difference between life expectancy at age 65 in the UK and Scotland had generally been greater for females. In 2014 to 2016, this difference was broadly the same for males and females. This contrasts the trend seen in life expectancy at birth where the difference between the UK and Scotland has grown between males and females and has remained noticeably larger for males.

Figure 6: Difference in life expectancy at age 65 between the UK and Scotland

Between 1980 to 1982 and 2014 to 2016

Figure 6: Difference in life expectancy at age 65 between the UK and Scotland

Between 1980 to 1982 and 2014 to 2016



Source: Office for National Statistics

Source: Office for National Statistics

As shown in Figure 6, in 1980 to 1982 life expectancy at age 65 was 0.7 years lower in Scotland for males and 0.9 years lower for females. In 2014 to 2016, this difference was 1.2 years lower for both males and females.

6. Surviving to older ages

The share of the UK population expected to survive to older ages has risen in 2014 to 2016

A consequence of increasing life expectancy has been an increase in the proportion of the UK population expected to survive to older ages. In 1980 to 1982, there were 5% of males and 14% of females in the UK who could expect to reach at least age 90. In 2014 to 2016, this figure was four times larger for males at 21% and had more than doubled for females to 32%.

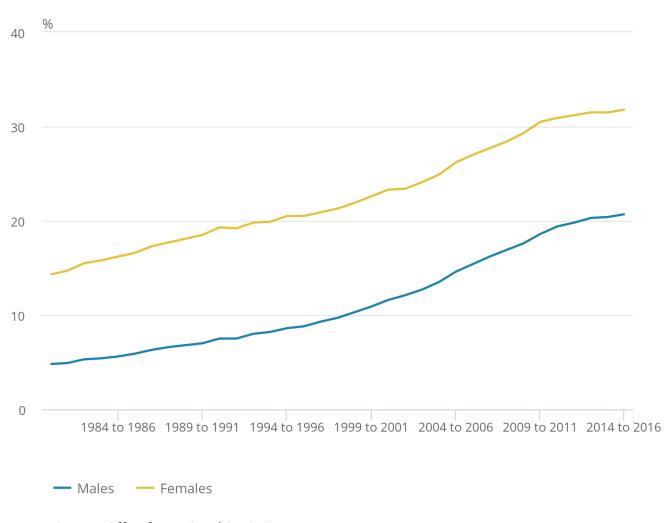
As improvements in life expectancy have recently slowed in the UK, from around 2009 to 2011, the rate of increase in the share of the population expected to survive to age 90 has also slowed. The proportion expected to survive to age 90 has risen in 2014 to 2016, increasing by 0.3% for males and females from 2013 to 2015 (Figure 7).

Figure 7: Percentage of people living past 90 in life tables (Ix), UK

Between 1980 to 1982 and 2014 to 2016

Figure 7: Percentage of people living past 90 in life tables (lx), UK

Between 1980 to 1982 and 2014 to 2016



Source: Office for National Statistics

Source: Office for National Statistics

7. Links to related statistics

Also available are:

- a Quality and Methodology Information Report on these statistics
- information about <u>period and cohort life expectancy</u> projections
- information about the difference between period and cohort life expectancies

<u>How life expectancy has changed over time</u> and <u>chances of survival to 100</u> can be found on our Visual.ONS website.

Further statistics on healthy life expectancies and life expectancy by socio-economic classification are available.

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 four constituent countries of the UK.

8. Quality and methodology

- 1. The National Life Tables Quality and Methodology Information report contains important information on:
 - the strength and limitations of the data
 - the quality of the output: including the accuracy of the data and how it compares with related data
 - uses and users
 - how the output was created
- 2. In the 2014 to 2016 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. Prior to 2013 to 2015, these have been calculated by apportioning 90 and over KT estimates at single years of age for England and Wales combined based on the respective 90 and over population sizes of England and Wales. For more information see the Quality and Methodology report.
- 3. Figures in the commentary in this bulletin are rounded to one decimal place. Calculations in this bulletin have been done using unrounded figures and life expectancy estimates to two decimal places can be found in the datasets for this release.