



# **Life Tables for Scotland**

## **2014-2016**

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A National Statistics publication for Scotland

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**Life expectancy has generally been increasing in Scotland over the last 35 years**

Since 1981 life expectancy in Scotland has increased, rising from 69.1 years for males and 75.3 for females born around 1981 to 77.1 for males and 81.2 for females born around 2015. However, for both genders, life expectancy has remained similar since 2013.

**The gap between males and females has decreased**

The gender gap in life expectancy decreased from 6.2 years for those born around 1981 to 4.1 years for those born around 2015.

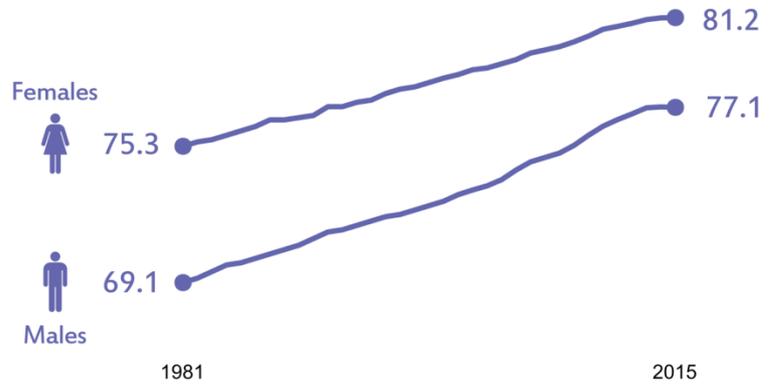
**The increase in life expectancy has slowed in recent years**

Over the most recent period, the increase in female life expectancy was the smallest in 15 years (up 0.01 years) and male life expectancy experienced a very small decline (down 0.02 years).

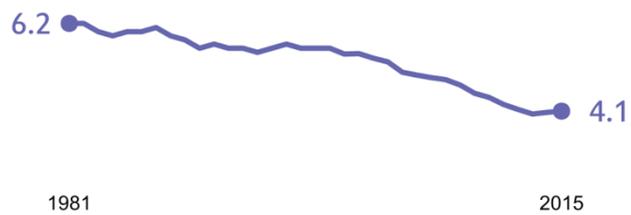
**Life expectancy is lower in Scotland compared to the rest of UK**

Life expectancy in Scotland remains lower than the UK average, and is lowest of all UK constituent countries, for both males and females.

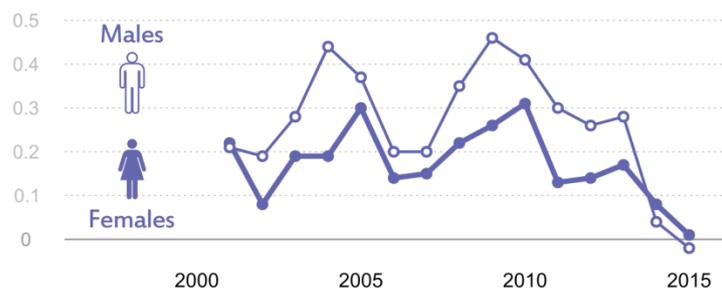
Life expectancy at birth (years)



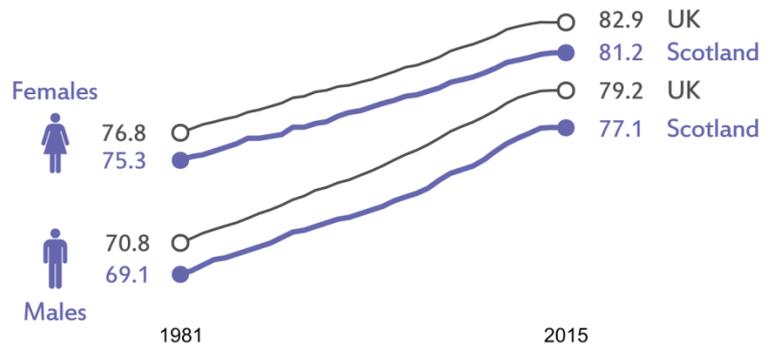
Gender gap in life expectancy (years)



Annual change (years)



Life expectancy at birth (years)



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## 1. Main Points

- A baby boy born around 2015 could expect to live for 77.1 years and a baby girl could expect to live for 81.2 years.
- Over the past 35 years, life expectancy has increased by 8.0 years for males and 5.9 years for females.
- In more recent years the rate of increase has slowed and over the past year, life expectancy has decreased by 0.02 years for males and increased by 0.01 years for females.
- Scotland's life expectancy has been lower than the UK average for all of the past 35 years and is the lowest of all the UK constituent countries.
- The most recent life expectancy figures for Scotland are also lower than those for the UK which are 79.2 years for males and 82.9 years for females.
- All countries in the UK have experienced a slowing in life expectancy in recent years.

## 2. Introduction

This publication summarises the life expectancy figures for Scotland for the years 2014-16 which are produced by the Office for National Statistics (ONS) and published by the National Records of Scotland.

### 2.1 How life expectancy is calculated

The latest life expectancy figures are calculated from the mid-year population estimates for Scotland and the number of deaths registered in Scotland during 2014, 2015 and 2016. Life expectancy for Scotland is calculated for each year of age, and represents the average number of years that someone of that age could expect to live subject to their age specific mortality rates. Life expectancy in Scotland is calculated as a three year average. They are produced by aggregating deaths and population data for the three year period. Three years of data are needed to provide large enough numbers to ensure that the figures published in this report are sufficiently robust. Throughout this publication, the latest life expectancy figures refer to the 2014-2016 period. For simplicity, these are sometimes referred to as life expectancy for those born around 2015.

The figures presented in this publication relate to period life expectancies. Period life expectancies are calculated using age specific mortality rates for a given period. They do not make allowance for any actual or projected future changes in mortality after that period. This means that life expectancy at birth for a given time period and area is an estimate of the average number of years a new born baby would survive if he/she experienced the particular area's age specific mortality rates for that time period throughout his/her life. The figure reflects mortality among those living in the area in each period, rather than mortality among those born in each area. Life expectancy at birth is not simply the number of years a baby born in the area during the three year period is expected to live (although the term 'can expect to live' is used throughout this publication for ease of reading), both

because death rates are likely to change in the future and because many of the newborns may live elsewhere for at least some part of their lives.

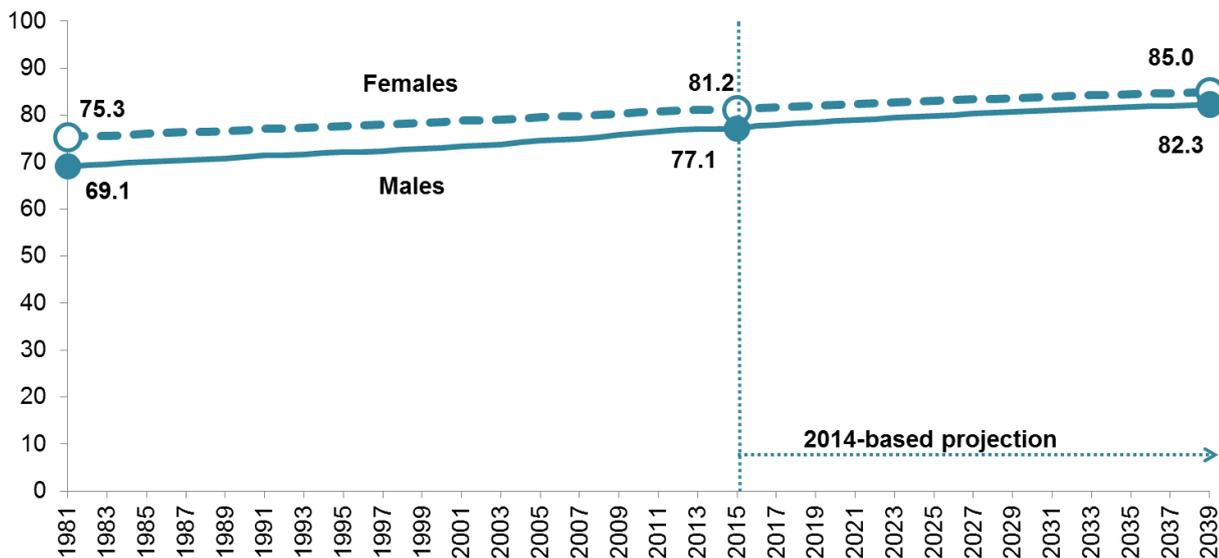
## 2.2 Uses of life expectancy

Life expectancy at birth is a very useful indicator of mortality conditions across a population at a particular point in time. It also provides an objective means of comparing trends in mortality over time, between areas of a country and with other countries. This is used to monitor and investigate health inequalities and to set public health targets. Life expectancy is also used to inform pensions policy, research and teaching.

## 3. Life expectancy at birth

The most recent estimate is using data from 2014, 2015 and 2016 which shows that life expectancy at birth is 77.1 years for males and 81.2 years for females. These figures are almost identical to the previous life expectancy estimates from the 2013-2015 period, indicating that life expectancy is stalling in Scotland. The fine detail shows that there was an increase of 0.01 years for females and a decrease of 0.02 years for males between 2013-2015 and 2014-2016.

**Figure 1: Life Expectancy at birth<sup>1</sup>, Scotland, 1981-2039**



Source: National life tables, ONS

### Footnote

- 1) Figures to 2015 are from National Life Tables produced by the Office for National Statistics (ONS). They are based on three years of data. For example, the 2015 figure uses data for 2014-2016. Figures from 2016 are projected single year life expectancies, ONS

For the past 35 years, life expectancy at birth has been increasing in Scotland from 69.1 years for males and 75.3 years for females in 1980-1982 to the most recent figures of 77.1 years for males and 81.2 years for females as seen in Figure 1. As life expectancy has increased, the gap between male and female

life expectancy has decreased from 6.2 years in 1980-1982 to 4.1 years in 2014-2016. This is due to life expectancy increasing at a faster rate for males than for females and may be related to a move away from high risk jobs in heavy industry in recent decades and also a reduction in the number of men who smoke<sup>1</sup>.

The gap between male and female life expectancy has reduced over the latest years. Over the recent 10 years (between 2003 and 2013) the gap decreased by 1.3 years compared to a decrease of 0.9 in the gap over the previous 23 years (between 1981 and 2003). The recent stalling in life expectancy has meant that the gender gap has remained constant from 2003 to 2005.

The latest 2014 based projections for Scotland indicate that life expectancy will continue to increase, reaching 82.3 years for males and 85.0 years for females by 2039. The difference between male and female life expectancy is projected to decrease further from 4.1 years in 2014-16 to 2.7 years in 2039.

#### 4. Life expectancy at older ages

**Table 1: Life expectancy in Scotland at age 65 and age 85, 1980-82 and 2014-16**

<b>Expectation of life (years)</b>	<b>1980-82</b>	<b>2014-16</b>	<b>Difference</b>
Males aged 65	12.3	17.4	5.1
Females aged 65	16.0	19.7	3.7
Males aged 85	4.2	5.5	1.3
Females aged 85	5.2	6.4	1.2

Source: National life tables, ONS

Table 1 shows that life expectancy at age 65 was 17.4 years for males and 19.7 years for females in 2014-2016. This means that a man aged 65 around 2015 could expect to live until he was 82.4 years old and a woman aged 65 around 2015 could expect to reach 84.7 years. Life expectancy at 65 has increased by 5.1 years from 1980-1982 to 2014-2016 for males and by 3.7 years over the same period for females.

Life expectancy at age 85 was 5.5 years for males and 6.4 years for females in 2014-2016. This means that a man aged 85 around 2015 could expect to live until he was 90.5 and a woman aged 85 around 2015 could expect to reach 91.4 years. Life expectancy at 85 had increased by 1.3 years 1980-1982 to 2014-2016 for males and by 1.2 years over the same period for females.

#### Footnote

- 1) Further information can be found on the [How has life expectancy changed over time?](#) section of the ONS website.

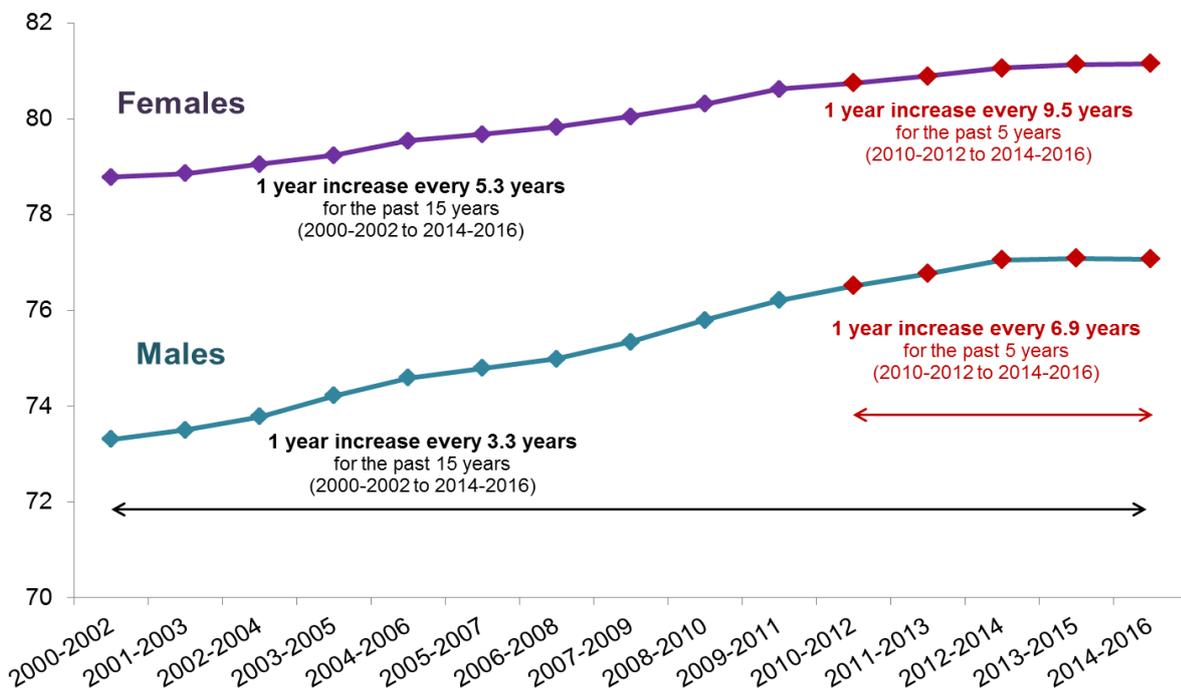
The gender gap in life expectancy at older ages has also become smaller, decreasing from 3.8 years in 1980-1982 to 2.4 years in 2014-2016 for persons aged 65. For persons aged 85, there has been an equivalent decrease from 1 year to 0.8 years between 1980-1982 and 2014-2016. The national life tables for Scotland can be accessed in full on the NRS website, providing life expectancy estimates by single year of age.

## 5. Recent trends in life expectancy

Although life expectancy has been increasing for the past few decades, the rate of increase has slowed over the past few years. Between the 2013-2015 and 2014-2016 estimates there was very little change: life expectancy increased by 0.01 years for females and decreased by 0.02 years for males. Between the previous two estimates, 2012-2014 and 2013-2015, life expectancy increased by 0.04 years for males and 0.08 years for females. This suggests that increases in life expectancy are stalling in Scotland

As life expectancy is calculated from deaths data, it is likely that trends in mortality will impact on life expectancy. During the winter of 2015, there were an unusually high number of deaths in Scotland caused by influenza, and this is one possible reason why increases in life expectancy have stalled for the last two years (both the 2013-2015 and 2014-2016 life expectancy use the deaths data from 2015.) However, as Figure 2 shows, the rate of increase of life expectancy has been slowing over a longer time.

**Figure 2: The slowing rate of increase in life expectancy in Scotland**

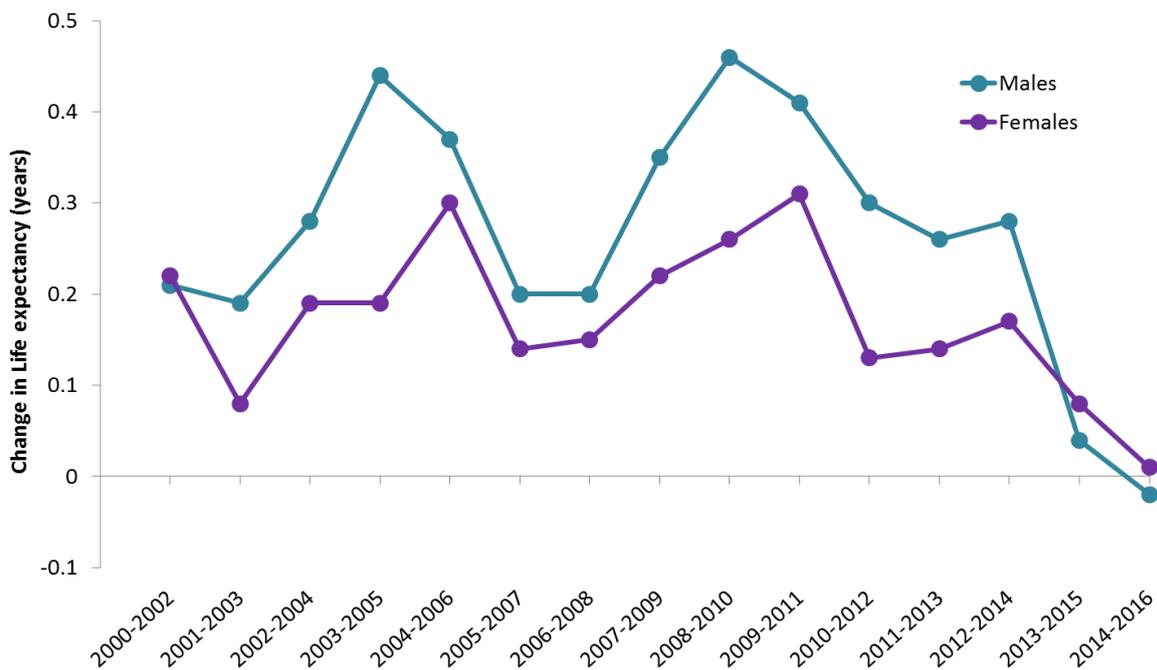


Source: National life tables, ONS

Figure 2 shows that over the past 15 years from 2000-2002 to 2014-2016, life expectancy has increased on average, by one year every 5.3 years for females and one year every 3.3 years for males. Over the last five years however, this rate has slowed to one year every 9.5 years for females and one year every 6.9 years for males.

Another way to measure change in life expectancy, is to look at the year on year change between estimates of life expectancy as seen in Figure 3. The rate of change has fluctuated over the past 15 years and Scotland has experienced years where the increase was smaller than in others, but the change from 2013-2015 to 2014-2016 was the lowest in 15 years. In 2013-2015, the rate of change from the previous year was lower for males than for females for the first time in 15 years and it remains lower in 2014-2016.

**Figure 3: Annual change in life expectancy, Scotland**



Source: National life tables, ONS

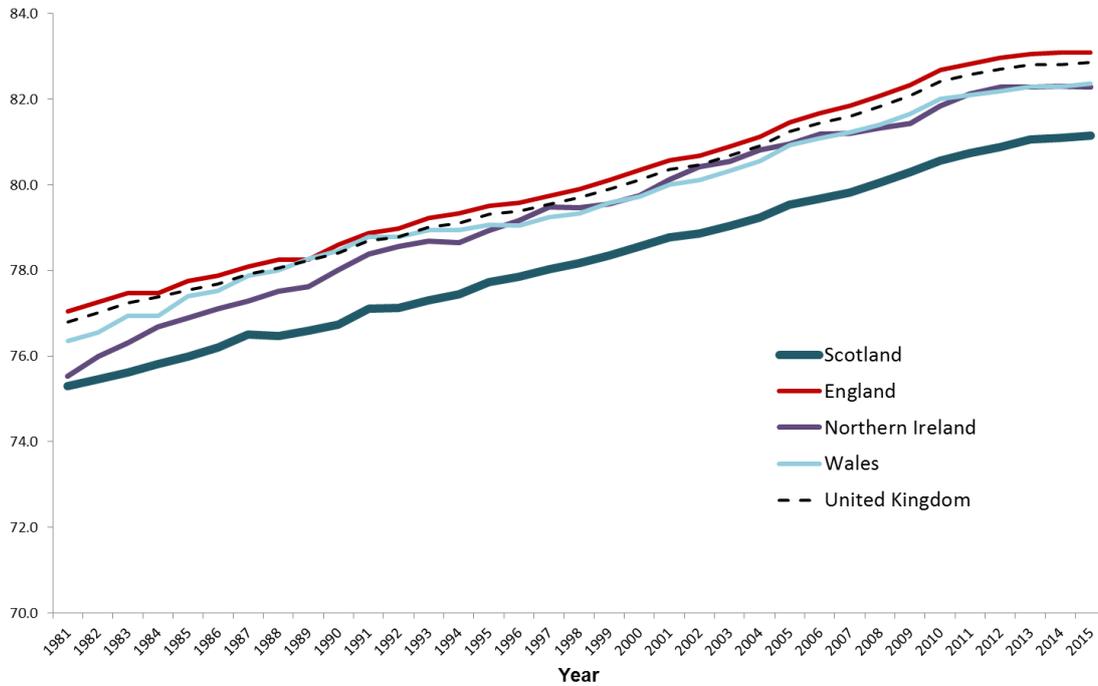
## 6. Scotland's life expectancy within the rest of the UK

Historically Scotland has experienced a lower life expectancy than the UK as a whole and has the lowest life expectancy of all the constituent countries in the UK. The 2014-2016 estimates for the UK show that life expectancy at birth is 82.9 years for females and 79.2 years for males (Table 2).

Since 1980-1982, the UK and all constituent countries have all seen an increase in life expectancy for both males and females. Figures 4.1 and 4.2 show that England has consistently had the highest life expectancy and Scotland has had the lowest for both males and females. For all countries, life expectancy has increased at a faster rate for males than for females for most of the past 35 years. Northern Ireland has experienced the greatest increase in life expectancy

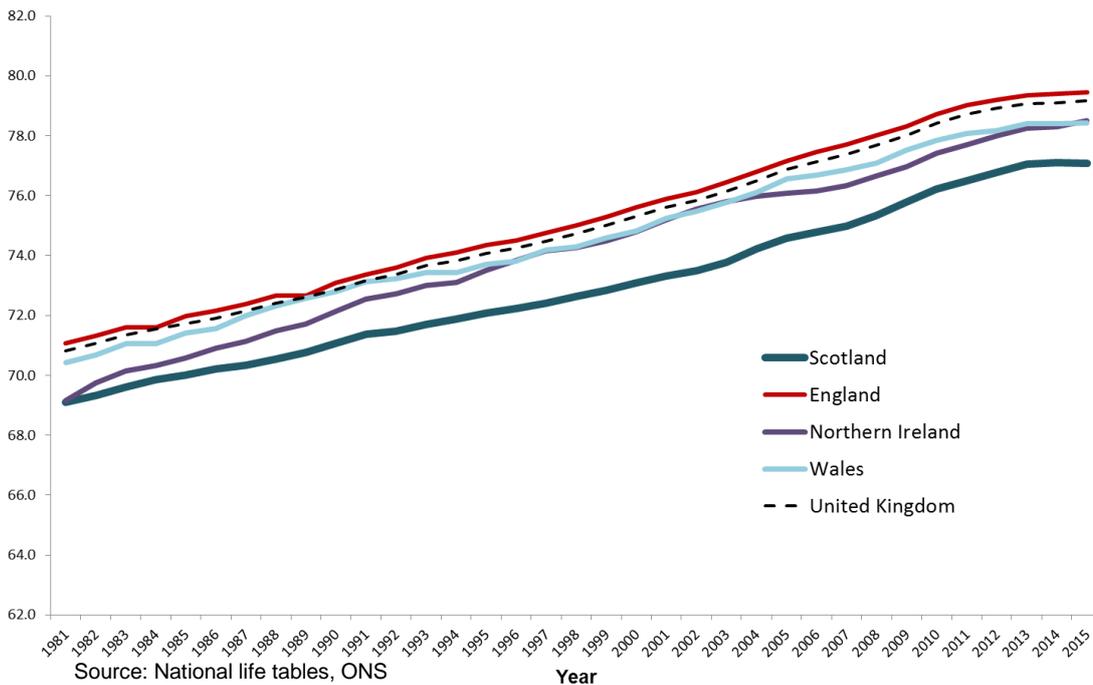
for males and females since 1980-1982 of all countries in the UK. Wales has experienced the smallest increase in life expectancy for males and Scotland has had the smallest increase for females of all UK countries.

**Figure 4.1: Female life expectancy in UK countries, 1981 to 2015**



Source: National life tables, ONS

**Figure 4.2: Male life expectancy in UK countries, 1981 to 2015**



Source: National life tables, ONS

As Figures 4.1 and 4.2 show, the difference between life expectancy for Scotland and the UK as a whole has remained relatively stable over the last 35 years at an average of 2 years for males and 1.6 years for females. In recent years, all countries in the UK have experienced a slowing in the rate of improvement in life expectancy.

**Table 2: Life expectancy at birth for the UK and constituent countries, 2014-2016**

Country	Male life expectancy	Change from 2013-2015 (males)	Female life expectancy	Change from 2013-2015 (females)
<b>Scotland</b>	77.1	-0.02	81.2	0.01
<b>Wales</b>	78.4	0.02	82.4	0.10
<b>Northern Ireland</b>	78.5	0.23	82.3	0.02
<b>England</b>	79.5	0.08	83.1	0.04
<b>United Kingdom</b>	79.2	0.08	82.9	0.04

Source: National life tables, ONS

The most recent figures in Table 2 show that life expectancy at birth for the UK was 79.2 years for males and 82.9 years for females in 2014-2016. This is an increase of 0.08 years for males and 0.04 years for females over the previous period.

## 7. Links to related statistics

- [Life tables for the UK and constituent countries](#) are available on the Office for National Statistics website.
- [Life expectancy for subnational areas within Scotland](#) are available on the National Records of Scotland (NRS) website. This include Scottish council areas, health boards and areas split by Scottish index of multiple deprivation. The next release of subnational life expectancy estimates will be in November 2017.
- [Healthy life expectancy](#) is an estimate of the number of years a person could expect to live in good health. Disability free life expectancy is the number of years a person could expect to live without disability. Healthy life expectancy and disability free life expectancy estimates for the UK, constituent countries and council areas are available on the Office for National Statistics website.
- [Healthy life expectancy estimates](#) at smaller geographies for Scotland are published by Information Services Division and are available on the Scottish Public Health Observatory website.
- The number and causes of deaths registered in Scotland each year are published on the [Deaths section](#) of the NRS website.

## 8. Background notes

- Life expectancy for Scotland is produced by the Office for National Statistics on behalf of the National Records of Scotland.

## 9. Methodology and comparisons across the UK

- The National Records of Scotland website has a guide that describes the [methodology](#) used to produce the life expectancy statistics for Scotland. This methodology is similar to that used to produce life expectancy estimates in other UK constituent countries.

## 10. Quality of administrative data sources

- Life expectancy is calculated using mid-year population estimates and deaths data as inputs. Information about the quality of deaths data is available on the Vital Events section of the NRS website.

## 11. Notes on statistical publications

### National Statistics

The United Kingdom Statistics Authority (UKSA) has designated these statistics as National Statistics, in line with the Statistics and Registration Service Act 2007 and signifying compliance with the Code of Practice for Official Statistics (available on the [UKSA](#) website).

National Statistics status means that official statistics meet the highest standards of trustworthiness, quality and public value.

All official statistics should comply with all aspects of the Code of Practice for Official Statistics. They are awarded National Statistics status following an assessment by the Authority's regulatory arm. The Authority considers whether the statistics meet the highest standards of Code compliance, including the value they add to public decisions and debate.

It is National Records of Scotland's responsibility to maintain compliance with the standards expected of National Statistics. If we become concerned about whether these statistics are still meeting the appropriate standards, we will discuss any concerns with the Authority promptly. National Statistics status can be removed at any point when the highest standards are not maintained, and reinstated when standards are restored.

### Information on background and source data

Further details on data source(s), timeframe of data and timeliness, continuity of data, accuracy, etc can be found in the About this Publication document that is published alongside this publication on the NRS website.

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Email: [statisticscustomerservices@nrscotland.gov.uk](mailto:statisticscustomerservices@nrscotland.gov.uk)

If you have comments or suggestions that would help us improve our standards of service, please contact:

Kirsty MacLachlan  
Senior Statistician  
National Records of Scotland  
Room 1/2/3  
Ladywell House  
Ladywell Road  
Edinburgh  
EH12 7TF

Phone: 0131 314 4242

Email: [kirsty.maclachlan@nrscotland.gov.uk](mailto:kirsty.maclachlan@nrscotland.gov.uk)

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