

# Healthy Life Expectancy in Scottish Areas 2015-2017

Published on 27 February 2019



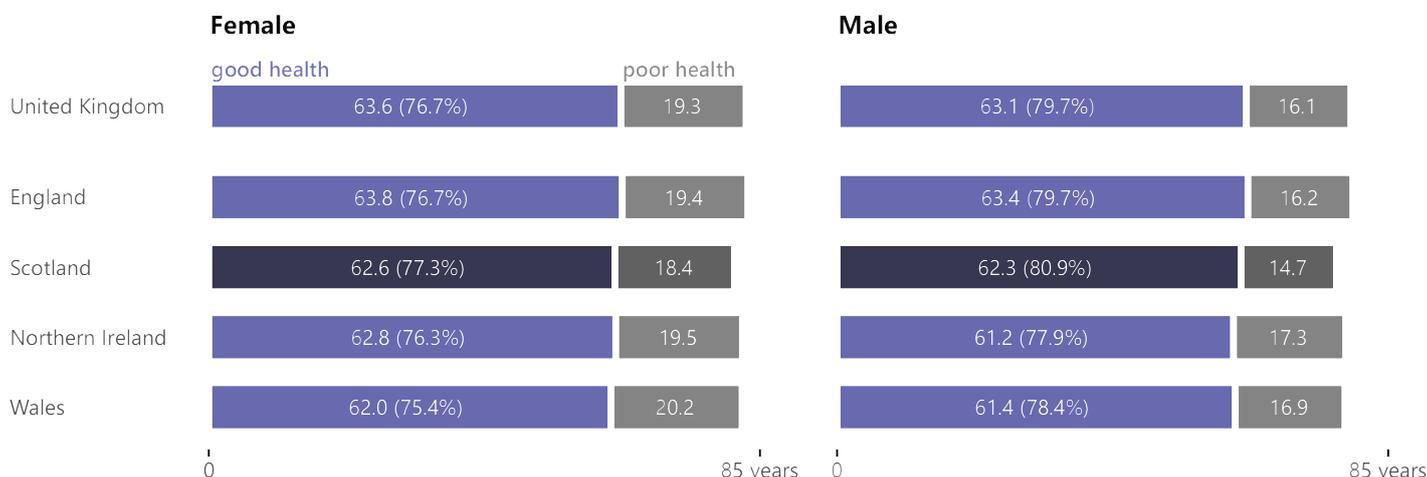
This statistical report details healthy life expectancy estimates for Scotland, Scottish council areas and NHS health boards. It also includes break-downs of healthy life expectancy figures by deprivation. These figures show the number of years that a person living in Scotland could expect to spend in good health.

Healthy Life Expectancy  
in Scottish Areas  
2015-2017

## The proportion of life in good health is higher in Scotland than in the rest of the UK

Healthy life expectancy in Scotland was 62.3 years for males and 62.6 years for females in 2015-2017. This is slightly lower than the UK average, however, people in Scotland are expected to spend a greater proportion of their lives in good health than in any other UK country.

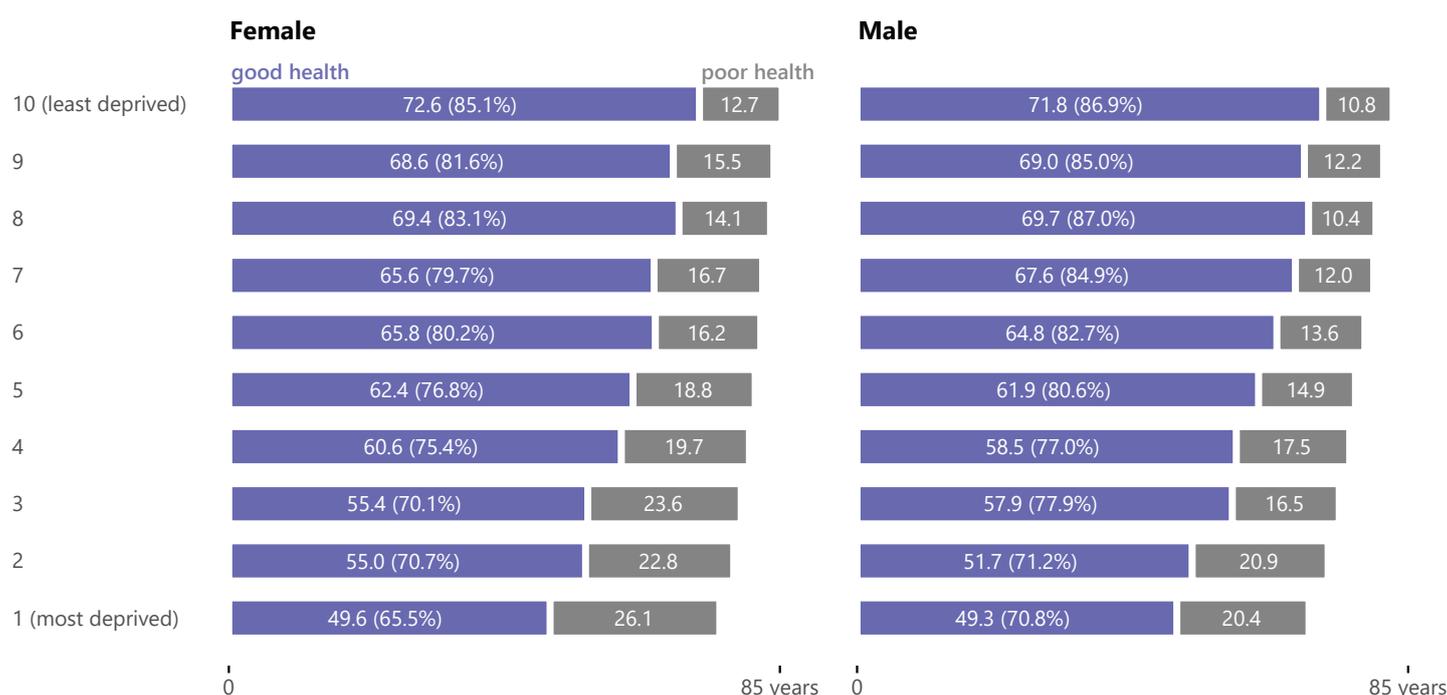
### Life Expectancy (years) for UK countries, 2015-2017



## Healthy life expectancy is linked to deprivation

People in more deprived areas can expect to live shorter lives and spend fewer years in good health. In 2015-2017 the difference in healthy life expectancy between the 10% most and 10% least deprived areas was 22.5 years for males and 23.0 years for females.

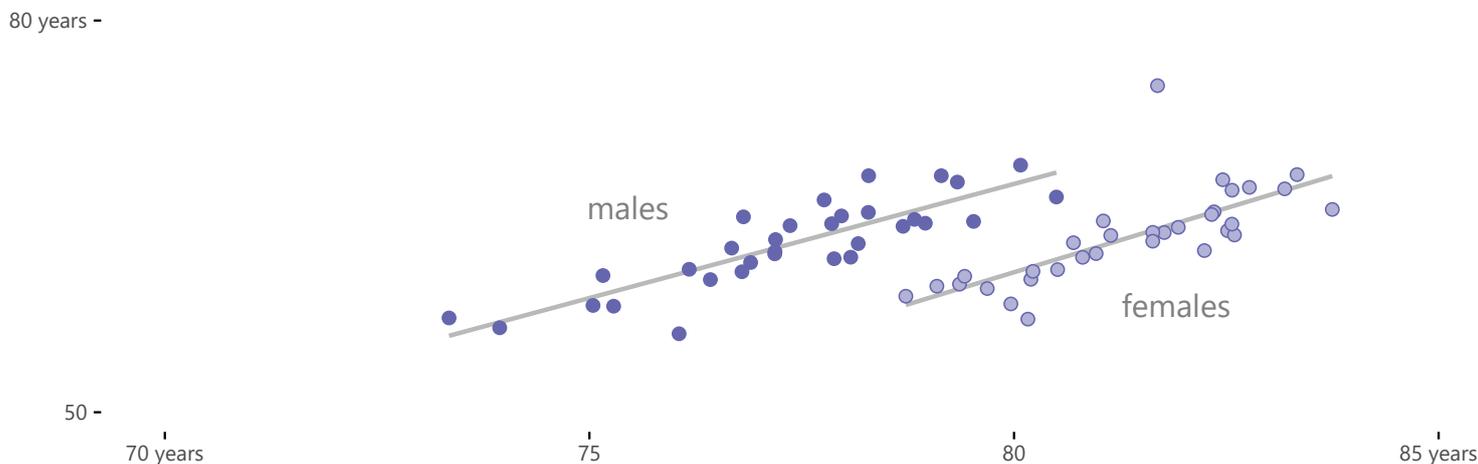
### Life Expectancy (years) for SIMD deciles, 2015-2017



## There is a positive relationship between good health and longevity

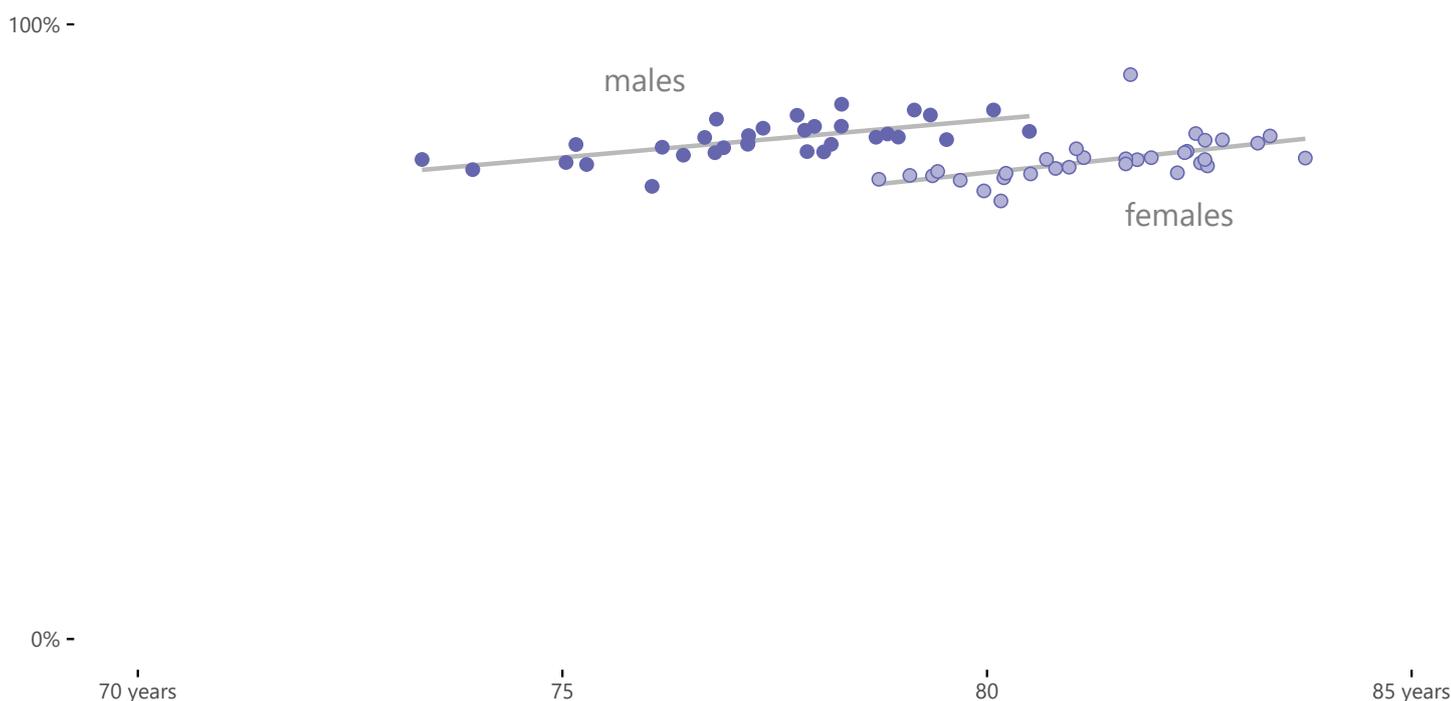
People in areas with lower life expectancy also had lower healthy life expectancy. There was a larger difference between life expectancy and healthy life expectancy for females than for males.

Healthy Life Expectancy (years) by Life Expectancy (years) in Councils, 2015-2017



The percentage of life expected to be spent in good health was also lower in areas where life expectancy was low.

Percentage of life expected to be in good health by Life Expectancy (years) in Councils, 2015-2017



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## 1. Main points

- Healthy life expectancy at birth was 62.3 years for males and 62.6 years for females born in 2015-2017.
- People in Scotland can expect to spend a higher proportion of their lives in good health than in any other UK country, although they would be expected to live shorter lives.
- Healthy life expectancy was highest for males in East Dunbartonshire (68.9 years) and for females in Orkney Islands (75.0 years.)
- People in areas with lower life expectancy can also expect to have lower healthy life expectancy than those in areas with higher life expectancy. They can also expect to spend a smaller proportion of their lives in good health.
- Healthy life expectancy is closely linked to deprivation. Between the 10% most deprived and 10% least deprived areas of Scotland, there was a difference in healthy life expectancy of 22.5 years for males and 23.0 years for females.

## 2. Introduction

Healthy life expectancy (HLE) is an estimate of how many years a person could expect to live in 'good health'. The HLE estimates in this report are produced using population and death figures and self-reported health from the annual population survey (APS). Further information on the methodology used to produce HLE can be found in the methodology guide.

Healthy life expectancy is very useful when viewed in the context of life expectancy. It is a good measure of the health of a population and can be used to predict the demands on health services and social care. The Scottish Government uses HLE as a key indicator in the National Performance Framework. Because HLE is produced from survey data, the sample size is smaller than that for life expectancy and varies between areas. For this reason, it is important to take into account the variance around each estimate and confidence intervals are reported throughout this bulletin.

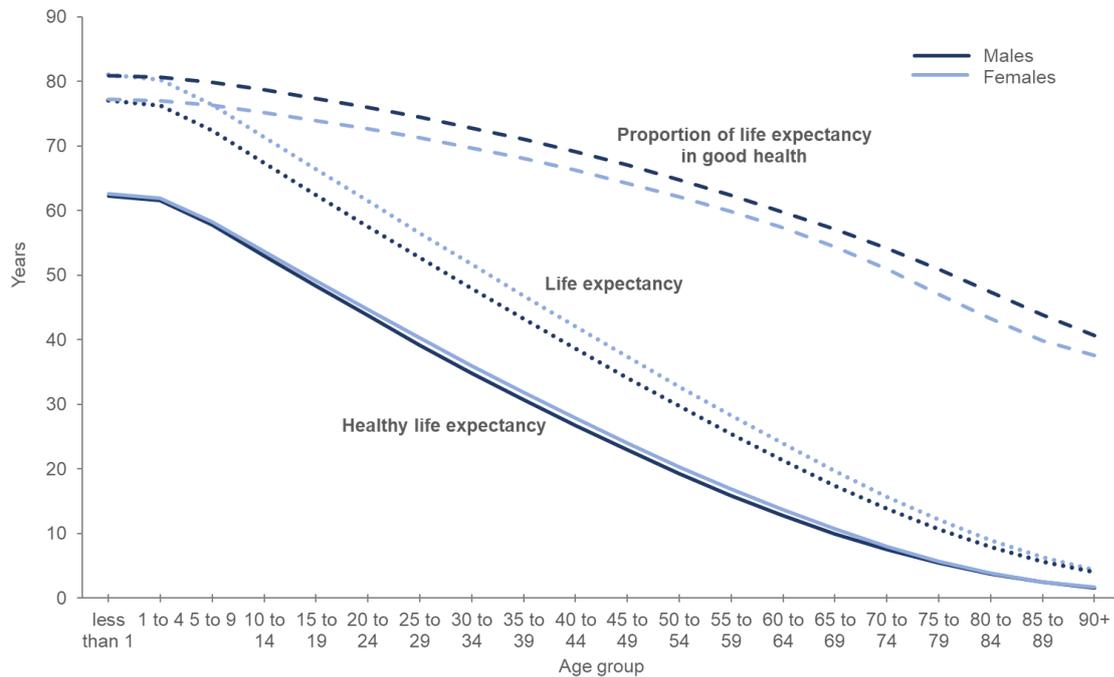
## 3. Healthy life expectancy in Scotland

Life expectancy at birth was 77.0 ( $\pm 0.1$ ) years and HLE at birth was 62.3 ( $\pm 0.4$ ) years for males born in 2015-2017 in Scotland. This means that a baby boy born in Scotland in 2015-2017 could expect to live for an average of 62.3 years in good health followed by a further 14.7 years in poor health until he was 77 years old. For females, life expectancy at birth in Scotland was 81.1 ( $\pm 0.1$ ) years with 62.6 ( $\pm 0.5$ ) of those years expected to be in good health. Another way to describe this is that males are expected to live 80.9% of their lives in good health while females are expected to live 77.3% of their lives in good health.

Between the ages of 65 and 69, average life expectancy for males was 17.4 ( $\pm 0.1$ ) years and HLE was 10.0 ( $\pm 0.3$ ) years (57.2% of remaining life expectancy). For females aged between 65 and 69, life expectancy was 19.7 ( $\pm 0.1$ ) years and HLE was 10.7 ( $\pm 0.3$ ) years (54.4% of remaining life expectancy.)

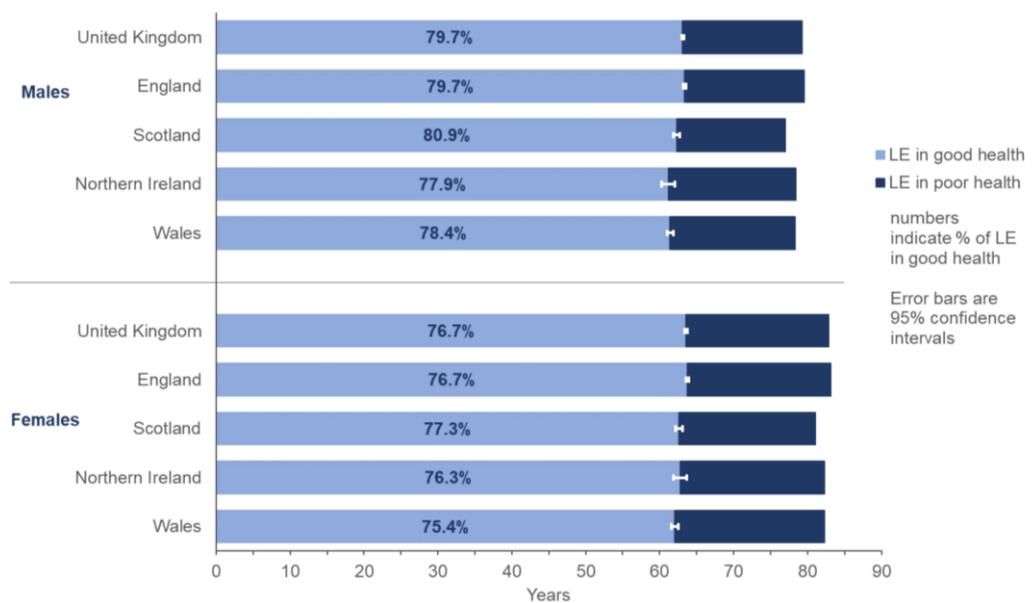
Although female life expectancy in 2015-2017 was greater at all ages than for males, HLE was very similar for males and females at all ages. This means that males are expected to spend a higher percentage of their life in good health than females are. [Figure 1](#) shows how life expectancy, HLE and the proportion of life expectancy in good health vary at different ages.

**Figure 1. Life expectancy and healthy life expectancy at all ages in Scotland, males and females, 2015-2017**



#### 4. HLE compared with other UK countries

**Figure 2. Healthy life expectancy in the United Kingdom and constituent countries, 2015-2017, males and females**

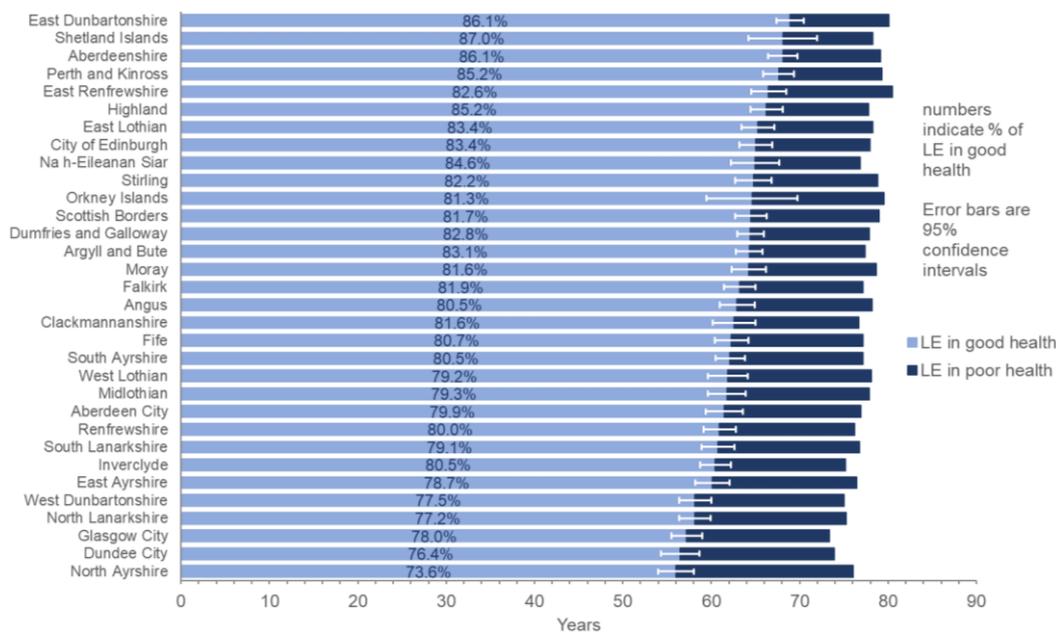


In 2015-2017, life expectancy at birth in Scotland was lower than the UK average (79.2 years for males, 82.9 years for females), by 2.2 years for males and 1.8 years for females. It was also lower than all other UK countries individually. Healthy life expectancy in Scotland was also lower than the UK average (63.1 years for males and 63.6 years for females) but only by 0.8 years for males and 0.9 years for females. For males, Scotland had the second highest healthy life expectancy of all

UK countries (behind England) and for females it had the third highest (Behind England and Northern Ireland.) The percentage of life expectancy spent in good health was higher in Scotland than the UK average and higher than all other UK countries. [Figure 2](#) shows life expectancy and HLE at birth in all UK countries

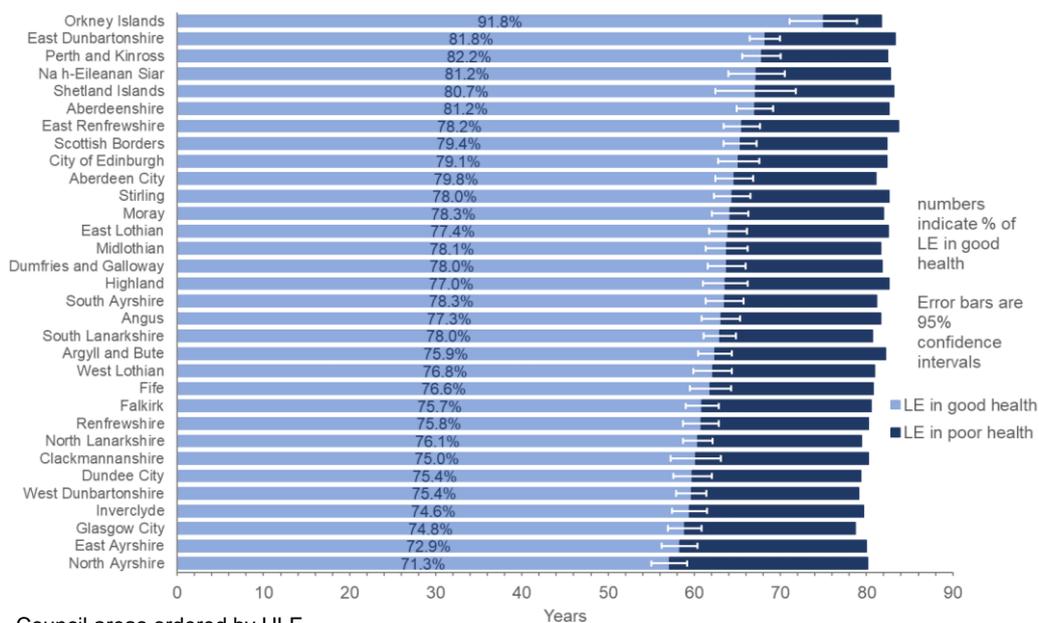
## 5. HLE in council areas

**Figure 3a. Healthy life expectancy at birth in Scotland's council areas, 2015-2017, males**



Council areas ordered by HLE

**Figure 3b. Healthy life expectancy at birth in Scotland's council areas, 2015-2017, females**



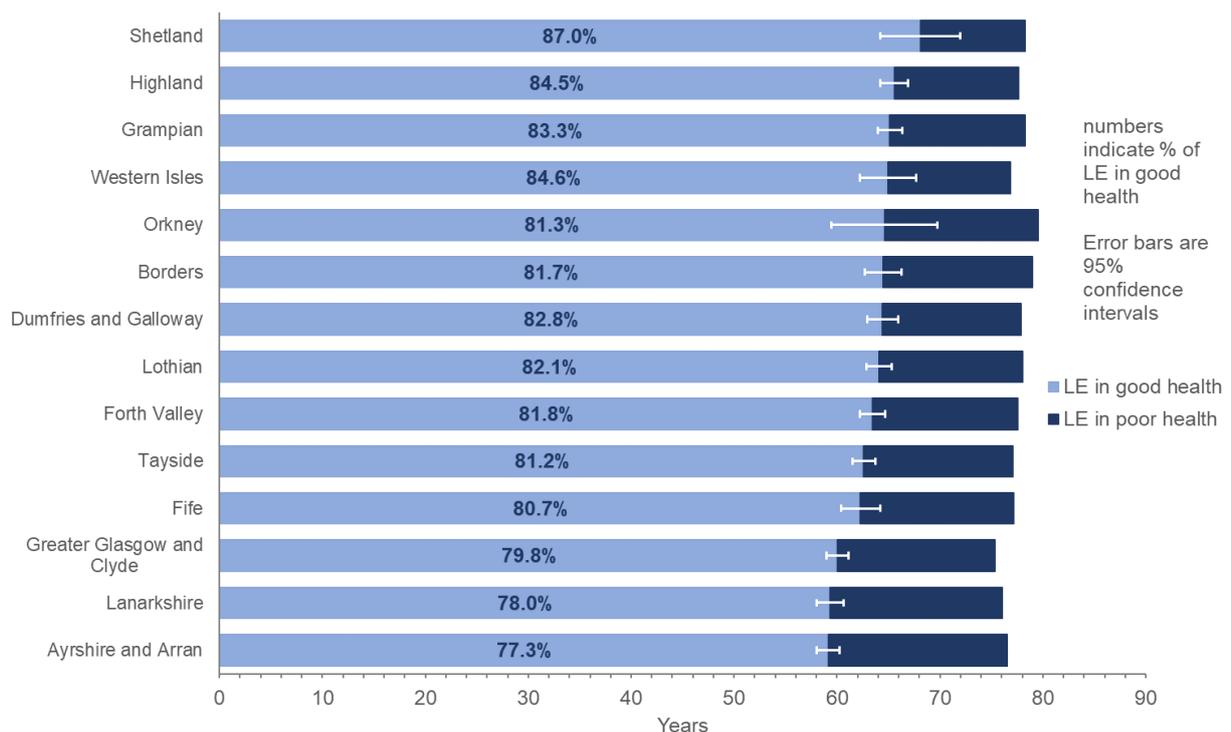
Council areas ordered by HLE

The council area with the highest healthy life expectancy for males was East Dunbartonshire where males born in 2015-2017 could expect to spend 68.9 years ( $\pm 1.6$  years) in good health, as is illustrated in Figure 3a. Figure 3b shows that for females, HLE was highest in Orkney Islands where females born in 2015-2017 could expect to spend 75 years ( $\pm 3.9$  years) in good health. It should be noted here that the confidence intervals around healthy life expectancy are wider than those around life expectancy estimates and caution should be used in comparing HLE estimates, particularly for small areas such as Orkney islands. North Ayrshire had the lowest healthy life expectancy for both males (56.0  $\pm$  2.0 years) and females (57.1  $\pm$  2.1 years).

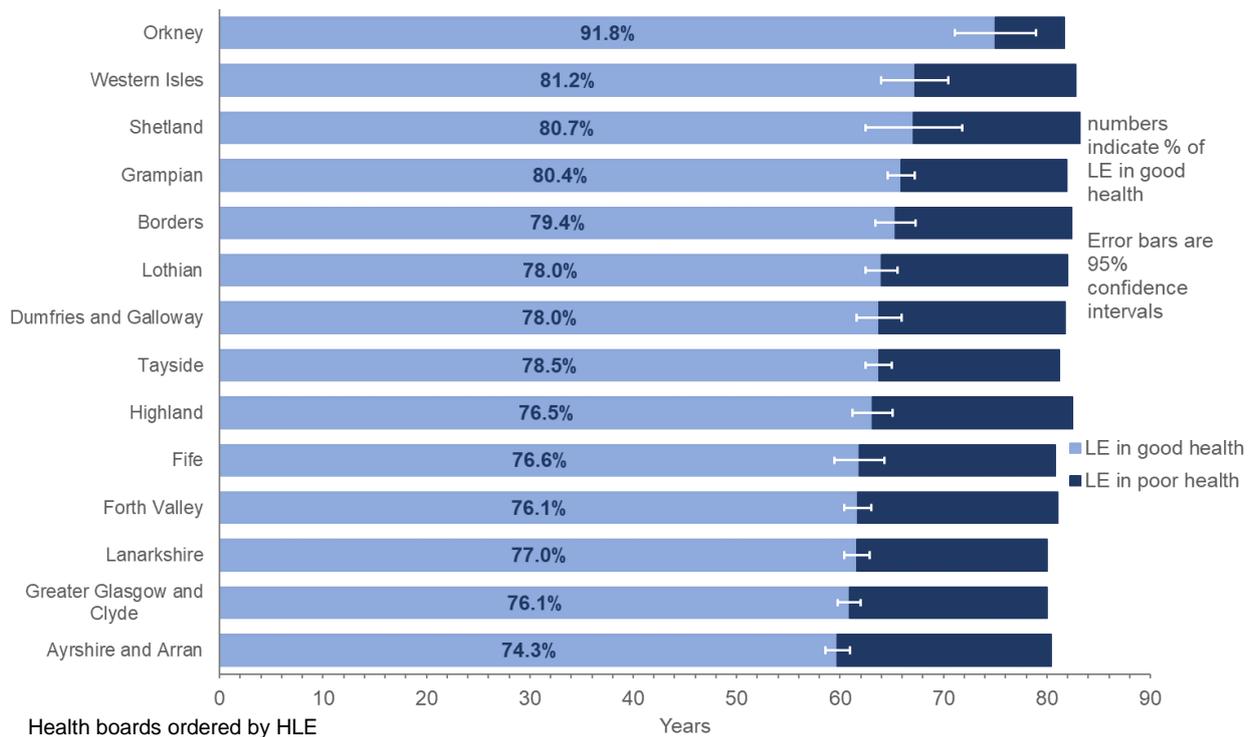
## 6. HLE in Health boards

Figure 4a and figure 4b show that of Scotland's health boards, Shetland had the highest HLE for males (68.1  $\pm$  3.9 years) while Orkney had the highest HLE for females (75.0  $\pm$  3.9 years). Ayrshire and Arran had the lowest HLE for both males (59.2  $\pm$  1.1 years) and females (59.8  $\pm$  1.2 years).

**Figure 4a. Healthy life expectancy at birth in NHS health boards, 2015-2017, males**



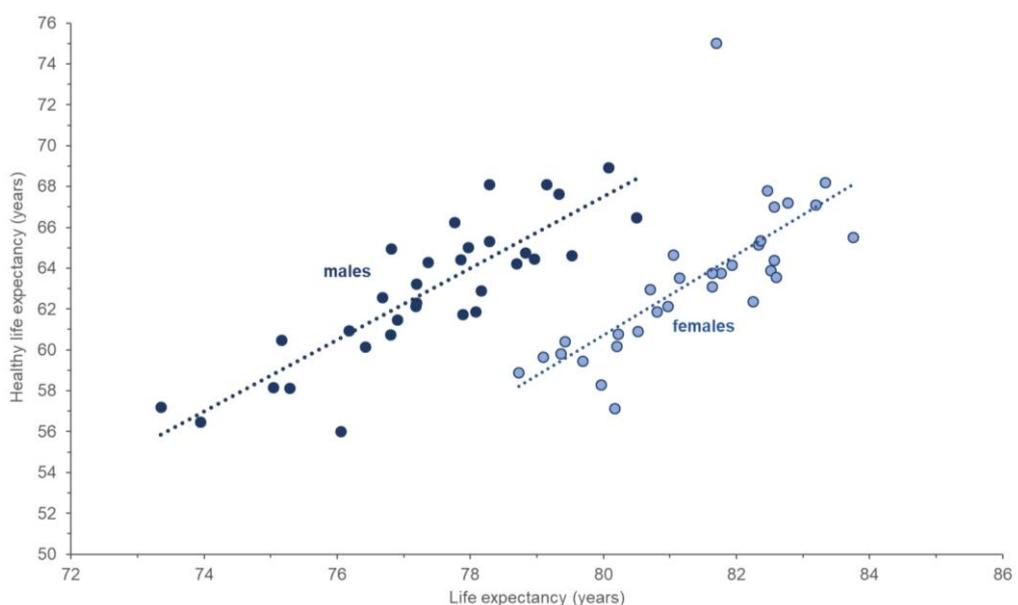
**Figure 4b. Healthy life expectancy at birth in NHS health boards, 2015-2017, females**



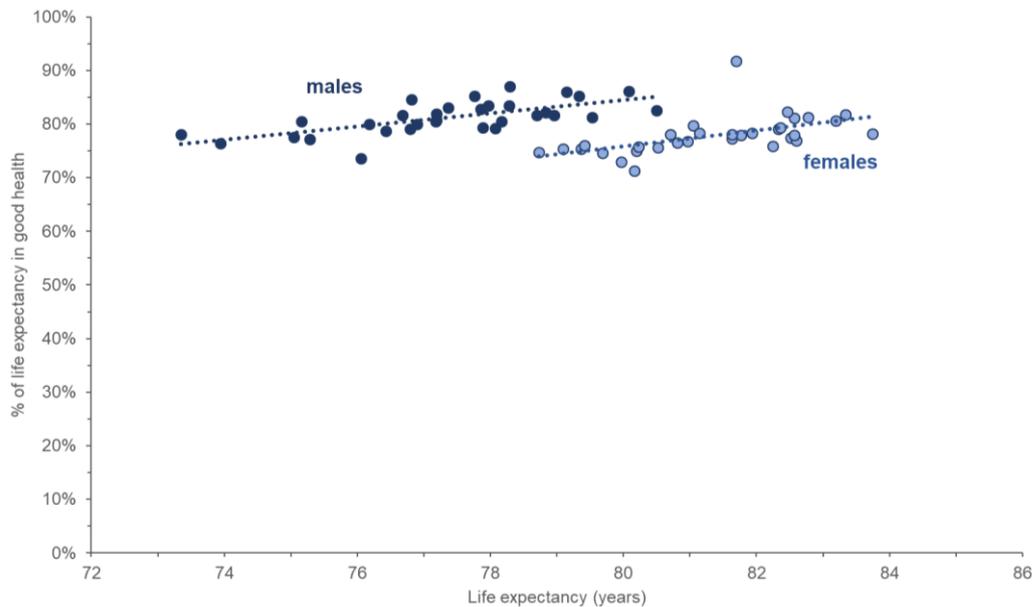
**7. Correlations of LE and HLE**

Figure 5a shows that people in council areas with greater life expectancy also tend to have greater healthy life expectancy. It also shows that the degree of variation in HLE across councils is larger than the variation in life expectancy. For males there was a gap of 12.9 years of HLE between the areas with the highest and lowest HLE compared to a gap of 7.2 years for life expectancy. For females, the HLE gap was 17.9 years compared with 5.0 years for life expectancy. Figure 5b shows that people in council areas with lower life expectancy can also expect to spend a smaller proportion of their life in good health. This demonstrates the strong link between health and longevity.

**Figure 5a. Life expectancy and healthy life expectancy at birth in Scotland's council areas, 2015-2017, males and females**



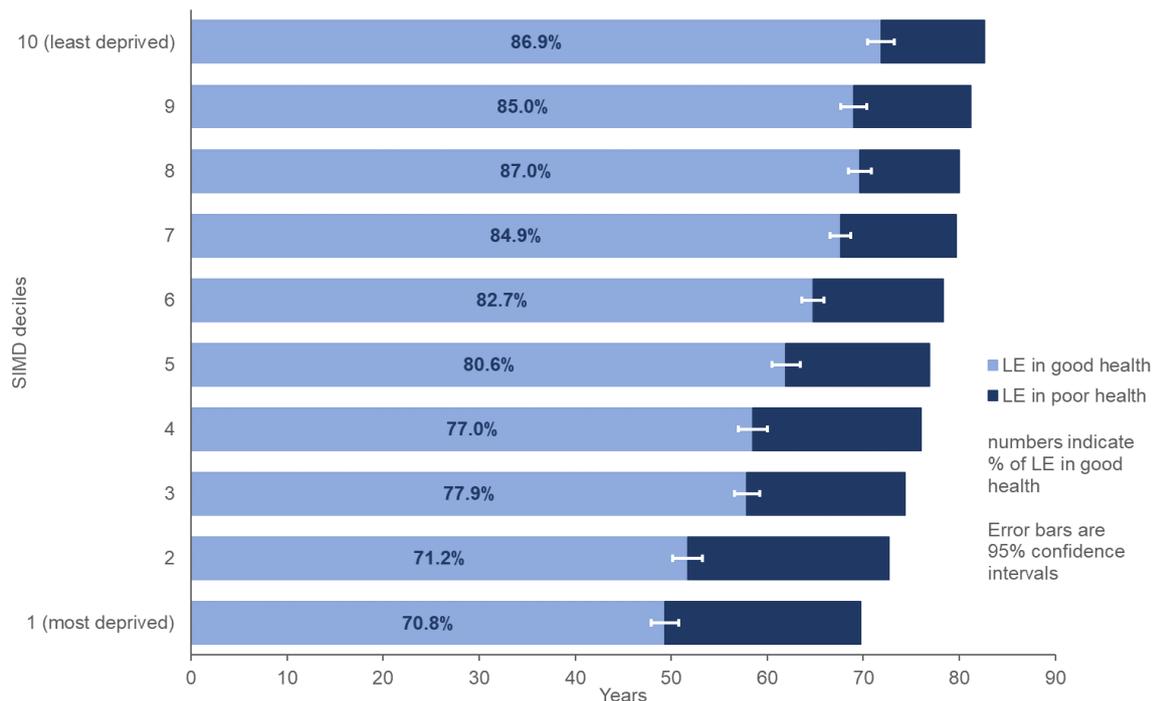
**Figure 5b. Life expectancy at birth and percentage of life expectancy in good health for Scotland's council areas, 2015-2017, males and females**



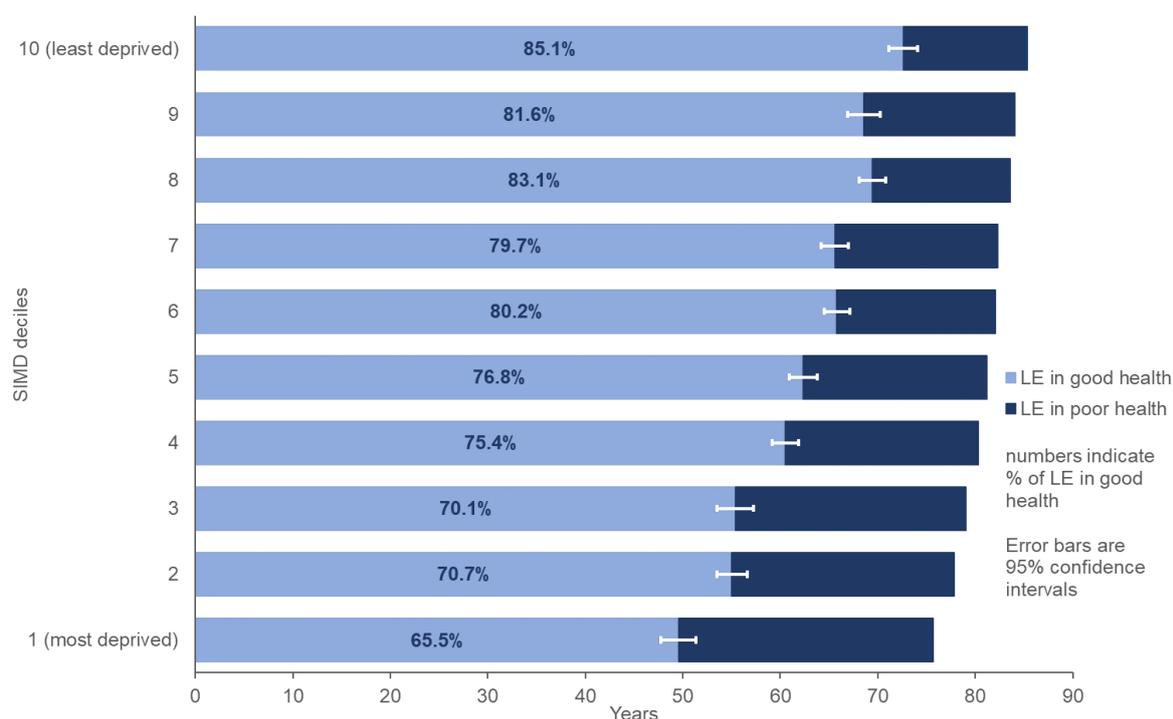
## 8. HLE by deprivation deciles

Deprivation is closely linked to life expectancy in Scotland. To measure this, small areas within Scotland are given a deprivation score using the Scottish Index of Multiple Deprivation (SIMD). The areas are then ranked from most to least deprived and split into ten evenly sized groups known as deprivation deciles. [Figure 6a](#) and [Figure 6b](#) show how life expectancy and healthy life expectancy estimates vary across deprivation deciles.

**Figure 6a. Healthy life expectancy by SIMD deciles, 2015-2017, males**



**Figure 6b. Healthy life expectancy by SIMD deciles, 2015-2017, females**



For males, life expectancy ranges from 69.7 ( ± 0.3) years in the 10% most deprived areas (decile one) to 82.7 ( ± 0.3) years in the 10% least deprived areas (decile ten). This is a gap of 13 years. This compares to a 22.5 year gap in HLE between 49.3 ( ± 1.5) years in decile one and 71.8 ( ± 1.4) years in decile ten. For females, the life expectancy gap was 9.6 years, ranging from 75.7 ( ± 0.3) years for those in decile one and 85.3 ( ± 0.2) years for those in decile ten. The gap in HLE was 23.0 years ranging from 49.6 ( ± 1.8) in decile one to 72.6 ( ± 1.5) years in decile ten. The difference in HLE across deprivation deciles is much greater than the difference in life expectancy. This suggests that deprivation has a larger effect on healthy life expectancy than on life expectancy, and this is particularly true for females.

## 9. Further Information

### Past data

This is the first time that National Records of Scotland (NRS) have published estimates of healthy life expectancy. Future estimates will be published as part of the ‘Life expectancy in Scottish areas’ report that is published in December.

A time series of HLE for Scotland and for Scottish Council areas has been published by the Office for National Statistics (ONS).

### Period and cohort life expectancy

The life expectancy and HLE figures quoted in this publication are period life expectancies which are calculated using the age-specific mortality rates for a given period (either a single year, or aggregated years) and make no allowance for any later actual or projected changes in future mortality.

### Methodology

[A methodology paper](#) has been published alongside this report which gives further details of the calculations used.

## 10. 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](#)). These statistics were assessed in 2013. Since the assessment, responsibility for HLE statistics has moved from ISD to NRS and the method for calculation has changed. These changes mean that all life expectancy and HLE statistics in Scotland are now comparable with each other and can be found in one place. They are also comparable with the UK wide figures that are produced by ONS. The method changes also reduces volatility for estimates of small populations and mean that sub-national breakdowns for Scotland will be available on a more frequent basis.

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.

## 11. 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)

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Alan Ferrier  
Senior Statistician  
National Records of Scotland  
Room 1/2/12  
Ladywell House  
Ladywell Road  
Edinburgh  
EH12 7TF

Phone: 0131 314 4530

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

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