

Statistical bulletin

Life expectancy for local areas of the UK: between 2001 to 2003 and 2017 to 2019

Subnational trends in the average number of years people will live beyond their current age measured by “period life expectancy”.

Contact:
Chris White
health.data@ons.gov.uk
+44 (0)1633 455865

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To be announced

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1 . Main points

- The lowest regional life expectancy for both males and females in 2017 to 2019 was observed in the North East; the North East's life expectancy at birth was also lower than in the countries of Wales and Northern Ireland but higher than in Scotland.
- Males living in the four most southerly regions of England had life expectancies at birth exceeding 80 years, whereas regions of the midlands and the north fell short of 80 years; London exceeded the North East region by almost three years.
- For females, a similar divide was evident with life expectancies significantly higher in the four most southerly regions compared with elsewhere; like males, London exceeded the North East region by almost three years.
- Since 2014 to 2016, male life expectancy at birth in London has increased by six and a half months and by five and three-quarter months for females; these gains were substantially greater than those occurring in any other region.
- During 2017 to 2019, the gap in life expectancy at birth between local areas of the UK was 11.3 years for males and 8.7 years for females.
- The largest local area increase in life expectancy between 2009 to 2011 and 2017 to 2019 for males at birth was in Westminster, while for females it was in Scotland's council area of Na h-Eileanan Siar.

Statistician's comment

"The rate of growth in life expectancy in London continues to surpass that occurring in other regions and the constituent countries of the UK. This has resulted in London now having the highest life expectancy for both males and females among regions in England.

"Four of the top five local areas with the highest male life expectancy in 2017 to 2019 were London boroughs, while three were for females. Since 2001 to 2003 traditional deprived parts of London such as Tower Hamlets, Newham and Hackney have seen strong gains in life expectancy over the time series. In fact, 17 of the top 20 local areas with the strongest growth in male life expectancy since 2001 to 2003 were London boroughs. This contrasts with Ceredigion where male life expectancy has only grown by 0.8 years since 2001 to 2003. These patterns add to the growing inequality observed across different areas of the UK over the past decade.

"The impact of COVID-19 on local area period life expectancy will be shown in the next release covering the period 2018 to 2020, which is planned for publication in Autumn 2021. These local area estimates for the latest period were produced using data up to the end of December 2019, and therefore precede the COVID-19 pandemic."

Ben Humberstone, Deputy Director, Health and Life Events Division, Office for National Statistics

2 . Subnational life expectancy

Today, we also released the [national life tables](#), which provide national life expectancy estimates. These may differ very slightly from estimates in this bulletin. See [Section 7: Measuring the data](#) for more details. This release is also calculated based on figures prior to the coronavirus (COVID-19) pandemic.

Summary of latest life expectancy estimates

This bulletin updates local area estimates to cover the period 2017 to 2019. For the most recent changes in life expectancy mentioned throughout this release, we have compared the years 2014 to 2016 and 2017 to 2019, as these are the latest non-overlapping periods used in estimating life expectancies.

Warning: Any change mentioned throughout this release is deemed to be [statistically significant](#).

Table 1 shows the change in months and weeks occurring between 2014 to 2016 and 2017 to 2019 for the UK's constituent countries and England's regions. Female life expectancy was improving more quickly than male life expectancy in some of England's regions, including the North East and North West.

Table 1: Summary statistics of latest life expectancy estimates, UK, 2017 to 2019

Country or region	Males				Females			
	Life expectancy in 2017 to 2019	Life expectancy in 2014 to 2016	Change		Life expectancy in 2017 to 2019	Life expectancy in 2014 to 2016	Change	
			Months	Weeks			Months	Weeks
England	79.8	* 79.5	2.8	12.0	83.4	* 83.1	2.8	12.0
North East	78.0	77.8	2.5	11.0	81.8	* 81.5	3.5	15.1
North West	78.4	* 78.2	2.8	12.0	82.1	* 81.8	3.8	16.7
Yorkshire and The Humber	78.8	78.7	1.0	4.2	82.5	82.4	1.0	4.2
East Midlands	79.5	79.4	1.8	7.8	82.9	82.9	0.2	1.0
West Midlands	79.0	* 78.8	3.0	13.0	82.9	82.7	1.8	7.8
East of England	80.5	80.4	1.0	4.2	83.9	83.7	1.9	8.3
London	80.9	* 80.4	6.4	27.7	84.7	* 84.2	5.8	25.0
South East	80.8	* 80.6	2.5	11.0	84.3	* 84.0	3.0	13.0
South West	80.4	* 80.2	2.6	11.5	84.1	* 83.8	3.5	15.1
Northern Ireland	78.8	78.5	2.6	11.5	82.6	82.3	2.9	12.5
Scotland	77.2	77.1	0.8	3.7	81.1	81.1	0.0	0.0
Wales	78.5	78.4	1.0	4.2	82.3	82.3	-0.2	-1.0

Source: Office for National Statistics – Life expectancy for local areas of the UK

Notes

- * denotes areas where life expectancy has increased significantly from 2014 to 2016 based on non-overlapping confidence intervals.
- Weeks have been determined by the change in life expectancy multiplied by 365.25 and divided by seven. These are based on life expectancy figures to two decimal places.

3 . Regional outlook of life expectancy in England

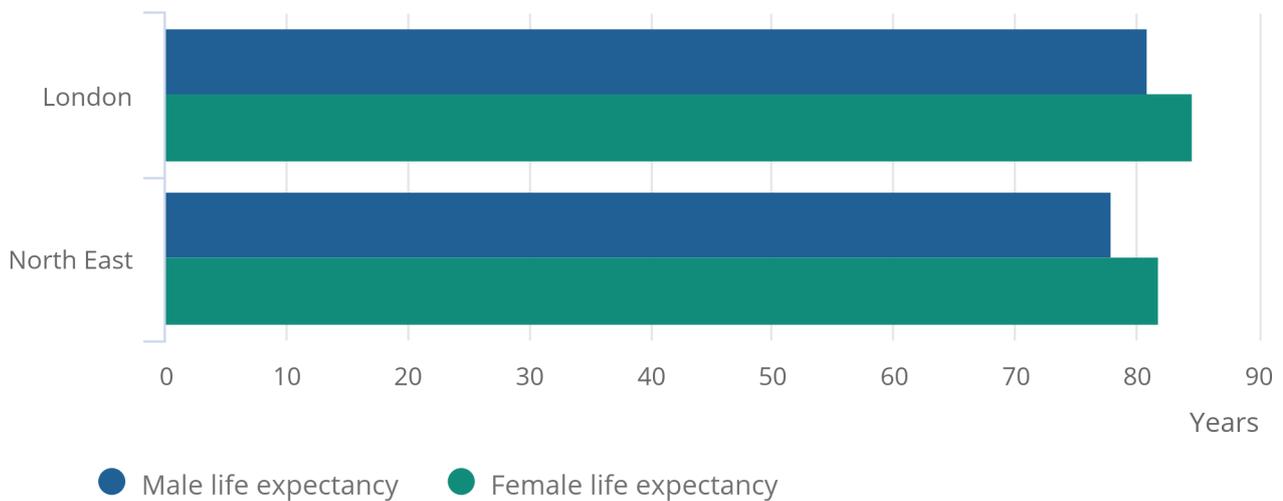
The North East observed the lowest life expectancy for both males and females across England's regions.

Figure 1: The North East had the lowest and London had the highest male and female life expectancy across England's regions in 2017 to 2019

Life expectancy in selected regions of England, males and females, 2017 to 2019

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Life expectancy in selected regions of England, males and females, 2017 to 2019



Source: Office for National Statistics – Life expectancy for local areas of the UK

The four most southerly regions observed higher life expectancy at birth estimates than the England average, with London continuing to show the largest gain. All other regions observed lower life expectancy at birth estimates than the England average.

Figure 2: London, South East, East of England and South West continued to have the highest life expectancies when compared with the England average in 2017 to 2019

Life expectancy differences from the England average across England's regions, males and females, 2017 to 2019

Figure 2: London, South East, East of England and South West continued to have the highest life expectancies when compared with the England average in 2017 to 2019

Life expectancy differences from the England average across England's regions, males and females, 2017 to 2019



Source: Office for National Statistics – Life expectancy for local areas of the UK

Notes:

1. The England averages for each sex are represented by 0.

In 2017 to 2019, London continued to have the highest life expectancy estimates for both males (80.9 years) and females (84.7 years), having risen from fifth and fourth highest in 2001 to 2003 respectively. London has also observed the largest gain in life expectancy for both males (4.9 years) and females (3.9 years) since 2001 to 2003. This compares with only 3.3 years and 2.4 years respectively for each sex in the North East region.

Since 2001 to 2003, the gap in life expectancy between males and females has narrowed in all regions; but in the most recent decade (between 2009 to 2011 and 2017 to 2019), the narrowing of the gap has slowed

Figure 3 shows that the West Midlands had the largest disparity in life expectancy figures between males and females in 2017 to 2019 with a difference of 46.1 months, exceeding the England average of 43.3 months.

Figure 3: The largest disparity between male and female life expectancy at birth in 2017 to 2019 was in the West Midlands, although this has narrowed by over a month since 2014 to 2016

Life expectancy in English regions, males and females, between 2001 to 2003 and 2017 to 2019

Notes:

1. Axis does not start at 0.

[Data download](#)

From previous analysis, we know that life expectancy between 2001 to 2003 and 2009 to 2011 was improving at a much faster rate than since 2009 to 2011. Figure 3 shows a similar pattern across regions in the gap in male and female life expectancy with the gap narrowing substantially between 2001 to 2003 and 2009 to 2011. However, since 2009 to 2011, its extent has reduced; the most recent non-overlapping periods (2014 to 2016 and 2017 to 2019) have actually showed a widening in regions, excluding the East Midlands, West Midlands and London where gender disparities continued to narrow.

4 . Life expectancy at a local level in the UK

The gap in life expectancy at birth between local areas of the UK was 11.3 years for males and 8.7 years for females in 2017 to 2019

There were large spatial gaps in life expectancy at birth across the UK (Table 2). In England in 2017 to 2019, there was a 10.5-year gap in male life expectancy at birth between the local area with the highest, Westminster (84.9 years), and the area with the lowest, Blackpool (74.4 years). In Scotland, this gap was smaller at 6.9 years between East Dunbartonshire (80.5 years) and Glasgow City (73.6 years). In Northern Ireland, the gap was 4.1 years between Lisburn and Castlereagh (80.1 years) and Belfast (76.1 years). In Wales, the gap was 4.9 years between Monmouthshire (81.5 years) and Blaenau Gwent (76.5 years). Overall, for the UK, the difference was 11.3 years between Westminster, with the highest life expectancy at birth, and Glasgow City, with the lowest.

For females, the local area gap in life expectancy at birth in England was 7.7 years between Westminster (87.2 years) and Blackpool (79.5 years), meaning Blackpool was the lowest in England for males and females. In Scotland, the gap stood at 5.5 years between East Renfrewshire (84.0 years) and Glasgow City (78.5 years). In Northern Ireland, the gap was 2.5 years between Lisburn and Castlereagh (83.5 years) and Belfast (81.0 years). In Wales, the gap was 4.0 years between Monmouthshire (84.4 years) and Blaenau Gwent (80.4 years). Overall, for the UK, the difference was 8.7 years between Westminster and Glasgow City. Table 2 shows the top and bottom five local areas with the highest and lowest life expectancies at birth for males and females.

Table 2: The lowest life expectancies among local areas are found in Scotland, while the highest are found in London

Females			Males		
Local area	Country	Life expectancy	Local area	Country	Life expectancy
Highest			Highest		
Westminster	England	87.22	Westminster	England	84.88
Camden	England	87.10	Kensington and Chelsea	England	83.86
Kensington and Chelsea	England	86.96	Camden	England	83.27
Epsom and Ewell	England	86.88	Harrow	England	83.20
Mole Valley	England	86.44	Hart	England	83.13
Lowest			Lowest		
Blackpool	England	79.54	West Dunbartonshire	Scotland	75.06
Dundee City	Scotland	79.48	Inverclyde	Scotland	74.87
West Dunbartonshire	Scotland	79.21	Blackpool	England	74.40
Inverclyde	Scotland	79.01	Dundee City	Scotland	73.92
Glasgow City	Scotland	78.50	Glasgow City	Scotland	73.60

Source: Office for National Statistics – Life expectancy for local areas of the UK

Notes

1. Local areas for England are lower tier local authorities (LTLAs); local areas in Wales are unitary authorities; local areas in Scotland are council areas; and local areas in Northern Ireland are local government districts.

The area with the highest female life expectancy in 2017 to 2019 was Westminster at 87.2 years. This emphasises the larger improvements seen in London compared with other England regions. Three out of the five highest female life expectancies at a local level were London boroughs, while the other two were in the South East (Table 2).

We also compared the increase in life expectancy between 2014 to 2016 and 2017 to 2019, which showed life expectancy to have increased in 25 areas across the UK for males and in 29 areas for females. There were six local areas that experienced a significant fall in male or female life expectancy at birth between the same periods, which we present in weeks (Table 3). We also show the local areas that had the largest significant gains in life expectancy between 2014 to 2016 and 2017 to 2019 for males and females (Table 4).

Table 3: Local areas in the UK that had a significant fall in life expectancy at birth between 2014 to 2016 and 2017 to 2019

Local area	Region or country	Life expectancy in 2014 to 2016	Life expectancy in 2017 to 2019	Change in weeks
Males				
North Kesteven	East Midlands	81.7	80.5	-64.2
Tonbridge and Malling	South East	81.5	80.4	-57.4
Females				
King's Lynn and West Norfolk	East of England	83.6	82.6	-52.7
Stoke-on-Trent	West Midlands	81.1	80.1	-51.7
North Kesteven	East Midlands	84.4	83.4	-52.2
Highland	Scotland	82.9	81.9	-50.1

Source: Office for National Statistics – Life expectancy for local areas of the UK

Notes

1. Local areas for England are lower tier local authorities (LTLAs); local areas in Wales are unitary authorities; local areas in Scotland are council areas; and local areas in Northern Ireland are local government districts.
2. Statistical significance has been assessed using z-scores. More information about this z-test can be viewed in Appendix 1 of the Sullivan guide.
3. Weeks have been determined by the change in life expectancy multiplied by 365.25 and divided by seven. These are based on life expectancy figures to two decimal places.

In 2017 to 2019, male life expectancy at birth increased the most in the Shetland Islands, by 133.6 weeks (2.6 years), as highlighted in Table 4.

Table 4: Top five local areas with the largest significant increases in life expectancies at birth for males and females in the UK between 2014 to 2016 and 2017 to 2019

Local area	Region or country	Life expectancy in 2014 to 2016	Life expectancy in 2017 to 2019	Change in weeks
Males				
Shetland Islands	Scotland	77.60	80.16	133.60
Westminster	England (London)	82.38	84.88	130.45
Tower Hamlets	England (London)	78.65	80.35	88.70
Cotswold	England (South West)	81.29	82.80	78.79
Mole Valley	England (South East)	81.34	82.76	74.09
Females				
Uttlesford	England (East of England)	84.20	85.82	84.53
Ribble Valley	England (North West)	82.88	84.46	82.44
Epsom and Ewell	England (South East)	85.30	86.88	82.44
Hackney	England (London)	82.80	84.20	73.05
East Devon	England (South West)	84.09	85.41	68.88

Source: Office for National Statistics – Life expectancy for local areas of the UK

Notes

1. Local areas for England are lower tier local authorities (LTLAs); local areas in Wales are unitary authorities; local areas in Scotland are council areas; and local areas in Northern Ireland are local government districts.
2. Statistical significance has been assessed using z-scores. More information about this z-test can be viewed in Appendix 1 of the Sullivan guide.
3. Weeks have been determined by the change in life expectancy multiplied by 365.25 and divided by seven. These are based on life expectancy figures to two decimal places.

For females, life expectancy increased the most in Uttlesford by 84.5 weeks (1.6 years) and dropped the most in King's Lynn and West Norfolk by negative 52.7 weeks (negative 1.0 year).

Changes at this lower geographic scale should be approached with caution, since estimates based on smaller populations can lead to larger random fluctuations in the data between time periods.

The largest increase in life expectancy between 2009 to 2011 and 2017 to 2019 for males at birth was in Westminster, while for females it was in Na h-Eileanan Siar

Although improvements in life expectancy were much smaller in the second decade between 2009 to 2011 and 2017 to 2019, Westminster showed the largest increase for males at birth with an increase of 3.9 years. In 2017 to 2019, life expectancy in Westminster was 84.9 years, having risen from 81.0 years in 2009 to 2011. Further, 8 out of the top 10 largest increases in life expectancy for males at birth were in the London region.

For females at birth, the largest increase was in Na h-Eileanan Siar (Outer Hebrides) with a rise of 2.7 years from 80.7 years in 2009 to 2011 to 83.4 years in 2017 to 2019. While the increase was less than that of males, 6 out of the top 10 largest increases for female life expectancy at birth were in London boroughs.

Dundee City observed the largest gap in life expectancy at birth between males and females in 2017 to 2019

Figure 4: The gap between males and females in life expectancy was largest in Dundee City at 5.6 years and smallest in Richmondshire at 1.8 years

Notes:

1. Local areas include lower tier local authorities (LTLAs) in England, unitary authorities in Wales, council areas in Scotland and local government districts in Northern Ireland.
2. Isles of Scilly and City of London have been excluded from the map because of insufficient population counts.

[Data download](#)

Figure 4 shows the differences in life expectancy by sex between local authorities in 2017 to 2019. The local authority with the smallest gap was Richmondshire (1.8 years), while Dundee City had the widest gap of 5.6 years. Four out of the five local areas with the smallest gap between male and female life expectancy were in the South East of England. Meanwhile, two out of the five most disparate local areas with regard to sex differences were in Scotland.

Life expectancy at age 65 years and other ages for constituent countries, regions of England and local areas of the UK are also available in the [accompanying dataset](#).

The following dynamic interactive tool maps male and female life expectancy at birth and at age 65 years for local areas of UK.

Figure 5: Life expectancy at birth and age 65 by sex across local areas in the UK, between 2001 to 2003 and 2017 to 2019

Notes:

1. Local areas include lower tier local authorities (LTLAs) in England, unitary authorities in Wales, council areas in Scotland and local government districts in Northern Ireland.
2. Isles of Scilly and City of London have been excluded from the map because of insufficient population counts.
3. If you wish to more objectively compare the improvement in life expectancy across the time series between areas, you would need to take into account the confidence intervals provided in the pivot table.

[Data download](#)

5 . Life expectancy for local areas of the UK data

[Life expectancy estimates, all ages, UK](#)

Dataset | Released 24 September 2020

Pivot table for life expectancy by sex and area type, divided by three-year intervals starting from 2001 to 2003.

6 . Glossary

Period life expectancy

The life expectancy estimates reported in this bulletin are period-based. Period life expectancy at a given age for an area is the average number of years a person would live if he or she experienced the particular area's age-specific mortality rates for that time period throughout his or her life.

95% confidence intervals

A confidence interval is a measure of the uncertainty around a specific estimate. It is expected that the interval will contain the true value on 95 occasions if repeated 100 times. As intervals around estimates widen, the level of uncertainty about where the true value lies increases. The size of the interval around the estimate is strongly related to both the number of deaths as well as the size of the underlying population. At a national level, the overall level of error will be small compared with the error associated with a local area or a specific age and sex breakdown. Therefore, the widths of the confidence intervals reported in this release will have sizable differences.

Statistical significance

The term "significant" refers to statistically significant changes or differences. Significance has been determined using the 95% confidence intervals, where instances of non-overlapping confidence intervals between estimates indicate the difference is unlikely to have arisen from random fluctuation. In some circumstances, significance has also been tested using z scores.

7 . Measuring the data

This statistical bulletin presents estimates of life expectancy for the UK's constituent countries, regions, local government administrations including combined authorities and Welsh health boards.

This release provides estimates on the number of years people are expected to live among England's regions and local areas in the constituent countries of England, Wales, Scotland and Northern Ireland. Life expectancy estimates are calculated using all causes of death. Please note, this release is calculated based on figures prior to the coronavirus (COVID-19) pandemic. All constituent country estimates used in this bulletin are calculated using an abridged life table; this is to be consistent with local area estimates and to allow more valid local area benchmarking with national estimates. These national estimates will differ slightly from the [national life tables release](#) also published today, which uses a "complete" life table approach. For further details, see the article [Life expectancy releases and their different uses](#).

Data sources

Life expectancy uses death registrations data held by the Office for National Statistics (ONS), which are compiled from information supplied when deaths are certified and registered as part of civil registration. Mid-year population estimates by age, sex and geographic area are used in combination with death registrations to calculate age-specific mortality rates used in life tables.

There were boundary changes in this release, which had differential impacts for life expectancy.

For life expectancy, the county of Buckinghamshire has been abolished and is no longer a two-tier authority. A new unitary authority of Buckinghamshire has been created, which contains all previous county districts.

The estimates for the new boundary have been made available for 2017 to 2019. For previous periods' estimates, please refer to Buckinghamshire county and the county districts individually in [previous versions](#) of this release.

The boundary changes are shown in Table 5.

Table 5: Boundary changes in England affecting this release

Old code	Old name	New code	New name
E0700004	Aylesbury Vale	E06000060	Buckinghamshire
E0700005	Chiltern		
E0700006	South Bucks		
E0700007	Wycombe		

Source: Office for National Statistics – Life expectancy for local areas of the UK

Method for estimating life expectancy

The life expectancy estimates reported in this bulletin are period-based life expectancies. Unlike the other life expectancy publications, the subnational life expectancy estimates use an abridged life table method. A life table is a demographic tool used to analyse death rates (also called mortality rates) and calculate life expectancies at various ages.

Abridged life tables use the age-specific mortality rates for an area aggregated over three years, for example 2016 to 2018, which is based on the age-group death count divided by the age-group population count. A [template](#) is available, which shows how the abridged life table is deployed to derive life expectancy estimates.

Abridged life tables are used in preference to complete life tables for smaller populations, such as local authorities, because death counts can be too sparse for examining mortality for single years of age, and mid-year population estimates are not available or sufficiently reliable to produce these by single year of age.

Confidence intervals

Life expectancy estimates are presented with 95% confidence intervals. 95% confidence intervals allow the user to judge their precision and identify significant differences between data points (area, sex, age and time period). For life expectancy, the 95% confidence interval for each area was calculated using the revised Chiang method (Chiang II), allowing the calculation of the variance of the mortality rates for those age groups with no deaths registered in the analysis period. To enable the calculation of a confidence interval for the final age band, the method developed by [Silcocks et al. \(2001\)](#) has been used.

Subnational life expectancy estimates for Scotland's council areas have been calculated using the same method as for England and Wales. Responsibility for the production of other statistics for Scotland and Northern Ireland are with the [National Records of Scotland \(NRS\)](#) and [Northern Ireland Statistics and Research Agency \(NISRA\)](#) respectively.

Early access for quality assurance purposes

We provide early access for quality assurance purposes to a small number of external bodies including Public Health England, Department of Social Care, Welsh Government, National Records of Scotland, Department of Health Northern Ireland and Public Health Wales. The recipients are not permitted to share the findings or the report wider within their organisations or to external organisations. The report is provided to them to quality check findings and offer their insights into how we have interpreted the data and communicated it. The ONS independently produces these statistics and ultimately determines the focus, content, commentary, illustration and interpretation of these measures presented in bulletins.

More quality and methodology information on strengths, limitations, appropriate uses, and how the data were created is available in the [Health state life expectancies, UK QMI](#).

8 . Strengths and limitations

The strengths of the release are:

- it provides coverage of UK local areas with estimates that are comparable with national and regional estimates
- estimates based on abridged life tables have been shown to closely align with those based on complete life tables
- the mortality data used give complete population coverage and ensure the estimates are of high precision and representative of the underlying population at risk

The limitation of the release is:

- it is necessary to pool data over three calendar years to enable sufficiently reliable and accurate measurement of life expectancy for local areas because of a lower number of deaths in some of the smaller local authorities; the scope to measure significant change in an optimally timely manner is reduced because of reliance on non-overlapping time periods

9 . Related links

[Proposed method changes to UK health state life expectancies](#)

Methodology article | Released 7 December 2017

Assesses three methods for future estimation of health state life expectancies and consulted on these methods.

[Health state life expectancies, UK: 2016 to 2018](#)

Statistical bulletin | Released 12 December 2019

The number of years people are expected to spend in different health states among local authority areas in the UK.

[Health state life expectancies by national deprivation deciles, England and Wales: 2016 to 2018](#)

Statistical bulletin | Released 27 March 2020

Life expectancy and years expected to live in "Good" health using national indices of deprivation to measure socioeconomic inequalities in England and Wales.

[National life tables – life expectancy in the UK: 2017 to 2019](#)

Statistical bulletin | Released 24 September 2020

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

[Life expectancy in Northern Ireland: 2016 to 2018](#)

Statistical bulletin | Released 4 December 2019

Latest official estimates of life expectancy for Northern Ireland as well as healthy and disability-free life expectancy. This is a new, annual publication that is replacing the "Health Inequalities – Life Expectancy Decomposition" series.

[Life expectancy for administrative areas within Scotland: 2015 to 2017](#)

Statistical release | Released 12 December 2018

Annual publication of "life expectancy at birth" estimates for administrative areas, including council areas, NHS board areas and Scottish Parliamentary constituencies.