

Statistical bulletin

# Healthy life expectancy by national area deprivation, England and Wales: between 2013 to 2015 and 2020 to 2022

Life expectancy and years expected to live in "good" health using national indices of deprivation to measure socioeconomic inequalities in England and Wales. Includes estimates of life expectancy between 2011 to 2013 and 2020 to 2022.

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Next release:  
To be announced

## Notice

### 4 July 2025

Because of decreasing Annual Population Survey sample sizes, this release is designated as official statistics in development and uses a new method to estimate 'good' health prevalence. More information is available in [Section 6: Data sources and quality](#).

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# 1 . Main points

- Compared with the pre-coronavirus (COVID-19) pandemic period (2017 to 2019), life expectancy at birth in England in 2020 to 2022 decreased in the most deprived areas by 1.4 years for males, to 72.6 years, and by 1.1 years for females, to 77.7 years.
- In England, in 2020 to 2022, the inequality in life expectancy at birth was 10.7 years for males and 8.5 years for females (as measured by the slope index of inequality – see [Section 5: Glossary](#)), which continues a general trend of increasing inequality; for healthy life expectancy, these figures were 19.1 and 20.2 years, respectively.
- In 2020 to 2022, at birth, males in the most deprived areas of England were expected to spend 70.4% of life in "good" health, compared with 84.5% in the least deprived areas; during the same period, for females, these figures were the lowest since our time series began (2013 to 2015), at 65.1% and 81.5%, respectively.
- Compared with the pre-coronavirus (COVID-19) pandemic period, life expectancy at birth in Wales in 2020 to 2022 decreased in the most deprived areas, by 0.7 years for males to 73.5 years, and by 1.0 years for females to 77.9 years.
- In Wales, in 2020 to 2022, the inequality in life expectancy at birth (as measured by the slope index of inequality) was 9.5 years for males and 8.0 years for females; for healthy life expectancy, these figures were 19.7 and 24.5 years, respectively.
- In 2020 to 2022 at birth, males in the most deprived areas of Wales were expected to spend 70.2% of life in "good" health compared with 83.6% in the least deprived areas; for females, these figures were the lowest since our time series began, at 61.5% and 80.7%, respectively.

Analyses for England and Wales are based on different indices of multiple deprivation and the population is split into deciles for England and quintiles for Wales; results are not comparable between countries (see [Section 5: Glossary](#)).

## 2 . England

## Life expectancy at birth

In 2020 to 2022, life expectancy (LE) at birth in the most deprived areas of England was 72.6 years for males and 77.7 years for females, compared with 83.0 years and 86.1 years, respectively, in the least deprived areas (Table 1).

Table 1: Life expectancy, healthy life expectancy and proportion of life expectancy lived in "good" health at birth by sex and IMD decile, England, 2020 to 2022

IMD decile	Males Life expectancy	Males Healthy life expectancy	Males Proportion (%) of life expectancy in "good" health	Females Life expectancy	Females Healthy life expectancy	Females Proportion (%) of life expectancy in "good" health
<b>1 (most deprived)</b>	72.58	51.13	70.45	77.66	50.54	65.08
<b>2</b>	74.92	55.64	74.26	79.58	55.01	69.13
<b>3</b>	76.56	58.79	76.78	81.01	59.28	73.18
<b>4</b>	77.94	60.09	77.09	82.09	61.26	74.62
<b>5</b>	79.09	62.61	79.15	83.00	63.05	75.97
<b>6</b>	80.06	64.20	80.19	83.65	64.38	76.97
<b>7</b>	80.64	65.17	80.81	84.17	66.37	78.86
<b>8</b>	81.36	66.77	82.08	84.63	68.01	80.36
<b>9</b>	81.93	68.26	83.32	85.18	68.70	80.65
<b>10 (least deprived)</b>	82.98	70.09	84.47	86.08	70.16	81.51

Source: Healthy life expectancy by national area deprivation from the Office for National Statistics

### Notes

1. Figures are based on Index of Multiple Deprivation (IMD) 2019. Decile 1 represents the most deprived 10% of small areas in England; decile 10 represents the least deprived 10%.

For both males and females, LE at birth in 2020 to 2022 decreased in every English deprivation decile compared with the last non-overlapping period (2017 to 2019). Decreases were most pronounced in the most deprived areas and particularly among males (Figure 1).

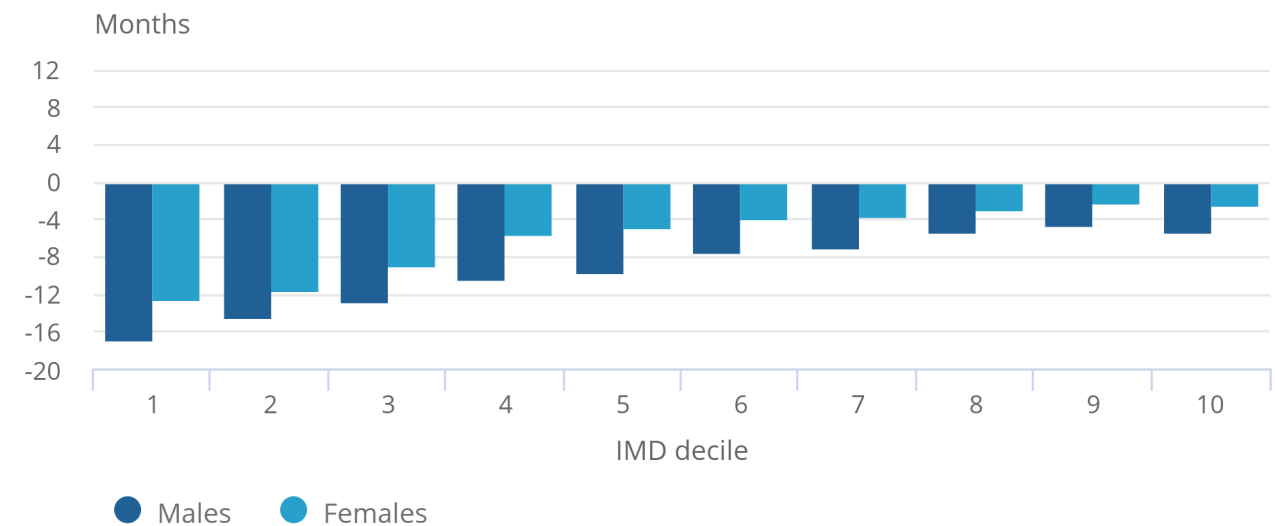
2017 to 2019 was the last pre-coronavirus (COVID-19) pandemic period. The pandemic led to increased mortality, particularly in 2020 and 2021. The effect of this is seen in our life expectancy estimates for 2020 to 2022.

**Figure 1: Males in the most deprived deciles saw the largest decreases in life expectancy in England between 2017 to 2019 and 2020 to 2022**

Change in life expectancy at birth by sex and Index of Multiple Deprivation (IMD) decile, England, between 2017 to 2019 and 2020 to 2022

Figure 1: Males in the most deprived deciles saw the largest decreases in life expectancy in England between 2017 to 2019 and 2020 to 2022

Change in life expectancy at birth by sex and Index of Multiple Deprivation (IMD) decile, England, between 2017 to 2019 and 2020 to 2022



Source: Healthy life expectancy by national area deprivation from the Office for National Statistics

Notes:

1. All differences stated in this release, such as change (months), are calculated using unrounded data; they may not match the differences between figures shown in this bulletin, which have been rounded.
2. Figures are based on IMD 2019. Decile 1 represents the most deprived 10% of small areas in England; decile 10 represents the least deprived 10%.

Inequality in LE and healthy life expectancy (HLE) by deprivation level is estimated using a summary measure called the slope index of inequality (SII). This represents the range in years of life expectancy across the social gradient from most to least deprived; the higher the value of the SII, the greater the inequality within an area.

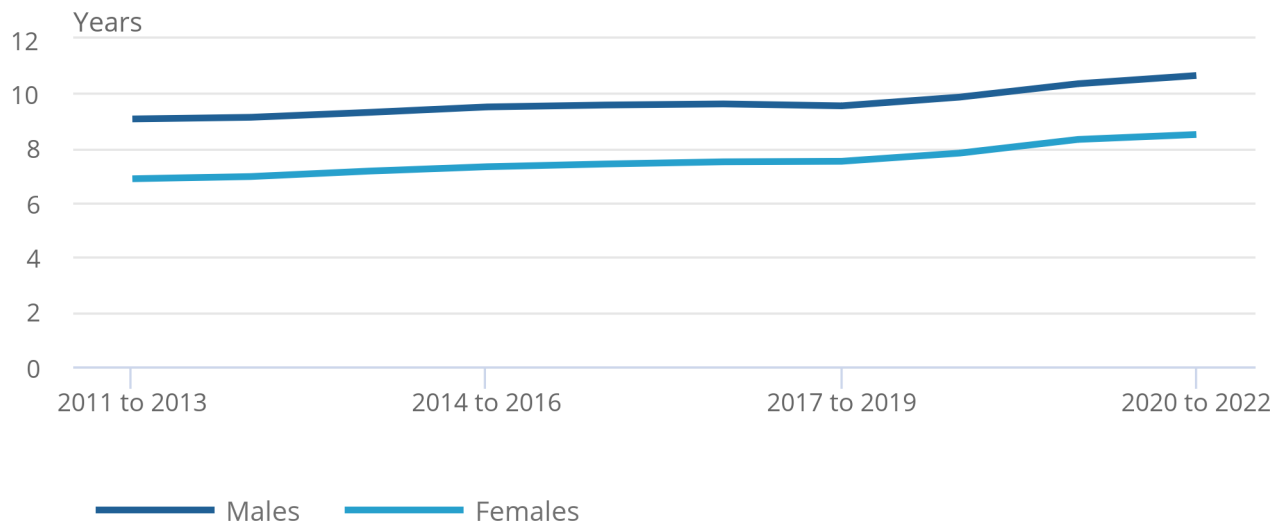
Inequality of LE at birth in England increased in 2020 to 2022 compared with 2017 to 2019, by 1.1 years for males and 1.0 years (11.7 months) for females. The SII was 10.7 years for males and 8.5 years for females (Figure 2). This continued a broad trend of increasing inequality across the time series.

**Figure 2: Inequality in life expectancy at birth in England increased for both males and females between 2017 to 2019 and 2020 to 2022**

Slope index of inequality in life expectancy at birth by sex, England, between 2011 to 2013 and 2020 to 2022

Figure 2: Inequality in life expectancy at birth in England increased for both males and females between 2017 to 2019 and 2020 to 2022

Slope index of inequality in life expectancy at birth by sex, England, between 2011 to 2013 and 2020 to 2022



Source: Healthy life expectancy by national area deprivation from the Office for National Statistics

Notes:

1. Slope index of inequality (SII) is calculated as the difference between the extremes of a population-weighted regression line of best fit. For more information, see [Section 5: Glossary](#).
2. Figures up to period 2015 to 2017 are based on Index of Multiple Deprivation (IMD) 2015; all others are based on IMD 2019.

## Healthy life expectancy at birth

In 2020 to 2022, healthy life expectancy (HLE) at birth in the most deprived areas of England was 51.1 years for males and 50.5 years for females, compared with 70.1 years and 70.2 years in the least deprived areas, respectively (Table 1).

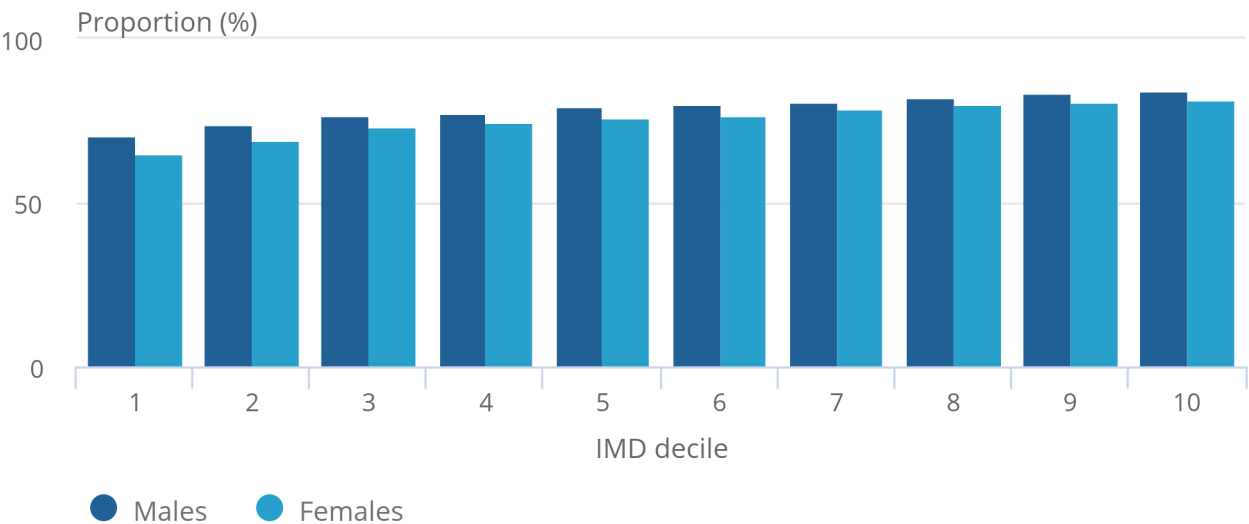
At birth, males in the most deprived areas of England were expected to spend 70.4% of life in "good" health, compared with 84.5% in the least deprived areas; for females, these proportions were 65.1% and 81.5%, respectively (Figure 3). See [Section 5: Glossary](#) for information on how we measure "good" health.

**Figure 3: Females in the most deprived areas of England were expected to spend the smallest proportion of life in “good” health in 2020 to 2022**

Proportion (%) of life expectancy lived in “good” health at birth by sex and Index of Multiple Deprivation (IMD) decile, England, 2020 to 2022

Figure 3: Females in the most deprived areas of England were expected to spend the smallest proportion of life in “good” health in 2020 to 2022

Proportion (%) of life expectancy lived in “good” health at birth by sex and Index of Multiple Deprivation (IMD) decile, England, 2020 to 2022



Source: Healthy life expectancy by national area deprivation from the Office for National Statistics

Notes:

1. Figures are based on IMD 2019. Decile 1 represents the most deprived 10% of small areas in England; decile 10 represents the least deprived 10%.

Compared with 2017 to 2019, HLE at birth in 2020 to 2022 decreased in most English deprivation deciles for both males and females.

Inequality of HLE at birth in England increased in 2020 to 2022 for both males and females compared with 2017 to 2019. The SII was 19.1 years for males, an increase of 0.6 years (7.0 months), and 20.2 years for females, an increase of 1.0 years.

## 3 . Wales





## Life expectancy at birth

In 2020 to 2022, life expectancy (LE) at birth in the most deprived areas of Wales was 73.5 years for males and 77.9 years for females, compared with 81.3 years and 84.4 years, respectively, in the least deprived areas (Table 2).

Table 2: Life expectancy, healthy life expectancy and proportion of life expectancy lived in "good" health at birth, by sex and WIMD quintile, Wales, 2020 to 2022

WIMD quintile	Males Life expectancy	Males Healthy life expectancy	Males Proportion (%) of life expectancy in "good" health	Females Life expectancy	Females Healthy life expectancy	Females Proportion (%) of life expectancy in "good" health
<b>1 (most deprived)</b>	73.52	51.59	70.18	77.89	47.94	61.55
<b>2</b>	76.31	58.02	76.03	80.39	57.07	70.99
<b>3</b>	78.42	61.84	78.86	82.22	62.18	75.62
<b>4</b>	79.79	65.06	81.53	83.43	66.07	79.19
<b>5 (least deprived)</b>	81.33	67.98	83.59	84.40	68.10	80.69

Source: Healthy life expectancy by national area deprivation from the Office for National Statistics

### Notes

1. Figures are based on Welsh Index of Multiple Deprivation (WIMD) 2019. Quintile 1 represents the most deprived 20% of small areas in Wales; quintile 5 represents the least deprived 20%.

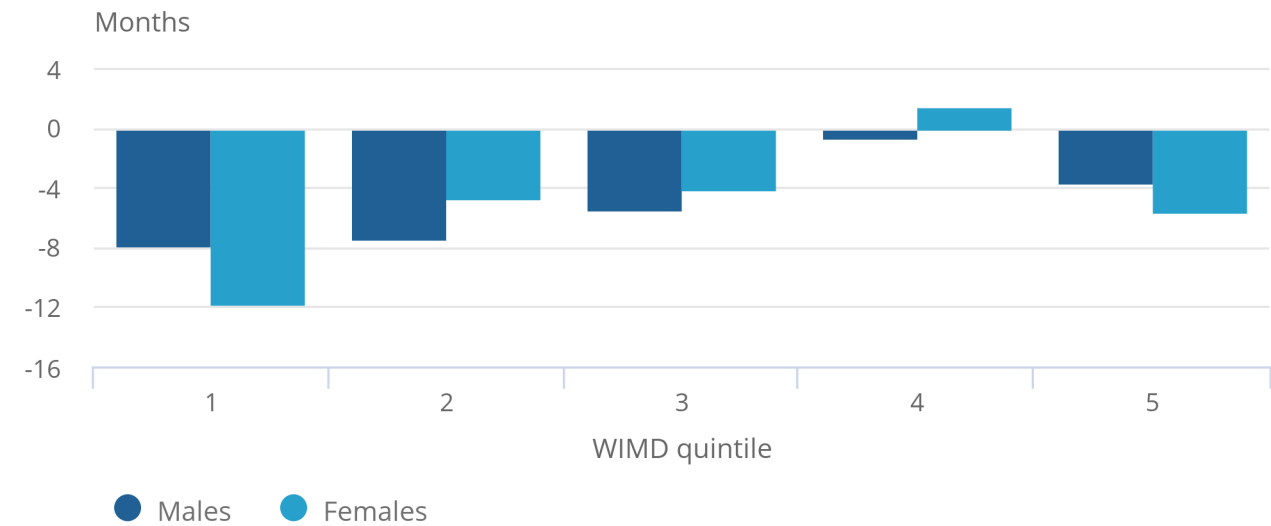
Compared with 2017 to 2019, LE at birth in 2020 to 2022 decreased in every Welsh deprivation quintile for males, and in four quintiles for females (Figure 4). These decreases were most pronounced in the most deprived quintile, where LE decreased by 0.7 years for males (7.9 months) and 1.0 years (11.8 months) for females. The last pre-coronavirus (COVID-19) pandemic period was 2017 to 2019. The pandemic led to increased mortality, particularly in 2020 and 2021; the impact of this is seen in our life expectancy estimates for 2020 to 2022.

**Figure 4: Females in the most deprived areas saw the largest decreases in life expectancy in Wales between 2017 to 2019 and 2020 to 2022**

Change in life expectancy at birth by sex and Welsh Index of Multiple Deprivation (WIMD) quintile, Wales, between 2017 to 2019 and 2020 to 2022

Figure 4: Females in the most deprived areas saw the largest decreases in life expectancy in Wales between 2017 to 2019 and 2020 to 2022

Change in life expectancy at birth by sex and Welsh Index of Multiple Deprivation (WIMD) quintile, Wales, between 2017 to 2019 and 2020 to 2022



Source: Healthy life expectancy by national area deprivation from the Office for National Statistics

Notes:

1. All differences stated in this release, such as change (months), are calculated using unrounded data; they may not match the differences between figures shown in this bulletin, which have been rounded.
2. Figures are based on and WIMD 2019. Quintile 1 represents the most deprived 20% of small areas in Wales; quintile 5 represents the least deprived 20%.

Inequality of LE at birth in Wales, as measured by the slope index of inequality (SII), increased in 2020 to 2022 for males and females compared with 2017 to 2019. The SII was 9.5 years for males, an increase of 0.6 years (7.5 months), and 8.0 years for females, an increase of 0.8 years (9.2 months) (Figure 5).

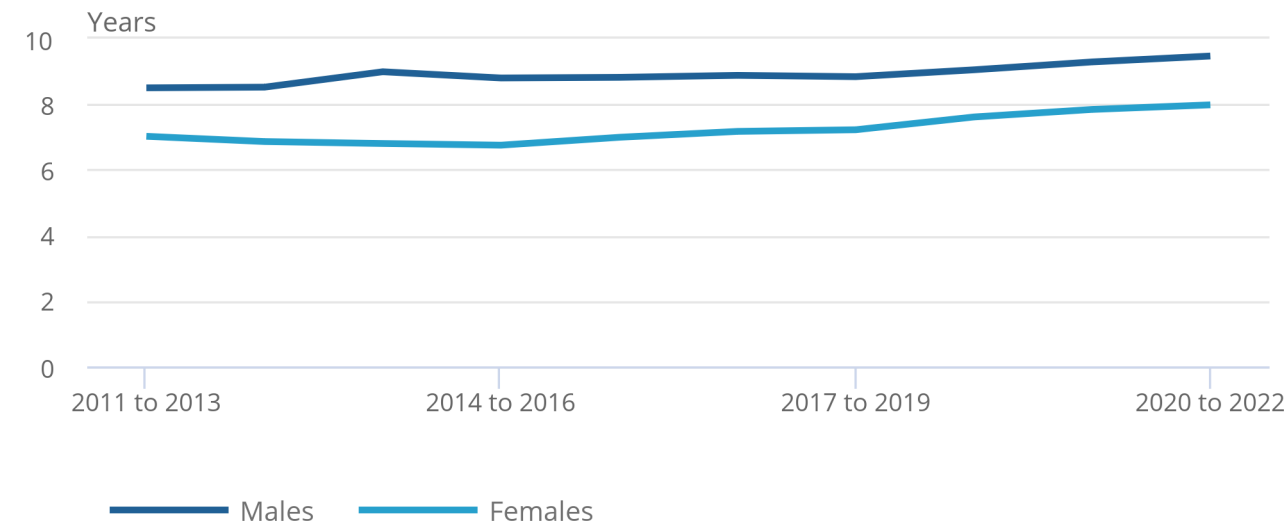
For more information on the SII, see [Section 5: Glossary](#).

**Figure 5: Inequality in life expectancy at birth in Wales was the highest in the time series for both males and females in 2020 to 2022**

Slope index of inequality in life expectancy at birth by sex, Wales, between 2011 to 2013 and 2020 to 2022

Figure 5: Inequality in life expectancy at birth in Wales was the highest in the time series for both males and females in 2020 to 2022

Slope index of inequality in life expectancy at birth by sex, Wales, between 2011 to 2013 and 2020 to 2022



Source: Healthy life expectancy by national area deprivation from the Office for National Statistics

Notes:

1. Slope index of inequality (SII) is calculated as the difference between the extremes of a population-weighted regression line of best fit. For more information, see [Section 5: Glossary](#).
2. Figures up to period 2013 to 2015 are based on Welsh Index of Multiple Deprivation (WIMD) 2014; all others are based on WIMD 2019.

## Healthy life expectancy at birth

In 2020 to 2022, healthy life expectancy (HLE) at birth in the most deprived areas of Wales was 51.6 years for males and 47.9 years for females, compared with 68.0 years and 68.1 years in the least deprived areas, respectively (Table 2).

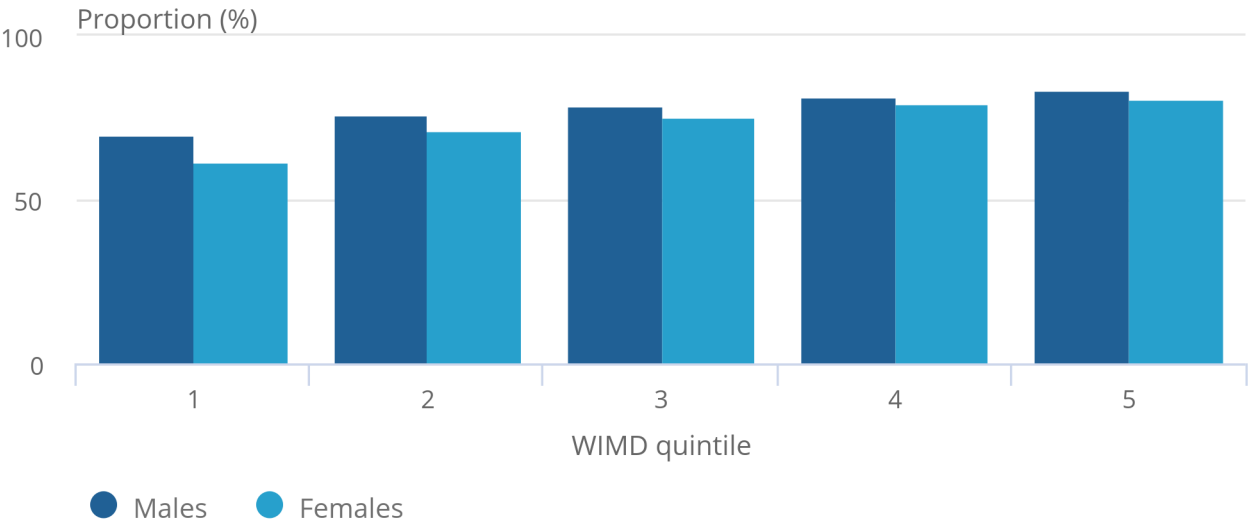
At birth, males in the most deprived areas of Wales were expected to spend 70.2% of life in "good" health, compared with 83.6% in the least deprived areas. For females, these proportions were the lowest since our time series began, at 61.5% and 80.7%, respectively (Figure 6). See [Section 5: Glossary](#) for information on how we measure "good" health.

**Figure 6: Females in the most deprived areas of Wales were expected to spend the smallest proportion of life in “good” health in 2020 to 2022**

Proportion (%) of life expectancy lived in "good" health at birth by sex and Welsh Index of Multiple Deprivation (WIMD) quintile, Wales, 2020 to 2022

Figure 6: Females in the most deprived areas of Wales were expected to spend the smallest proportion of life in “good” health in 2020 to 2022

Proportion (%) of life expectancy lived in “good” health at birth by sex and Welsh Index of Multiple Deprivation (WIMD) quintile, Wales, 2020 to 2022



Source: Healthy life expectancy by national area deprivation from the Office for National Statistics

Notes:

1. Figures are based on WIMD 2019. Quintile 1 represents the most deprived 20% of small areas in Wales; quintile 5 represents the least deprived 20%.

Compared with 2017 to 2019, the largest decreases in HLE were among females, with decreases of 3.3 years in quintile 1 and 2.6 years in quintile 2. For males, HLE in quintile 1 decreased by 1.6 years.

In 2020 to 2022, the slope index of inequality (SII) for HLE at birth was 24.5 years for females, an increase of 4.1 years compared with 2017 to 2019. Following some improvement in previous periods, the SII for males also increased by 2.1 years, to 19.7 years.

## 4 . Healthy life expectancy data

### [Healthy life expectancy by national area deprivation, England, time series](#)

Dataset | Released 4 July 2025

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

### [Healthy life expectancy by national area deprivation, Wales, time series](#)

Dataset | Released 4 July 2025

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

### [Inputs for calculating healthy life expectancy by national area deprivation, England time series](#)

Dataset | Released 4 July 2025

Adjustment factors, census "good" health prevalence and modelled "good" health prevalence used for calculating healthy life expectancy in England.

### [Inputs for calculating healthy life expectancy by national area deprivation, Wales time series](#)

Dataset | Released 4 July 2025

Adjustment factors, census "good" health prevalence and modelled "good" health prevalence used for calculating healthy life expectancy in Wales.

## 5 . Glossary

### Period life expectancy

The life expectancy (LE) estimates reported in this bulletin are period-based. Period life expectancy, at a given age, is the average number of years a person would live if they experienced the age-specific mortality rates for that time period and IMD quantile throughout their life. More information can be found in our [Period and cohort life expectancy](#) explained methodology.

### Healthy life expectancy

A summary measure of health that adds a quality dimension to estimates of life expectancy by dividing expected lifespan into time spent in different states of health. Healthy life expectancy (HLE) measures health-related wellbeing and represents the average time an individual is expected to live in "very good" or "good" health, as opposed to "fair", "bad", or "very bad" health, based on how individuals perceive their general health.

## Indices of Multiple Deprivation

The Indices of Multiple Deprivation (IMD 2015 and IMD 2019) for England and Welsh Indices of Multiple Deprivation (WIMD 2014 and WIMD 2019) for Wales are measures of area deprivation based on Lower Layer Super Output Areas (LSOA).

The larger population in England allows using deciles, while the analysis for Wales uses quintiles. The top and bottom population deciles represent the more affluent or more deprived parts of a population, respectively, compared with quintiles. Therefore, and because IMD and WIMD are different measures, estimates in this bulletin cannot be compared across England and Wales. Deprivation scores are based on the area as a whole; not everyone within a Lower Layer Super Output Area (LSOA) necessarily experiences the same level or type of deprivation. For example, some unemployed individuals live in less deprived LSOAs, while some higher-income individuals live in more deprived LSOAs. Similarly, deciles/quintiles are broad groupings; the levels of deprivation, and the underlying factors determining the LSOA-level deprivation score, will vary within it.

Deciles/quintiles are calculated by ranking the LSOAs from most deprived to least deprived and dividing them into ten (England) or five (Wales) equal groups. In England, these range from the most deprived 10% (Decile 1) of small areas nationally, to the least deprived 10% (Decile 10) of small areas nationally. In Wales, these range from the most deprived 20% (Quintile 1) of small areas nationally, to the least deprived 20% (Quintile 5) of small areas nationally.

For more information on the IMD and WIMD, see [Section 7: Related links](#).

## Slope index of inequality

Inequality in LE and HLE by deprivation level is estimated using a summary measure called the slope index of inequality (SII). This represents the range in years of life expectancy across the social gradient from most to least deprived; the higher the value of the SII, the greater the inequality within an area.

The SII is calculated as the difference between the extremes of a population-weighted regression line of best fit. As well as weighting by population size, it measures the gaps by taking account of the inequality across all adjacent quantiles of relative deprivation, rather than focusing only on the differencing of the two extremes (as the range does).

## 6 . Data sources and quality

This statistical bulletin presents estimates of life expectancy (LE) and healthy life expectancy (HLE) for England and Wales by national deprivation indices.

### 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 geographical area are used in combination with death registrations to calculate age-specific mortality rates used in life tables.

In addition, health state life expectancies use data collected as part of [the Annual Population Survey \(APS\) \(PDF, 858KB\)](#). It also uses Census 2011 and Census 2021 to obtain health state prevalence rates. The method requires imputation and modelling because survey data are not routinely collected for those aged under 16 years, and only sparsely for those aged 85 years and over. For this reason, data from Census 2011 and Census 2021 are also used to produce imputation adjustment factors and census-based health state prevalence. These figures are made available with our [accompanying datasets](#).

Deprivation indices for England and for Wales are not yet available using Census 2021 geographies. This analysis, therefore, uses indices based on Census 2011, with some adjustments. For more information, see our [Health state life expectancies, UK QMI: 2021 to 2023](#).

## Method for estimating healthy life expectancy

Healthy life expectancy estimates reported in this bulletin are period-based and estimated using a tool known as a [Sullivan life table \(PDF, 928KB\)](#). A Sullivan life table is an extension to the abridged life table, partitioning the years lived in "good" health and "not good" health in grouped ages. Abridged life tables are used in preference to complete life tables for smaller populations because death counts can be too sparse for examining mortality for single years of age.

See [our Health state life expectancies, UK QMI: 2021 to 2023](#) for further details on the:

- data sources
- method for estimating healthy life expectancy
- method for calculating the slope index of inequality

## Official statistics in development

The estimates in our current release are official statistics in development. This is because, as explained in this [open letter, published on the Office for Statistics Regulation \(OSR\) website](#), the accredited official statistics status of ONS outputs using Annual Population Survey (APS) data has been suspended. This release uses a new methodology to estimate the prevalence of "good" health to reduce the effect of the recent decrease in the APS's sample size. More information can be found in our [Estimating good health prevalence for use in healthy life expectancy outputs methodology article](#).

## 7 . Related links

### [Health state life expectancies, UK QMI: 2021 to 2023](#)

QMI | Revised 4 July 2025

Quality and methodology information for health state life expectancies, UK, detailing the strengths and limitations of the data, methods used and data uses and users.

### [The English Indices of Deprivation 2019 \(PDF 2.242 KB\)](#)

Bulletin | Updated 26 September 2019

Ministries of Housing, Communities and Local Government report outlining the English Index of Multiple Deprivation.

### [Welsh Index of Multiple Deprivation: index guidance](#)

Web page | Updated 10 April 2024

Welsh Government Report outlining the Welsh Index of Multiple Deprivation.

### [Healthy state life expectancies, in England and Wales: between 2011 to 2013 and 2021 to 2023](#)

Bulletin | Released 12 December 2024

The number of years people are expected to spend in "good" general health in England and Wales.

### [Life expectancy for local areas of Great Britain: between 2001 to 2003 and 2021 to 2023](#)

Bulletin | Released 4 December 2024

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

### [Health state life expectancies by national deprivation deciles, England: 2018 to 2020](#)

Bulletin | Released 25 April 2022

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

### [Health state life expectancies by national deprivation quintiles, Wales: 2018 to 2020](#)

Bulletin | Released 25 April 2022

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

### [Inequality in life expectancy at birth in England, from 2001 to 2003 to 2021 to 2023](#)

Webpage | 7 May 2025

Data from the Office for Health Improvement and Disparities, released via the Public Health Outcomes Framework, provides estimates of inequality in life expectancy in England, regions and local authorities up to 2021 to 2023. Life expectancy estimates for deprivation deciles within these areas are also available.

## 8 . Cite this statistical bulletin

Office for National Statistics (ONS), released 4 July 2025, ONS website, statistical bulletin, [Healthy life expectancy by national area deprivation, England and Wales: between 2013 to 2015 and 2020 to 2022](#)