

Statistical bulletin

# National life tables – life expectancy in England and Wales: 2021 to 2023

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 England and Wales

Contact:
Demography team
pop.info@ons.gov.uk
+44 1329 444661

Release date: 23 October 2024

Next release: To be announced

## **Table of contents**

- 1. Main points
- 2. Life expectancy at birth
- 3. Life expectancy at older ages
- 4. Data on life expectancy
- 5. Glossary
- 6. Data sources and quality
- 7. Related links
- 8. Cite this statistical bulletin

# 1. Main points

- Life expectancy at birth was 79.0 years for males and 83.0 years for females in England and Wales in 2021 to 2023.
- Life expectancy at birth increased by 13 weeks from 78.8 years for males and 11 weeks from 82.8 years for females, compared with 2020 to 2022, the most recent overlapping period.
- Life expectancy at birth is 26 weeks lower for males and 13 weeks lower for females, compared with 2017 to 2019, the last complete period before the start of the coronavirus (COVID-19) pandemic.
- While improvements in life expectancy have been slow for over a decade, the pandemic led to increased mortality in recent years; the impact of this is seen in lower period life expectancy estimates between 2018 to 2020 and 2021 to 2023.
- A fall in period life expectancy does not mean that a baby born in 2021 to 2023 will go on to live a shorter life; average lifespan is determined by changes in mortality rates across their lifetime, and if mortality rates improve, period life expectancy will go back up.

These statistics are for England and Wales only. Figures for the UK will be published when the data are available.

## 2. Life expectancy at birth

Life expectancy in England and Wales has generally been increasing over the last 40 years. These improvements have been primarily caused by reductions in mortality at older ages, because of advances in health care and improvements in living and working conditions.

Since about 2011, the rate of increase in life expectancy has slowed. The coronavirus (COVID-19) pandemic led to increased mortality, particularly at older ages, in recent years. This has affected the life expectancy estimates for 2021 to 2023.

In 2021 to 2023, life expectancy at birth in England and Wales was 79.0 years for males and 83.0 years for females.

This is 26 weeks lower for males (79.5 years) and 13 weeks lower for females (83.2 years), compared with 2017 to 2019, before the pandemic. In 2017 to 2019, life expectancy at birth in England and Wales reached its highest level in the data series.

Life expectancy in 2021 to 2023 is eight weeks lower for males (79.2 years of age) and one week lower for females (83.0 years of age), compared with 2018 to 2020. This period includes two years of mortality data before the pandemic.

However, compared with 2020 to 2022, the latest estimate of life expectancy is 13 weeks higher for males (78.8 years) and 11 weeks higher for females (82.8 years). Mortality in this period was heavily affected by the pandemic.

Looking at England and Wales separately, life expectancy at birth in 2021 to 2023 was:

- 79.1 years for males and 83.0 years for females in England
- 78.1 years for males and 82.0 years for females in Wales

# Figure 1: Life expectancy remains lower than the most recent period before the coronavirus (COVID-19) pandemic

Life expectancy at birth for males and females, England and Wales, between 1980 to 1982 and 2021 to 2023

We saw consistent improvements in period life expectancy for females and even stronger improvements for males in the first decade of this century. Improvements for males in England were consistently above 40 weeks and occasionally, were as much as one year, when comparing one three-year period with the previous non-overlapping period (for example, 2010 to 2012, compared with 2007 to 2009). We have still seen improvements since 2011, though the rate of these have slowed.

Our national life tables provide estimates of period life expectancy. When producing the national life tables, we average mortality over three years to smooth fluctuations caused by events, like an influenza epidemic, on reported life expectancy.

Age-standardised mortality rates (ASMRs) increased across England and Wales in 2020 during the pandemic, compared with the previous year. ASMRs then decreased in 2021, 2022 and 2023. However, the decrease in 2023 was only statistically significant for females. Despite this, ASMRs remain higher than in 2019. This increased mortality led to a fall in period life expectancy. For more information, see our <u>Deaths registered in England and Wales: 2023 bulletin</u>.

In England, life expectancy at birth for males and females fell in the four most recent periods, compared with their respective previous non-overlapping periods. However, 2021 to 2023 saw a smaller decrease than 2020 to 2022 and 2019 to 2021.

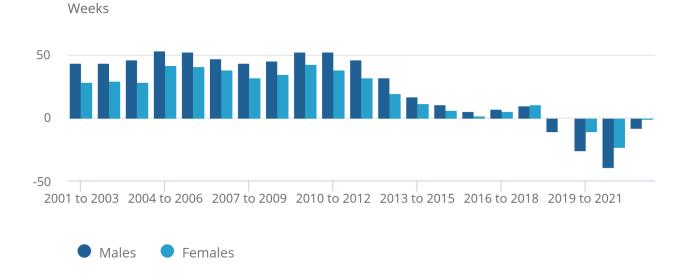
In Wales, life expectancy at birth for males and females decreased or remained the same in the six periods between 2015 to 2017 and 2020 to 2022, compared with their respective non-overlapping periods.

# Figure 2: Life expectancy fell by a small amount for males and females in England, compared with the previous non-overlapping period

Change in life expectancy at birth for each period, compared with previous non-overlapping time period, England, 2001 to 2003 and 2021 to 2023

# Figure 2: Life expectancy fell by a small amount for males and females in England, compared with the previous non-overlapping period

Change in life expectancy at birth for each period, compared with previous non-overlapping time period, England, 2001 to 2003 and 2021 to 2023



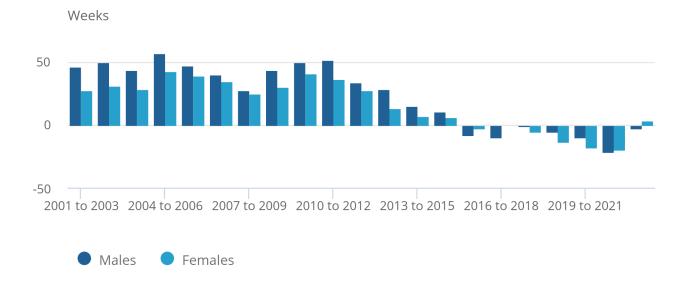
Source: National life tables - life expectancy in England and Wales: 2021 to 2023 from the Office for National Statistics

# Figure 3: Life expectancy fell for males, but increased for females in Wales, compared with the previous non-overlapping period

Change in life expectancy at birth for each period, compared with previous non-overlapping time period, Wales, 2001 to 2003 and 2021 to 2023

# Figure 3: Life expectancy fell for males, but increased for females in Wales, compared with the previous non-overlapping period

Change in life expectancy at birth for each period, compared with previous non-overlapping time period, Wales, 2001 to 2003 and 2021 to 2023



Source: National life tables - life expectancy in England and Wales: 2021 to 2023 from the Office for National Statistics

A fall in period life expectancy does not mean that a baby born in 2021 to 2023 will go on to live a shorter life. Average lifespan is determined by changes in mortality rates across their lifetime; if mortality rates improve, period life expectancy will go back up.

We have also published our <u>Single year life tables datasets</u> for England and Wales. These show that life expectancy at birth was 79.2 years for males and 83.1 years for females in 2023. This is the same as in 2022. However, this is below the peak of 79.7 years for males and 83.4 years for females estimated in 2019. This reflects that mortality rates in 2023 remain higher than in 2019.

Single year life tables are volatile and a less-robust indicator of mortality trends than three-year life tables. For more information see Section 6: Data sources and quality.

Another measure of lifespan is cohort life expectancies, which allow for projected improvement in mortality over time, as described in our <u>Past and projected period and cohort life tables: 2020-based, UK, 1981 to 2070 bulletin</u>. The latest cohort life expectancies are based on the 2020-based interim national population projections (NPPs). These will be updated following the publication of the 2022-based NPPs.

## 3. Life expectancy at older ages

Improvements in life expectancy, or expected years of life remaining, at 65 years have also slowed over the last decade. Life expectancy at 65 years was 18.6 years for males and 21.1 years for females in 2021 to 2023 in England and Wales.

This is five weeks higher than in 2018 to 2020, when life expectancy at 65 years was 18.5 years for males and 21.0 years for females. However, life expectancy at 65 years remains below pre-coronavirus (COVID-19) pandemic levels of 18.8 years for males and 21.2 years for females in 2017 to 2019.

Life expectancy at 90 years in England and Wales was 3.9 years for males and 4.6 years for females in 2021 to 2023. Life expectancy at 90 years fluctuates slightly each year. Improvements in life expectancy at 90 years have been low for several years. However, previous improvements in mortality over many decades and a historical peak in the number of births notably around 1920 to 1921 have resulted in more people reaching the very oldest ages in recent years. Further analysis is available in our <a href="Estimates of the very old, including centenarians, England and Wales: 2002 to 2023 bulletin">Estimates of the very old, including centenarians, England and Wales: 2002 to 2023 bulletin</a>.

## 4. Data on life expectancy

#### National life tables: England and Wales

Dataset | Released 23 October 2024

Period life expectancy by age and sex for England and Wales. Each national life table is based on population estimates, births and deaths for a period of three consecutive years. Tables are published annually.

#### National life tables: England

Dataset | Released 23 October 2024

Period life expectancy by age and sex for England. Each national life table is based on population estimates, births and deaths for a period of three consecutive years. Tables are published annually.

#### National life tables: Wales

Dataset | Released 23 October 2024

Period life expectancy by age and sex for Wales. Each national life table is based on population estimates, births and deaths for a period of three consecutive years. Tables are published annually.

View all data used in this statistical bulletin on the <u>related data page</u>.

# 5. Glossary

#### Life table

A life table is a demographic tool used to analyse death rates and calculate life expectancies at various ages. We calculate life tables separately for males and females because of their different mortality patterns.

### Life expectancy

This is a population-based statistical measure of the average number of years a person has before death. Life expectancies can be calculated for any age and give the further number of years a person can, on average, expect to live given the age they have attained.

## Life expectancy improvements

These refer to the differences in life expectancy by age and sex calculated between one year and the next.

## 6. Data sources and quality

National life tables are period life tables and are based on three consecutive years of data. Data in this bulletin are based on 2021, 2022 and 2023. This reduces the effect of annual fluctuations in the number of deaths caused by seasonal events, such as influenza.

Period life expectancy is the average number of additional years a person would expect to live if he or she experienced the age-specific mortality rates of the given area and time period for the rest of their life. Explanation of the methodology used to create the national life tables is available in our <u>Guide to calculating national life tables methodology</u>.

Figures in the commentary in this bulletin are rounded to one decimal place. Calculations in this bulletin have been made using unrounded figures. Life expectancy estimates to two decimal places can be found in the datasets for this release.

Our National life tables Quality and Methodology Information (QMI) contains important information on:

- · the strengths 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

Our national life tables use a complete life table methodology and should be used by anyone making national comparisons of life expectancy. We also publish subnational life expectancies, which use an abridged life table method. National life expectancy estimates are produced as part of our subnational life expectancy release, Life expectancy for local areas in England, Northern Ireland and Wales: between 2001 to 2003 and 2020 to 2022 bulletin. These will differ slightly to those published in the national life tables because of the different methodologies used. They are published to allow users to compare subnational and national life expectancies produced on the same basis. Our Life Expectancy releases and their different uses article provides more information on our life expectancy releases and their uses. Our Period and cohort life expectancy explained methodology describes the two types of life expectancy: period and cohort.

We have published our <u>Single year life tables dataset</u> alongside our three-year life tables. These have been published as a result of evidence of user need for single year data. Single year life tables are suited for analyses that require annual data and need more detailed information about mortality patterns. They can give a more granular and up-to-date perspective on whether mortality patterns are improving, worsening, or staying in equilibrium than our three-year average life tables.

However, single year life tables show figures that are typically more volatile than three-year average life tables. This is particularly the case recently, because of the mortality associated with the coronavirus (COVID-19) pandemic. This makes single year life tables a less robust indicator of mortality trends. For this reason, they should not be used alone to draw conclusions about longer-term trends. Additionally, smaller populations, such as the UK constituent nations other than England, are more prone to short-term volatility because single events can have a large effect on an already small population.

#### Accredited official statistics

These accredited official statistics were independently reviewed by the Office for Statistics Regulation in April 2011. They comply with the standards of trustworthiness, quality and value in the Code of Practice for Statistics and should be labelled "accredited official statistics".

### 7. Related links

#### Estimates of the very old (including centenarians), England and Wales: 2002 to 2023

Bulletin | Released 1 October 2024

Annual mid-year population estimates for people aged 90 years and over by sex and single year of age (90 to 104 years, and 105 years and over), and comparisons between England and Wales.

#### Deaths registered in England and Wales: 2023

Bulletin | Released 10 October 20224

Registered deaths by age, sex, selected underlying causes of death and the leading causes of death.

Contains death rates and death registrations by area of residence and single year of age.

# Life expectancy for local areas in England, Northern Ireland and Wales: between 2001 to 2003 and 2020 to 2022

Bulletin | Released 26 January 2024

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

#### Life expectancy in Scotland

Statistical release | Updated annually

The latest statistics on life expectancy in Scotland, council areas, health boards and other areas.

#### Past and projected data from the period and cohort life tables: 2020-based, UK ,1981 to 2070

Bulletin | Released 12 January 2022

Life expectancy (e), probability of dying (q) and number of persons surviving (I) from the period and cohort life tables, using past and projected mortality data from the 2020-based interim national population projections (NPPs), for the UK and constituent countries.

#### Life expectancy calculator

Interactive tool | Released 12 January 2022

Use our interactive calculator to find out your life expectancy and your chance of living to 100 years old.

## 8. Cite this statistical bulletin

Office for National Statistics (ONS), released 23 October 2024, ONS website, <u>National life tables – life expectancy in England and Wales: 2021 to 2023</u>