

Long read

Policy, finance and performance

What is happening to life expectancy in England?

Health inequalities # Performance # Public health

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There have been two turning points in trends in life expectancy in England this century. From 2011, increases in life expectancy slowed after decades of steady improvement, prompting much debate about the causes. Then, in 2020, the Covid-19 pandemic was a more significant turning point, causing a sharp fall in life expectancy, the magnitude of which has not been seen since World War II.

This article examines trends in life expectancy at birth up to 2022, the impact of Covid-19 on life expectancy, gender differences and inequalities in life expectancy, causes of the changing trends since 2011, and how life expectancy in the UK compares with other countries.

Note: This article presents findings for England, except where the published data relates to England and Wales or the UK. The article refers throughout to life expectancy at birth.

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How has life expectancy changed over time?

Mortality in England and Wales has declined since the 19th century, leading to a long-term rise in life expectancy (see Figure 1). [Males born in 1841 could expect to live to only 40.2 years and females to 42.3 years](#), mainly because of high mortality rates in infancy and childhood. Improvements in nutrition, hygiene, housing, sanitation, control of infectious diseases and other public health measures reduced mortality rates, increasing life expectancy to 56 years for males and 59 years for females by 1920.

Glossary



Figure 1 Life expectancy at birth

England and Wales, 1841–2000



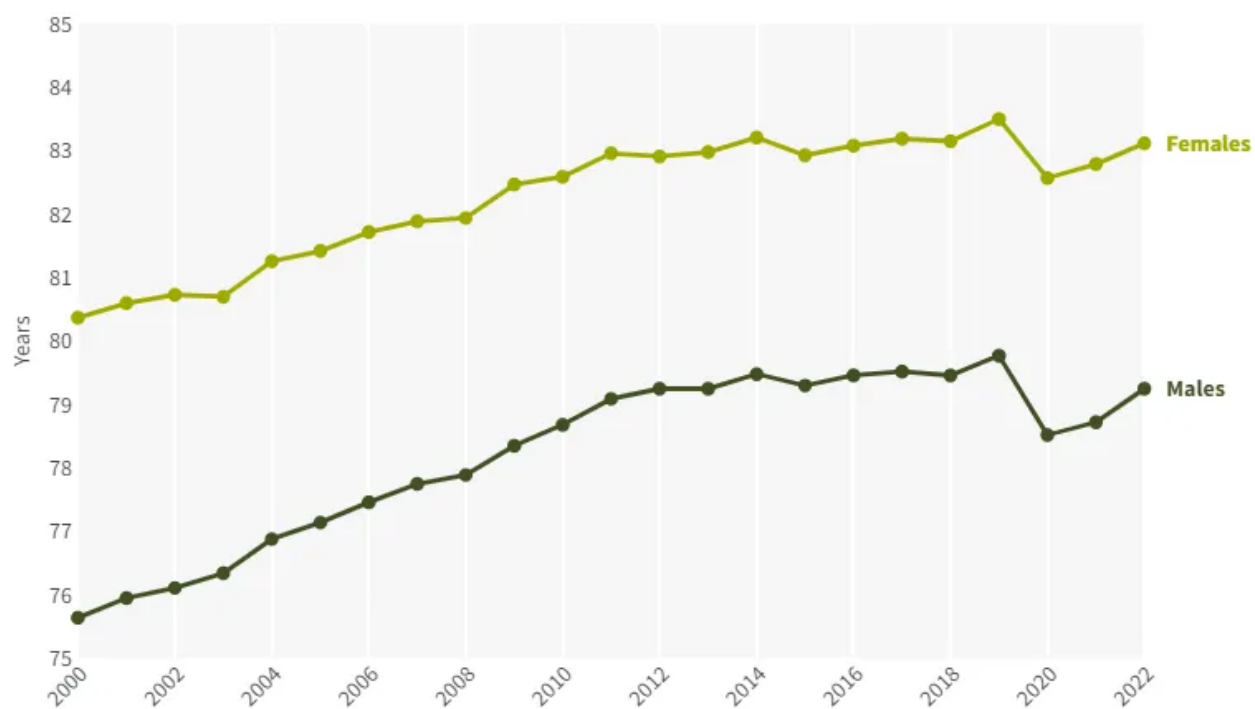
Source: Office for National Statistics (2020)
World War I 1914–18. World War II 1939–45.

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The 20th century saw further dramatic improvements in life expectancy resulting from public health measures such as childhood immunisations, the introduction of universal health care, medical advances in treating adult diseases such as heart disease and cancer, and lifestyle changes, including a decline in smoking. [By 2019, life expectancy at birth in England had increased to 79.8 years for males and 83.5 years for females](#) (see Figure 2). However, the Covid-19 pandemic caused life expectancy in 2020 to fall sharply – by 1.3 years for males, to 78.5 years, and by 0.9 years for females, to 82.6 years – the same level as about a decade earlier. Life expectancy recovered partially thereafter as the pandemic subsided, rising to 79.3 for males and 83.1 years for females in 2022, although it remained below 2019 pre-pandemic levels.

Figure 2 Life expectancy at birth

England, 2000–22



Source: Office for National Statistics (2024)

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What's the difference in life expectancy between males and females?

Females have always lived longer than males, but the gender gap in 1841 (two years) was relatively small because of the high prevalence in the 19th century of diseases that killed both sexes indiscriminately. In the late 19th and early 20th centuries, the gender gap in life expectancy started to widen, peaking at 6.4 years by 1969 (see Figure 1). Reasons for the widening gender gap included poor working conditions and smoking among males in contrast to improved life chances for females – for example, the lower risk of dying in childbirth and from tuberculosis, which affected women more than men.

The gender gap narrowed from the 1970s, to 3.7 years in 2019, with mortality falling faster in males than females because of decreases in smoking and mortality from cardiovascular diseases. However, [in 2020 and 2021, the gender gap widened to 4.1 years](#) because mortality rates from Covid-19 were higher in males than females; with the fall in Covid-19 mortality thereafter, the gender gap fell to 3.9 years in 2022.

Healthy life expectancy

For the three aggregated years 2020–22, although male life expectancy was 78.8 years, [average healthy male life expectancy was only 62.4 years](#) – ie, 16.4 of those years (21%) would have been spent in poor health. Female life expectancy was 82.8 years, of which [20.1 years \(24%\) would have been spent in poor health](#). Although females live an average of four years longer than males, they spend a higher proportion and more years of their lives in poor health.

Moreover, healthy life expectancy in England in 2020–22 was lower than in 2011–13, when the data series began, falling by 0.8 years in males and 1.2 years in females during that time. So not only has life expectancy stalled, but males and females spend more years in poor health. As there had been minimal change in healthy life expectancy up to 2017–19, it is likely that the Covid-19 pandemic will have contributed to this fall, with delays in care for non-Covid conditions and an increase in long-term sickness following the pandemic being additional contributory factors.

Similarly, [disability-free life expectancy](#) is almost two decades shorter than life expectancy, and is higher among males (61.8 years) than females (60.5 years).

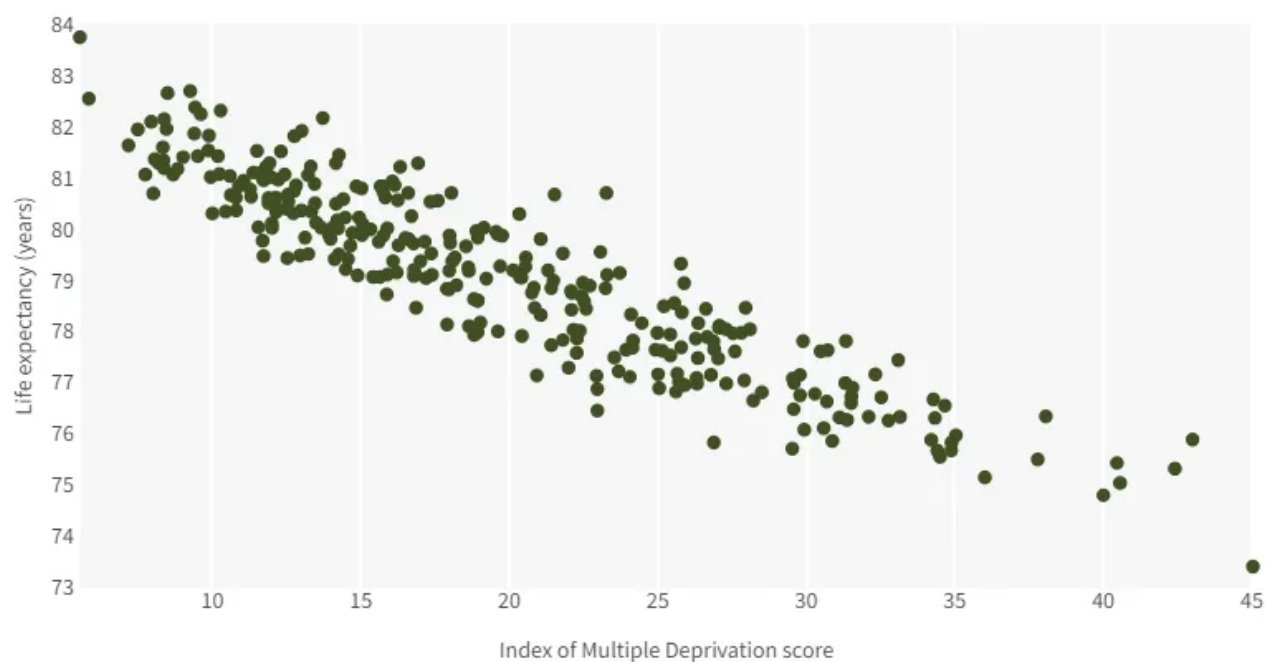
Inequalities in life expectancy and healthy life expectancy

[Life expectancy is affected by many factors](#) – for example, behavioural risks to health such as smoking and poor diet; access to and use of health care; wider socio-economic determinants such as income, education, housing and employment; geography; and specific characteristics such as sex, ethnicity, disability and social exclusion. Differences in these determinants, some of which are discussed below, can lead to inequalities in life expectancy between population sub-groups.

Socio-economic inequalities

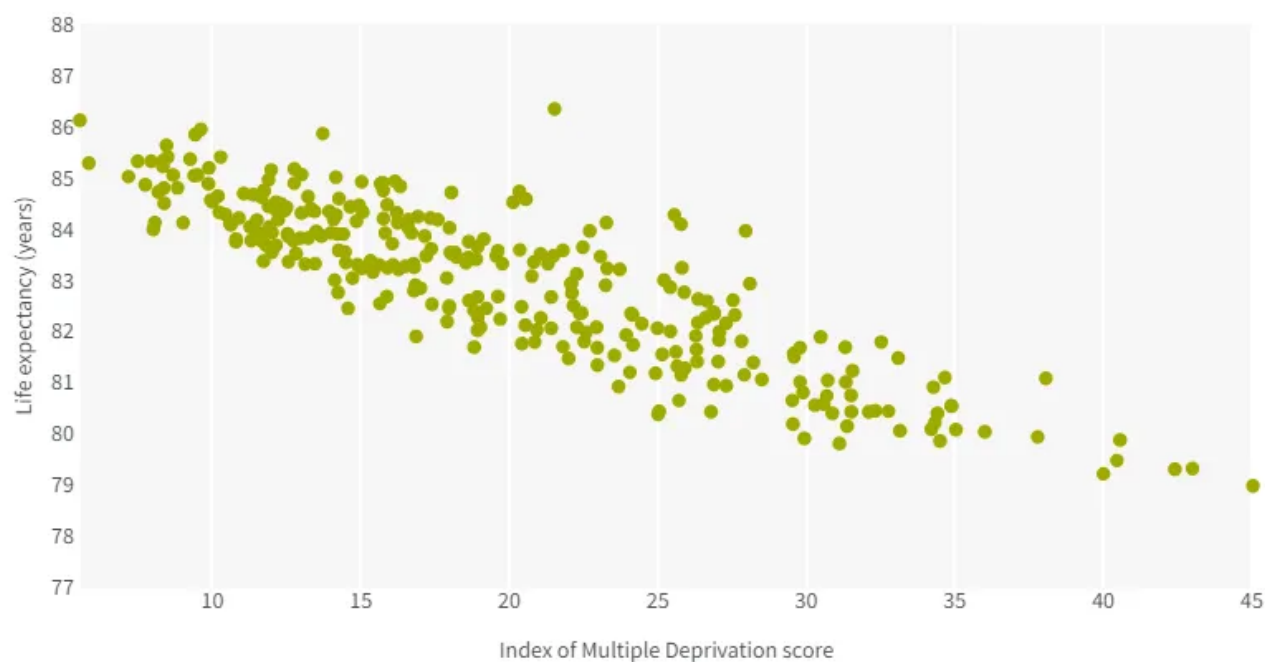
Life expectancy in England is significantly lower for people living in more deprived areas than for people living in less deprived areas (see figures 3 and 4). Socio-economic inequalities in health in England have been widening since 2010.

Figure 3 Life expectancy for local authorities by deprivation, males
England, 2020–22



Source: Office for National Statistics (2024), Ministry of Housing, Communities and Local Government (2019)
Local authorities that were formed or removed since the 2019 release of Index of Multiple Deprivation scores have not been included

Figure 4 Life expectancy for local authorities by deprivation, females
England, 2020–22



Source: Office for National Statistics (2024), Ministry of Housing, Communities and Local Government (2019)
Local authorities that were formed or removed since the 2019 release of Index of Multiple Deprivation scores have not been included

About one-third of the inequalities in life expectancy between the most and least deprived decile of areas are caused by [higher mortality rates from heart and respiratory disease, and lung cancer in the most deprived areas](#). These conditions are caused largely by risk factors such as smoking and obesity, which are higher among more deprived groups and potentially preventable.

The [gender difference in life expectancy is greater in more deprived areas](#): females live an average of 4.3 years longer than males in the most deprived decile of local authorities, compared with 3.3 years longer in the least deprived decile.

Socio-economic inequalities in life expectancy were widening before the Covid-19 pandemic, which has [exacerbated inequalities further because of its disproportionate impact on deprived groups](#). Another notable feature is that [life expectancy in the most deprived areas has fallen over the past decade](#), and [was falling even before the pandemic](#). Between 2011–13 and 2020–22, males and females in the most deprived decile of local authorities saw their meagre pre-pandemic gains in life expectancy wiped out by the pandemic, with life expectancy falling by almost a year; in contrast, in the least deprived decile of local authorities, the larger pre-pandemic gains in life expectancy more than offset the smaller falls in life expectancy during the pandemic, so that life expectancy in 2020–22 was higher than in 2011–13 by about 0.3 years.

Geographical inequalities

The deprivation divide in life expectancy and healthy life expectancy reflects a persistent north–south divide in England, with people in the more affluent south having longer life expectancy on average and with more years in good health than those living in the more deprived northern regions.

[Life expectancy in 2020–22](#) was lowest in the North East and North West followed by Yorkshire and the Humber, and West and East Midlands, and highest in the South East, South West, London and the East. The gap in life expectancy between the highest (South East) and lowest (North East) regions was three years. The north–south divide in longevity has widened over the past decade.

[The life expectancy gap was significantly wider for local areas within these regions](#). For example, in 2020–22, life expectancy was lowest in Blackpool (North West), one of the most deprived areas in England, and highest in Hart (South East), one of the least deprived areas; the gap in life expectancy between these areas was 10.3 years for males and 7.1 years for females, having widened from 8.4 and 5.6 years respectively in 2011–13.

As with life expectancy, there are wide geographical inequalities in healthy life expectancy in

England. In 2020-22, healthy life expectancy in the North East was almost seven years shorter for males and six years shorter for females compared with the South East. People living in northern regions also spend higher proportions of their shorter lives in poor health.

Ethnic inequalities

[About 18% \(11 million people\) of the population of England and Wales is non-white](#), a rise from 14% in 2011. [Ethnicity is not currently recorded at death registration](#), but following the disproportionate impact of Covid-19 on ethnic minority communities, [the government has said that ethnicity recording will be introduced in England](#). However, by linking death records to 2011 census records to derive ethnicity, the Office for National Statistics (ONS) produced life expectancy estimates by ethnicity for England and Wales for 2011-14 for the first time.

The ONS data showed that despite [higher levels of deprivation](#), [male and female life expectancy in 2011-14 was higher for ethnic minority groups than for the white and mixed groups](#) (see Figures 5 and 6). The pandemic had a disproportionate impact on [ethnic minority groups, who experienced higher Covid-19 mortality rates than the white British group](#). Covid-19 mortality rates declined in all ethnic groups over the course of the pandemic, and by 2022 rates for ethnic minority groups were no longer higher than for the white British group. Although data on ethnic differences in life expectancy is not available for recent years, ONS data shows that, as in the pre-pandemic period, [from 21 March 2021 to 31 January 2023, mortality rates from all causes of death were again lower for ethnic minority groups than for the white British group](#), despite their higher Covid-19 mortality earlier during the pandemic.

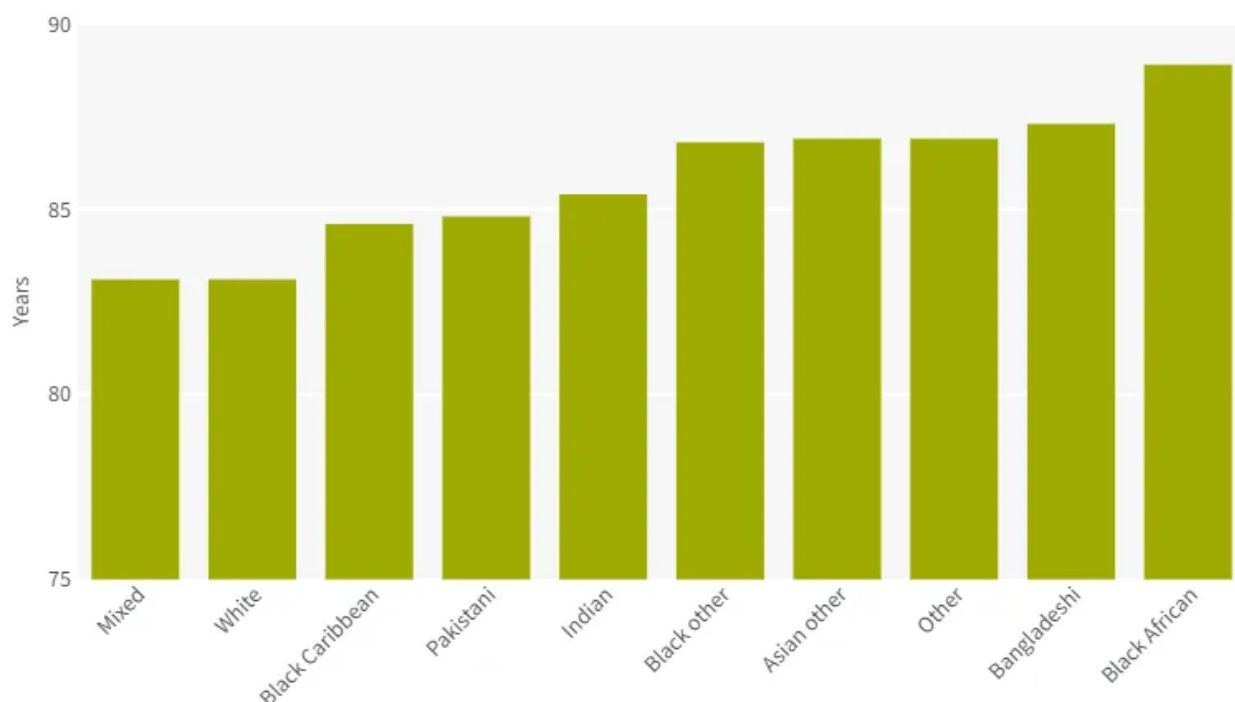
Lower mortality rates (resulting in higher life expectancy) for ethnic minority groups relative to the white British group may be due in part to the '[healthy migrant effect](#)' (whereby people who migrate tend to be in good health) and lower rates of [smoking](#) and [alcohol consumption](#) in ethnic minority groups, which may mitigate some impacts of socio-economic disadvantage. [Compared with the white British group, most ethnic minority groups have lower mortality from cancer, dementia and several other leading causes of death](#), although mortality rates for some individual conditions (such as heart disease and diabetes) are highest in some ethnic minority groups.

Figure 5 Life expectancy by ethnic group, males

England and Wales, 2011-14

Figure 6 Life expectancy by ethnic group, females

England and Wales, 2011–14



Source: Office for National Statistics (2021)

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Inequalities among other groups

Some population groups have a significantly shorter life expectancy than the general population, for example:

- [Life expectancy in people with serious mental illness](#) is 15–20 years shorter than the average for the general population; this disparity is largely due to preventable physical illnesses.
- [Men and women who are homeless at or around the time of their death live 31 years and 38 years fewer](#) (respectively) than the average.
- People with learning disabilities have significantly shorter lives than people in the general population; [the median age at death of males and females with a learning disability is 20 and 23 years younger respectively than males and females in the general population](#).

How and why did trends in life expectancy change after 2011?

[2011 marked a turning point in long-term mortality trends](#), with the falls tailing off after decades of steady decline. In the 100 years to 2010–12, [life expectancy increased by nearly three years every decade](#), but [between 2011 and 2018 it increased by only 0.4 years for males and 0.2 years for females](#), and was virtually flat between 2014 and 2018. However, between 2018 and 2019, life expectancy increased by 0.3 years in males and females and from January to March 2020, before the Covid-19 pandemic, [mortality was again at the lower level seen in early 2019](#).

[The life expectancy gains in 2019](#) and the [fall in mortality in early 2020](#) were associated with [mild influenza \(flu\) seasons and lower winter mortality](#). This contrasts with some years since 2010 when the circulating strain of the flu virus caused excess mortality – as in [2016–17](#), [2017–18](#), and especially in [2015](#), when life expectancy fell in almost all European countries, which [European monitoring agencies attributed to excess mortality from flu](#). In England and Wales, [mortality from respiratory diseases, including flu](#), increased sharply in 2015 and [life expectancy fell by 0.2 years for males and 0.3 years for females](#) – unprecedented for decades until the Covid-19 pandemic in 2020. As in Europe, most excess deaths in England and Wales in 2015 were among older people who were most affected by the flu virus circulating that year, with [deaths from respiratory disease \(including flu and pneumonia\) being a key contributor to the largest annual rise in deaths since the 1960s](#).

[A review of mortality trends in England](#) to 2017 found that improvements in life expectancy since 2010 had slowed in most areas of England and among all socio-economic groups, but the slowdown was greater among the most deprived groups, and inequalities had widened. Slowing mortality improvements among older people played a significant role.

The reasons for the post-2011 slowdown in life expectancy improvements and 2015 fall in life expectancy have been widely debated. They are attributed to the austerity-driven constraints on health, social care and other public spending and their adverse impact on services.^{1–7} Other contributory factors suggested include (for example): the growing complexity of medical conditions and vulnerability to respiratory disease and other winter risks in an ageing population; widening health inequalities; and the contribution of decelerating improvements in cardiovascular disease (CVD) mortality and periodic bad flu seasons to the slowing mortality improvements seen also in many high-income countries.^{7–11} Some European countries that did not adopt austerity policies also experienced slowdowns in life expectancy improvements (eg, Germany and Sweden), while life expectancy increased in other countries that had introduced severe austerity measures (eg, Spain, Ireland and

Greece).¹²

While a slowdown in improvements in life expectancy between 2010 and 2019 was seen in many European countries, the slowdown in the UK was among the greatest. It is likely that there were [several reasons for these trends](#), some specific to the UK (such as widening inequalities) and some common to the UK and other European countries (such as the swings in flu-related mortality and slowdown in CVD mortality improvements).^{7, 10–14} The uptake of smoking by women occurred some time after it became common in men, and is cited as one possible explanation for the relatively small increases in female life expectancy in the UK in recent years.¹⁵

The Covid-19 pandemic period, 2020–22

The slowdown in life expectancy improvements between 2011 and 2019 was nothing compared with what was to follow. In 2020, the Covid-19 pandemic caused the largest fall in life expectancy in England since World War II (see Figure 2). Although life expectancy recovered partially thereafter, in 2022 it remained below the 2019 pre-pandemic level. Provisional data shows that mortality rates in 2023 were similar to 2022, [suggesting that life expectancy in 2023 will still not have recovered to pre-pandemic levels](#).

Further details about mortality from Covid-19 are available in our explainer, [Deaths from Covid-19 \(coronavirus\): how are they counted and what do they show?](#)

Deaths from Covid-19 (coronavirus)

How are they counted and what do they show?

[Read more >](#)

How does the UK compare with other European countries?

This section focuses on comparisons between the UK and selected European and other high-income countries in the Organisation for Economic Co-operation and Development (OECD), with the exception of the US, where life expectancy has historically been lower than in other high-income countries. Within Europe, we focus mainly on western European countries, as they are more comparable to the UK on economic measures than eastern European countries, where life expectancy has historically been lower.

This section uses [ONS life expectancy data for the UK](#) and [OECD life expectancy data for the other countries](#). OECD uses data from Eurostat for European Union (EU) countries, and from national sources for other countries. Methodological differences in how life expectancy is calculated in these different datasets could affect the results.

Figures 7 and 8 show trends in life expectancy for males and females in the UK and selected OECD countries. [Pre-pandemic male and female life expectancy in the UK](#) was below that of [most western European and other high-income countries](#). As in the UK, improvements in life expectancy slowed in many high-income countries between 2011 and 2019, but [the slowdown was greater in the UK](#) and its position relative to others worsened.

[In 2020, at the start of the pandemic, life expectancy fell in all but a handful of OECD countries](#) (see Figures 7 and 8); the greatest falls were in Spain, Italy, Belgium, the US and the UK. Many eastern European countries also experienced large falls despite their lower life expectancies pre-pandemic. The exceptions to these widespread falls in life expectancy in OECD countries were Denmark, Finland, Norway, Japan, Australia and New Zealand, which – the pandemic notwithstanding – experienced small increases or no change in life expectancy in 2020.

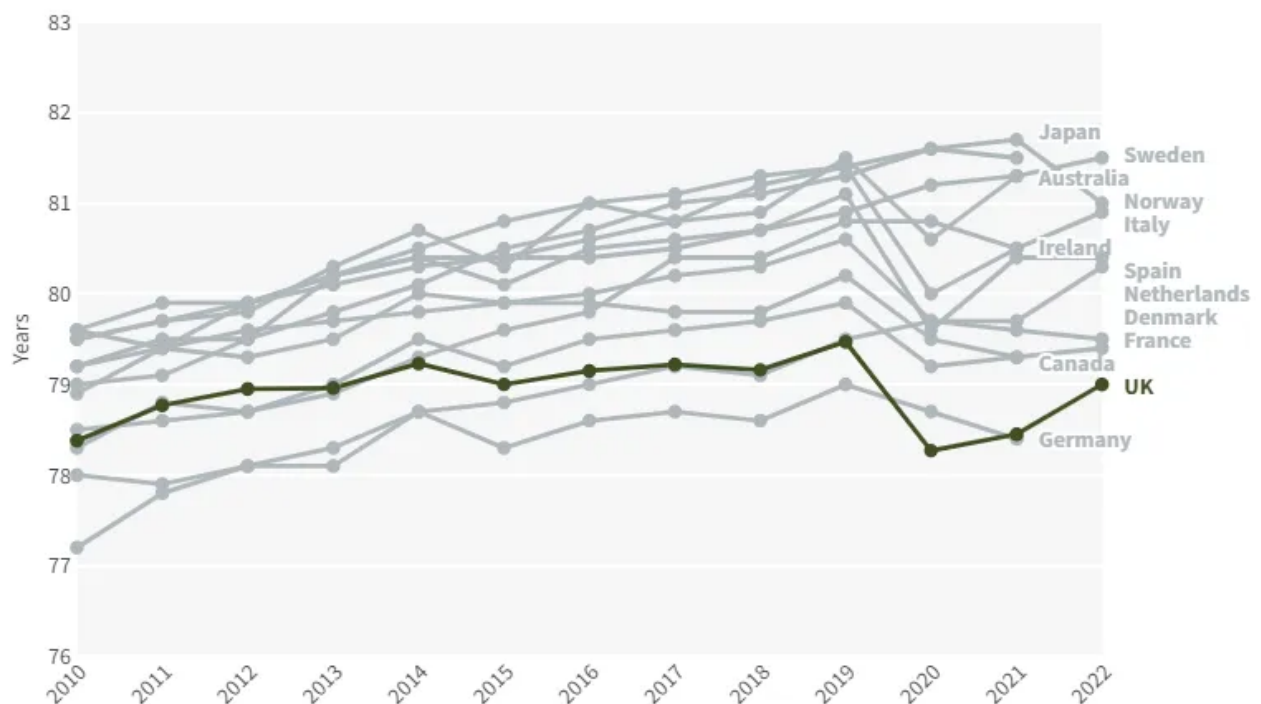
In most OECD countries, including the UK, [life expectancy rallied somewhat in 2021 and 2022 as Covid-19 mortality subsided](#) with the rollout of mass vaccination programmes, growing population immunity, and virus mutation to less severe variants. However, in most countries in 2022, life expectancy remained below the 2019 pre-pandemic level, in part due to heatwaves and the return of flu and other respiratory infections; the disruption to health systems and care for non-Covid conditions during the pandemic may also have caused some excess deaths. Some countries (for example, in Scandinavia) that did not experience falling life expectancy in 2020 and 2021 because of stringent Covid-19 control measures instead saw it fall in 2022 as the restrictions were eased and populations were exposed to other infections and illnesses.

Although all European countries have experienced devastating death tolls from Covid-19, and the impacts varied geographically in terms of timing and magnitude, several studies show that excess mortality in the UK during the pandemic (2020–22) exceeded that in most western European and other high-income countries; an exception was Italy, which experienced high excess mortality early in the pandemic in 2020.^{16–19}

The combined impact of weak gains in life expectancy over the pre-pandemic decade, followed by relatively higher mortality during the pandemic, has caused the UK's life expectancy to slide even further behind major comparable countries by 2022. Life expectancy in the UK for females is now lowest, and for males it is among the lowest (see Figures 7 and 8).

Figure 7 Life expectancy at birth, males

Selected OECD (Organisation for Economic Co-operation and Development) countries, 2010–22

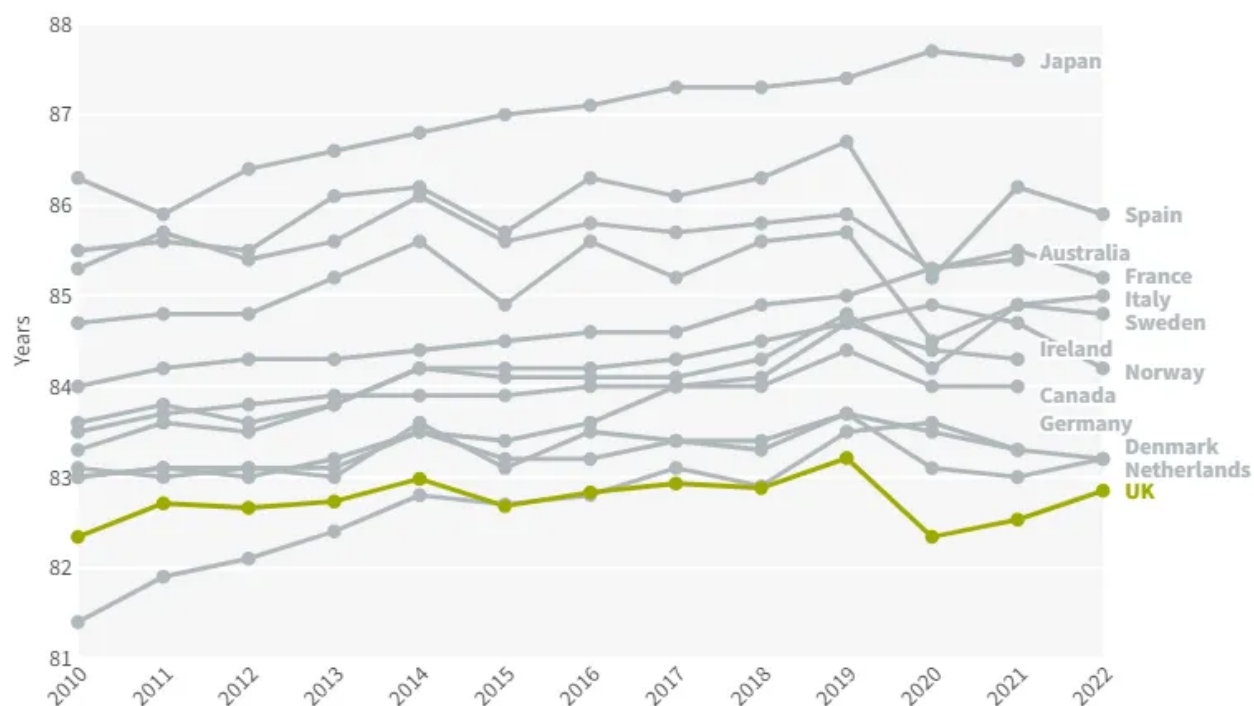


Source: OECD (2023), Office for National Statistics (2024)

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Figure 8 Life expectancy at birth, females

Selected OECD (Organisation for Economic Co-operation and Development) countries, 2010–22



Source: OECD (2023), Office for National Statistics (2024)

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Conclusion

The fall in life expectancy in England resulting from the Covid-19 pandemic was unprecedented in recent decades, and life expectancy has not yet recovered to pre-pandemic levels.

Future improvements in life expectancy depend on many factors. However, the outlook for England is not promising given the [deterioration in population health](#). The [poor health of children](#), the [huge and growing backlog of unmet health care needs](#) (pre-dating the pandemic but exacerbated by it), the [almost 3 million – and rising – working-age adults unable to work because of long-term sickness](#), the [persistent constraints on NHS capacity](#) and [widening health inequalities](#) illustrate the scale of the challenges that need to be addressed. Added to these are the unpredictable risks of, for example, periodic resurgences in Covid-19, flu or other viral infections, and extreme climate change events such as the heatwaves in 2022.

Life expectancy in the UK compared poorly with most comparator countries before the Covid-19 pandemic; higher excess mortality during the pandemic has resulted in the UK's further downward slide in international life expectancy tables, with female life expectancy now the lowest among comparator countries (with the exception of the US). Meaningful long-term gains in reducing health inequalities and improving population health and the UK's life expectancy relative to comparator countries have never been more urgent and yet also more challenging.

References

References



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