

Statistical bulletin

Estimates of the very old, including centenarians, UK: 2002 to 2023

Annual mid-year population estimates for people aged 90 years and over by sex and single year of age to 105 years and over, and comparisons between UK countries.

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1. Main points

- The estimated population aged 90 years and over in the UK in 2023 was 611,719; this was an increase of 0.3% from 2022, compared with a 2.0% increase between 2021 and 2022.
- There were an estimated 16,140 centenarians in the UK in 2023; this is more than double the number of centenarians in 2003, but is similar to 2022 when there were an estimated 16,200 centenarians in the UK.
- There were still many more female than male centenarians, but the number of male centenarians has been increasing at a faster rate than females over the last decade; the percentage of male centenarians almost doubled from 10.4% in 2003 (8.6 women to every man) to 18.3% in 2023 (4.5 women to every man).
- Wales had 25.7 centenarians per 100,000 in their population; this is the highest proportion of centenarians
 of the four countries of the UK.
- We typically compare 2023 with 2003 in this bulletin because this is a 20-year period; however, the accompanying dataset shows the complete time series back to 2002.

2. Population growth of those aged 90 years and over in the UK

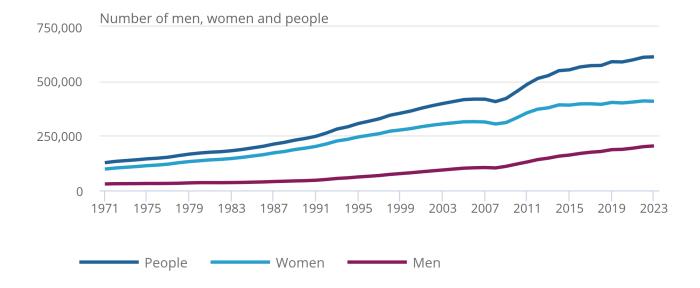
The population of those aged 90 years and over has grown. This is largely because of increases in the number of men aged 90 years and over, as growth in the number of women has slowed. There were noticeable decreases in the size of the 90 years and over population in 2007 and 2008. This dip was followed by a rapid rise in numbers between 2010 and 2012. This pattern reflects low birth numbers 90 years ago during World War 1, followed by higher numbers of births immediately after the War.

Figure 1: There were over 600,000 people aged 90 years and over in the UK in 2023, with recent growth led more by men

Number of men, women and people aged 90 years and over, UK, mid-1971 to mid-2023

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Number of men, women and people aged 90 years and over, UK, mid-1971 to mid-2023



Source: Office for National Statistics, National Records of Scotland, and Northern Ireland Statistics and Research Agency

Notes:

1. Numbers are unrounded.

The line chart in Figure 1 shows that there were estimated to be 611,719 people aged 90 years and over in the UK in 2023. There were twice as many women (408,216) as men (203,503).

The number of men aged 90 years and over has increased more rapidly than women in recent years. The number of men has doubled from 93,295 to 203,503 in the 20 years since 2003. The number of women increased by around one-third from 304,498 to 408,261. The increasing number of men relative to women at older ages reflects improvements over several decades in:

- lifestyle, such as reductions in smoking rates for men
- working conditions for men
- healthcare improvements, such as the prevention and treatment of heart disease

3. Sex ratio of those aged 90 years and over

The number of women aged 90 years and over increased more rapidly than the number of men up until the early 1990s. The sex ratio peaked at 4.4 women for every man in 1990. The gap between male and female life expectancy has narrowed since then. This means that the number of men at older ages is catching up with the number of women. There were 2.0 women for every man aged 90 years and over in 2023, which is the lowest the sex ratio has ever been since the start of the time series in 1971.

Figure 2: Centenarians had the lowest proportion who were men, but this has been increasing

Percentages of people aged 90 years and over by age group and sex, UK, 2003 and 2023

Notes:

1. Percentages were calculated using unrounded data. Percentages are displayed rounded to one decimal place.

Download the data

The plots in Figure 2 show that men accounted for smaller proportions of the population aged 90 years and over than women, and that these proportions declined with age. These patterns were present in both 2003 and 2023. However, the proportions of men were larger in 2023 than in 2003, which reflects the changes in sex ratios over time.

Centenarians had the largest relative increase in the proportion of men. The percentage almost doubled from 10.4% in 2003 (8.6 women to every man) to 18.3% in 2023 (4.5 women to every man).

4. Age structure of those aged 90 years and over

Improvements in life expectancy have led to changes in the age structure of the 90 years and over population, with increasing proportions of those aged 100 years and over. For more detail about trends in life expectancy, see our National life tables – life expectancy in the UK: 2021 to 2023 bulletin.

Figure 3: Most people aged 90 years and over in 2023 were aged under 95 years

Percentage of the population by age group, and percentage breakdown of the 90 years and over population by age, UK, 2023

Notes:

1. Percentages were calculated using unrounded data. Percentages are displayed rounded to one decimal place.

Download the data

The stacked bar charts in Figure 3 show that almost 1 person in 100 (0.9%) in the UK was aged 90 years and over in 2023. This is an increase from 0.7% in 2003. Among this age group, more than three-quarters (77.7%) were aged 90 to 94 years. The percentage at each single year of age becomes smaller as age increases. The 100 years and over age group accounts for 2.6% of the 90 years and over population. In comparison, 80.0% of the 90 years and over population were aged 90 to 94 years in 2003, and 2.0% were aged 100 years and over. This indicates that even at the highest ages, the population is ageing.

5. Centenarians

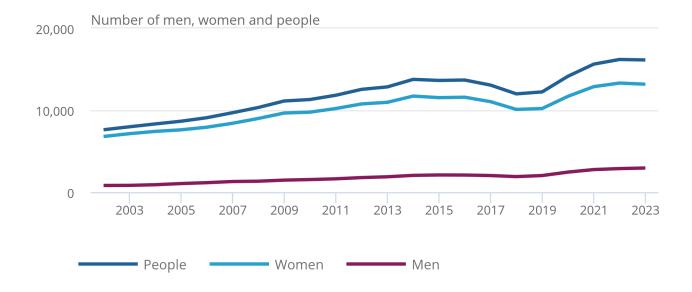
Much of the recent rapid growth in the number of centenarians is because the large cohort born after World War 1 turned 100 years old between 2020 and 2021. The numbers of births declined following the immediate years after World War 1. This has resulted in a slower increase in the number of people reaching age 100 in the last couple of years.

Figure 4: The number of centenarians in the UK in 2023 was similar to the number in 2022

Number of men, women and people aged 100 years and over, UK, mid-2002 to mid-2023

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Number of men, women and people aged 100 years and over, UK, mid-2002 to mid-2023



Source: Office for National Statistics, National Records of Scotland, and Northern Ireland Statistics and Research Agency

Notes:

1. Numbers are rounded to the nearest 10.

The line chart in Figure 4 shows that there were estimated to be 16,140 centenarians in the UK in 2023. This was similar to the number in 2022 (16,200) and more than double the number in 2003 (7,980). Most centenarians were women; there were 13,180 women aged 100 years and over in 2023, compared with 2,950 men.

There were 23.6 centenarians per 100,000 population in the UK in 2023. This was an increase from 13.4 per 100,000 population in 2003.

In 2023, 0.02% of the UK population was aged 100 years and over. This is likely to increase in the future, partly because of projected improvements in life expectancy as described in our <u>Past and projected period and cohort life tables: 2022-based, UK, 1981 to 2072 bulletin</u>. Data from our most recent <u>2022-based principal assumptions national population projections</u> suggest that in 2043, 0.04% of the UK population will be aged 100 years and over.

6. Country comparison

In this section, we compare the four UK constituent countries, focusing on centenarians.

The age distribution of the population aged 90 years and over was similar in all four UK countries. The proportion of centenarians increased in each country in 2023, compared with 2003.

Figure 5: Wales had the highest proportion of centenarians in both 2003 and 2023

Number of people aged 100 years and over per 100,000 population by constituent country, UK, 2003 and 2023

Notes:

1. Numbers per 100,000 were calculated using unrounded data. Numbers are displayed rounded to one decimal place.

Download the data

The connected-dot chart in Figure 5 shows the increase in the proportion of centenarians in the 20 years since 2003 for each UK constituent country.

Wales had the highest proportion of centenarians at both points. There were 25.7 per 100,000 in Wales in 2023. This is almost double the proportion of 13.9 per 100,000 in 2003.

England had the second-highest proportion of centenarians at both points. There were 24.3 per 100,000 in England in 2023, which is an increase from 13.8 per 100,000 in 2003.

Scotland had 18.2 centenarians per 100,000 population in 2023, which is an increase from 11.4 per 100,000 in 2003.

Northern Ireland had the lowest proportion of centenarians at both points, with 15.1 per 100,000 in 2023. This was more than double the proportion in 2003 when there were 7.5 per 100,000.

The difference between Northern Ireland and Wales - the countries with the lowest and highest proportion of centenarians, respectively - has increased in the 20 years since 2003. The low proportion of centenarians in Northern Ireland reflects its younger population. This is because of its higher fertility rate compared with the other UK countries, rather than low life expectancy or poor survival at older ages. For more detail, see our National population projections, fertility assumptions: 2022-based methodology and National life tables – life expectancy in the UK: 2021 to 2023 bulletin.

7. Data on population estimates

Mid-year population estimates of the very old, including centenarians: England

Dataset | Released 1 October 2024

Annual mid-year population estimates for those aged 90 years and over by sex and single year of age (90 to 104 years), and the 105 years and over age group for 2022 to 2023.

Mid-year population estimates of the very old, including centenarians: Wales

Dataset | Released 1 October 2024

Annual mid-year population estimates for those aged 90 years and over by sex and single year of age (90 to 104 years), and the 105 years and over age group for 2002 to 2023.

Mid-year population estimates of the very old, including centenarians: England and Wales

Dataset | Released 1 October 2024

Annual mid-year population estimates for those aged 90 years and over by sex and single year of age (90 to 104 years), and the 105 years and over age group for 2002 to 2023.

Mid-year population estimates of the very old, including centenarians: UK

Dataset | Released 18 March 2025

Annual mid-year population estimates for those aged 90 years and over by sex and single year of age (90 to 104 years), and the 105 years and over age group for 2002 to 2023.

8. Glossary

Birth cohort

A group of people who were born in a particular period or year.

Centenarian

A person aged 100 years or more.

Life expectancy

Life expectancy 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. They give the further number of years a person can, on average, expect to live given the age they have attained.

9. Data sources and quality

Data sources

We calculate estimates of the very old from death registration data using the Kannisto-Thatcher (KT) method. The estimates are constrained to the age 90 years and over totals in our <u>Population estimates for the UK, England, Wales, Scotland and Northern Ireland: mid-2023 release</u>.

We produce the estimates of the very old for England, Wales, and the UK. Comparable statistics are produced by National Records of Scotland (NRS) for Scotland and by Northern Ireland Statistics and Research Agency (NISRA) for Northern Ireland, and are used in our UK estimates.

More quality and methodology information on strengths, limitations, appropriate uses, and how the data were created is available in our <u>Estimates of the very old, including centenarians, Quality and Methodology Information (QMI)</u>.

Quality

There is more volatility in the deaths data used to estimate centenarians in the smaller UK constituent countries because of their relatively small population sizes.

We constrain our estimates of the very old (EVOs) to the 90 years and over totals in our mid-year <u>Estimates of the population datasets</u>; this is the highest age published in these datasets. This allows us to provide users with a consistent set of estimates by single year of age up to age 105 years and over.

Mid-year estimates (MYEs) are based on the latest census. They are adjusted for births, deaths, and migration each year following the census. The 2002 to 2023 estimates published in this release take account of the reconciliation and rebasing of the mid-year estimates from 2012 onwards, following the 2021 round of UK censuses.

We have carried out an extra validation data cleaning step on the deaths data used to calculate the estimates since 2022. The data are very accurate in terms of the number of deaths that occur. However, the age of death at very high ages may not always be accurate. This is because the date of birth given by the person registering the death is not checked against birth certificates. A very small number of records were removed from the input data because evidence was found that those recorded as aged 110 years and over were highly unlikely to be of that age. EVOs are constrained to the age 90 years and over totals in the MYE, so removing these records did not affect the total number of people estimated in the EVOs and only very slightly shifted percentage distributions by single year of age.

Accredited official statistics

These accredited official statistics were independently reviewed by the Office for Statistics Regulation in March 2017. Accredited official statistics were previously known as National Statistics. They comply with the standards of trustworthiness, quality, and value in the <u>Code of Practice for Statistics</u> and should be labelled "accredited official statistics".

United Nations Sustainable Development Goals

The underlying pledge of the United Nations Sustainable Development Goals is to leave no one behind and by definition, this includes the very old. Availability of data is essential to delivery of the goals. The data accompanying this release provide an estimate of the very old population in the UK, England and Wales, disaggregated by sex and single year of age from 90 to 104 years and for those aged 105 years and over.

10. Related links

National life tables - life expectancy in the UK: 2021 to 2023

Bulletin | Released 18 March 2025

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 for local areas of the UK: 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".

The impact of the First World War on the 90 and over population of the UK: 2015

Article | Released 29 September 2016

The impact of birth patterns around the time of the First World War and the influence of the Spanish "flu" pandemic that followed on the size and make up of today's population aged 90 years and over.

11. Cite this statistical bulletin

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