

# Births, deaths and other vital events Fourth quarter 2022

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This release presents provisional figures for vital events which were registered in Scotland in the period from 1 October to 31 December 2022, inclusive. The tables provide statistics of births, stillbirths, marriages, civil partnerships and deaths.

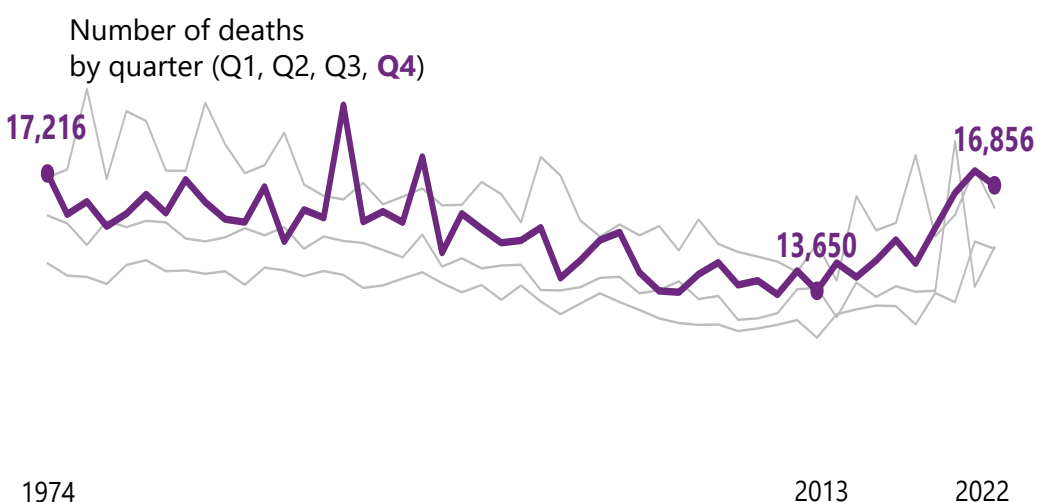
**The number of births was nearly 5% lower than average**

11,899 births were registered in 2022 quarter 4. This figure is 4.9 per cent lower than the quarter 4 average.



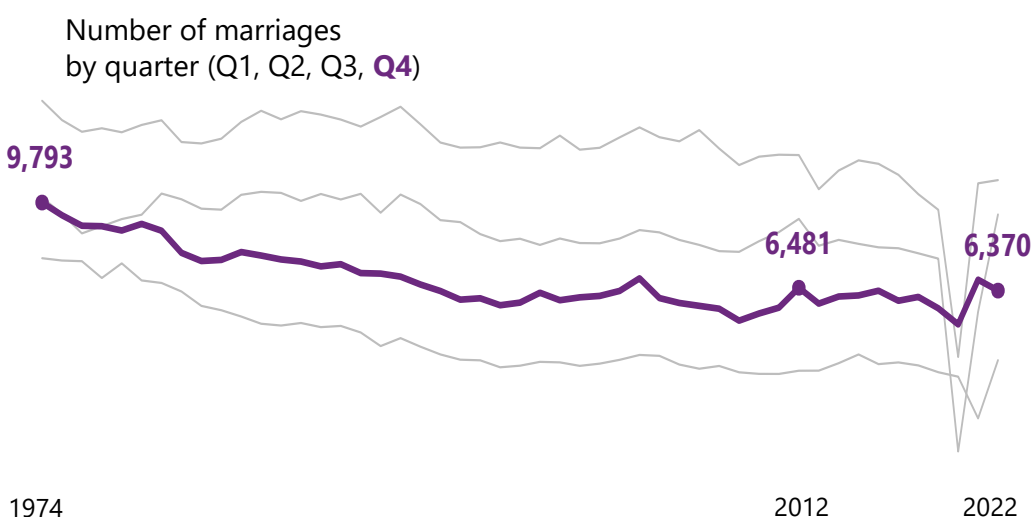
**The number of deaths was 9% higher than the five-year average**

16,856 deaths were registered in October - December 2022. That's 9.3% higher than the five year average.



**Marriages were nearly 3% above average**

There were 6,370 marriages in 2022 quarter 4. This was 2.9% higher than average.



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The [tables and charts](#) above have been made available as Excel spreadsheets and can also be viewed in Comma Separated Value (CSV) format.

## 1. Main points

- There were 11,899 births registered in Scotland between 1 October and 31 December 2022. This is 4.9 per cent lower than the quarter four average of 12,508.
- At 16,856 the number of deaths in 2022 quarter four is 9.3 per cent higher than the quarter four average of 15,423.
- The age-standardised mortality rate for the four-quarter period ending in 2022 quarter 4 was 1.1 per cent lower than the previous four-quarter period (ending 2022 quarter 3). This rate takes into account the growing and ageing population and is therefore the best indicator of the direction of the mortality trend.
- There were 44 stillbirths (3.7 per 1000 live and still births), 4.3 per cent below the quarter four average.
- There were 42 infant deaths (3.5 per 1000 live births), 3.7% below the quarter four average.
- There were 6,370 marriages in quarter 4 of 2022. This was 2.9% higher than than the recent average.
- There were 265 same-sex marriages, compared with a five-year average of 223.
- Since June 2021 mixed-sex couples have been able to form a civil partnership. Of the 169 civil partnerships registered in the fourth quarter of 2022, 141 involved mixed-sex couples.
- There were 28 same-sex civil partnerships, compared with a five-year average of 20.

### Comparing against the five year average

Comparisons are usually made by comparing the current year to the average for the previous five years. For 2022, standard practice would be to compare against the 2017-2021 average.

As the 2020 figures were severely affected by the COVID-19 pandemic – marriages were much lower than usual, deaths were higher, and registration of births was delayed - comparing the 2022 figures to an average including 2020 would not give a true reflection of how the latest quarter's figures compare to the average.

2022 comparisons have therefore been made against the 5 years 2016-2019 plus 2021.

## 2. Introduction

This release presents provisional figures for vital events which were registered in Scotland in the period from 1 October to 31 December 2022, inclusive. The tables and charts provide statistics on births, stillbirths, marriages, civil partnerships and deaths, including:

- quarterly figures for Scotland for each of the past ten years;
- the totals for each Local Authority and NHS Board area for the latest quarter; and
- more detailed analyses of the numbers of deaths (for example cross-classified by sex, cause and NHS Board area) for the latest quarter.

The quarterly tables can be downloaded from the [National Records of Scotland \(NRS\) website](#).

## 3. Births

At 11,899, birth registrations in 2022 quarter four were 4.9% lower than the average for quarter four. We would usually use quarter four of the preceding five years as a comparison (2017-2021), but the registration of births was affected in 2020 by the closure of registration offices, due to COVID-19. 2022 comparisons have therefore been made against the 5 years 2016-2019 plus 2021.

Expressed as a rate there were 8.6 births per 1,000 population.

## 4. Deaths

At 16,856, the number of deaths in 2022 quarter four is 9.3 per cent higher than the quarter four average of 15,423.

Expressed as a rate, there were 12.2 deaths per 1,000 population.

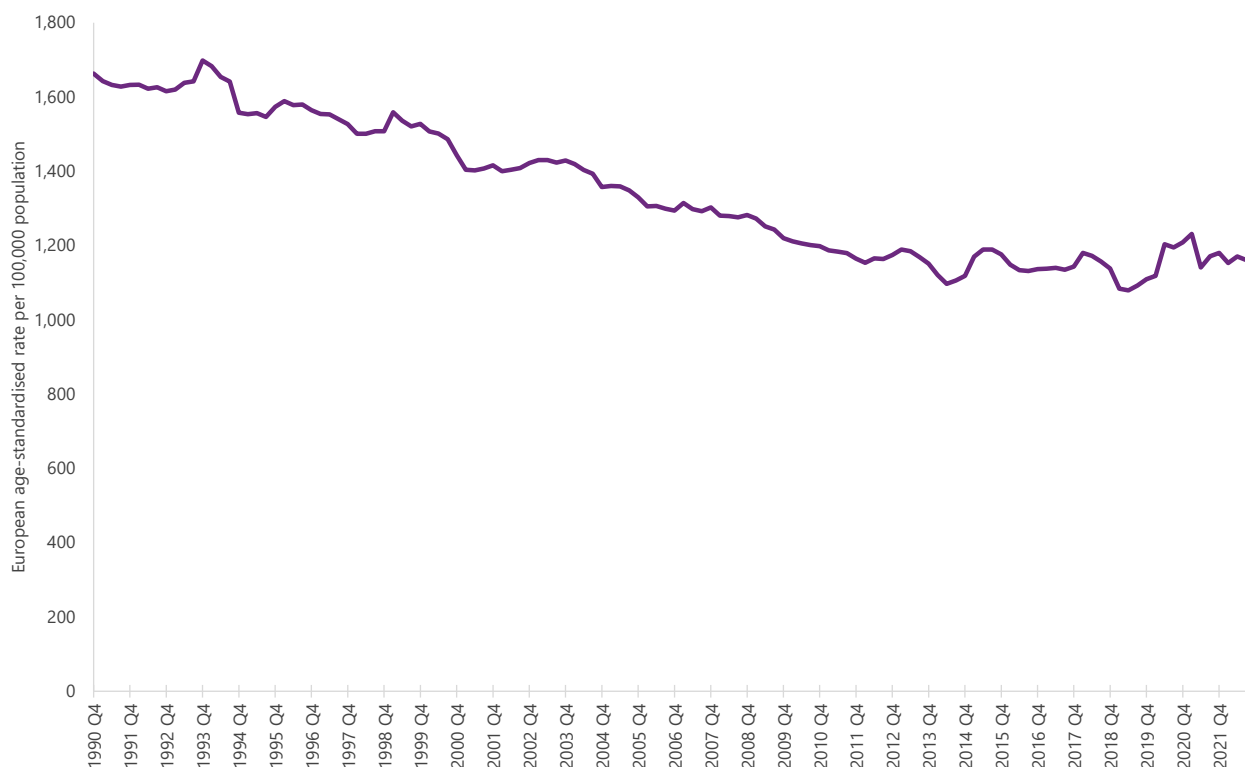
Compared with the quarter four average for 2016-2019 and 2021:

- The number of deaths from cancer was 1.3 per cent higher at 4,291;
- Deaths from respiratory diseases were 8.7 per cent higher at 1,900;
- The number of deaths from coronary heart disease was 4.5 per cent higher at 1,835;
- The number of deaths from dementia and Alzheimer's disease was 3.1 per cent higher at 1,775;
- There were 1,084 deaths from cerebrovascular disease (3.8 per cent higher).

Coronavirus (COVID-19) was the underlying cause of 353 deaths during quarter four and there were no deaths where the underlying cause was adverse effects of a COVID-19 vaccine.

Figure 1 illustrates the age-standardised mortality rates for each four-quarter period from the period ending 1990 Q4 to that ending 2022 Q4. These figures are based on rolling periods of four quarters to reduce fluctuations and reduce seasonal variation. There is a large degree of seasonality in mortality, with higher numbers of deaths occurring in winter than in summer, so it does not make sense to compare a quarter 2 figure with a quarter 1 figure, for example.

**Figure 1: Age-standardised death rates for rolling periods of four quarters**



Despite the attempts to reduce variation, it is clear that there are still considerable fluctuations in the time series. Particularly of note in the most recent period prior to the coronavirus pandemic, are the increases in early 2015 and 2018 due to high winter mortality in quarter one of these years. As these rates are based on rolling four quarter periods, the impact of the high quarter one is also seen in the figures for the following three data points before dropping out when the next year's quarter one figure is picked up.

The rate for the four quarter period ending 2022 Q4 was 1.1 per cent lower than that for the period ending 2022 Q3.

Compared to one year ago the age-standardised mortality rate has decreased by 2.7%.

The longer term trend shows a clear decrease over time, although there have been fluctuations along the way. Between 2014 and 2019 there was virtually no change (with the two notable fluctuations previously discussed in 2015 and 2018). The rate rose after then to reach a peak of 1,230.9 in the period ending 2021 Q1, the highest rate since the period ending 2009 Q3. The coronavirus pandemic contributed to the high rates between 2020 Q2 and 2021 Q1. In 2021 Q2 the rate dropped significantly although it has remained at a higher level than it was prior to the pandemic in the period since.

## 5. Marriages and civil partnerships

There were 6,370 marriages in quarter 4 of 2022. This was 2.9% higher than than the recent average. The number of marriages began to increase after the restrictions (which

were first put in place in quarter 2 of 2020) were eased. Quarter three of 2021 was the first to return to pre-pandemic levels.

There were 265 same-sex marriages, compared with a five-year average of 223 for quarter four.

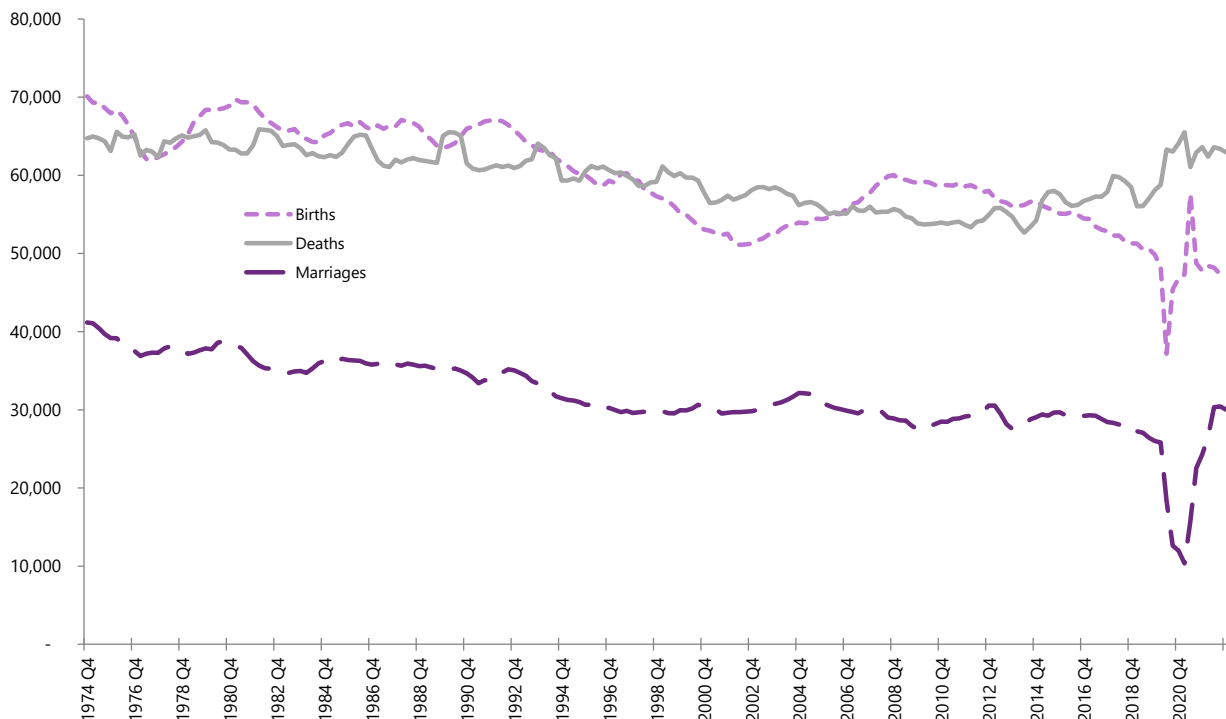
Since June 2021 mixed-sex couples have been able to form a civil partnership. Of the 169 civil partnerships registered in the fourth quarter of 2022, 141 involved mixed-sex couples.

## 6. Natural change (births minus deaths)

For the latest four quarter period (2022 Q1 to 2022 Q4) there were 46,959 births and 62,942 deaths, a shortfall of 15,983 births compared to deaths.

Having less births than deaths in a population is referred to as 'negative natural change', meaning that without external factors (such as migration) the population will fall. Scotland has been in a position of negative natural change since the period ending 2015 Q1. Prior to this, there was a sustained period of positive natural change (i.e. more births than deaths) going back to 2006. As can be seen from figure 2, the gap between births and deaths has fluctuated over time and there have been several periods of both positive and negative natural change over the last 40 years.

**Figure 2: Births, deaths and marriages registered in rolling periods of four quarters**



Note: The number of birth registrations in the quarters of 2020 do not reflect the number of births which occurred.



## 7. Background to these statistics

This is a quarterly publication. NRS collects the underlying data on a daily basis, as and when each event is registered. The statistics for 2022 are provisional and likely to be finalised in summer 2023.

Information about the sources, methods, definitions and reliability of these statistics is available from the following NRS web site pages:

- [general background information on Vital Events statistics](#)
- [background information on points which are specific to statistics about deaths.](#)

Finalised Vital Events statistics for calendar years as a whole can be found in the [Vital Events Reference Tables](#).

## 8. Notes on statistical publications

### National Statistics

The UK Statistics Authority has designated these statistics as National Statistics, in line with the Statistics and Registration Service Act 2007 and signifying compliance with the [Code of Practice for Official Statistics](#) (available on the UK Statistics Authority website).

National Statistics status means that official statistics meet the highest standards of trustworthiness, quality and public value.

All official statistics should comply with all aspects of the Code of Practice for Official Statistics. They are awarded National Statistics status following an assessment by the Authority's regulatory arm. The Authority considers whether the statistics meet the highest standards of Code compliance, including the value they add to public decisions and debate.

It is National Records of Scotland's responsibility to maintain compliance with the standards expected of National Statistics. If we become concerned about whether these statistics are still meeting the appropriate standards, we will discuss any concerns with the Authority promptly. National Statistics status can be removed at any point when the highest standards are not maintained, and reinstated when standards are restored.

### Information on background and source data

Further details on data source(s), timeframe of data and timeliness, continuity of data, accuracy can be found in the 'About this Publication' document that is published alongside this publication on the NRS website.

### National Records of Scotland

We, the National Records of Scotland, are a non-ministerial department of the devolved Scottish Administration. Our purpose is to collect, preserve and produce information about Scotland's people and history and make it available to inform current and future generations. We do this as follows:

- Preserving the past – We look after Scotland’s national archives so that they are available for current and future generations, and we make available important information for family history.
- Recording the present – At our network of local offices, we register births, marriages, civil partnerships, deaths, divorces and adoptions in Scotland.
- Informing the future – We are responsible for the Census of Population in Scotland which we use, with other sources of information, to produce statistics on the population and households.

You can get other detailed statistics that we have produced from the [Statistics](#) section of our website. Scottish Census statistics are available on the [Scotland’s Census](#) website.

We also provide information about [future publications](#) on our website. If you would like us to tell you about future statistical publications, you can register your interest on the Scottish Government [ScotStat website](#).

You can also follow us on twitter [@NatRecordsScot](#)

### **Enquiries and suggestions**

Please get in touch if you need any further information, or have any suggestions for improvement.

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