

Births, deaths and other vital events

First quarter 2023

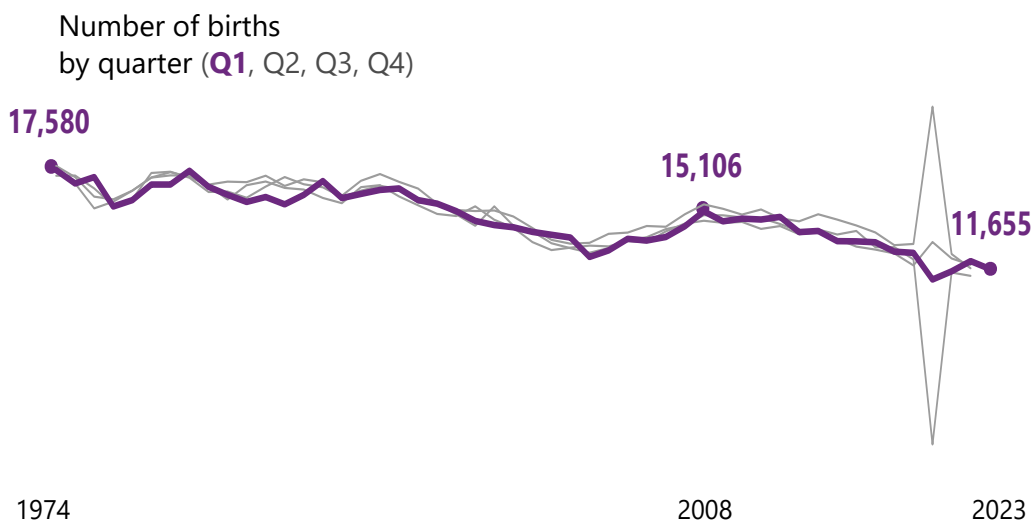
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This release presents provisional figures for vital events which were registered in Scotland in the period from 1 January to 31 March 2023, inclusive. The tables provide statistics of births, stillbirths, marriages, civil partnerships and deaths.

The number of births was 6% lower than average

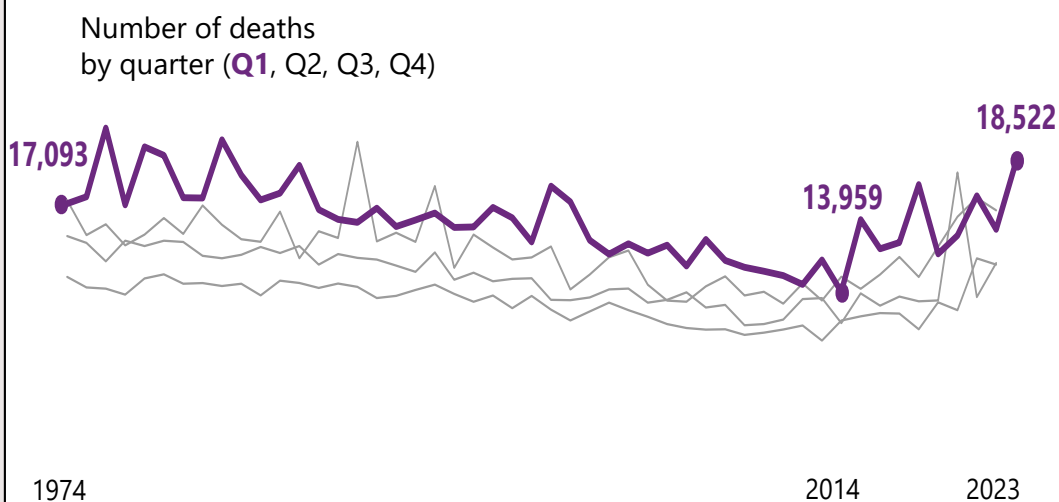
11,655 births were registered in 2023 quarter 1. This figure is 6.3 per cent lower than the quarter 1 average.



The number of deaths was 12.5% higher than the five-year average

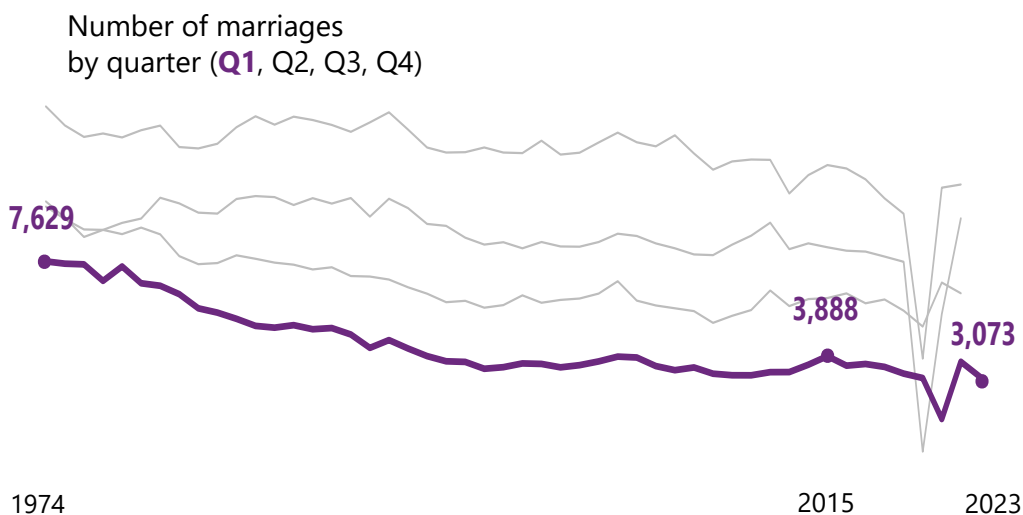
18,522 deaths were registered in January - March 2023. That's 12.5% higher than the five year average.

The age-standardised mortality rate, which takes into account the growing and aging population, was 6.2% above average.



The number of marriages was close to the quarter 1 average

There were 3,073 marriages in 2023 quarter 1. This was 0.4% higher than average.



Contents

1.	Main points	5
2.	Introduction.....	6
3.	Births	6
4.	Deaths.....	6
5.	Marriages and civil partnerships.....	9
6.	Natural change (births minus deaths).....	10
7.	Background to these statistics.....	11
8.	Notes on statistical publications	11

List of tables

- Table Q1 Births, stillbirths, deaths, marriages and civil partnerships, numbers and rates, Scotland, quarterly, 2013 to 2023
- Table Q2a Estimated population, births, stillbirths, deaths, marriages and civil partnerships, numbers and rates, by Council area, Scotland, first quarter, 2023
- Table Q2b Estimated population, births, stillbirths, deaths, marriages and civil partnerships, numbers and rates, by NHS Board area, Scotland, first quarter, 2023
- Table Q3a Deaths, by sex, age and Council area, Scotland, first quarter, 2023
- Table Q3b Deaths, by sex, age and NHS Board area, Scotland, first quarter, 2023
- Table Q4 Deaths, by cause, Scotland, first quarter 2017-2023
- Table Q5 Deaths by sex, age and cause, Scotland, first quarter, 2023
- Table Q6 Deaths by sex, cause and NHS Board area, Scotland, first quarter, 2023
- Table Q7 Age-standardised mortality rates and excess deaths, Scotland quarterly, 2005-2023

List of Figures

- Figure 1 Deaths and excess deaths in Scotland, by quarter, 2005-2023
- Figure 2 Age-standardised mortality rates (ASMRs) and five year averages, 2005-2023
- Figure 3 Proportional excess mortality, numbers and rates, quarterly, 2005-2023
- Figure 4 Births, deaths and marriages registered in rolling periods of four quarters, 1974-2023

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 11,655 births registered in Scotland between 1 January and 31 March 2023. This is 6.3 per cent lower than the quarter one average of 12,440.
- At 18,522 the number of deaths in 2023 quarter one is 12.5 per cent higher than the quarter one average of 16,468.
- The age-standardised mortality rate for 2023 quarter 1 was 1,359 per 100,000 population. This was 6.2 per cent higher than the five year average for quarter 1. 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 37 stillbirths (3.2 per 1000 live and still births), 27.2 per cent below the quarter one average.
- There were 45 infant deaths (3.9 per 1000 live births), 3.7% above the quarter one average.
- There were 3,073 marriages in quarter 1 of 2023. This was 0.4% higher than the recent average.
- There were 122 same-sex marriages, compared with a five-year average of 118.
- Since June 2021 mixed-sex couples have been able to form a civil partnership. Of the 128 civil partnerships registered in the first quarter of 2023, 108 involved mixed-sex couples.
- There were 20 same-sex civil partnerships, compared with a five-year average of 14.

Comparing against the five year average

Comparisons are usually made by comparing the current year to the average for the previous five years. For 2023, standard practice would be to compare against the 2018-2022 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 2023 figures to an average including 2020 would not give a true reflection of how the latest quarter's figures compare to the average.

2023 comparisons have therefore been made against the 5 years 2017-2019 plus 2021-2022.

2. Introduction

This release presents provisional figures for vital events which were registered in Scotland in the period from 1 January to 31 March 2023, 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 11,655, birth registrations in 2023 quarter one were 6.3% lower than the average for quarter one. We would usually use quarter one of the preceding five years as a comparison (2018-2022), but the registration of births was affected in 2020 by the closure of registration offices, due to COVID-19. 2023 comparisons have therefore been made against the 5 years 2017-2019 plus 2021-2022.

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

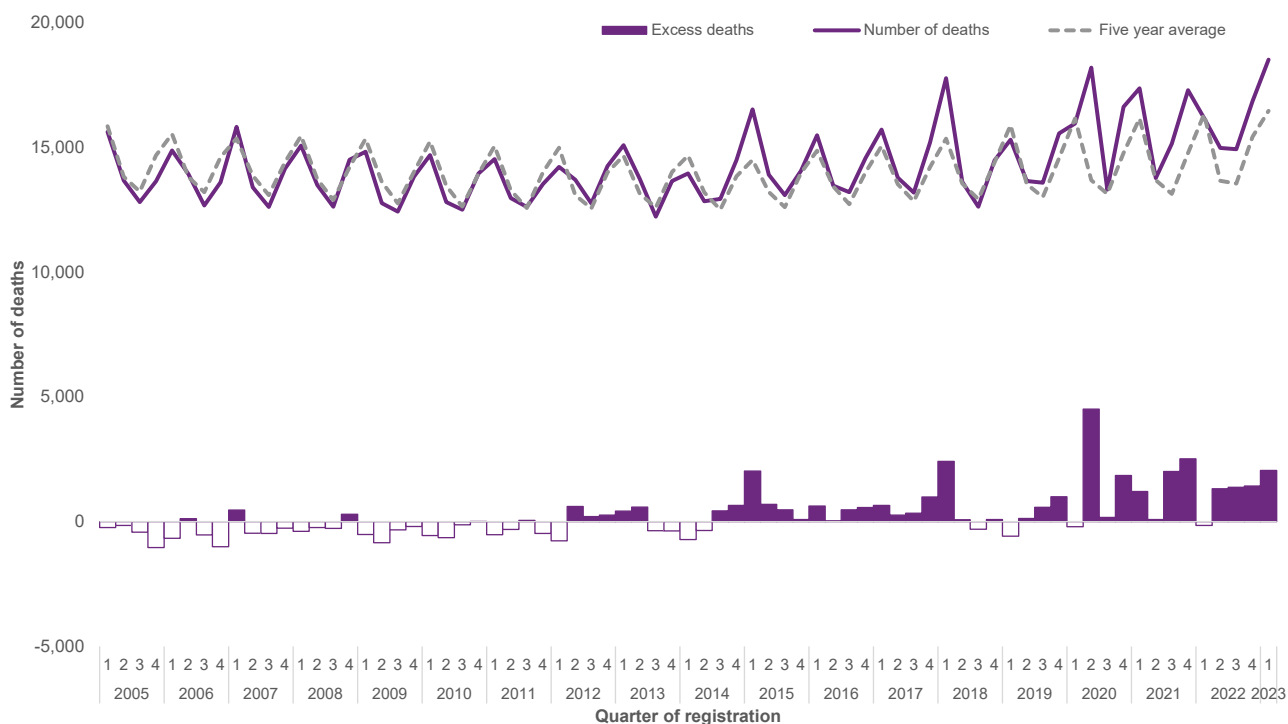
4. Deaths

In the first quarter of 2023 there were 18,522 deaths. This 12.5 per cent higher than the quarter one average of 16,468.

Expressed as a rate, there were 13.7 deaths per 1,000 population.

Figure 1 illustrates the number of deaths registered each quarter since 2005, and shows the trend in excess deaths. During the past decade in most quarters the number of deaths registered has been higher than the five-year average for that quarter (excess deaths). As the population has been growing and ageing over this period of time, we would expect there to be an excess in the **number** of deaths.

Figure 1: Deaths and excess deaths in Scotland, by quarter



Age-standardised mortality rates (ASMRs) take into account changes to population size and age-structure so they are a better indicator of trends. Figure 2 illustrates the age-standardised mortality rates for each quarter. There is a large degree of seasonality in mortality, with higher rates of deaths in winter than in summer. In the series shown below the lowest mortality rates are always seen in quarter three (July to September). The highest mortality rates always occur in quarter 1 (January to March) with the exception of 2020 during the first wave of the pandemic.

In the first half of the series (until around 2014) there was a downward trend in rates and the ASMR for most quarters was below the five year average. From 2015 to 2019 ASMRs were below the five year average for most quarters with the notable exceptions of quarter one of 2015 and 2018. The coronavirus pandemic contributed to higher than average rates in recent years and these higher rates continue, with the four most recent quarterly rates all being above the average.

Figure 2: Age-standardised mortality rates (ASMRs) and five year averages

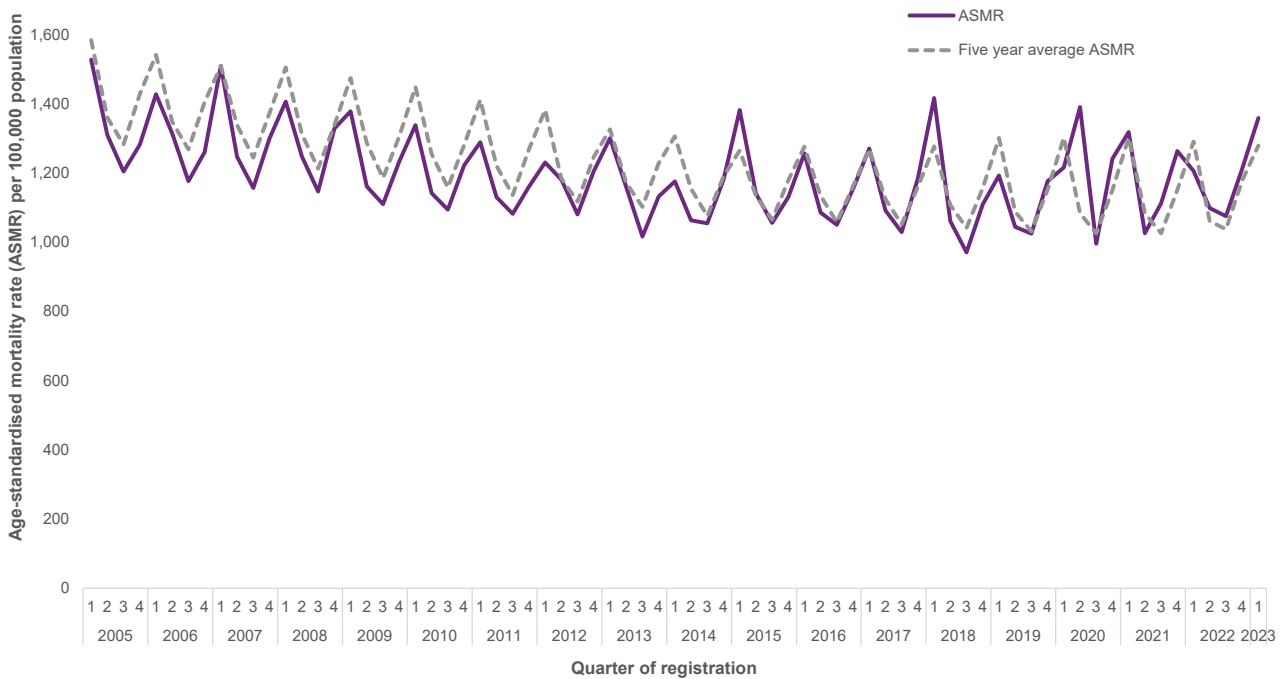
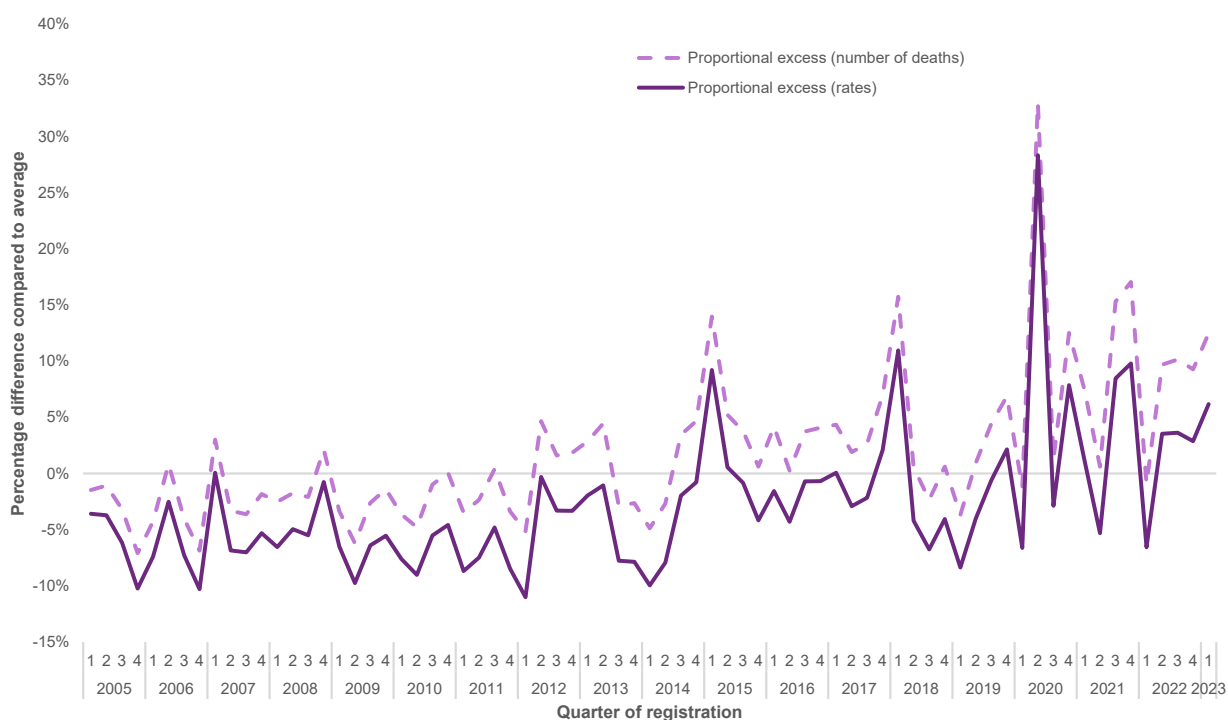


Figure 3 illustrates proportionate levels of excess deaths when measured on number of deaths and on age-standardised rates. The measure of excess deaths using age-standardised rates is more accurate as it takes into account the growing and ageing population. Excess deaths are consistently lower when measured using rates rather than numbers throughout the whole series shown in figure 3.

Figures for recent quarters show that whilst excess deaths measured with ASMRs are lower than those measured using numbers, there has still been an excess for the majority of quarters since 2020 Q2. The excess (based on ASMRs) for 2023 quarter one is 6.2%.

Figure 3: Proportional excess mortality, numbers and rates, quarterly



Compared with the quarter one average for 2017-2019 and 2021-2022:

- The number of deaths from cancer was 6.4 per cent higher at 4,322;
- Deaths from respiratory diseases were 22.9 per cent higher at 2,411;
- The number of deaths from coronary heart disease was 12.2 per cent higher at 2,050;
- The number of deaths from dementia and Alzheimer’s disease was 11.5 per cent higher at 1,980;
- There were 1,088 deaths from cerebrovascular disease (2.7 per cent higher).

Coronavirus (COVID-19) was the underlying cause of 546 deaths during quarter one and there were no deaths where the underlying cause was adverse effects of a COVID-19 vaccine.

5. Marriages and civil partnerships

There were 3,073 marriages in quarter 1 of 2023. This was 0.4% 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 122 same-sex marriages, compared with a five-year average of 118 for quarter one.

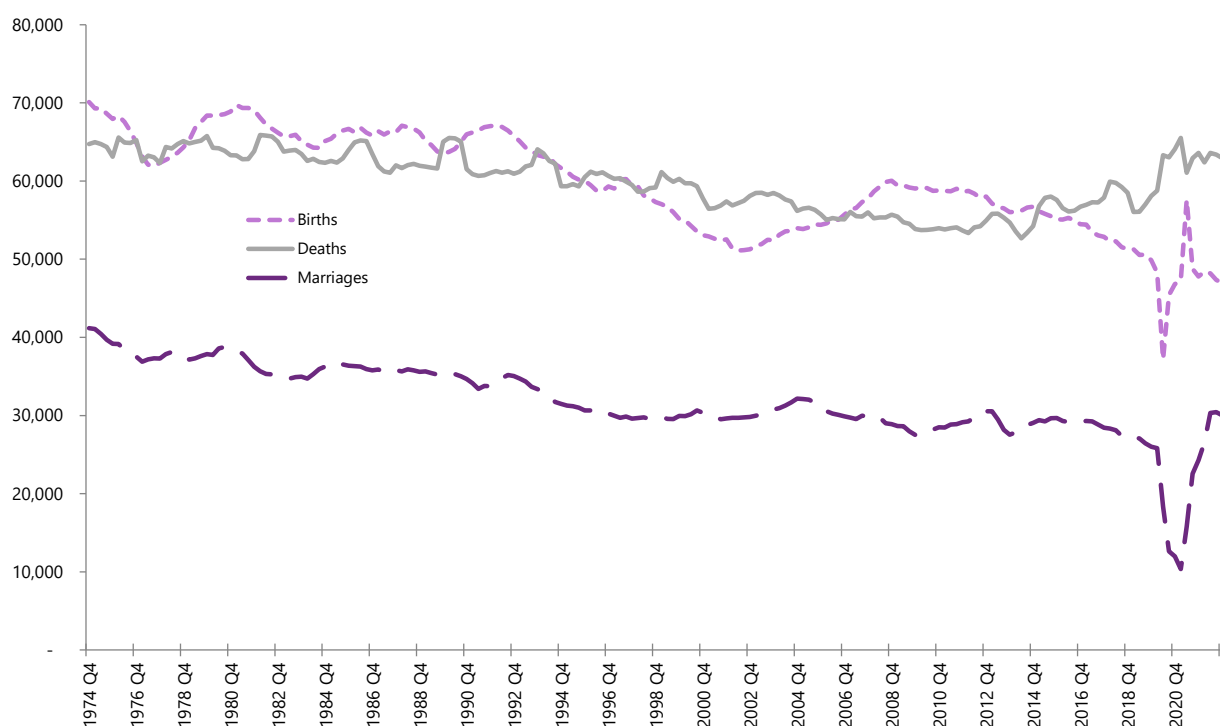
Since June 2021 mixed-sex couples have been able to form a civil partnership. Of the 128 civil partnerships registered in the first quarter of 2023, 108 involved mixed-sex couples.

6. Natural change (births minus deaths)

For the latest four quarter period (2022 Q2 to 2023 Q1) there were 46,488 births and 65,284 deaths, a shortfall of 18,796 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 4, 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 4: 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.

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Enquiries and suggestions

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

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