

Monthly Mortality Analysis, Scotland September 2023

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This statistical report includes provisional statistics on deaths occurring up to 30 September 2023.

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1. Main Points

- Taking into account the size and age structure of the population, the rate of mortality was 1,020 per 100,000 population in September 2023. This was 6% lower than the September five-year average rate, which is a statistically significant difference.
- There were 4,692 deaths in September 2023. This was 1% lower than the September five-year average.
- The leading cause of death was ischaemic heart disease, which accounted for 10% of all deaths in September.
- For females, the leading cause of death was dementia and Alzheimer's disease (12% of all female deaths in September). For males, the leading cause was ischaemic heart disease (12% of all male deaths in September).

2. Introduction

This publication focusses on mortality in Scotland, with breakdowns by council area, health board, age, sex, cause of death, location of death and deprivation quintile.

The data in this publication for 2023 onwards is still provisional and subject to change. Finalised data for the 2023 calendar year will be confirmed in summer 2024.

How can these statistics be used?

- To look at emerging and seasonal trends in mortality in Scotland.
- To understand excess deaths
- To investigate how causes of death, and rates of mortality vary across Scotland.

This short report only gives a look at some of the headline figures every month, with much more information available in our downloadable datasets. These datasets all have interactive charts built in, to aid users in exploring the latest trends.

The data in this report is based on the date a death occurred, other analysis can be based on the date a death was registered.

What are you looking for?

Data from this report

Weekly deaths data

Where is it?

[Monthly mortality tables](#)

[Weekly deaths registered](#)

3. Differences between this data and other NRS mortality data

There are differences in the way we present deaths data in our various statistical releases. Users should consider the following factors when comparing figures from different publications.

Date of occurrence and date of registration

The data in this report focusses on deaths by date of occurrence. Other NRS datasets focus on deaths by date of registration. Deaths by date of occurrence are generally a more accurate measure as they are not affected by public holidays and other factors which may delay registration. Deaths by date of registration are more timely and can be produced more quickly, which is why we use this measure for our weekly data.

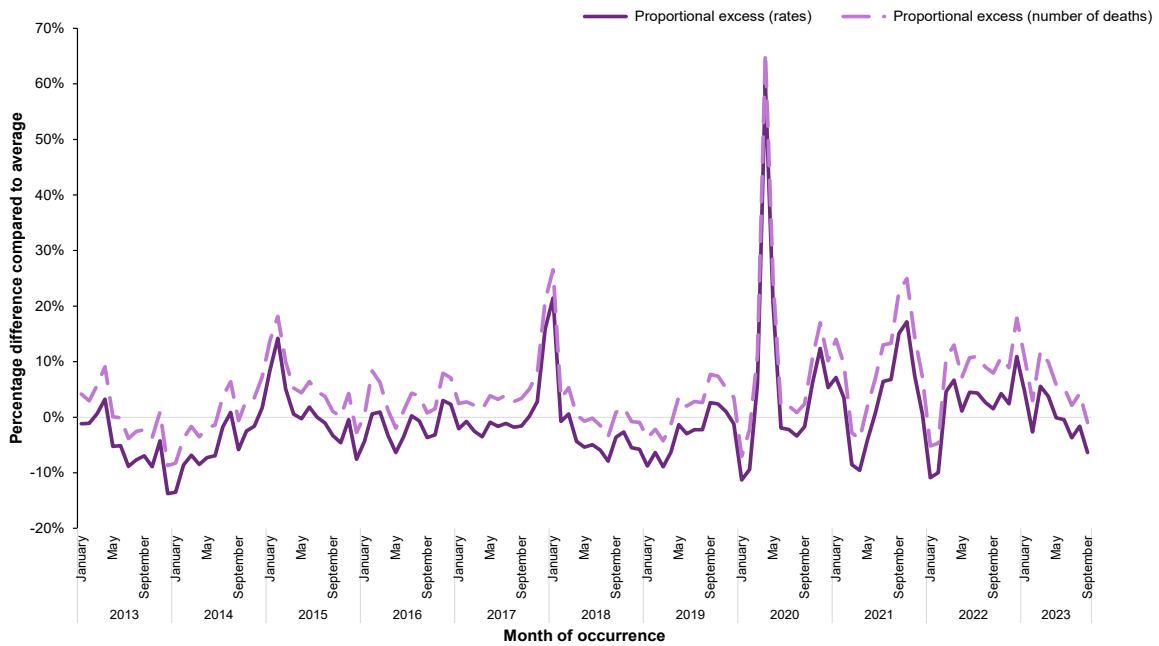
Weekly data and monthly data

The data in this report looks at monthly death data. Other NRS datasets look at weekly data. Weekly data does not fit neatly into calendar months or years, e.g. weeks 1-4 of a year are not the same thing as data for the calendar month of January.

4. Mortality rates in September 2023 were lower than average

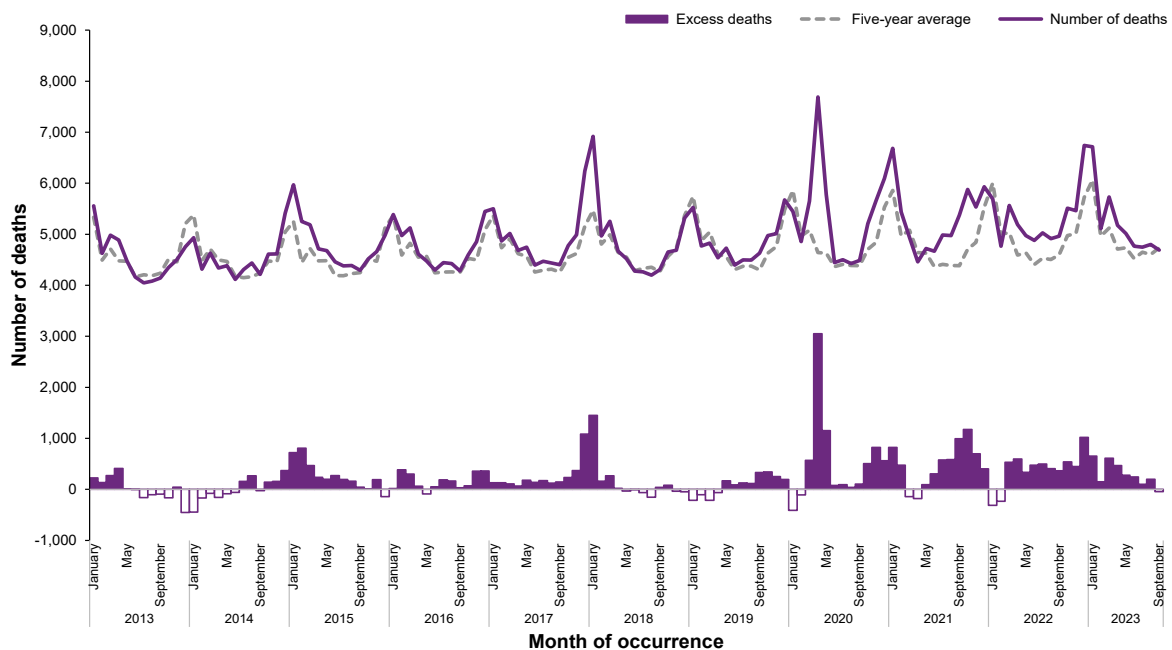
Taking into account the size and age structure of the population, the mortality rate for September was 6% lower than the five-year average (Figure 1). In September 2023 there were 4,692 deaths which was 1% lower than the September five-year average (Figure 2).

Figure 1: Proportional excess mortality, based on age-standardised rate of mortality and number of deaths



Source: [Table M1 – Monthly Mortality Analysis](#)

Figure 2: Number of deaths in Scotland by month, with five-year average



Source: [Table M1 – Monthly Mortality Analysis](#)

The number of deaths was 1% below average levels in September 2023. The age-standardised rate of mortality, which takes into account the size and age structure of the population, was 1,020 per 100,000 population in September 2023. This is 6% lower than the September average rate which is a statistically significant difference.

The year 2020 has been excluded from five-year averages for the purpose of calculating excess deaths. Find out more about this [here](#).

Figure 1 shows how the excess based on age-standardised mortality rates is generally lower than the excess based on number of deaths. This happens because the rate takes into account the age-structure and size of the population. The population has increased and become older over time (people are living longer, and there are fewer children than in previous generations). With a larger and older population, we might expect the number of deaths to be higher than it was in previous years.

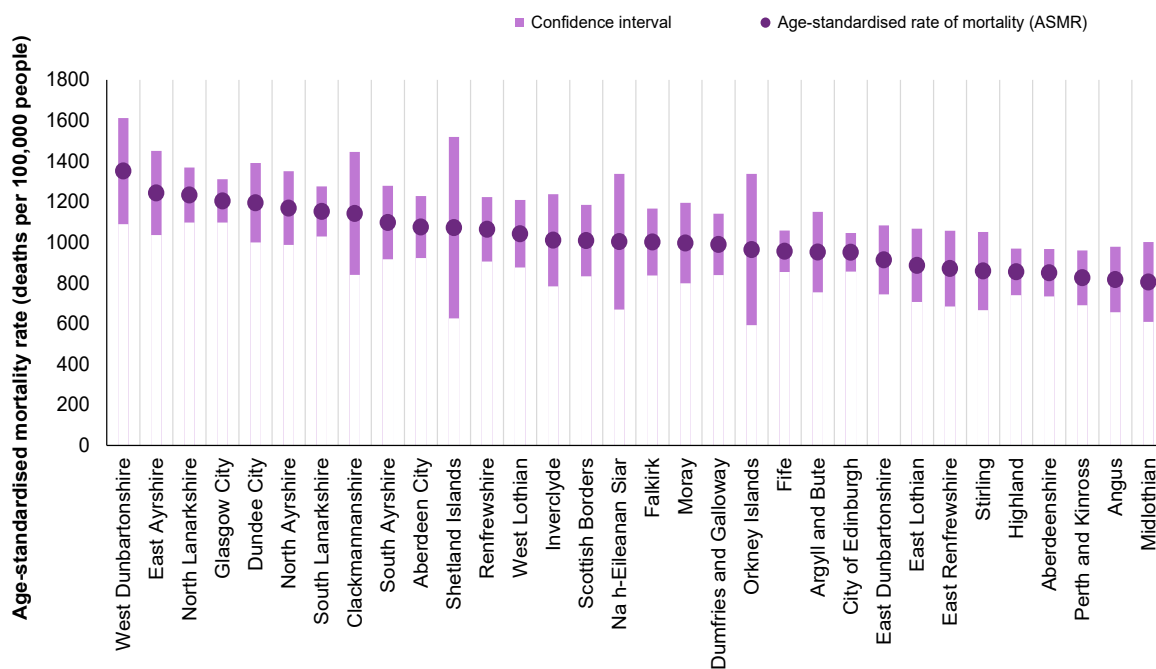
The calculation of excess based on age-standardised rates takes into account the changing population structure, so it gives a more accurate picture of excess deaths by removing the impact of the growing and ageing population.

5. Variation in mortality rates across Scotland

West Dunbartonshire, East Ayrshire, North Lanarkshire, Glasgow City, South Lanarkshire had mortality rates higher than the average for Scotland in September 2023, shown in [Figure 3](#).

In contrast, Midlothian, Angus, Perth and Kinross, Highland, Aberdeenshire and Stirling had rates that were lower than the average for Scotland in September 2023.

Figure 3: Age-standardised mortality rates, council areas, September 2023

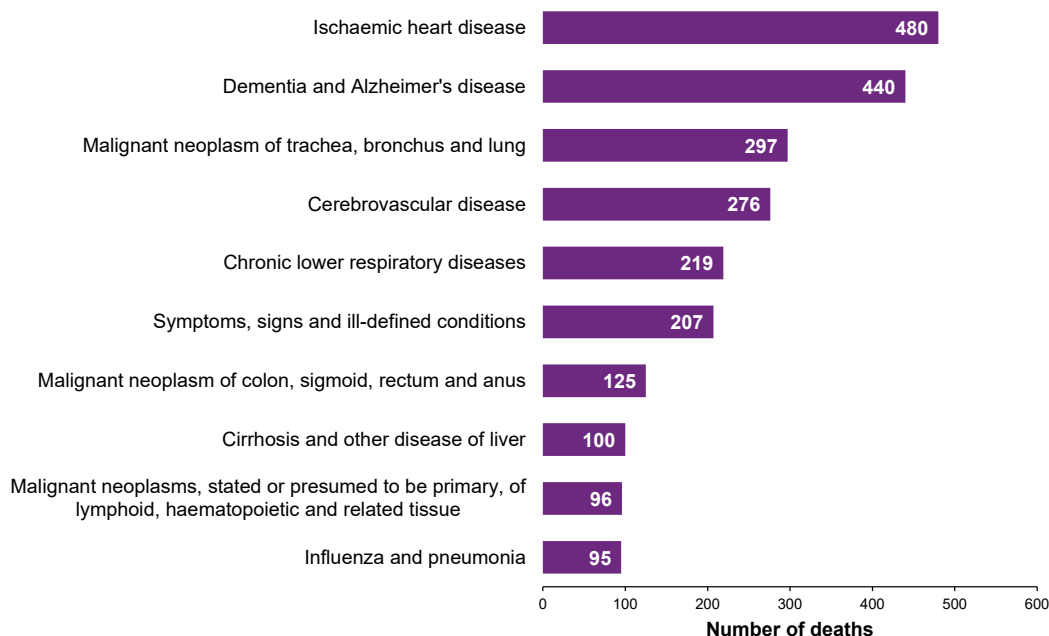


Source: [Table M3 – Monthly Mortality Analysis](#)

6. Ischaemic heart disease was the leading cause of death in September 2023

In September 2023 there were 479 deaths from ischaemic heart disease, which was the leading cause of death shown in [Figure 4](#). Ischaemic heart disease accounted for 10% of all deaths that occurred in September 2023.

Figure 4: Leading causes of death in September 2023



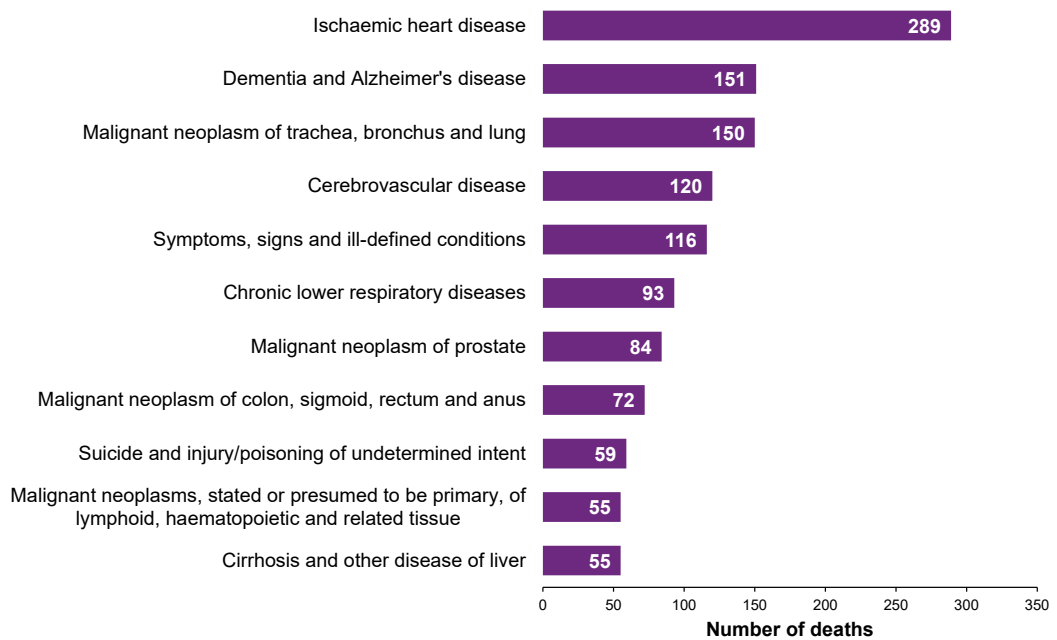
Source: [Table M4 – Monthly Mortality Analysis](#)

Ischaemic heart disease was also the top cause of death for males (12% of all male deaths in September), but dementia and Alzheimer's disease was the top cause of death for females (12% of all female deaths last month).

The top ten leading causes of death can change each month, particularly when broken down by sex, shown in [Figures 5](#) and [6](#). This can be the result of small changes in less common causes of death.

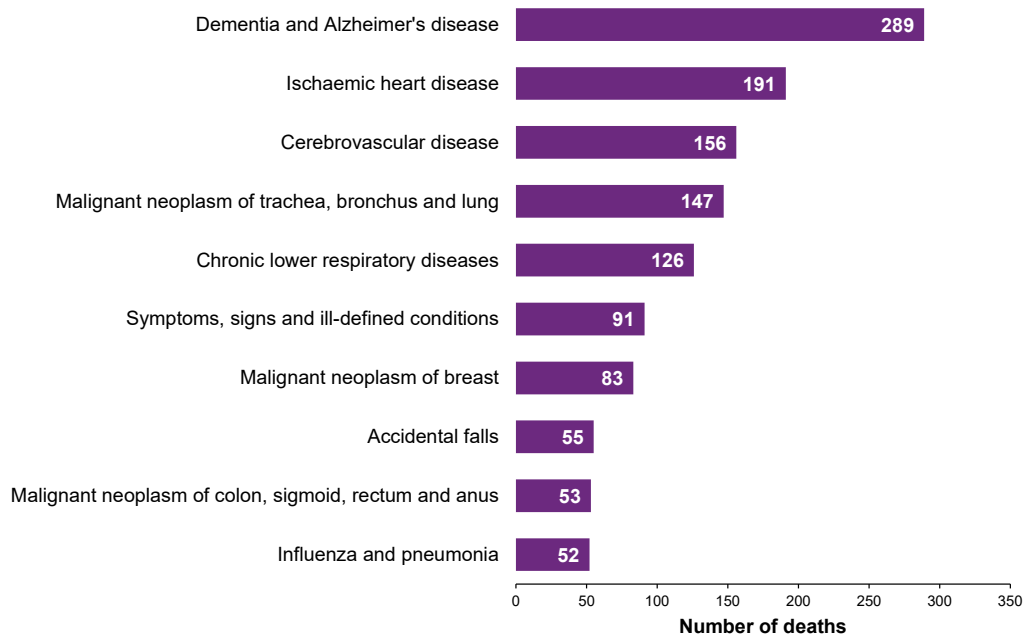
For example, suicide and injury/poisoning of undetermined intent has re-entered the top ten leading causes of death for Males in September 2023 after not being in the top ten leading causes last month. It is worth noting that this data is highly provisional. Possible suicides are referred to the Crown Office and Procurator Fiscal Service (COPFS) for investigation and it can take several months before the final cause of death is confirmed. Some deaths may initially be recorded as undetermined intent while the investigation is ongoing. Deaths from this cause may go up or down once all information is received.

Figure 5: Leading causes of death in Males, September 2023



Source: [Table M4 – Monthly Mortality Analysis](#)

Figure 6: Leading causes of death in Females, September 2023



Source: [Table M4 – Monthly Mortality Analysis](#)

7. Background Notes

Methodology

A full methodology document is available on the NRS website.

The data in this report comes from death registrations, where causes of death are certified by a doctor. Figures represent deaths occurring in Scotland, deaths of people whose usual residence is outside Scotland are included in these figures. Some data is provisional and is subject to change. This is because the cause of death (and other registered details) can be changed after a death has been registered.

Where can I find data?

The data used in this report can be found on the [NRS website](#). There are six tables available to download.

- [Table M1 – Deaths in Scotland by month of occurrence, sex and cause](#)
- [Table M2 – Deaths in Scotland by month of occurrence, sex, cause and age](#)
- [Table M3 – Deaths in Scottish areas by month of occurrence and sex](#)
- [Table M4 – Leading causes of death in Scotland by month of occurrence and sex](#)
- [Table M5 – Deaths in Scotland by location of death](#)
- [Table M6 – Deaths in Scotland by deprivation quintile \(SIMD\), month of occurrence and sex](#)

8. Links to related statistics

Other NRS mortality statistics:

- [Weekly deaths registered in Scotland](#)
- [Births, deaths and other vital events - Quarterly](#)

Statistics from other organisations:

- [ONS Monthly Mortality Analysis \(England and Wales\)](#)
- [NISRA Monthly Deaths \(Northern Ireland\)](#)

9. Notes on statistical publications

National Statistics

The United Kingdom Statistics Authority (UKSA) 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 [UKSA](#) 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, etc. can be found in the metadata that is published alongside this publication on the NRS website.

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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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