

Deaths involving coronavirus (COVID-19) in Scotland

Week 11
(15 March 2021 to 21 March 2021)



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This statistical report includes provisional statistics on the number of deaths associated with coronavirus (COVID-19) and the total number of deaths registered in Scotland, for week 11 of 2021

Key Findings

COVID deaths

- As at the 21st of March, there have been a total of 9,897 deaths registered in Scotland where the novel coronavirus (COVID-19) was mentioned on the death certificate.
- Of the total number of deaths registered in week 11 (15 March to 21 March), there were 65 where COVID-19 was mentioned on the death certificate. This is a decrease of 39 deaths on the previous week.
- Of deaths involving COVID-19 in the latest week:
 - 55% (36 deaths) were aged 75+, and 18% (12 deaths) were aged under 65.
 - 51% were male (33 deaths) and 49% female (32 deaths).
 - There were 17 deaths in Greater Glasgow and Clyde Health Board area, 13 in Lanarkshire and 10 in Lothian.
 - At council level, the highest number of deaths occurred in Glasgow City (9), North Lanarkshire (9) and City of Edinburgh (7).
 - The majority of deaths (80%) occurred in hospitals (52 deaths), with 6 deaths in care homes and 7 at home or in non-institutional settings.
- Disabled people were more likely than non-disabled people to have died with COVID-19 between March 2020 and January 2021.

Data for weeks 52, 53 and 1 are affected by the Christmas Period

There were fewer registrations than usual in weeks 52 and 53 of 2020 due to public holidays. Week 52 contained one public holiday for 25 December, and week 53 contained two public holidays, 28 December and 1 January. As a result, death registrations were likely to be lower than the actual number of deaths that occurred in these weeks.

Registrations for week 1 were higher than normal as registrars dealt with backlogs from the previous weeks, although it should be noted that there was also a public holiday in this week (4 January).

Care should therefore be taken in interpreting weekly data around the turn of the year as it is affected by public holidays and won't give a reliable indication of the trend. Figure 2 in this report provides analysis of deaths by date of occurrence (as well as date of registration) and gives a clearer indication of the trend at the end of the year.

All-cause deaths and excess deaths

- The provisional total number of deaths registered in Scotland in week 11 of 2021 (15 March to 21 March) was 1,102.
- The average number of deaths registered in the corresponding week over the five year period between 2015 and 2019 was 1,169, so there were 67 (6%) fewer deaths registered in week 11 of 2021 compared to the average.
- In week 11 there were 85 fewer deaths in care homes compared to the average (30% below average), 126 excess deaths at home or in non-institutional settings (42% above average) and 110 fewer deaths in hospitals compared to the average (19% below average).
- There were 67 fewer deaths across all settings in the latest week. This is because deaths from respiratory causes (-71), dementia and Alzheimer's (-39) and cancer (-9) were all below average for this time of year. The number of deaths where COVID-19 was the underlying cause of death was 42.

Measuring excess deaths in 2021

Excess deaths are calculated by comparing the current year to the five year average from previous years. This average is based on the actual number of death registrations recorded for each corresponding week in the previous five years. Moveable public holidays, when registration offices are closed, affect the number of registrations made in the current week and in the corresponding weeks in previous years.

Usually, the previous five years are used to compare against the most recent year to calculate excess deaths. In 2020, excess deaths were measured by comparing the 2020 figure against the average for 2015-2019. For 2021 we would generally calculate excess deaths by comparing the 2021 figure against the average for 2016-2020.

As excess deaths are a key measure of the effect of the pandemic, it is not appropriate to compare the 2021 figure against the 2016-2020 average as that average will be affected by the pandemic with higher deaths in Spring 2020. We have therefore decided to continue to use the 2015-2019 average to measure excess deaths in 2021.

Figure 1: Weekly deaths involving COVID-19 in Scotland, week 12 2020 to week 11 2021

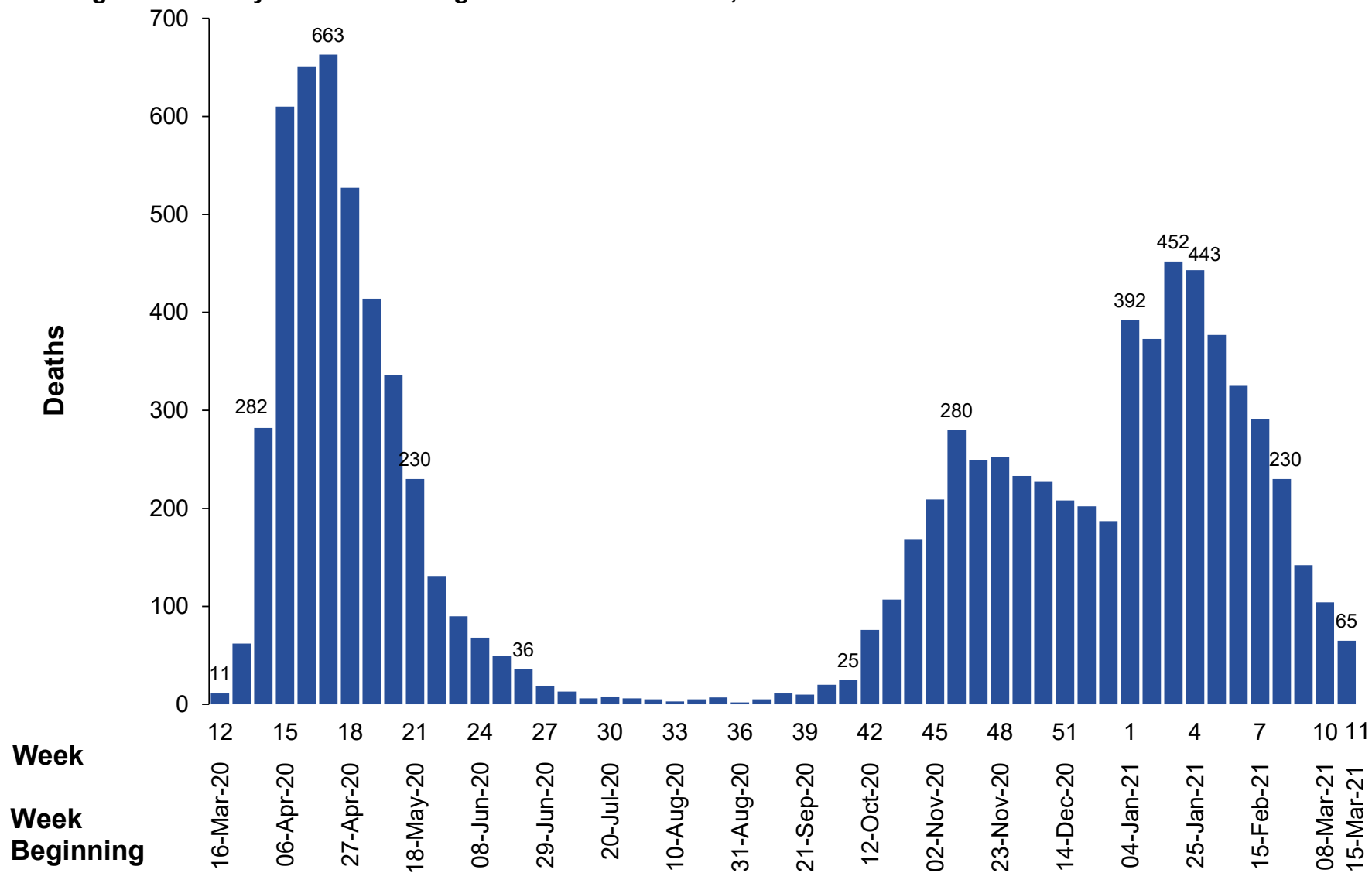
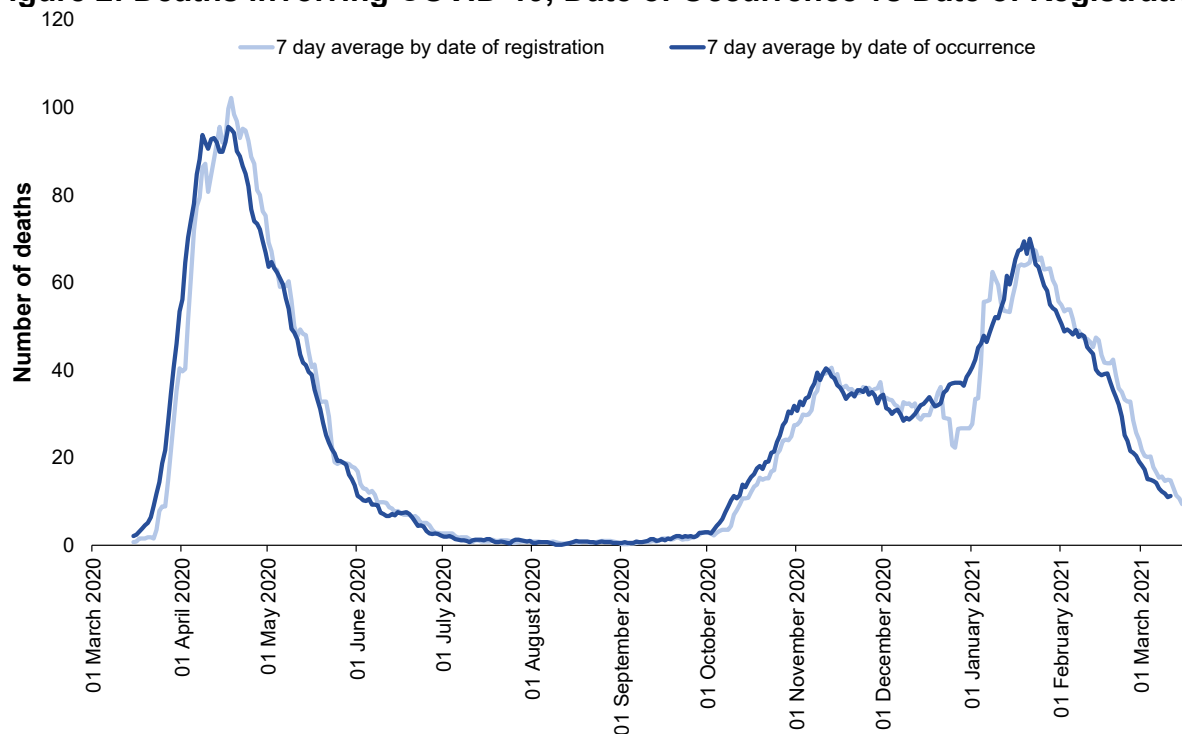


Figure 2: Deaths involving COVID-19, Date of Occurrence vs Date of Registration



The figures throughout this report are based on the date a death was registered rather than the date the death occurred. When someone dies, their family (or a representative) have to make an appointment with a registrar to register the death. Legally this must be done within 8 days, although in practice there is, on average, a 3 day gap between a death occurring and being registered. This gap can be greater at certain times of the year such as Easter and Christmas when registration offices are closed for public holidays.

In general, the trend in COVID-19 deaths by date of registration (the NRS headline measure) has a lag of around 3 days when compared with the figures on date of death. For most of the period examined the trend based on date of occurrence precedes that based on date of registration by around 3 days. However this changed over the Christmas period.

Based on date of registration, the trend which, had been falling since mid-November, continued to fall with a substantial dip around Christmas (as registration offices closed for public holidays) and then increased rapidly in early January as registration offices caught up with the backlog of registrations. The trend based on date of occurrence shows a different picture and indicates that deaths began to increase as early as mid-December, and continued to increase through most of January. Towards the end of January the seven day average for deaths by date of occurrence began to fall and has continued to fall since.

This report includes all deaths which were registered by 21st March. There will, however, be deaths which occurred before this date but were not yet registered. In order to include a more complete analysis based on date of occurrence, we need to wait an additional week to allow the registration process to fully complete. The trend based on date of occurrence therefore only includes deaths which occurred by 14th March as the majority of these are likely to have been registered by now.

Analysis of COVID-19 deaths by disability

Disabled people were more likely than non-disabled people to have died with COVID-19 between March 2020 and January 2021.

Analysis of COVID-19 deaths by disability was made possible by linking information on death registrations to data on [long-term health problems and disabilities](#) from Scotland's Census 2011. The study population includes people usually resident in Scotland in March 2011, who were still alive, resident in Scotland, and aged 30 or over in March 2020. Information on deaths registered between 16 March 2020 and 31 January 2021 was linked to census records for the study population. Further information on this approach and the strengths and weaknesses of this analysis is provided at the end of this section.

For this analysis, people are counted as disabled if they reported in Scotland's Census 2011 that their daily activities were limited a little, or limited a lot, by a health problem or disability lasting, or expected to last, at least 12 months. This includes problems that are related to old age. In the analysis, these two categories are referred to as "disabled – limited a little" and "disabled - limited a lot" respectively. People reporting no limitation are referred to as "non-disabled".

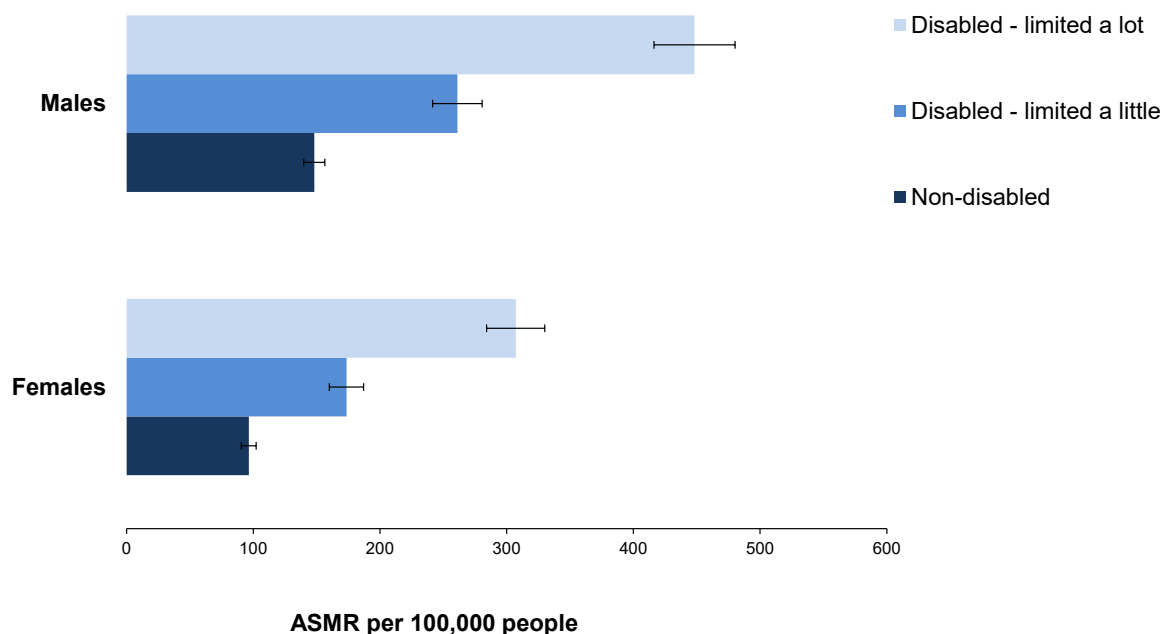
Deaths of disabled people accounted for almost 6 in 10 (58%) deaths involving COVID-19 in the study population (4,333 of 7,490 deaths). For comparison, almost 2 in 10 (18%) people in the study population were disabled, as defined above. This suggests that disabled people have been disproportionately impacted by the COVID-19 pandemic.

After adjusting for age, disabled women whose daily activities were limited a lot were 3.2 times as likely to die with COVID-19 compared to non-disabled women. Disabled men whose daily activities were limited a lot were 3.0 times as likely to die with COVID-19 compared to non-disabled men.

For disabled people whose daily activities were limited a little, there was a smaller, but still significant, difference. After adjusting for age, disabled women whose daily activities were limited a little were 1.8 times as likely to die with COVID-19 compared to non-disabled women. Disabled men whose daily activities were limited a little were 1.8 times as likely to die with COVID-19 compared to non-disabled men.

Figure 3 shows age-standardised mortality rates (ASMRs) by sex and disability category. ASMRs allow populations with different age structures to be compared fairly. Because health problems and disabilities are more common in older populations, it is important to adjust for age in this way.

Figure 3: Age-standardised mortality rates for deaths involving COVID-19 by sex and disability category, Scotland, March 2020 to January 2021



Source: National Records of Scotland, data on death registrations linked to disability data from Scotland’s Census 2011

Notes:

1. Excludes people aged under 30 at the start of the study period (March 2020).
2. Deaths registered between 16 March 2020 and 31 January 2021.
3. Deaths involving COVID-19 includes all deaths where COVID-19 was mentioned on the death certificate, either as the underlying cause or a contributory cause.
4. Rates are age-standardised using the European Standard Population 2013.
5. Error bars represent 95% confidence intervals. Where error bars do not overlap, differences in rates are statistically significant.

How does this analysis compare to recent ONS estimates for England?

The NRS and ONS analyses both provide strong evidence that COVID-19 has had a disproportionate impact on disabled people. The relative impact on mortality rates for disabled people in Scotland and England is similar.

The ASMRs for Scotland in this report are not directly comparable to the ASMRs for England in the [February ONS release](#) because they cover different time periods. In general, however, monthly ASMRs for deaths involving COVID-19 in Scotland have been lower than those in England in most months during the pandemic so far. The latest monthly ASMRs for Scotland are available on [the NRS website](#). The latest monthly ASMRs for England are available on [the ONS website](#).

Although the ASMRs themselves are not directly comparable, the differences between disabled and non-disabled groups within each country provide a broad indication of how the relative impact on disabled people compares across the two countries. The

linkage methodology is similar, both study populations exclude people aged under 30, the underlying ASMRs for both countries were standardised using the 2013 European Standard Population and the census questions on health problems and disability are very similar.

Based on the ASMRs in Table 1 of [the ONS release](#), after adjusting for age, disabled women in England whose daily activities were limited a lot were 4.1 times as likely to die with COVID-19 compared to non-disabled women. Disabled men in England whose daily activities were limited a lot were 3.2 times as likely to die with COVID-19 compared to non-disabled men. These rates are similar to the comparable Scottish figures in this report (3.2 for women and 3.0 for men).

Disabled women in England whose daily activities were limited a little were 2.0 times as likely to die with COVID-19 compared to non-disabled women. Disabled men in England whose daily activities were limited a little were 1.8 times as likely to die with COVID-19 compared to non-disabled men. These rates are similar to the comparable Scottish figures in this report (1.8 for women and 1.8 for men).

Strengths and limitations of the COVID and disability analysis

This analysis is based on data from Scotland's Census 2011 and records for deaths registered between 16th March 2020 (the date that the first death involving Covid-19 was registered in Scotland) and 31st January 2021. The linkage process is described in full in the [methodology note for our analysis of Covid-19 deaths by ethnicity in 2020](#).

People aged under 30 were excluded from the study population to improve comparability with recent [ONS analysis for England](#). There were four deaths involving COVID-19 among people aged under 30 where the death record could be linked to a record from Scotland's Census 2011. The study population also excludes people who died before March 2020 and people who moved to Scotland after Scotland's Census 2011.

Scotland's Census 2011 remains the most suitable source of disability data for a large-scale linkage based analysis like this one. However, the data are 10 years old and health problems and disabilities can change over time. Since the prevalence of health problems and disabilities tends to increase with age, it is likely that the number of people in the study population who are recorded as disabled is an underestimate. This means that the difference in the risk of dying with COVID-19 between disabled and non-disabled people is also likely to be an underestimate (assuming the mortality rate among people who have moved into the two disabled categories since 2011 is similar to the mortality rates for these groups in our analysis).

How do NRS compile these statistics?

- Weekly figures are based on the date of registration. In Scotland deaths must be registered within 8 days but in practice, the average time between death and registration is around 3 days.
- Figures are allocated to weeks based on the ISO8601 standard. Weeks begin on a Monday and end on a Sunday. Often weeks at the beginning and end of a year will overlap the preceding and following years (e.g. week 1 of 2020 began on Monday 30 December 2019) so the weekly figures may not sum to any annual totals which are subsequently produced.
- Deaths involving COVID-19 are defined as those where COVID-19 is mentioned on the death certificate, either as the underlying cause of death or as a contributory cause. Cause of death is coded according to the International Statistical Classification of Diseases and Related Health Conditions 10th Revision (ICD-10). The relevant codes included in this publication are U07.1 and U07.2.
- Figures include deaths where 'suspected' or 'probable' COVID-19 appears on the death certificate.
- Data are provisional and subject to change in future weekly publications. The data will be finalised in June 2021. Reasons why the data might be revised later include late registration data being received once the week's figure have been produced or more information being provided by a certifying doctor or The Crown Office and Procurator Fiscal Service (COPFS) on the cause of death.
- Certain user enquiries for ad-hoc analysis related to COVID-19 deaths have been published on our [website](#).
- The weekly publication includes breakdowns by sex, age, health board, local authority and location of death. It also includes an analysis of excess deaths by location and broad cause of death. We also publish a comprehensive and detailed analysis of mortality on a monthly basis.
- NRS mortality data (COVID-19 and excess deaths) continue to be made available on a weekly basis through the [Scottish Government's COVID-19 dashboard](#)

Index of available analysis on registered deaths involving COVID-19

Breakdown	Frequency	When Added	Latest Period Covered	Date Last updated
Age group	Weekly	8 th April 2020	Week 11	24 th March 2021
Sex	Weekly	8 th April 2020	Week 11	24 th March 2021
Location	Weekly	15 th April 2020	Week 11	24 th March 2021
Health Board	Weekly	8 th April 2020	Week 11	24 th March 2021
Local Authority	Weekly	22 nd April 2020	Week 11	24 th March 2021
Excess deaths by cause	Weekly	22 nd April 2020	Week 11	24 th March 2021
Excess deaths by cause and location	Weekly	17 th June 2020	Week 11	24 th March 2021
Age-standardised mortality rates – Scotland	Monthly	13 th May 2020	February	17 th March 2021
Age-standardised mortality rates – sub-Scotland	Monthly	17 th June 2020	March – Feb combined	17 th March 2021
Leading causes of death	Monthly	13 th May 2020	February	17 th March 2021
Pre-existing conditions	Monthly	13 th May 2020	February	17 th March 2021
Deprivation	Monthly	13 th May 2020	March – Feb combined	17 th March 2021
Urban Rural	Monthly	13 th May 2020	March – Feb combined	17 th March 2021
Daily occurrences by location of death	Monthly	13 th May 2020	February	17 th March 2021
Occupation	Monthly	17 th June 2020	March – Feb combined	17 th March 2021
Intermediate Zone	Monthly	17 th June 2020	March – Feb combined	17 th March 2021
Ethnic Group	One-off	8 th July 2020	March to mid-June	11 th November 2020
Disability	One-off	24 th March 2021	March to Jan	24 th March 2021

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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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