

# Deaths involving coronavirus (COVID-19) in Scotland

Week 45 (08 November to 14 November 2021)



Published on 17 November 2021

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 45 of 2021 and additional monthly analysis on deaths occurring up to 31<sup>st</sup> October 2021.

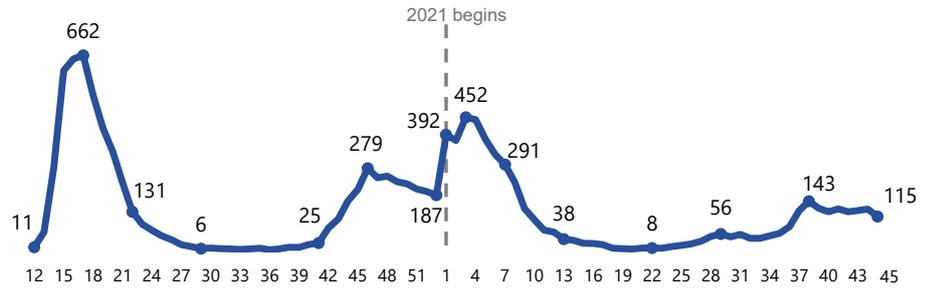
# Deaths involving coronavirus (COVID-19): Summary

## There have been 11,933 deaths involving COVID-19 since April 2020

In the week beginning 8th November there were 115 deaths involving COVID-19.

Between week 37 and week 44, the number of deaths involving COVID-19 remained fairly constant, however the numbers have fallen slightly in the last week.

Deaths involving COVID-19

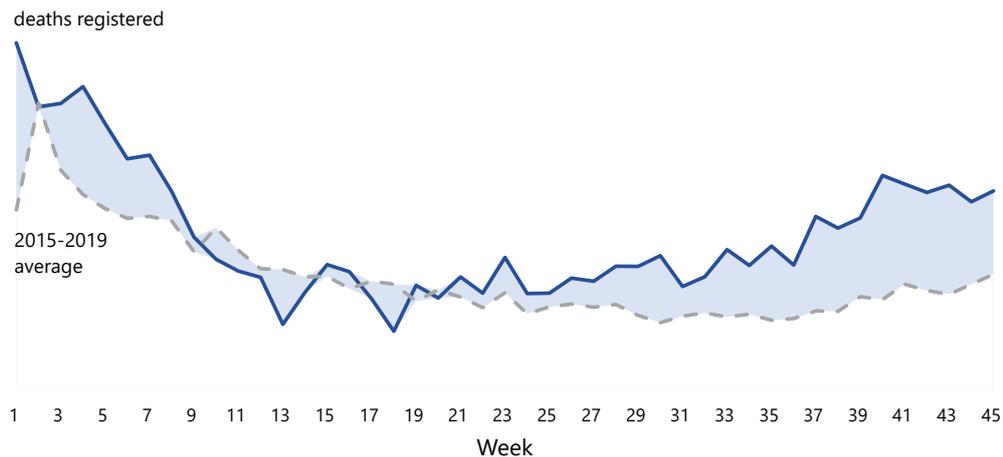


## Excess deaths have been above average for 25 consecutive weeks

As of 8th November, deaths are 20% higher than average in 2021. There were 222 excess deaths registered in week 45.

In 2021, excess deaths peaked in week 1 at 35% above average.

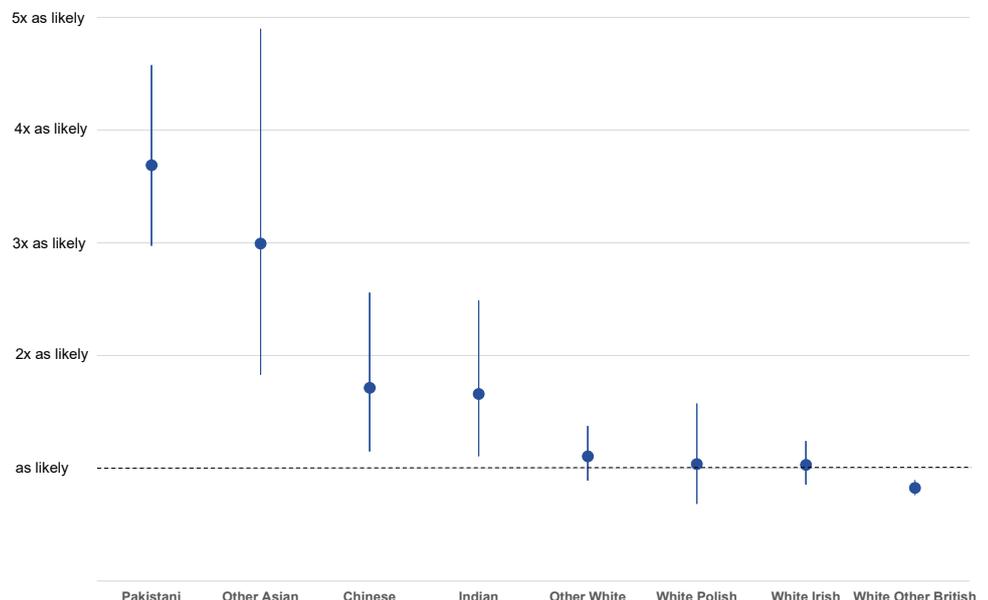
Deaths (all causes) 2021



## Higher likelihood of deaths involving COVID-19 for some ethnic groups

Deaths amongst people with Pakistani, Chinese, Indian and Other Asian ethnicities were more likely to involve COVID-19 than people with White Scottish ethnicity.

Deaths among people with White Other British ethnicity were less likely to involve COVID-19 than people with White Scottish ethnicity.



## Key Findings

### Deaths involving COVID-19, weekly registrations ([go to section](#))

- As at the 14<sup>th</sup> of November, there have been a total of 11,933 deaths registered in Scotland where the novel coronavirus (COVID-19) was mentioned on the death certificate. In the latest week there were 115 deaths, a decrease of 25 from the previous week.
- Of deaths involving COVID-19 in the latest week:
  - 57 were female, 58 were male.
  - 60 were aged 75 or older, 32 were aged 65 to 74 and 23 were under 65.
  - There were 15 deaths in Fife, 14 in Glasgow City and 8 in South Lanarkshire. In total 25 council areas (out of 32) had at least one death involving COVID-19 last week.
  - 102 were in hospitals, 4 were in care homes and 9 were at home or a non-institutional setting.

### Deaths from all causes, weekly registrations ([go to section](#))

- The total number of deaths registered in Scotland in week 45 of 2021 was 1,327. This was 222 deaths more than the five year average for week 45 (20% above average).
- In week 45 there were 108 excess deaths at home or in non-institutional settings (36% above average), 110 excess deaths in hospitals (20% above average), and 1 excess death in care homes (same as average) compared to the 2015-2019 average.
- There were 222 excess deaths across all locations for the latest week. There were 23 more cancer deaths, 23 more dementia/Alzheimer's deaths and 19 more circulatory deaths compared to the five year average. Respiratory deaths were 1 below average last week. There were also 67 excess deaths from other causes. The number of deaths where COVID-19 was the underlying cause was 92.

### Monthly mortality analysis, deaths occurring up to 31 October 2021 ([go to section](#))

- The age standardised death rate for deaths involving COVID-19 was similar in October 2021 (125 per 100,000) to September 2021 (130 per 100,000). The difference between the past two months was not statistically significant. Throughout the pandemic, the highest rate was 585 deaths per 100,000 people in April 2020.
- After adjusting for age, people living in the most deprived areas were 2.5 times as likely to die with COVID-19 as those in the least deprived areas. The size of this gap has slowly widened from 2.1 to 2.5 over the period of the pandemic.
- Of the 11,774 deaths involving COVID-19 between March 2020 and October 2021, 93% (10,934) had at least one pre-existing condition. Just under one quarter of people whose death involved COVID-19 had dementia or Alzheimer's disease. This was the most common main pre-existing condition.
- There have been 5 deaths in Scotland where the underlying cause of death was adverse effects of COVID-19 vaccines. There have been no deaths in the latest month. By 30 October 2021 [statistics from Public Health Scotland](#) state that 4.3 million people had been given at least one vaccine dose.

Figure 1: Weekly deaths involving COVID-19 in Scotland, week 12 2020 to week 45 2021

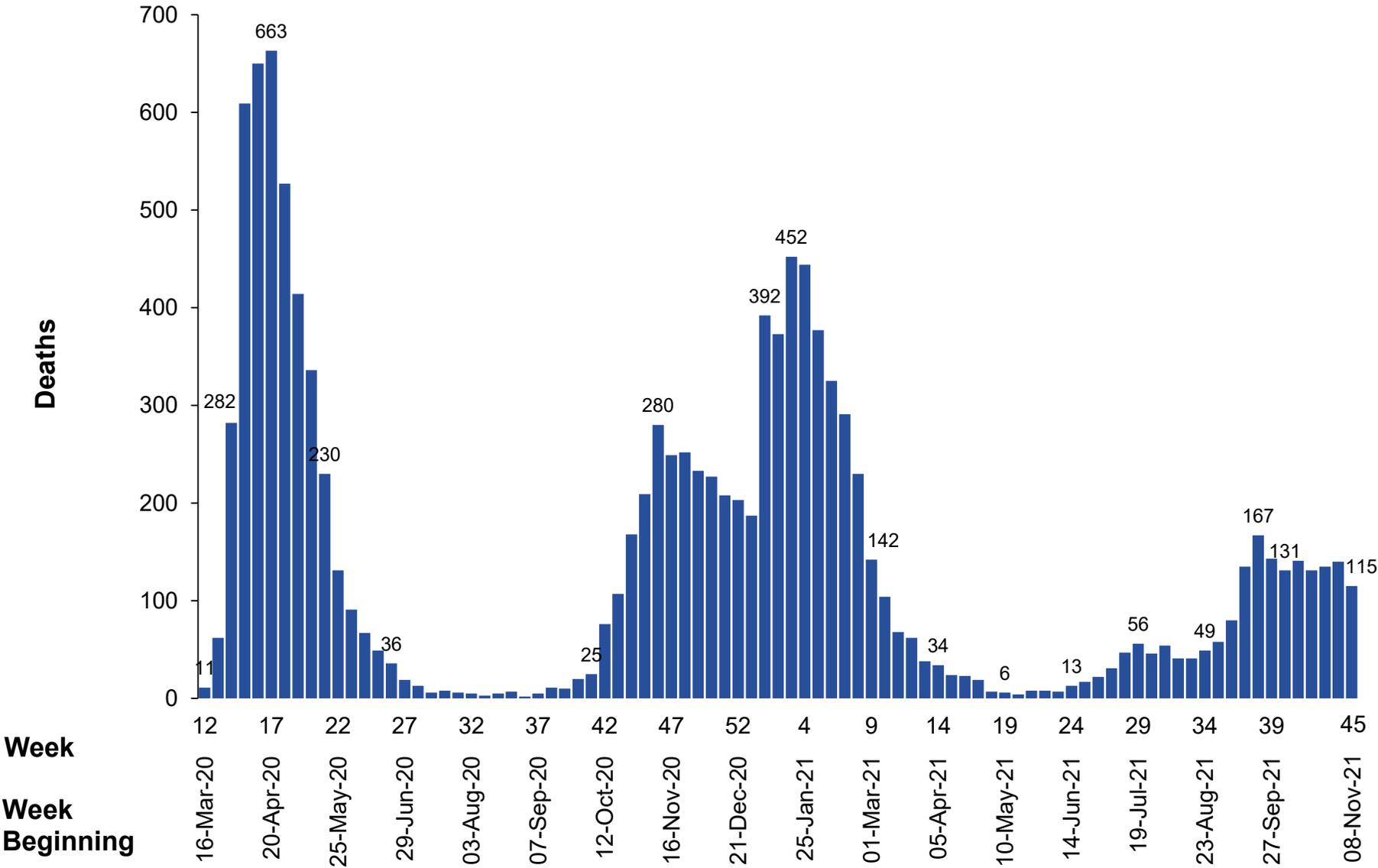
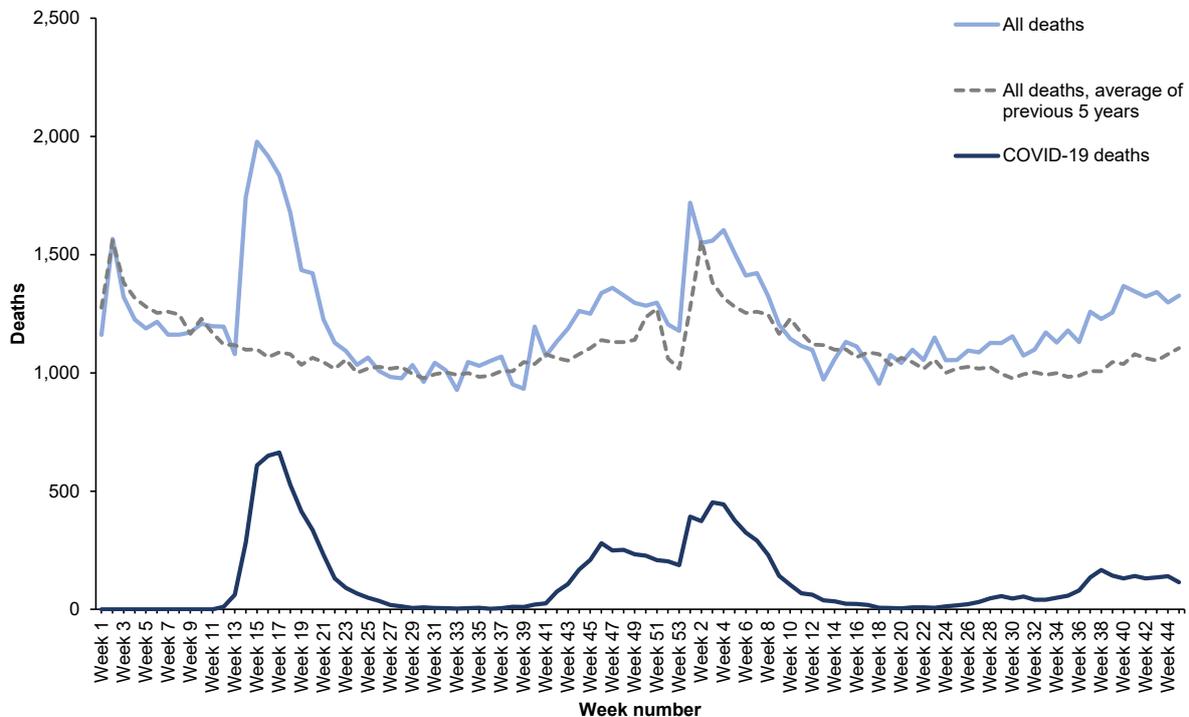


Figure 2 shows that in the most recent week (week 45, beginning 08 November 2021), there were 20% more deaths than the average for the period 2015-2019. Deaths have been above the five year average in each of the past 25 weeks. Over that time, weekly deaths have ranged from being 4% above average to 32% above average. At the height of the pandemic in April 2020, deaths were around 80% above average.

**Figure 2: Deaths by week of registration, Scotland, 2020 and 2021**



### Where have COVID-19 deaths taken place?

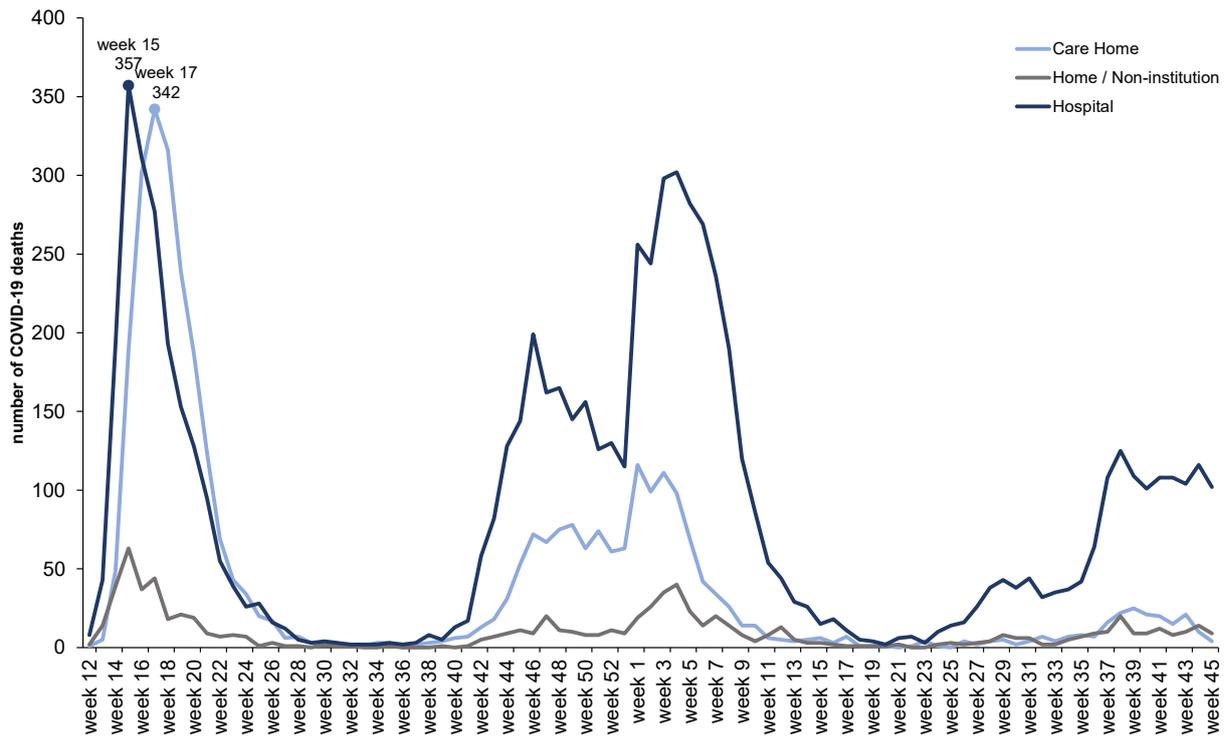
Of the 11,933 deaths involving COVID-19 which have been registered to date, 63% related to deaths in hospitals. 30% of deaths were in care homes and 7% of deaths were at home or non-institutional settings.

To put these figures into context, in 2019 around 48% of all deaths occurred in hospitals, 24% in care homes and 28% in home or non-institutional settings.

Figure 3 shows the number of deaths involving COVID-19 by location for week 12 of 2020 to week 45 of 2021.

Breakdowns of location of death within health board and council area are available on the [related statistics](#) page of our website

**Figure 3: Deaths involving COVID-19 by location of death**



## Date of occurrence vs date of registration

Most of the figures throughout the weekly report are based on the date a death was registered rather than the date the death occurred. There is on average a 3 day gap between a death occurring and being registered. Please find a more detailed explanation in the [methodology](#) document.

### Why focus on date of registration rather than the actual date of death?

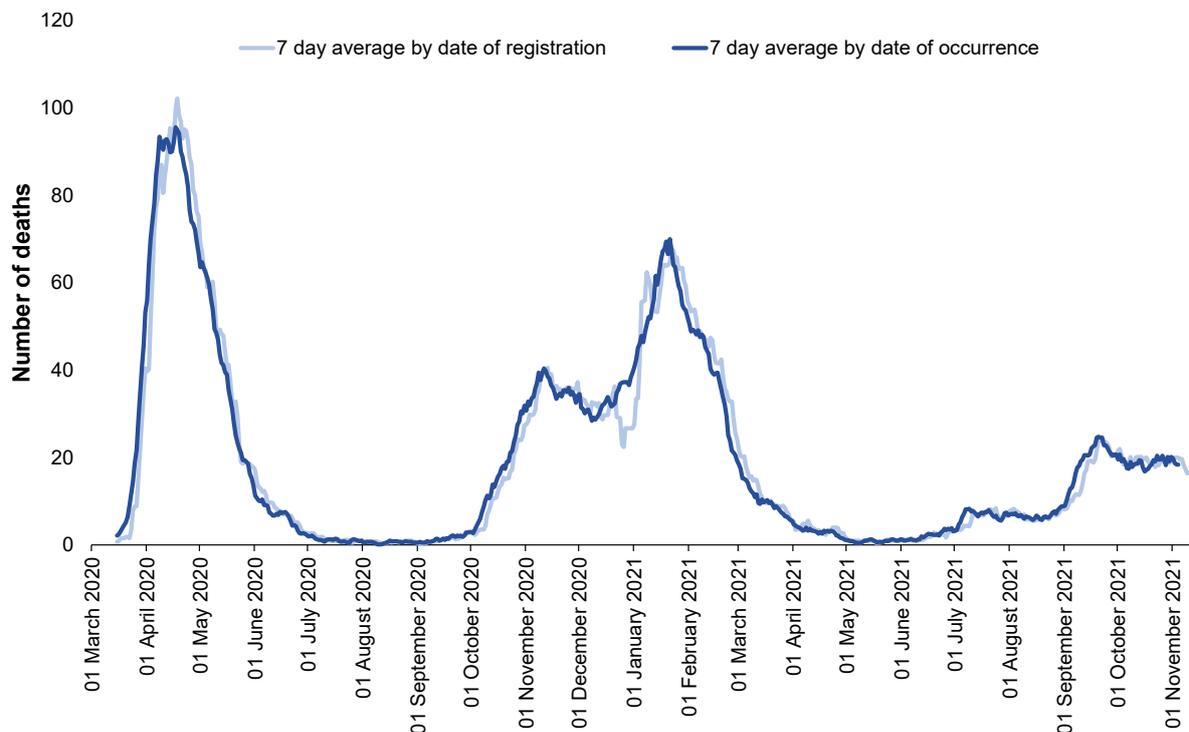
The death count based on **date of registration** is more timely but is incomplete and is subject to fluctuations due to public holidays.

The death count based on **date of death** is more complete and gives a more accurate trend on the progress of the virus, but less timely (a one week delay compared to date of registration figures).

Differences between the two measures can be seen at times of year when there are public holidays, most noticeably at Christmas and Easter. Daily deaths began to rise in July 2021 and then rose through most of September, before falling back slightly in October. By early November, the average number of deaths occurring per day was 18.

This report includes all deaths which were registered by 14<sup>th</sup> of November. 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 7<sup>th</sup> of November as the majority of these are likely to have been registered by now.

**Figure 4: Deaths involving COVID-19 by date of registration and date of death**



## Monthly mortality analysis (deaths occurring up to 31 October 2021)

This section provides an in-depth analysis of deaths which **occurred** in Scotland between March 2020 and October 2021. This is a different basis from the rest of this report which (unless specified) is based on the date deaths were **registered**.

### Age-standardised mortality rates

When adjusting for size and age structure of the population, for all deaths involving COVID-19 between March 2020 and October 2021 there were 132 deaths per 100,000 population. Rates for males were significantly higher than for females (163 compared with 109 per 100,000).

#### Why use age-standardised mortality rates?

Age-standardised mortality rates are a better measure of mortality than numbers of deaths, as they account for the population size and age structure and provide more reliable comparisons between groups or over time. As the probability of death tends to increase with age, changes in the age-distribution of the population could have an effect on any apparent trend shown by numbers of deaths, or crude death rates (dividing the number of deaths by the total population).

Similarly, if two groups' populations have different age-distributions, using age-standardised rates will remove the effect of the differences between the groups and show which one has the higher mortality.

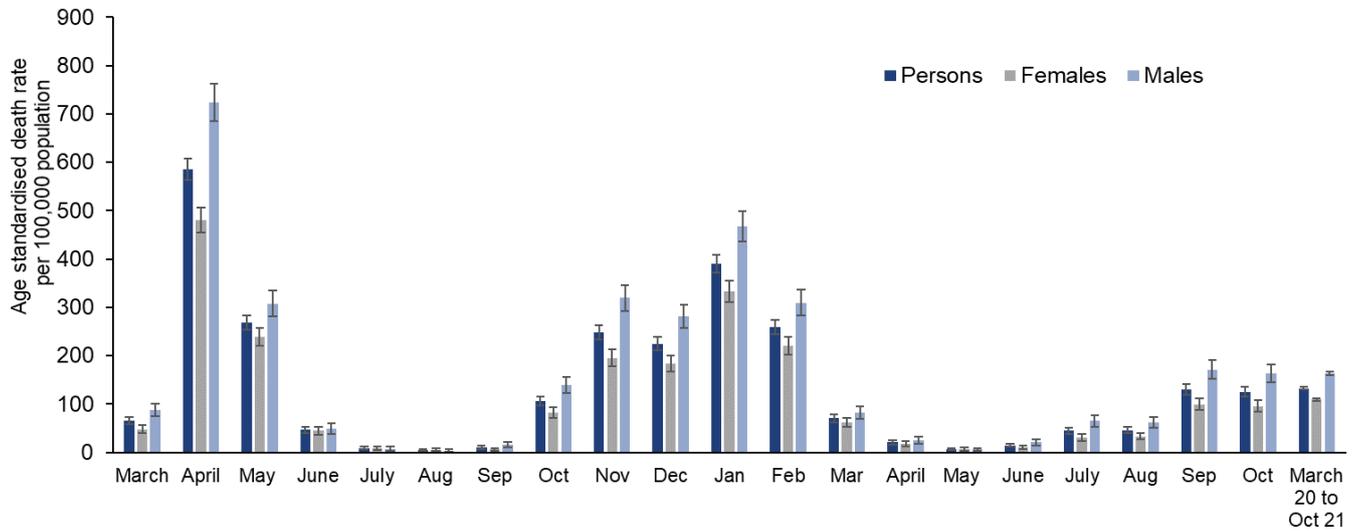
Age-standardised rates are therefore more reliable for comparing mortality over time and between different countries, different areas within a country, deprivation quintiles, and different sexes.

More information on the calculation of age-standardised mortality rates is available on our [website](#).

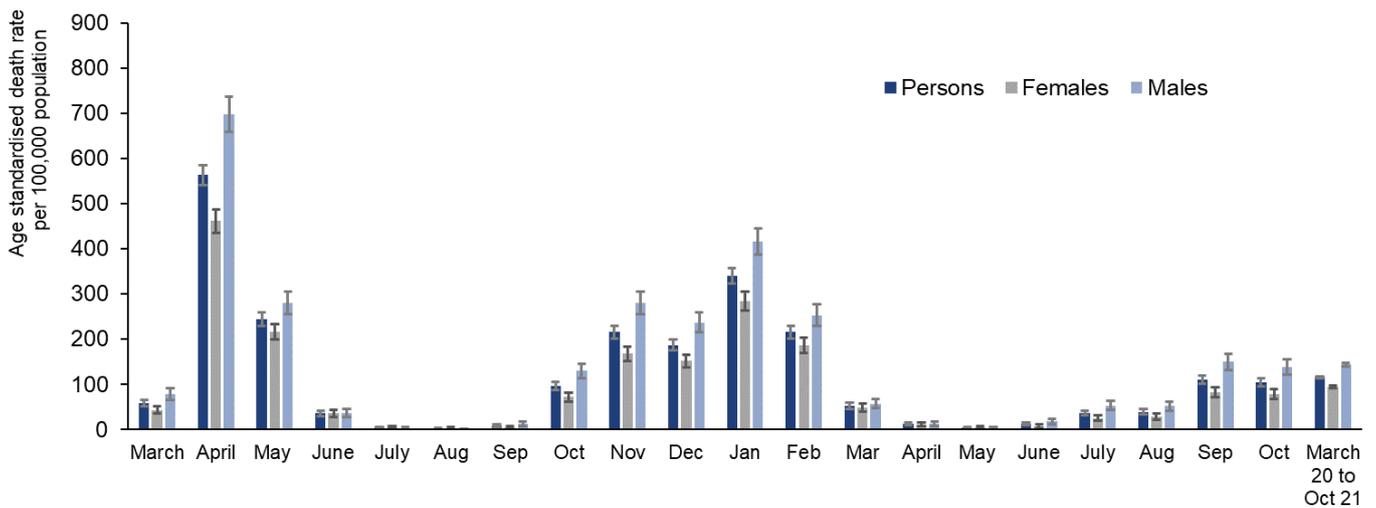
Looking only at deaths where COVID-19 was the underlying cause, the rates were only slightly lower – reflecting the fact that it was the underlying cause in the vast majority (87%) of deaths involving COVID-19. In the combined data for March 2020 to October 2021, the age-standardised mortality rate was 116 per 100,000 population, with a similar differential between males (144) and females (95).

The age standardised death rate for deaths involving COVID-19 was similar in October 2021 (125 per 100,000) to September 2021 (130 per 100,000). The difference between the past two months was not statistically significant.

**Figure 5a: Age standardised rates for deaths involving COVID-19 by sex, between 1<sup>st</sup> March 2020 and 31<sup>st</sup> October 2021**



**Figure 5b: Age standardised rates for deaths where COVID-19 was the underlying cause, by sex, between 1<sup>st</sup> March 2020 and 31<sup>st</sup> October 2021**



The age-standardised mortality rate from all causes was 1,188 per 100,000 population in March 2020 to 31st October. To put this figure into context the age-standardised mortality rate from all causes in 2019 was 1,108 per 100,000.

## Leading causes of death

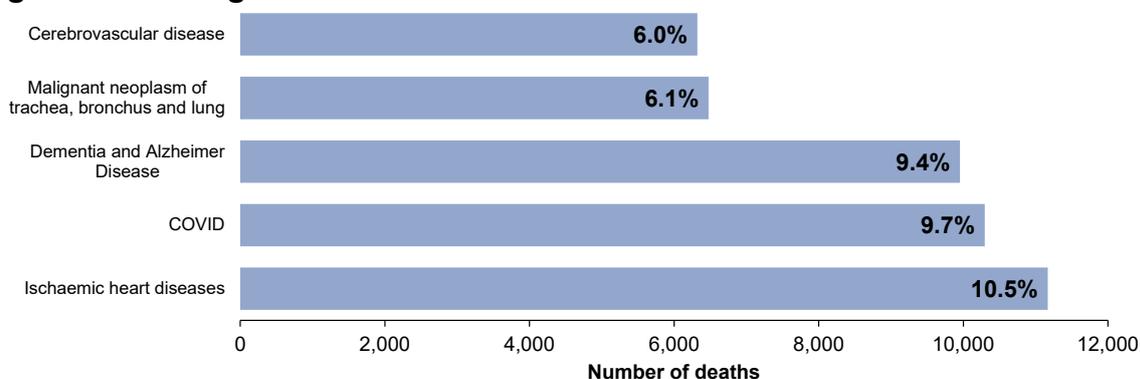
As this analysis compares different causes of death it is based on the underlying cause of death and therefore the figures for COVID-19 only include those deaths where it was the underlying cause rather than all those in which it was mentioned.

Over the period between March 2020 and 31st October, the leading cause of death was ischaemic heart disease (11,168 deaths, 10.5% of all deaths) followed by COVID-19 (10,295 deaths, 9.7% of all deaths) and dementia and Alzheimer's disease (9,954, 9.4%).

The leading cause of death analysis is based on a list of causes developed by the World Health Organisation (WHO). There are around 60 categories in total and cancers are grouped separately according to the type of cancer. For example, lung, breast and prostate cancer are all counted as separate causes. The full [list](#) of leading causes is available on the ONS website.

The most common cause of death in October 2021 was dementia and Alzheimer's disease, which accounted for 10.2% of all deaths last month. COVID-19 was the most common cause of death for every month between November 2020 and February 2021 (inclusive). COVID-19 did not appear in the top 5 leading causes between March and August 2021 but reappeared in third place in September 2021, and remained third in October 2021.

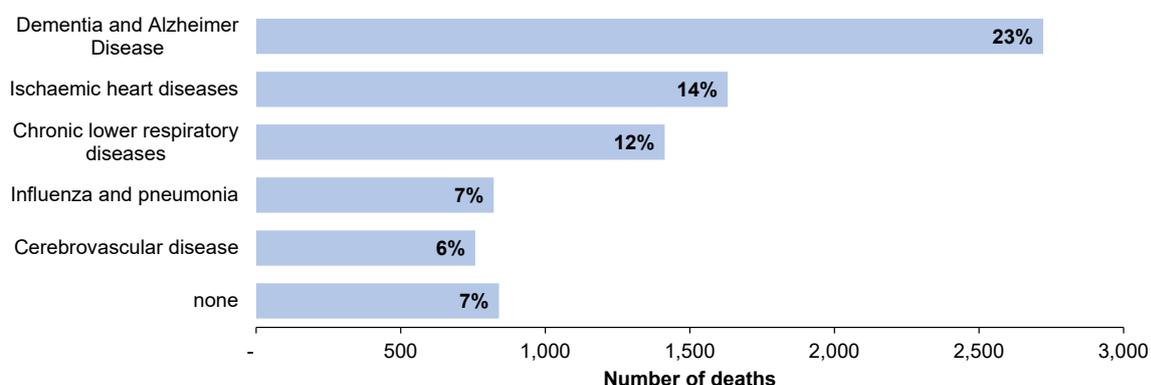
**Figure 6: Leading causes of death - 1<sup>st</sup> March 2020 to 31<sup>st</sup> October 2021**



## Pre-existing conditions of people who died with COVID-19

Of the 11,774 deaths involving COVID-19 between March 2020 and October 2021, 93% (10,934) had at least one pre-existing condition.

**Figure 7: Main pre-existing condition in deaths involving COVID-19, between 1<sup>st</sup> March 2020 and 31<sup>st</sup> October 2021**



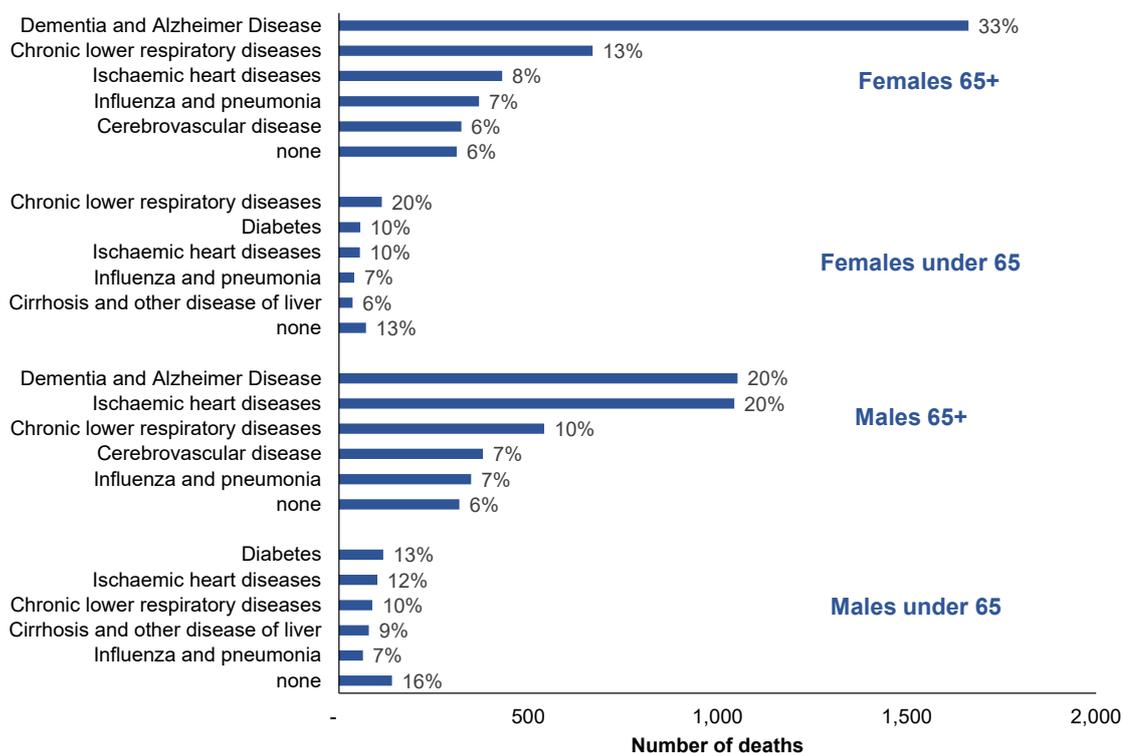
The most common main pre-existing condition among those who died with COVID-19 was dementia and Alzheimer's disease (23%), followed by ischaemic heart disease (14%), chronic lower respiratory diseases (12%), influenza and pneumonia (7%) and cerebrovascular disease (6%).

**Pre-existing conditions** are defined as a health condition mentioned on the death certificate which either came before COVID-19 or was an independent contributory factor in the death. Where only COVID-19 was recorded on the death certificate, or only COVID-19 and subsequent conditions caused by COVID-19 were recorded, these deaths are referred to as having no pre-existing conditions.

We have used methodology developed by ONS to determine the main pre-existing condition. This is defined as the one pre-existing condition that is, on average, most likely to be the underlying cause of death for a person of that age and sex had they not died from COVID-19. For more detail on how pre-existing conditions and main pre-existing conditions are derived, refer to the [methodology paper](#).

Pre-existing conditions differed by age and sex. For both males and females over 65 the main pre-existing condition was dementia and Alzheimer's disease (20% and 33% of all COVID-19 deaths respectively). For females under 65, the most common main pre-existing condition was chronic lower respiratory diseases (20%) and for males under 65 it was diabetes (13%).

**Figure 8: Main pre-existing medical condition by age and sex, in deaths involving COVID-19 between 1<sup>st</sup> March 2020 and 31<sup>st</sup> October 2021**



### Mortality by deprivation

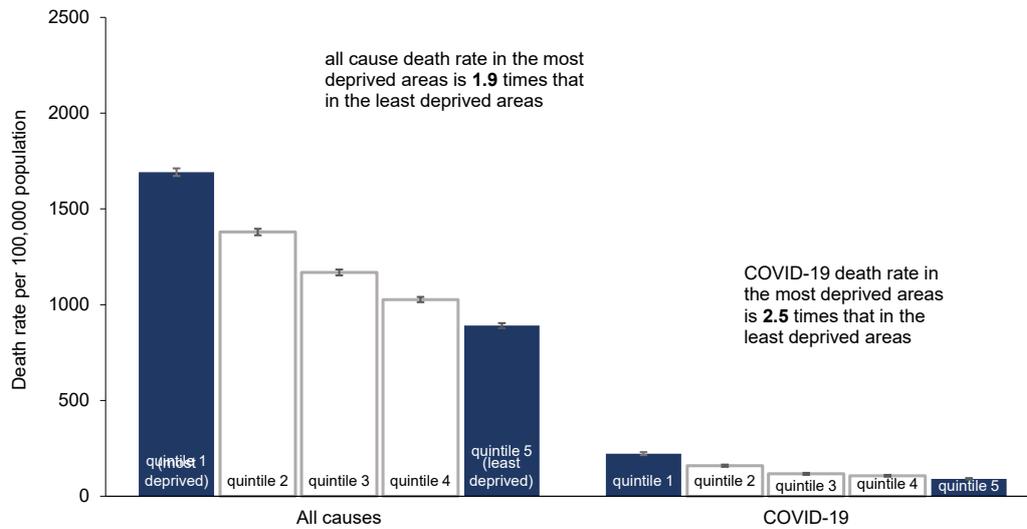
Age-standardised death rates from all causes are generally higher in the most deprived areas than in the least deprived areas. The rate in the most deprived quintile was 1.9 times the rate in the least deprived quintile between March 2020 and October 2021.

The deprivation gap is greater when looking at deaths involving COVID-19. The rate in the most deprived quintile (223 per 100,000 population) was 2.5 times the rate in the least deprived quintile (90 per 100,000 population).

The size of this gap has widened from 2.1 to 2.5 across the period of the pandemic.

**Deprivation quintiles** are based on the Scottish Index of Multiple Deprivation (SIMD). This is an area based measure of deprivation. Quintiles are allocated according to the deceased's usual place of residence.

**Figure 9: Age-standardised death rates by SIMD quintile between 1<sup>st</sup> March 2020 and 31<sup>st</sup> October 2021**

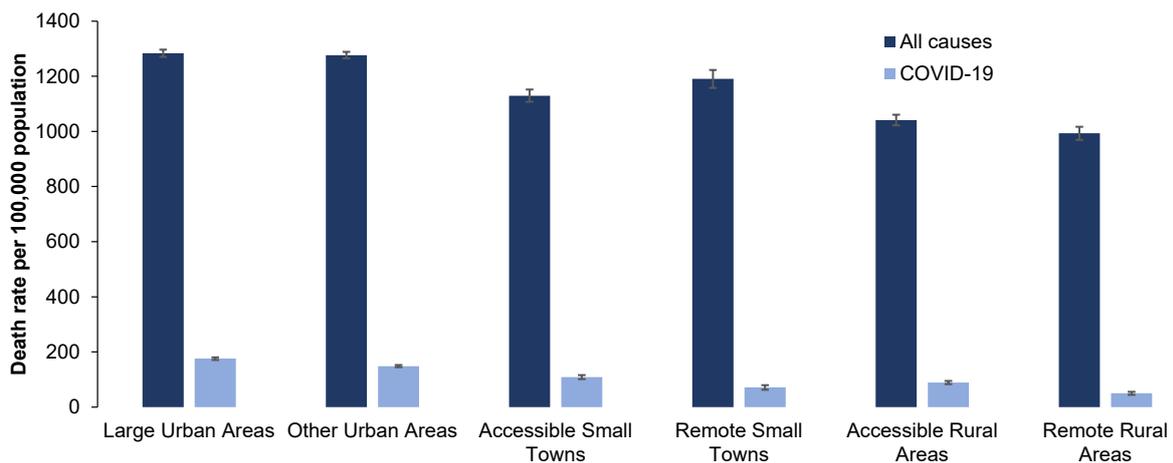


**Mortality by urban rural classification**

The age-standardised rate for deaths involving COVID-19 in large urban areas (176 deaths per 100,000 population) was 3.5 times the rate in remote rural locations (50 per 100,000 population).

The gap was substantially smaller when considering the rate of deaths from all causes (the rate in large urban areas was 1.3 times that in remote rural areas).

**Figure 10: Age-standardised death rates by urban rural classification between 1<sup>st</sup> March 2020 and 31<sup>st</sup> October 2021**

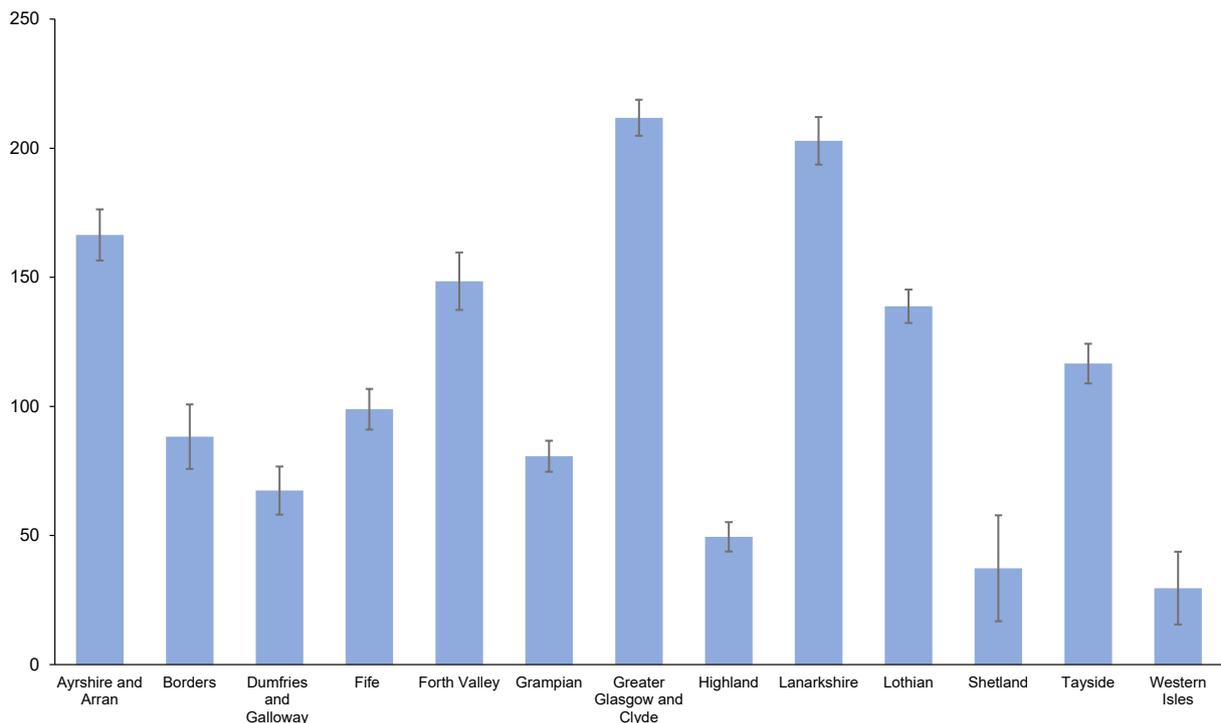


## Age-standardised death rates by health board and council area

Figure 11 shows that Greater Glasgow and Clyde had the highest rate of all health boards (212 per 100,000 population), followed by Lanarkshire (203) and Ayrshire and Arran (166).

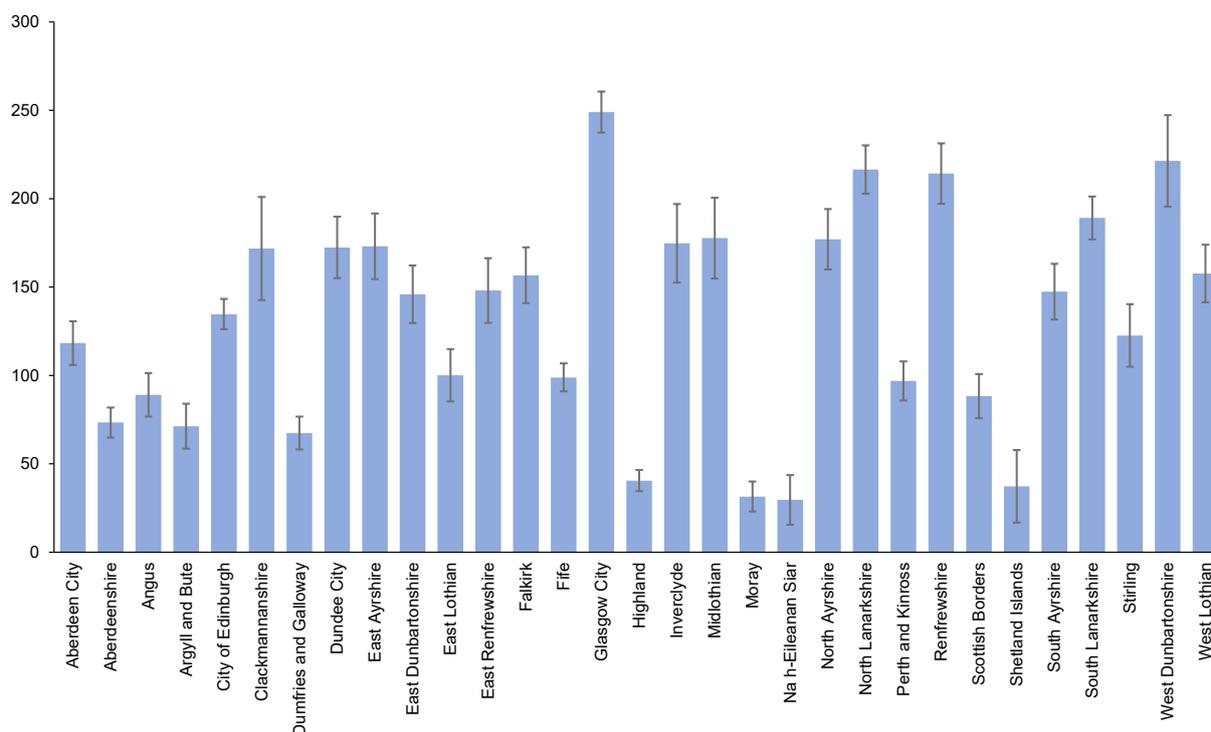
Rates are not shown for Orkney as the number of deaths involving COVID-19 are too low to calculate robust age-standardised rates.

**Figure 11: age standardised rates for deaths involving COVID-19 between 1<sup>st</sup> March 2020 and 30<sup>th</sup> September 2021 in NHS health board areas**



Glasgow City had the highest age-standardised death rate of all council areas (249 per 100,000 population), followed by West Dunbartonshire (221), North Lanarkshire (217) and Renfrewshire (214). Na h-Eileanan Siar (30 per 100,000 population), Moray (32), Shetland Islands (37) and Highland (41) had the lowest rates (in addition to Orkney whose numbers were too low to calculate rates) ([Figure 12](#)).

**Figure 12: Age-standardised rates for deaths involving COVID-19 between 1<sup>st</sup> March 2020 and 31<sup>st</sup> October 2021 in Council areas**



### COVID-19 deaths by occupation

Analysis by major occupation group (of deaths involving COVID-19 of people aged 20-64 years old) showed that the highest rate of death occurred among process, plant and machine operatives (167 deaths and an age-standardised death rate of 59 per 100,000 population) followed by elementary occupations (137 deaths, 36 per 100,000 population). For context, there were 859 COVID-19 deaths in this age group across all occupations, with a death rate of 24 per 100,000 population. People in professional occupations had the lowest death rate (60 deaths, 7 per 100,000 population). ([Table 10](#))

Compared to the average COVID-19 death rate for all occupations, health care workers had a lower death rate (13 per 100,000 population) whilst social care workers had a higher rate (36 per 100,000 population).

It is important to note that these are the occupations as stated on the death certificate. It does not mean that the individuals contracted the virus while at work, merely that this was their occupation at the time of their death.

### COVID-19 deaths at a small area level

A breakdown of deaths involving COVID by intermediate zone is available in [table 11](#). Intermediate zones are a statistical geography that sit between datazones and local authorities. There are 1,279 intermediate zones covering the whole of Scotland and their populations ranges between 2,500 and 6,000.

## Deaths involving COVID-19 by ICD-10 code

[Table 12](#) shows all deaths with ICD-10 codes related to COVID-19 following the release of additional ICD-10 codes by the World Health Organisation (WHO).

In the period from March 2020 to October 2021, there were 16 deaths where post COVID-19 conditions (including long COVID) were mentioned on the death certificate.

Between December 2020 and the end of October 2021 [statistics from Public Health Scotland](#) state that 4.3 million people had been given at least one COVID-19 vaccine dose. Over this period there have been 5 deaths where the underlying cause of death was reported as being due to adverse effects of COVID-19 vaccines. No deaths due to COVID-19 vaccines were recorded in October 2021

**Table 12: Number of deaths with ICD-10 codes related to COVID-19 mentioned on the death certificate, Scotland, 1<sup>st</sup> March 2020 – 31<sup>st</sup> October 2021**

ICD-10 code	Description	Deaths where this code was mentioned on the death certificate	of which, deaths where this code was the underlying cause
U07.1	COVID-19, virus identified	10,176	8,829
U07.2	COVID-19, virus not identified	1,589	1,466
U08.9	Personal history of COVID-19, unspecified	0	:
U09.9	Post COVID-19 condition, unspecified	16	:
U10.9	Multisystem inflammatory syndrome associated with COVID-19, unspecified	0	0
U11.9	Need for immunisation against COVID-19, unspecified	0	:
U12.9	COVID-19 vaccines causing adverse effects in therapeutic use, unspecified	5	5

## Updated analysis of deaths involving coronavirus (COVID-19) in Scotland, by ethnic group

### Key Findings

This analysis is based on data for all deaths in Scotland, occurring between 12<sup>th</sup> March 2020 and 30<sup>th</sup> September 2021, and uses odds ratios to look at whether the likelihood of a death involving COVID-19 differs by ethnic group:

- Deaths amongst people with Pakistani ethnicity were 3.7 times as likely to involve COVID-19 as people with White Scottish ethnicity.
- Deaths amongst people with Chinese ethnicity (1.7 times as likely), Indian ethnicity (1.7 times as likely) and Other Asian<sup>1</sup> ethnicity (3.0 times as likely) were more likely to involve COVID-19 than people with White Scottish ethnicity.
- Deaths amongst people with White Other British ethnicity were less likely to involve COVID-19 than people with White Scottish ethnicity (0.8 times as likely).
- The likelihood of deaths among people with Other White, White Polish and White Irish ethnicity involving COVID-19 was not significantly different from those with White Scottish ethnicity.

<sup>1</sup> Other Asian: All ethnicities from Asia that do not fall under Chinese, Indian, Pakistani, Bangladeshi are grouped under Other Asian.

## Background

[NRS analysis, published in November 2021](#), showed that deaths amongst people with South Asian ethnicity were more likely to involve COVID-19 than deaths in people with White Scottish ethnicity between mid-March and mid-June 2020. There was no evidence of a significant difference for the Chinese or White Irish groups. The number of deaths in other minority ethnic groups was too low to allow comparable analysis to be performed.

This analysis has now been updated to include deaths occurring up to 30 September 2021. The results of the updated analysis are broadly similar to the results from the previous analysis, although the inclusion of more data has allowed us to report at a more detailed ethnic group level.

## Linkage to census data

As in the previous analysis, deaths were linked to census data on self-reported ethnicity. If the ethnic group differed between the two sources, the census value was used. If there was no match to a census record or no ethnic group was provided in the census, the death registration record was used.

Ethnic groups used for further analysis

**Table E1 – Deaths by COVID-19 involvement and ethnicity, Scotland, occurring between 12 March 2020 and 30 September 2021**

<b>Ethnicity category</b>	<b>Deaths involving COVID-19</b>	<b>Other deaths</b>	<b>Total</b>
White Scottish	9,958	76,198	86,156
White Other British	674	6,929	7,603
White Irish	131	883	1,014
White Gypsy / Traveller	4	50	54
White Polish	25	265	290
Other White ethnic group	95	747	842
Mixed or Multiple ethnic groups	11	67	78
Pakistani, Pakistani Scottish or Pakistani British	124	288	412
Indian, Indian Scottish or Indian British	29	145	174
Bangladeshi, Bangladeshi Scottish or Bangladeshi British	3	19	22
Chinese, Chinese Scottish or Chinese British	30	141	171
Other Asian	22	66	88
African, African Scottish or African British	10	61	71
Other African	1	7	8
Caribbean, Caribbean Scottish or Caribbean British	3	27	30
Black, Black Scottish or Black British	0	13	13
Other Caribbean or Black	1	10	11
Arab, Arab Scottish or Arab British	2	25	27
Other ethnic group	8	34	42
Not provided	48	750	798
<b>Total</b>	<b>11,179</b>	<b>86,725</b>	<b>97,904</b>

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

Notes:

1. Self-reported ethnicity from the 2011 Census was used where available, otherwise ethnicity recorded through the death registration process was used.

## Further analysis of the updated dataset

The analysis in this section uses a binary logistic regression model to look for evidence of differences between ethnic groups in the likelihood that deaths involved COVID-19. The model uses information on age, sex, area-level deprivation<sup>2</sup>, and whether a person lived in an urban or rural area<sup>3</sup>. More information on the model is provided in the [Methodology Note](#) published alongside this report.

The results are presented as odds ratios in Table E2 and Figure E1. An odds ratio higher than one for a given ethnic group indicates that deaths were more likely to involve COVID-19, compared to the White Scottish ethnic group (the reference group). An odds ratio less than one indicates that deaths were less likely to involve COVID-19. The confidence intervals illustrate the range of values over which we are confident the true value of the odds ratio lies. If the confidence interval includes the value one, then there is not significant evidence to conclude that the likelihood of deaths involving COVID-19 is different to the White Scottish ethnic group.

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<sup>2</sup> Scottish Index of Multiple Deprivation (SIMD 2020) quintile.

<sup>3</sup> Urban rural classification (2-Fold) was used, according to which Data Zones are classified as either 'Urban' or 'Rural'.

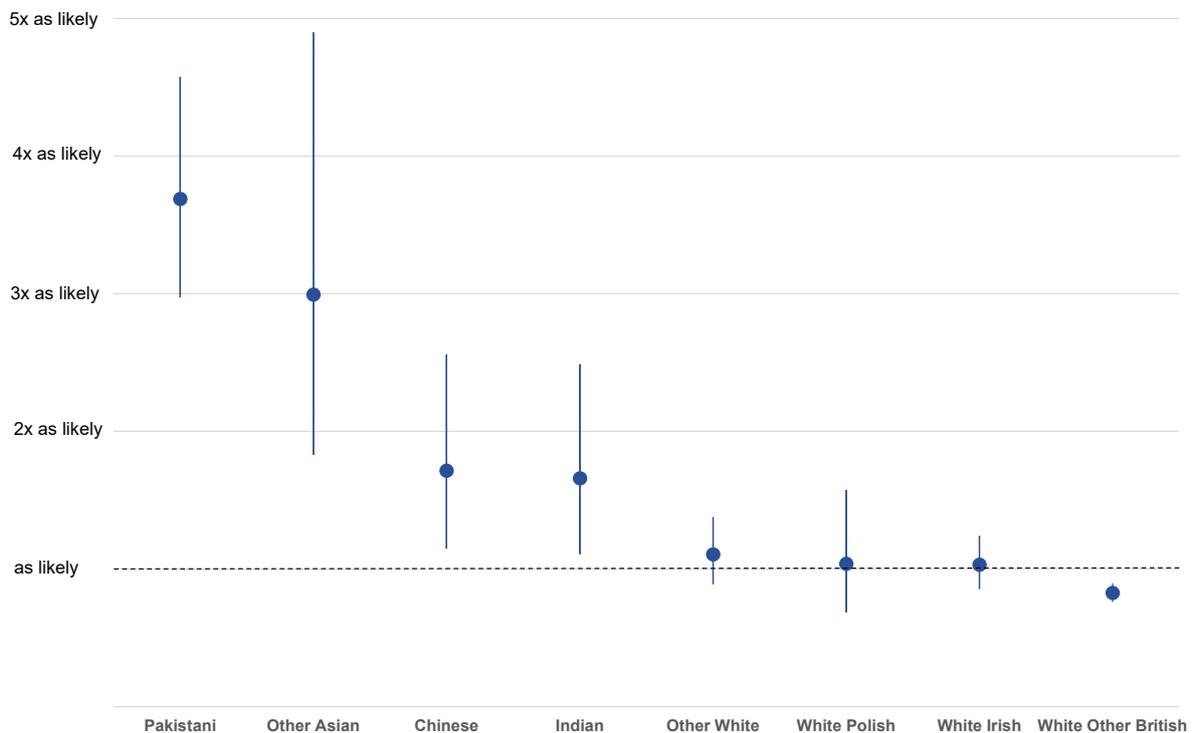
**Table E2 – Relative likelihood that deaths involved COVID-19 compared to the White Scottish group, deaths occurring between 12 March 2020 and 30 September 2021**  
**Odds ratios and associated confidence interval**

<b>Ethnic group</b>	<b>Odds ratio</b>	<b>95% Confidence Interval</b>
<b>Significantly MORE likely to involve COVID-19 than White Scottish group</b>		
Pakistani, Pakistani Scottish or Pakistani British	3.689	(2.974, 4.576)
Other Asian	2.994	(1.830, 4.899)
Chinese, Chinese Scottish or Chinese British	1.715	(1.150, 2.558)
Indian, Indian Scottish or Indian British	1.660	(1.108, 2.487)
<b>Significantly LESS likely to involve COVID-19 than White Scottish group</b>		
White Other British	0.826	(0.760, 0.897)
<b>Not significantly different to White Scottish group</b>		
Other White ethnic group	1.107	(0.891, 1.375)
White Polish	1.038	(0.685, 1.574)
White Irish	1.031	(0.856, 1.241)
<b>Insufficient data to draw conclusions<sup>3</sup></b>		
White Gypsy / Traveller	0.736	(0.263, 2.055)
Mixed or Multiple ethnic groups	1.648	(0.861, 3.154)
Bangladeshi, Bangladeshi Scottish or Bangladeshi British	1.312	(0.384, 4.484)
African, African Scottish or African British	1.813	(0.918, 3.580)
Other African	1.386	(0.167, 11.516)
Caribbean, Caribbean Scottish or Caribbean British	0.899	(0.270, 2.992)
Black, Black Scottish or Black British	<0.001	(<0.001, >999.999)
Other Caribbean or Black	1.484	(0.188, 11.719)
Arab, Arab Scottish or Arab British	0.748	(0.175, 3.192)
Other ethnic group	2.175	(0.996, 4.749)
Not provided	0.707	(0.526, 0.951)

Source: National Records of Scotland, data on death registrations linked to Scotland's Census 2011  
Notes:

1. Self-reported ethnicity from the 2011 Census was used where available, otherwise ethnicity recorded through the death registration process was used.
2. Odds ratios were obtained by fitting a binary logistic regression model with explanatory variables: Ethnic group,  $\log_e(\text{age})$ , Sex, Urban rural classification (2-fold), SIMD 2020 quintile, and an interaction variable for Urban rural  $\times$  SIMD quintile.
3. For a number of ethnic groups the number of COVID-19 and all deaths is too small to enable meaningful conclusions to be drawn from the statistical analysis. For completeness the data has been presented, but NRS's statisticians are clear that it is not possible to draw conclusions for these groups.

**Figure E1 – Relative likelihood of death involving COVID-19 when compared to White Scottish group, deaths occurring between 12 March 2020 and 30 September 2021**



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

1. Odds ratios were obtained by fitting a binary logistic regression model with explanatory variables: Ethnic group,  $\log_e(\text{age})$ , Sex, Urban rural classification (2-fold), SIMD 2020 quintile, and an interaction variable for Urban rural  $\times$  SIMD quintile.
2. Filled points represent odds ratios. Vertical lines represent 95% confidence intervals.

## Conclusions

The results of the updated analysis are broadly similar to the results from the previous analysis, although the inclusion of more data has allowed us to report at a more detailed ethnic group level.

Deaths amongst people with Pakistani ethnicity were 3.7 times as likely to involve COVID-19 as deaths among those with White Scottish ethnicity. Deaths amongst people with Other Asian ethnicity were three times as likely and deaths among those with Chinese and Indian ethnicities were both 1.7 times as likely to involve COVID-19 as deaths in those with White Scottish ethnicity.

Deaths among people with White Other British ethnicity were less likely (0.8 times) to involve COVID-19 than those with White Scottish ethnicity.

There was no evidence of a significant difference for those with Other White, White Polish or White Irish ethnicities.

## **Other Evidence, Strengths and Limitations, Methodology**

Further information including other evidence, a discussion of the strengths and limitations of the approach, and an explanation of the model used is available in the [initial NRS report](#) and updated [Methodology Note](#).

## Why are the NRS number of deaths different from the Scottish Government daily updates?

Put simply - they are two different measures that each have a valuable role in helping to monitor the number of deaths in Scotland involving COVID-19.

### Scottish Government daily updates

These are provided by Health Protection Scotland (HPS) and count:

- all people who have had a positive test for COVID-19 and died within 28 days of their first positive test.

These are important because they are available earlier, and give a quicker indication of what is happening day by day and are broadly comparable with the figures released daily for the UK by the Department for Health and Social Care.

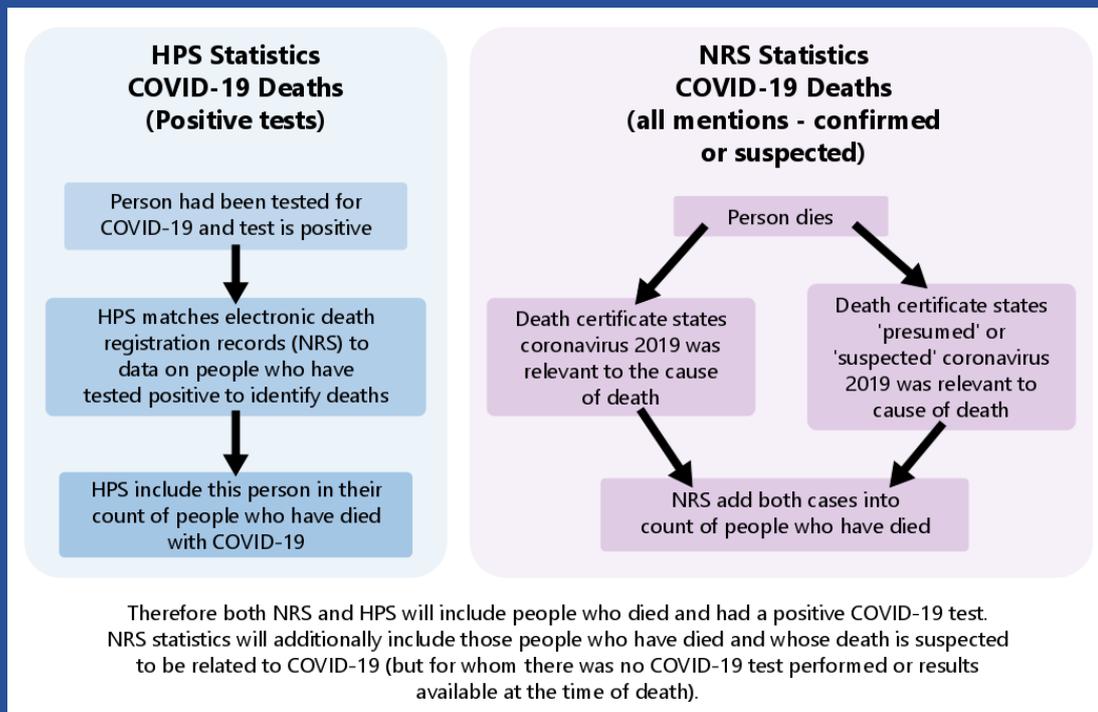
### NRS weekly death totals

The figures in this publication count:

- all deaths where COVID-19 was mentioned on the death certificate by the doctor who certified the death. This includes cases where the doctor noted that there was suspected or probable coronavirus infection involved in the death.

As a result these weekly totals are likely to be higher than the daily figures - because the daily updates only include those who tested positive for the virus.

Using the complete death certificate allows NRS to analyse a lot of information, such as location of death and what other health conditions contributed to the death.



## 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 10<sup>th</sup> Revision (ICD-10). The relevant codes included in this publication are U07.1, U07.2, U09.9 and U10.9.
- Figures include deaths where ‘suspected’ or ‘probable’ COVID-19 appears on the death certificate.
- From the week beginning 22 March 2021, new ICD-10 codes issued by the World Health Organisation (WHO) were also used to code deaths involving COVID-19. U09.9 is used for ‘post-COVID’ conditions, when death occurred after acute or ongoing COVID-19. U10.9 is used in the rare cases where ‘Kawasaki-like’ syndrome is caused by COVID-19. Data back to March 2020 has been recoded to ensure consistency of the time series.
- Data for 2021 are provisional and subject to change in future weekly publications. The data will be finalised in June 2022. 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 (this publication).
- 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

<b>Breakdown</b>	<b>Frequency</b>	<b>When Added</b>	<b>Latest Period Covered</b>	<b>Date Last updated</b>
<a href="#">Age group</a>	Weekly	8 <sup>th</sup> April 2020	Week 45	17 <sup>th</sup> November 2021
<a href="#">Sex</a>	Weekly	8 <sup>th</sup> April 2020	Week 45	17 <sup>th</sup> November 2021
<a href="#">Location</a>	Weekly	15 <sup>th</sup> April 2020	Week 45	17 <sup>th</sup> November 2021
<a href="#">Health Board</a>	Weekly	8 <sup>th</sup> April 2020	Week 45	17 <sup>th</sup> November 2021
<a href="#">Local Authority</a>	Weekly	22 <sup>nd</sup> April 2020	Week 45	17 <sup>th</sup> November 2021
<a href="#">Excess deaths by cause</a>	Weekly	22 <sup>nd</sup> April 2020	Week 45	17 <sup>th</sup> November 2021
<a href="#">Excess deaths by cause and location</a>	Weekly	17 <sup>th</sup> June 2020	Week 45	17 <sup>th</sup> November 2021
<a href="#">Age-standardised mortality rates – Scotland</a>	Monthly	13 <sup>th</sup> May 2020	October 2021	17 <sup>th</sup> November 2021
<a href="#">Age-standardised mortality rates – sub-Scotland</a>	Monthly	17 <sup>th</sup> June 2020	March 2020 – October 2021	17 <sup>th</sup> November 2021
<a href="#">Leading causes of death</a>	Monthly	13 <sup>th</sup> May 2020	October 2021	17 <sup>th</sup> November 2021
<a href="#">Pre-existing conditions</a>	Monthly	13 <sup>th</sup> May 2020	October 2021	17 <sup>th</sup> November 2021
<a href="#">Deprivation</a>	Monthly	13 <sup>th</sup> May 2020	March 2020 – October 2021	17 <sup>th</sup> November 2021
<a href="#">Urban Rural</a>	Monthly	13 <sup>th</sup> May 2020	March 2020 – October 2021	17 <sup>th</sup> November 2021
<a href="#">Daily occurrences by location of death</a>	Monthly	13 <sup>th</sup> May 2020	October 2021	17 <sup>th</sup> November 2021
<a href="#">Occupation</a>	Monthly	17 <sup>th</sup> June 2020	March 2020 – October 2021	17 <sup>th</sup> November 2021
<a href="#">Intermediate Zone</a>	Monthly	17 <sup>th</sup> June 2020	March 2020 – October 2021	17 <sup>th</sup> November 2021
<a href="#">Deaths by ICD-10 codes</a>	Monthly	16 <sup>th</sup> June 2021	March 2020 – October 2021	17 <sup>th</sup> November 2021
<a href="#">Ethnic Group</a>	Occasional	8 <sup>th</sup> July 2020	March 2020 – September 2021	17 <sup>th</sup> November 2021
<a href="#">Disability</a>	One-off	24 <sup>th</sup> March 2021	March to Jan	24 <sup>th</sup> March 2021

## National Records of Scotland

We, the National Records of Scotland, are a non-ministerial department of the devolved Scottish Administration. Our aim is to provide relevant and reliable information, analysis and advice that meets the needs of government, business and the people of Scotland. 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](https://twitter.com/NatRecordsScot)

### Enquiries and suggestions

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

For media enquiries, please contact [communications@nrscotland.gov.uk](mailto:communications@nrscotland.gov.uk)

For all other enquiries, please contact [statisticscustomerservices@nrscotland.gov.uk](mailto:statisticscustomerservices@nrscotland.gov.uk)