

# Deaths involving coronavirus (COVID-19) in Scotland

Week 2  
(11 to 17 January 2021)



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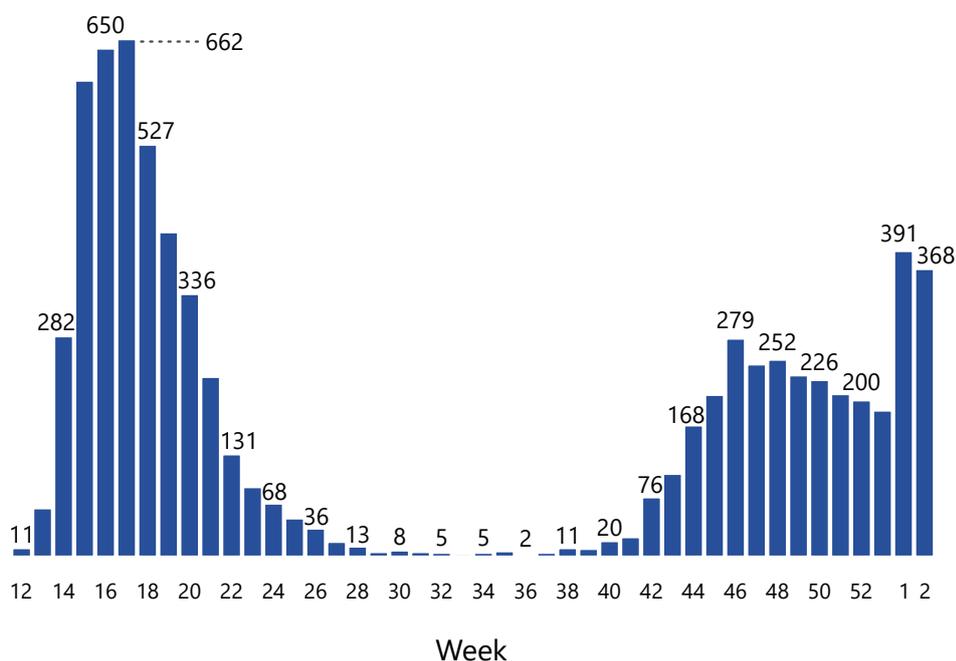
This statistical report includes provisional statistics on the number of deaths associated with coronavirus (COVID-19) and the total number of deaths registered in Scotland, for week 2 of 2021 and additional monthly analysis on deaths occurring up to 31<sup>st</sup> December 2020.

# Deaths involving coronavirus (COVID-19) up to 17th January 2021 Summary

## As of 17th January 2021 7448 deaths had been registered which mentioned COVID-19

The highest number of COVID-19 deaths were registered in week 17 (20th to 26th April). Deaths fell slightly in week 2 but as week 1 figures included postponed registrations from earlier weeks, it may not be a true decrease.

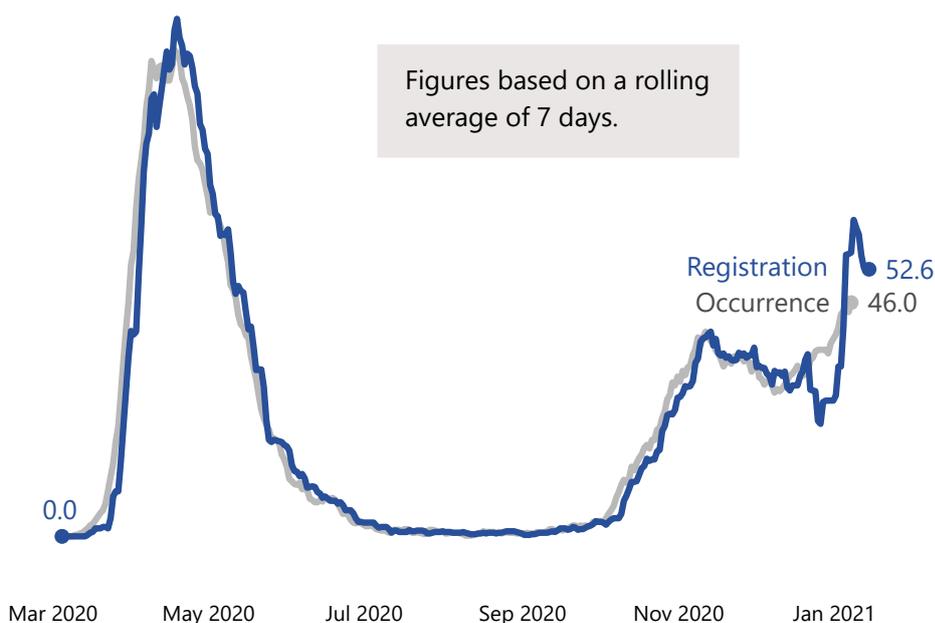
Deaths per week involving COVID-19



## Deaths began to increase in mid-December

Trends based on date of registration are more timely but can be unreliable at times of year when registration offices are closed due to public holidays. Registrations drop due to office closures and increase sharply when backlogs are cleared. The trend based on date of occurrence gives a clearer picture and shows that, after falling in mid-November deaths began to increase again in mid-December.

Trends in deaths involving COVID-19 by dates of occurrence and registration



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

There were fewer registrations than usual in weeks 52 and 53 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 may be higher than normal as registrars deal 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. See page 13 for more analysis of this.

## Key Findings

### COVID deaths

- As at the 17<sup>th</sup> of January, there have been a total of 7,448 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 2 (11 January to 17 January) there were 368 where COVID-19 was mentioned on the death certificate, a decrease of 23 from the previous week (04 January to 10 January).
- Of deaths involving COVID-19 in the latest week:
  - 66% were aged 75+ (244 deaths), and 10% were aged under 65 (38 deaths).
  - 53% were male (196 deaths) and 47% female (172 deaths).
  - There were 94 deaths in Greater Glasgow and Clyde Health Board area, 48 in Lanarkshire and 48 in Lothian.
  - At council level, the highest number of deaths occurred in Glasgow City (44), City of Edinburgh (39), Fife (34).
  - The majority (65%) occurred in hospitals (240 deaths), with 97 deaths in care homes, 27 at home or in non-institutional settings and 4 in other institutions.

## All-cause deaths and excess deaths

### 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.

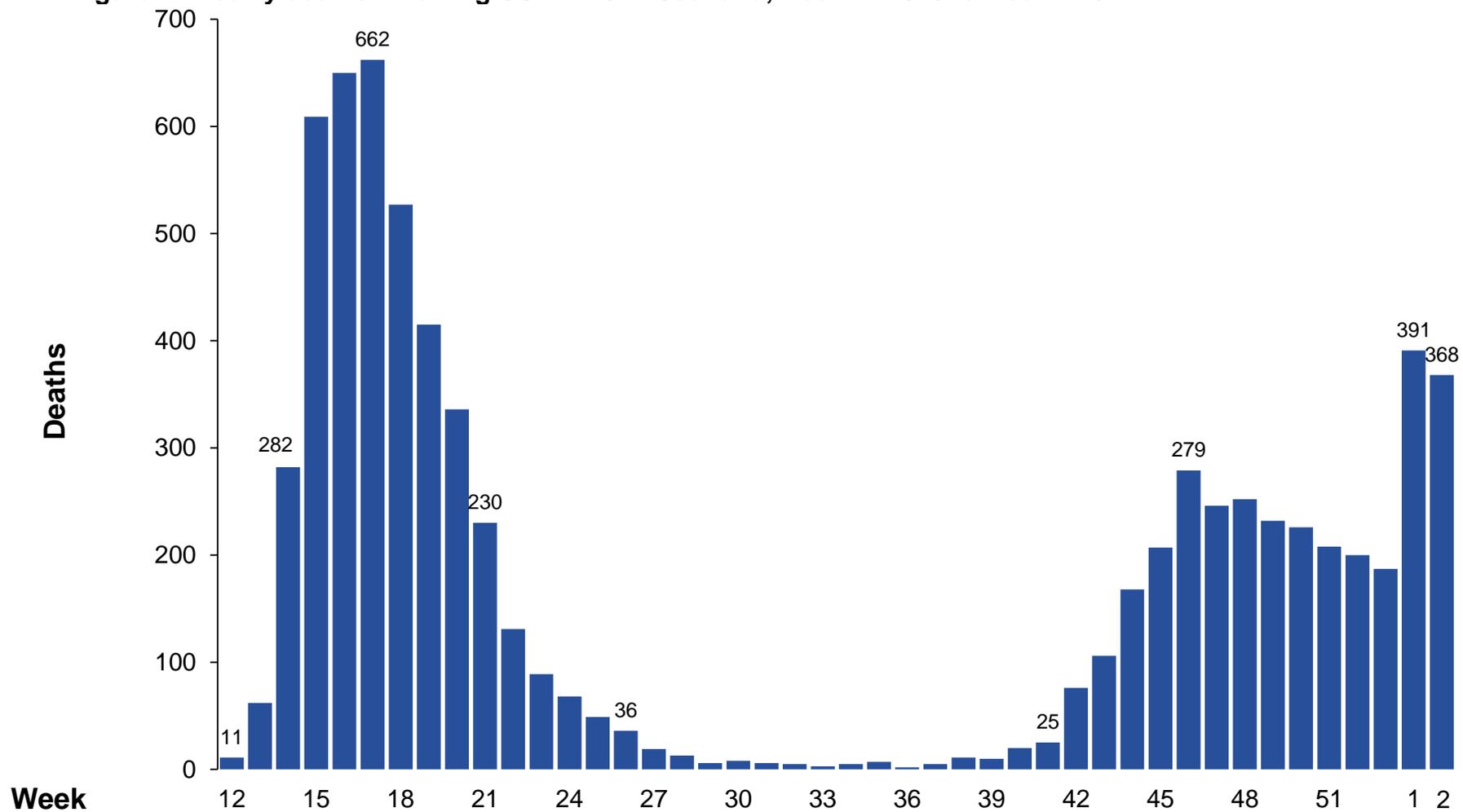
As excess deaths are a key measure of the effect of the pandemic, it is not appropriate to compare the 2021 figure against the 2016-2020 average as that average will be affected by the pandemic with higher deaths in Spring 2020. We have therefore decided to continue to use the 2015-2019 average to measure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

- The provisional total number of deaths registered in the calendar year 2020 (1<sup>st</sup> January to 31<sup>st</sup> December) was 64,084. This compares to an average of 57,760 over the previous five years (2015-2019) meaning that there were 6,324 excess deaths.
- The provisional total number of deaths registered in Scotland in week 2 of 2021 (11 January to 17 January) was 1,534.
- The average number of deaths registered in the corresponding week over the period 2015-2019 was 1,560, so there were 26 (2%) fewer deaths registered in week 2 of 2021 compared to the average.
- In week 2 there were 65 fewer deaths in care homes (18% below average), 101 excess deaths at home or in non-institutional settings (25% above average) and 62 fewer deaths in hospitals (8% below average).
- There were 26 fewer deaths across all locations than the average for the latest week. The number of deaths where COVID-19 was the underlying cause was 327. Deaths from respiratory causes (-144), circulatory causes (-78), cancer (-60) and dementia (-56) were all lower than average for this time of year.

## Monthly analysis – deaths occurring between March and December

- The age-standardised death rate for deaths involving COVID-19 which occurred between March and December was 155 per 100,000 people.
- Age-standardised rates for males were significantly higher than for females (191 compared with 128 per 100,000 people in March to December combined).
- After adjusting for age, people living in the most deprived areas were 2.2 times as likely to die with COVID-19 as those in the least deprived areas. The size of this gap has ranged between 2.1 and 2.3 over the period of the pandemic.
- Of the 6,834 deaths involving COVID-19 between March and December 2020, 93% (6,372) had at least one pre-existing condition. The most common main pre-existing condition was dementia and Alzheimer's, accounting for 28% of all deaths involving COVID-19.
- Glasgow City had the highest age-standardised death rate of all council areas, followed by West Dunbartonshire, Renfrewshire and Midlothian. Highland, Moray and Dumfries and Galloway had the lowest rates (in addition to Na h-Eileanan Siar, Orkney and Shetland whose numbers were too low to calculate rates)

Figure 1: Weekly deaths involving COVID-19 in Scotland, week 12 2020 to week 2 2021



## 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.

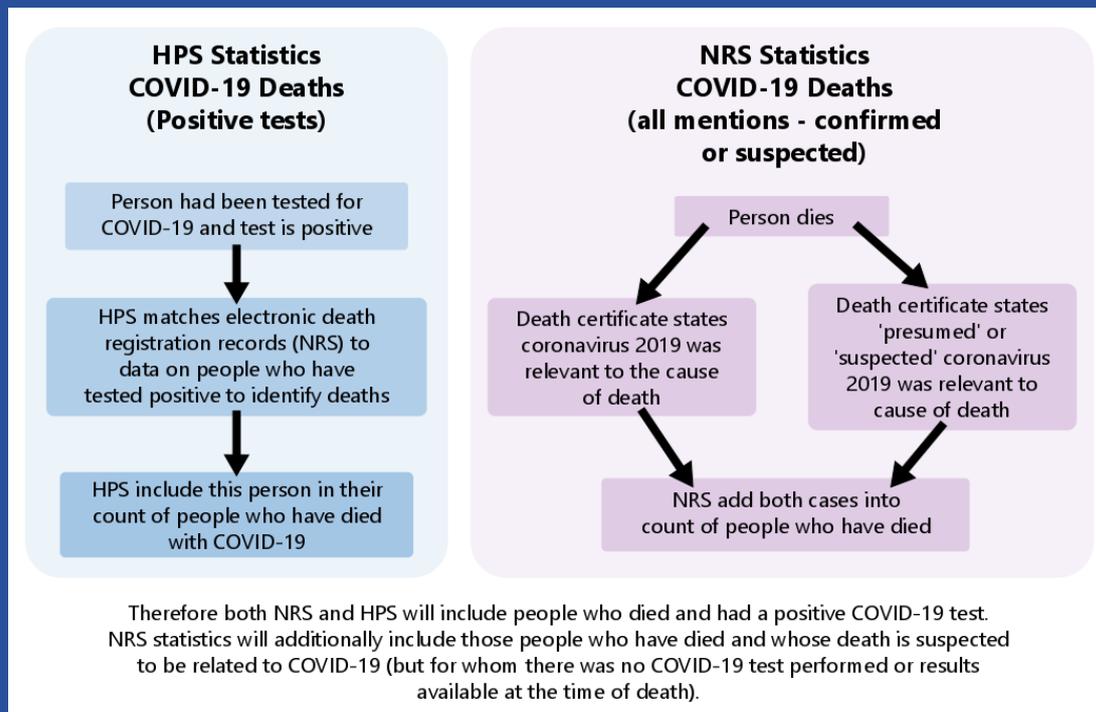
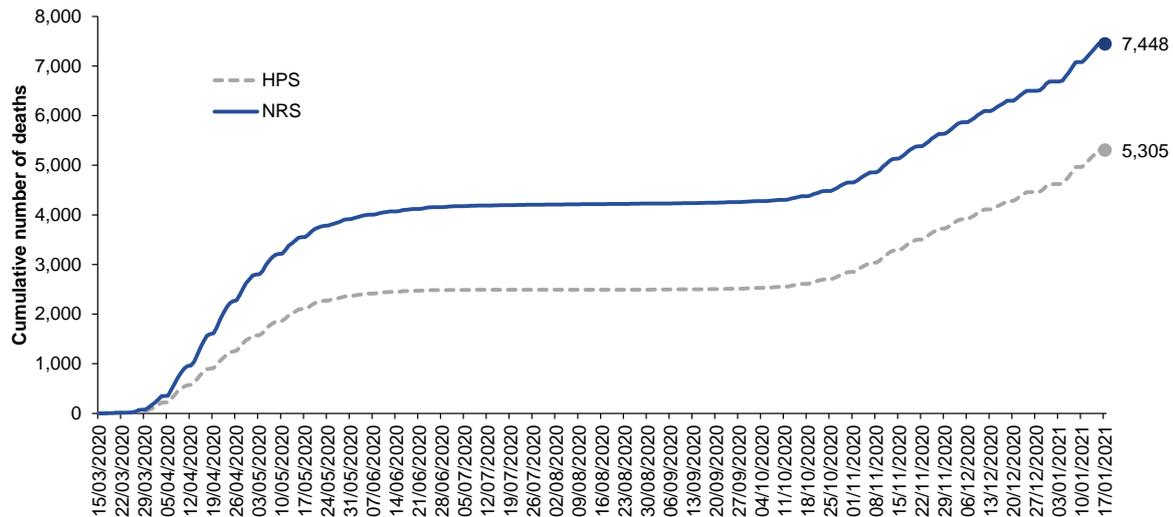


Figure 2 illustrates the differences between the two sets of figures. In the early stages, the figures were closely aligned but over time they diverged with the NRS figure higher than the HPS figure. This is due to the inclusion of probable and suspected COVID deaths whereas the HPS figure only includes deaths of those who had tested positive for the virus. As the HPS figures count people who died within 28 days of their first positive test, in the more recent period the NRS figures may pick up people who tested positive but died more than 28 days later.

**Figure 2: Cumulative number of deaths involving COVID-19 in Scotland using different data sources 2020 and 2021**



### How do these weekly death figures compare with those produced across the rest of the UK?

The figures are produced using same definition as those published by the ONS (for England and Wales) and NISRA (for Northern Ireland), so are broadly comparable.

One minor difference is how the registration weeks are defined:

- Weeks used by ONS and NISRA run from Saturday to Friday
- NRS weeks run from Monday to Sunday (this is the [ISO8601](#) standard week).

In practice, this is likely to have very little impact on comparisons as there are few registrations that take place on Saturdays and Sundays.

You can view the latest weekly figures from ONS for England and Wales [here](#). The latest figures from NISRA for Northern Ireland are available [here](#). The figures for the rest of the UK are a week behind those for Scotland so the equivalent weeks should be compared.

**Figure 3: Deaths by week of registration, Scotland, 2020 and 2021**

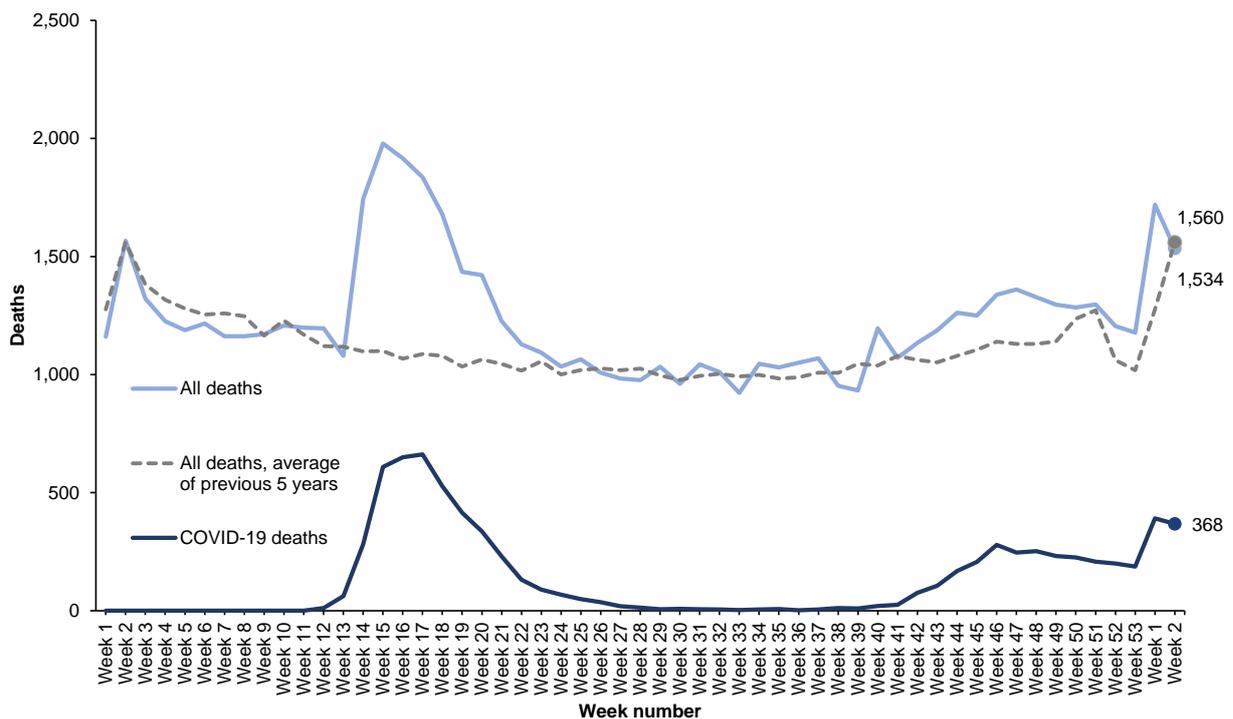


Figure 3 shows that in 2020 up to week 13, the number of weekly registered deaths in Scotland had been broadly in line with the five year average (or slightly below). From week 14 to 22, there was a clear divergence from the five year average.

**What are “Excess Deaths”?**

The total number of deaths registered in a week in 2020 minus the average number of deaths registered in the same week over the period 2015 to 2019.

**6,324 excess deaths in calendar year 2020**

The provisional total number of deaths registered in the calendar year 2020 (1st January to 31st December) was 64,084. This compares to an average of 57,760 over the previous five years (2015-2019) meaning that there were 6,324 excess deaths. This gives a slightly different figure from summing excess deaths for the individual weeks within 2020 because the weeks do not fit neatly within the calendar year. See page 27 for more detail.

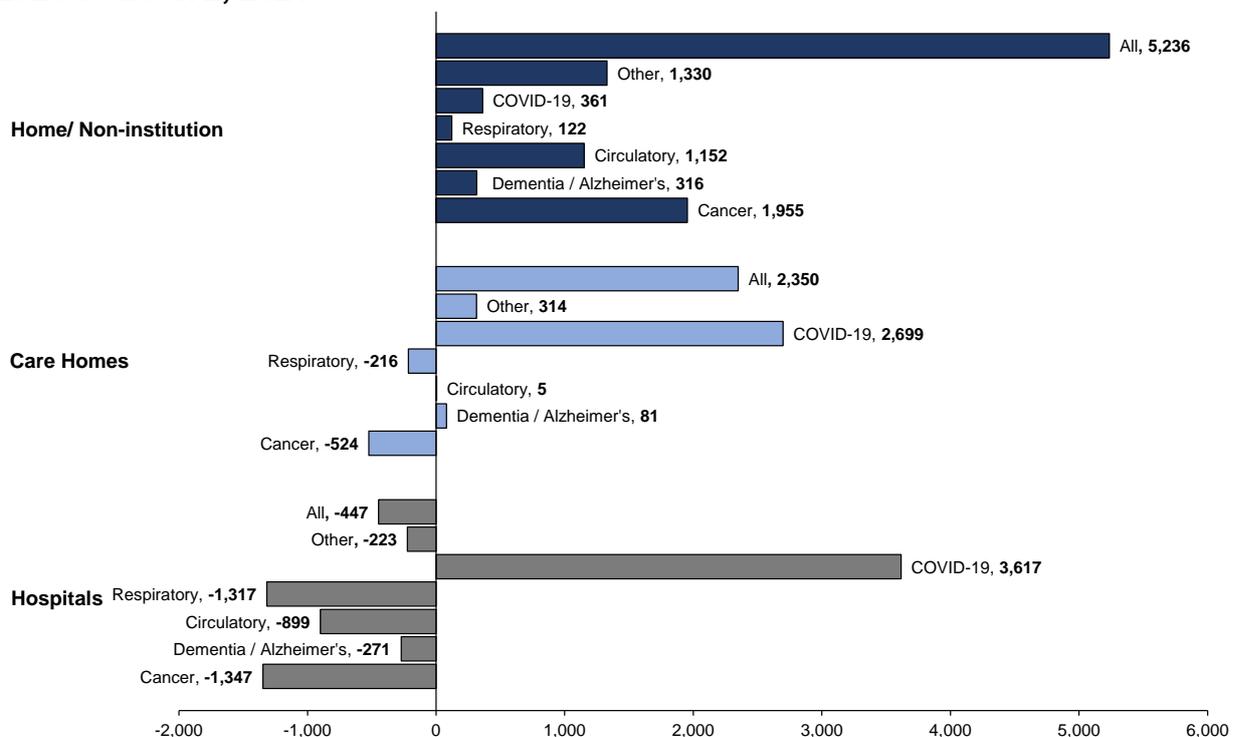
In the final weeks of 2020 excess deaths fluctuated a lot, falling from 20% above average in week 47 (beginning 16 November) to 2% above average in week 51 (beginning 14 December). Week 1 of 2021 had 35% more deaths than the average, but this fell again to 2% below the average in week 2 of 2021.

Figure 4 shows the number of excess deaths from week 12 of 2020 to week 2 of 2021 (the period since the first coronavirus death was registered) broken down by location of death and the underlying cause of death.

There were 2,350 excess deaths in care homes (18% above average), 5,236 excess deaths at home or in non-institutional settings (29% above average) whilst hospital deaths were 447 (2%) below average levels for the period.

In care homes and hospitals, COVID-19 was the cause of the majority of excess deaths whilst in home and non-institutional settings there were far fewer excess deaths involving COVID-19. Cancer, circulatory deaths, and deaths from other causes accounted for most of the excess deaths in these settings. Conversely, in hospital settings there were lower than average numbers of deaths from all causes other than COVID-19.

**Figure 4: Excess Deaths by underlying cause of death\* and location, week 12 2020 to week 2, 2021**



\* ICD-10 codes for cause of death categories are as follows:

Cancer – C00-C97

Dementia and Alzheimer's – F01, F03, G30

Circulatory – I00-I99

Respiratory – J00-J99

COVID-19 – U07

Other – all other codes not mentioned above

### What do we mean by “Underlying Cause of Death”?

The figures in this publication focus on deaths where COVID-19 was mentioned on the death certificate (either as the underlying cause or as a contributory factor).

In order to present a comparison of different causes of death, it is better to focus on deaths by underlying cause. This is because several causes can be listed on an individual death certificate so if we include all mentions of each particular cause we would end up with some double counting within our analysis.

The analysis of excess mortality in table 3 and figure 4 is based on deaths where COVID-19 was the underlying cause of death. Therefore the number of deaths between week 12 of 2020 and week 2 of 2021 (6,693) are slightly lower than the number given for COVID-19 deaths elsewhere in this publication (7,448) as they are deaths involving COVID (either as the underlying cause or as a contributory factor).

Of all deaths involving COVID-19 registered by 17<sup>th</sup> January, it was the underlying cause in 90% of cases (6,693 out of 7,448).

More information on how the underlying cause of death is determined is available on the [NRS website](#).

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

Of the 7,448 deaths involving COVID-19 which were registered to date, 55% related to deaths in hospitals. 38% of deaths were in care homes and 6% of deaths were at home or non-institutional settings.

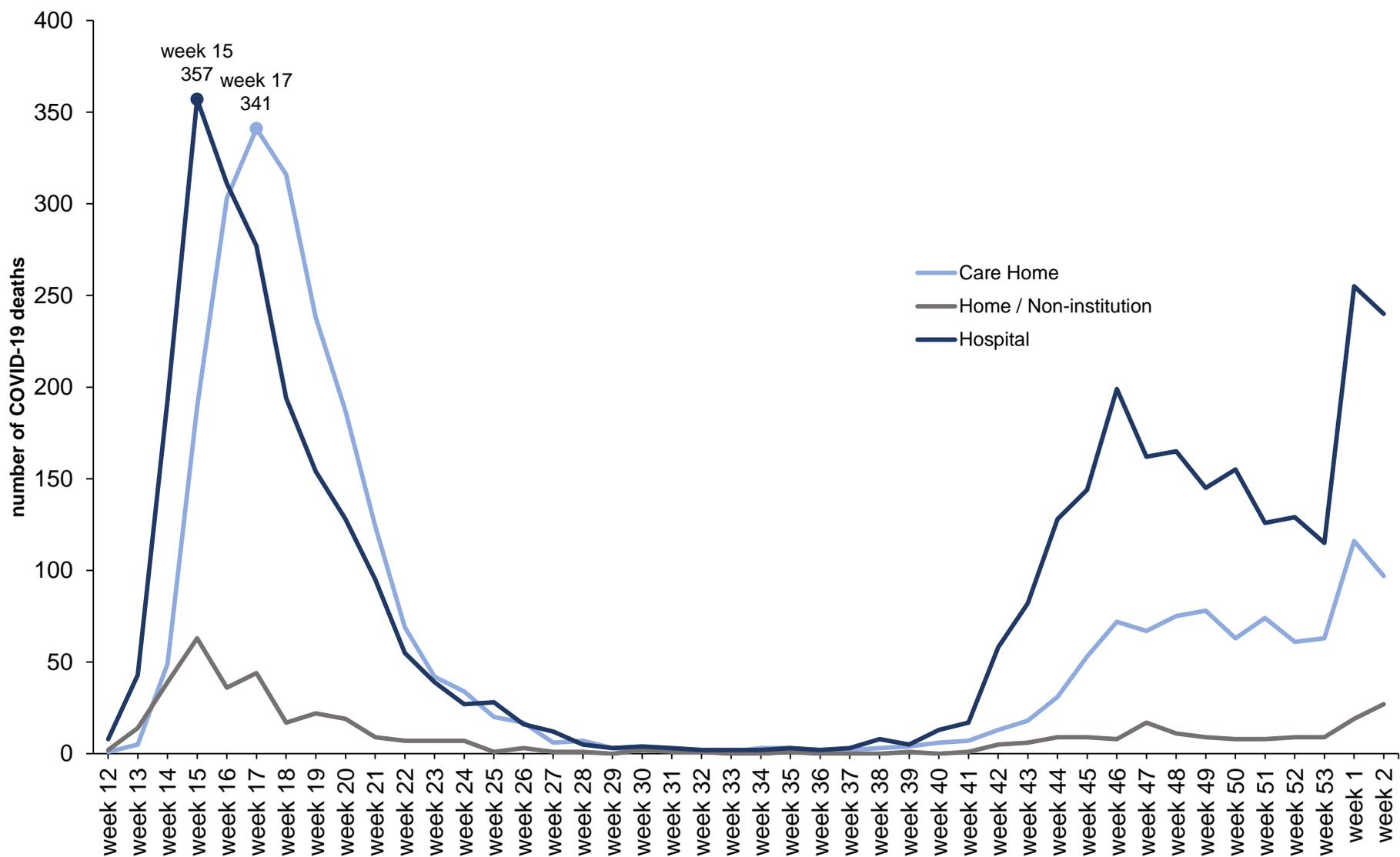
To put these figures into context, in 2019 around 48% of all deaths occurred in hospitals, 24% in care homes and 28% in home or non-institutional settings.

Figure 5 shows the number of deaths involving COVID-19 by location for week 12 of 2020 to week 2 of 2021.

In the earliest weeks of the pandemic the majority of deaths involving COVID-19 took place in hospitals, but by week 17 (April) more COVID-19 deaths were occurring in care homes. Between weeks 23 and 39 (June to September) the number of COVID-19 deaths in all locations were very low but began to increase from week 40 (late September). Since this point most deaths have occurred in hospitals.

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

Figure 5: Deaths involving COVID-19 by location of death



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

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. Figure 6 below illustrates this. 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.

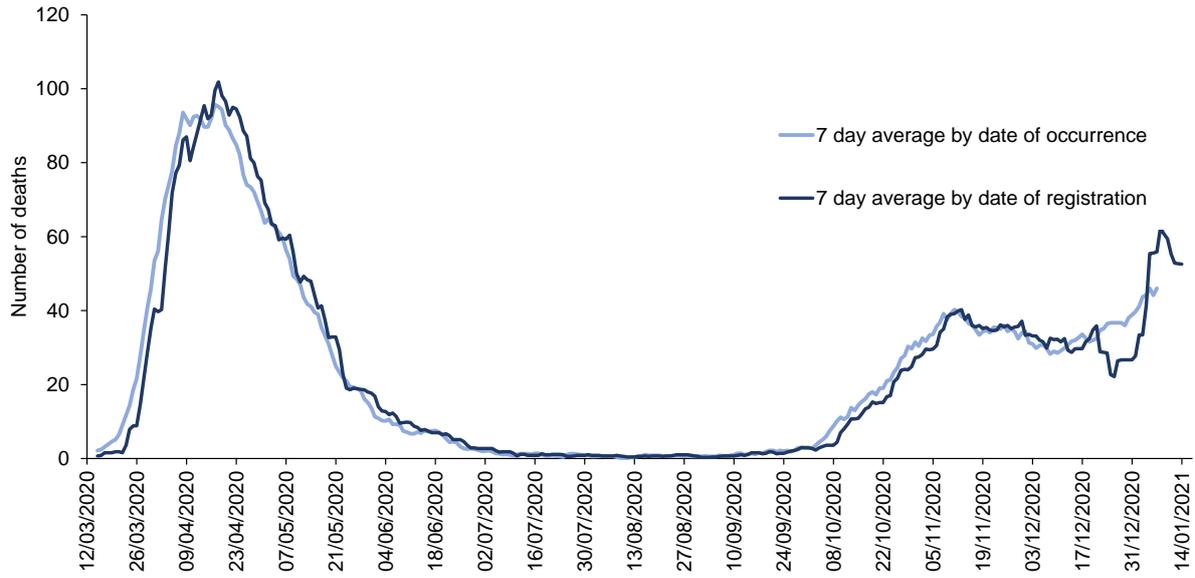
This report includes all deaths which were registered by 17<sup>th</sup> January. There will, however, be deaths which occurred before this date but were not yet registered. In order to include a more complete analysis based on date of death, we need to wait an additional week to allow the registration process to fully complete. The trend based on date of death therefore only includes deaths which occurred by 10<sup>th</sup> January as the majority of these are likely to have been registered – so although this gives a more accurate picture, it takes more time to compile. However, they are valuable statistics and provide a clearer understanding of the impact and progress of COVID-19, when used alongside the other available daily and operational data.

### In Summary

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).

**Figure 6: Deaths involving COVID-19, Date of Occurrence vs Date of Registration 2020 and 2021**



## DEATHS OCCURRING BETWEEN MARCH AND DECEMBER 2020

This section provides an in-depth analysis of deaths which **occurred** in Scotland between March and December 2020. 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 and December there were 155 deaths per 100,000 population. Rates for males were significantly higher than for females (191 compared with 128 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.

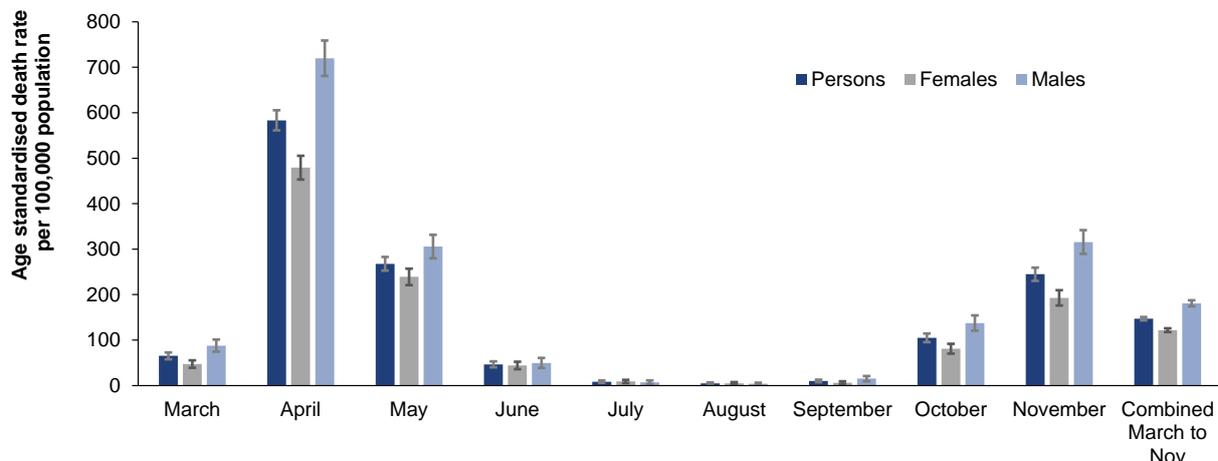
Age-standardised rates are therefore more reliable for comparing mortality over time and between different countries, different areas within a country, deprivation quintiles, and different sexes.

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

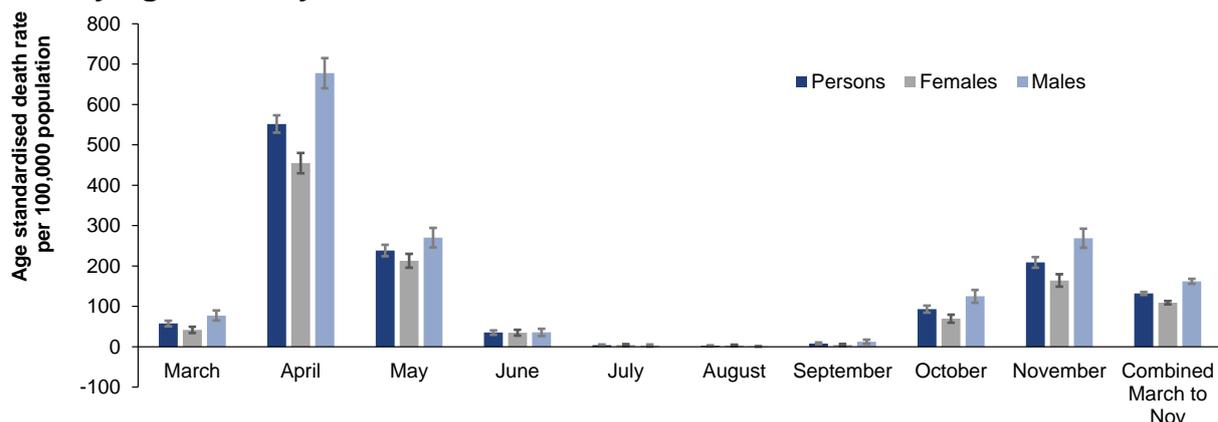
Looking only at deaths where COVID-19 was the underlying cause, the rates were only slightly lower – reflecting the fact that it was the underlying cause in the vast majority (90%) of deaths involving COVID-19. In the combined data for March to December, the age-standardised mortality rate was 137 per 100,000 population, with a similar differential between males (169) and females (113).

In terms of the monthly pattern, after peaking in April, age-standardised rates for deaths involving COVID-19 fell sharply in May and reduced to very low levels between June and September before increasing again in October and November. The age-standardised death rate in December decreased slightly to a rate of 222 per 100,000 population.

**Figure 7a: Age standardised rates for deaths involving COVID-19 by sex, between 1<sup>st</sup> March 2020 and 31<sup>st</sup> December 2020**



**Figure 7b: 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> December 2020**



The age-standardised mortality rate from all causes was 1,189 per 100,000 population in March to December 2020. To put this figure into context the age-standardised mortality rate from all causes in 2019 was 1,108 per 100,000 population and was last above this level in 2010 (1,198 per 100,000 population).

## 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.

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.

Over the period between March and December, the leading cause of death was COVID-19 (6,156 deaths, 11.5% of all deaths) followed by ischaemic heart disease (5,473, 10.2%) and dementia and Alzheimer's disease (5,120, 9.5%).

The leading causes of death have changed over the months, with COVID-19 not appearing in the top five in March and then becoming the leading cause in both April and May representing 31.3% and 18.4% of all deaths respectively. From June until September COVID-19 did not appear in the top five leading causes. It reappeared in third place in October, accounting for 8.4% of all deaths and returned as the leading cause of death in November and December, accounting for 16.6% and 14.2% of all deaths.

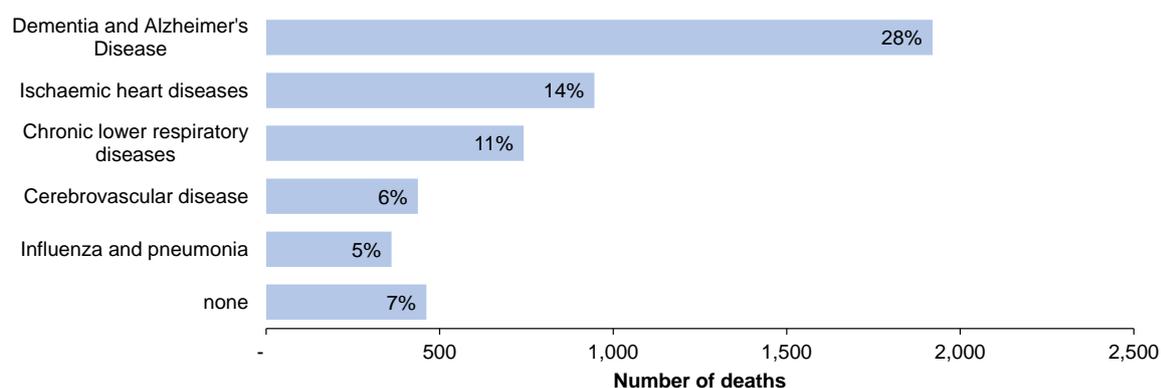
**Figure 8: Leading causes of death - 1<sup>st</sup> March 2020 and 31<sup>st</sup> December 2020**

Month	Rank	Cause	ICD codes	Deaths	Percentage of all deaths
March	1	Dementia and Alzheimer's Disease	F01, F03, G30	656	11.6%
	2	Ischaemic heart diseases	I20-I25	593	10.5%
	3	Cerebrovascular disease	I60-I69	379	6.7%
	4	Malignant neoplasm of trachea, bronchus and lung	C33-C34	365	6.5%
	5	Chronic lower respiratory diseases	J40-J47	276	4.9%
April	1	COVID-19	U07	2,411	31.3%
	2	Dementia and Alzheimer's Disease	F01, F03, G30	784	10.2%
	3	Ischaemic heart diseases	I20-I25	576	7.5%
	4	Cerebrovascular disease	I60-I69	374	4.9%
	5	Malignant neoplasm of trachea, bronchus and lung	C33-C34	327	4.3%
May	1	COVID-19	U07	1,063	18.4%
	2	Ischaemic heart diseases	I20-I25	553	9.6%
	3	Dementia and Alzheimer's Disease	F01, F03, G30	500	8.6%
	4	Cerebrovascular disease	I60-I69	319	5.5%
	5	Malignant neoplasm of trachea, bronchus and lung	C33-C34	285	4.9%
June	1	Ischaemic heart diseases	I20-I25	475	10.7%
	2	Dementia and Alzheimer's Disease	F01, F03, G30	393	8.8%
	3	Malignant neoplasm of trachea, bronchus and lung	C33-C34	286	6.4%
	4	Cerebrovascular disease	I60-I69	279	6.3%
	5	Symptoms, signs and ill-defined conditions	R00-R99	231	5.2%
July	1	Ischaemic heart diseases	I20-I25	527	11.7%
	2	Dementia and Alzheimer's Disease	F01, F03, G30	416	9.2%
	3	Cerebrovascular disease	I60-I69	315	7.0%
	4	Malignant neoplasm of trachea, bronchus and lung	C33-C34	313	7.0%
	5	Symptoms, signs and ill-defined conditions	R00-R99	216	4.8%
August	1	Ischaemic heart diseases	I20-I25	499	11.3%
	2	Dementia and Alzheimer's Disease	F01, F03, G30	414	9.4%
	3	Malignant neoplasm of trachea, bronchus and lung	C33-C34	325	7.4%
	4	Cerebrovascular disease	I60-I69	272	6.2%
	5	Symptoms, signs and ill-defined conditions	R00-R99	205	4.6%
September	1	Ischaemic heart diseases	I20-I25	501	11.2%
	2	Dementia and Alzheimer's Disease	F01, F03, G30	440	9.8%
	3	Malignant neoplasm of trachea, bronchus and lung	C33-C34	321	7.2%
	4	Cerebrovascular disease	I60-I69	303	6.8%
	5	Chronic lower respiratory diseases	J40-J47	212	4.7%
October	1	Ischaemic heart diseases	I20-I25	574	11.0%
	2	Dementia and Alzheimer's Disease	F01, F03, G30	496	9.5%
	3	COVID-19	U07	435	8.4%
	4	Cerebrovascular disease	I60-I69	328	6.3%
	5	Malignant neoplasm of trachea, bronchus and lung	C33-C34	315	6.1%
November	1	COVID-19	U07	932	16.5%
	2	Ischaemic heart diseases	I20-I25	565	10.0%
	3	Dementia and Alzheimer Disease	F01, F03, G30	503	8.9%
	4	Cerebrovascular disease	I60-I69	308	5.4%
	5	Malignant neoplasm of trachea, bronchus and lung	C33-C34	294	5.2%
December	1	COVID-19	U07	838	14.2%
	2	Ischaemic heart diseases	I20-I25	610	10.3%
	3	Dementia and Alzheimer Disease	F01, F03, G30	518	8.7%
	4	Cerebrovascular disease	I60-I69	360	6.1%
	5	Malignant neoplasm of trachea, bronchus and lung	C33-C34	356	6.0%
March - Dec combined	1	COVID-19	U07	6,156	11.5%
	2	Ischaemic heart diseases	I20-I25	5,473	10.2%
	3	Dementia and Alzheimer's Disease	F01, F03, G30	5,120	9.5%
	4	Cerebrovascular disease	I60-I69	3,237	6.0%
	5	Malignant neoplasm of trachea, bronchus and lung	C33-C34	3,187	5.9%

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

Of the 6,834 deaths involving COVID-19 between March and December 2020, 93% (6,372) had at least one pre-existing condition.

**Figure 9: Main pre-existing medical condition in deaths involving COVID-19, between 1<sup>st</sup> March 2020 and 31<sup>st</sup> December 2020**



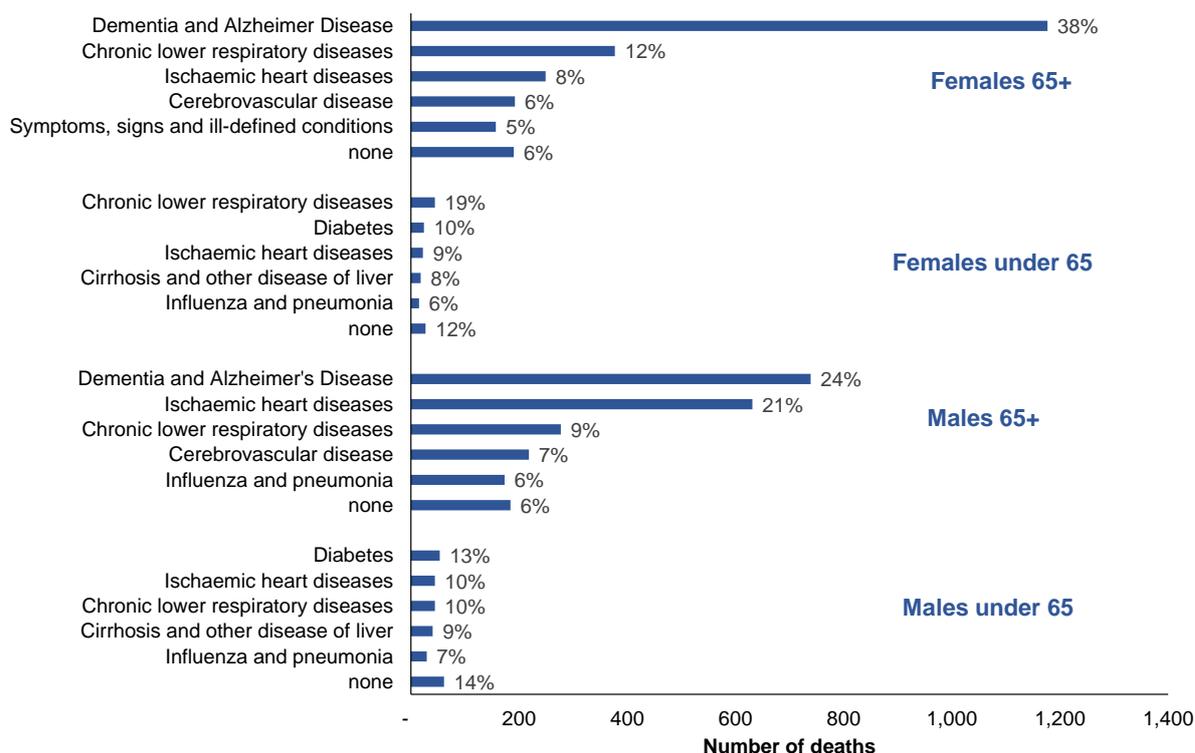
The most common main pre-existing condition among those who died with COVID-19 was dementia and Alzheimer's disease (28%), followed by ischaemic heart disease (14%), chronic lower respiratory diseases (11%), cerebrovascular disease (6%) and influenza and pneumonia (5%).

**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 (24% and 38% of all COVID-19 deaths respectively). For females under 65, the most common main pre-existing condition was chronic lower respiratory diseases (19%) and for males under 65 it was diabetes (13%). 12% of females and 14% of males under 65 who died with COVID-19 had no pre-existing condition, although it should be noted that deaths in this age group were relatively low.

**Figure 10: 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> December 2020**



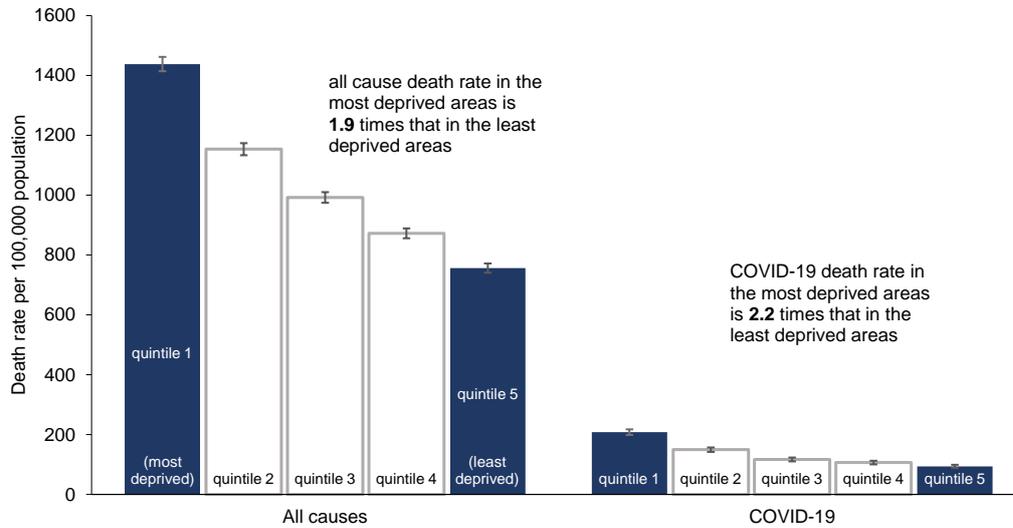
### Mortality by deprivation

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 and December 2020.

The deprivation gap is greater when looking at deaths involving COVID-19. The rate in the most deprived quintile (208 per 100,000 population) was more than double (2.2 times) the rate in the least deprived quintile (94 per 100,000 population). The size of this gap has ranged between 2.1 and 2.3 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 11: Age-standardised death rates by SIMD quintile between 1<sup>st</sup> March 2020 and 31<sup>st</sup> December 2020**

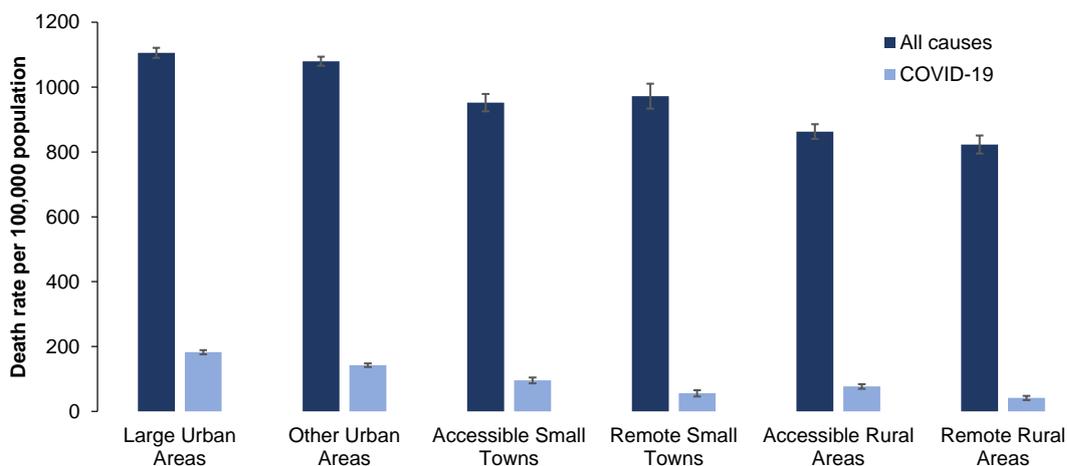


### Mortality by urban rural classification

The age-standardised rate for deaths involving COVID-19 in large urban areas (183 deaths per 100,000 population) was 4.4 times the rate in remote rural locations (42 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 12: Age-standardised death rates by urban rural classification between 1<sup>st</sup> March 2020 and 31<sup>st</sup> December 2020**

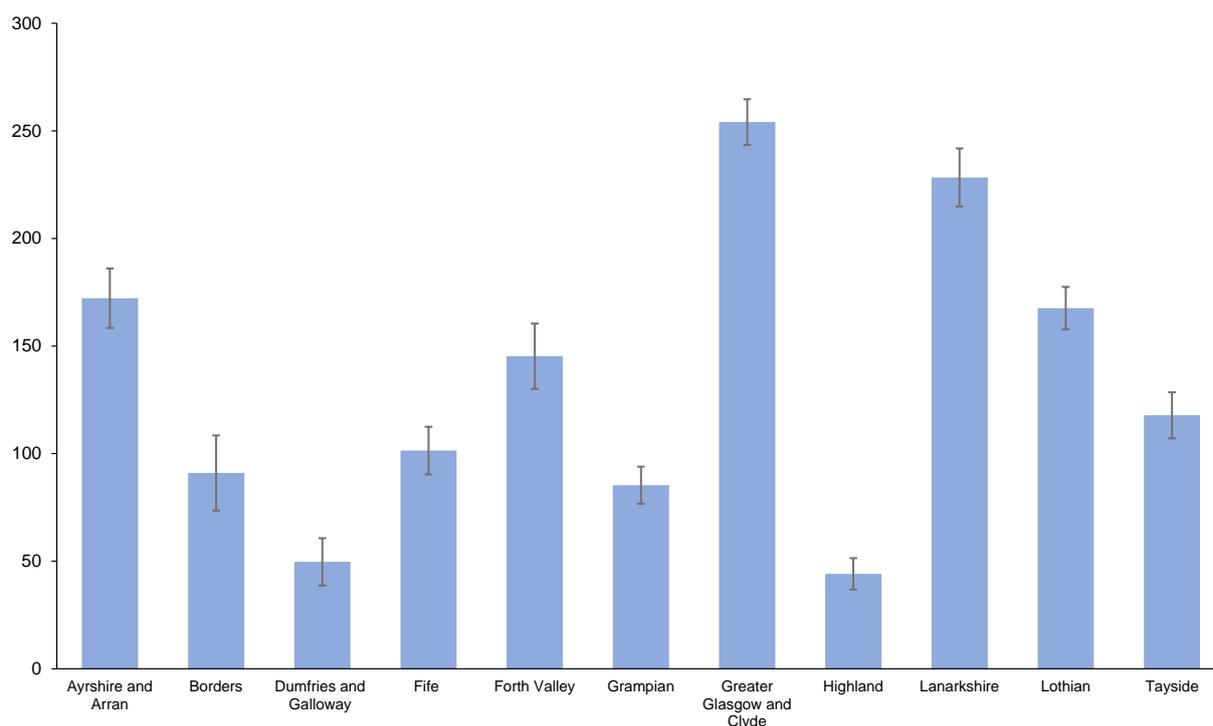


## Age-standardised rates by health board and council area

Figure 13 shows that Greater Glasgow and Clyde had the highest rate of all health boards (254 per 100,000 population), followed by Lanarkshire (228) and Ayrshire and Arran (172).

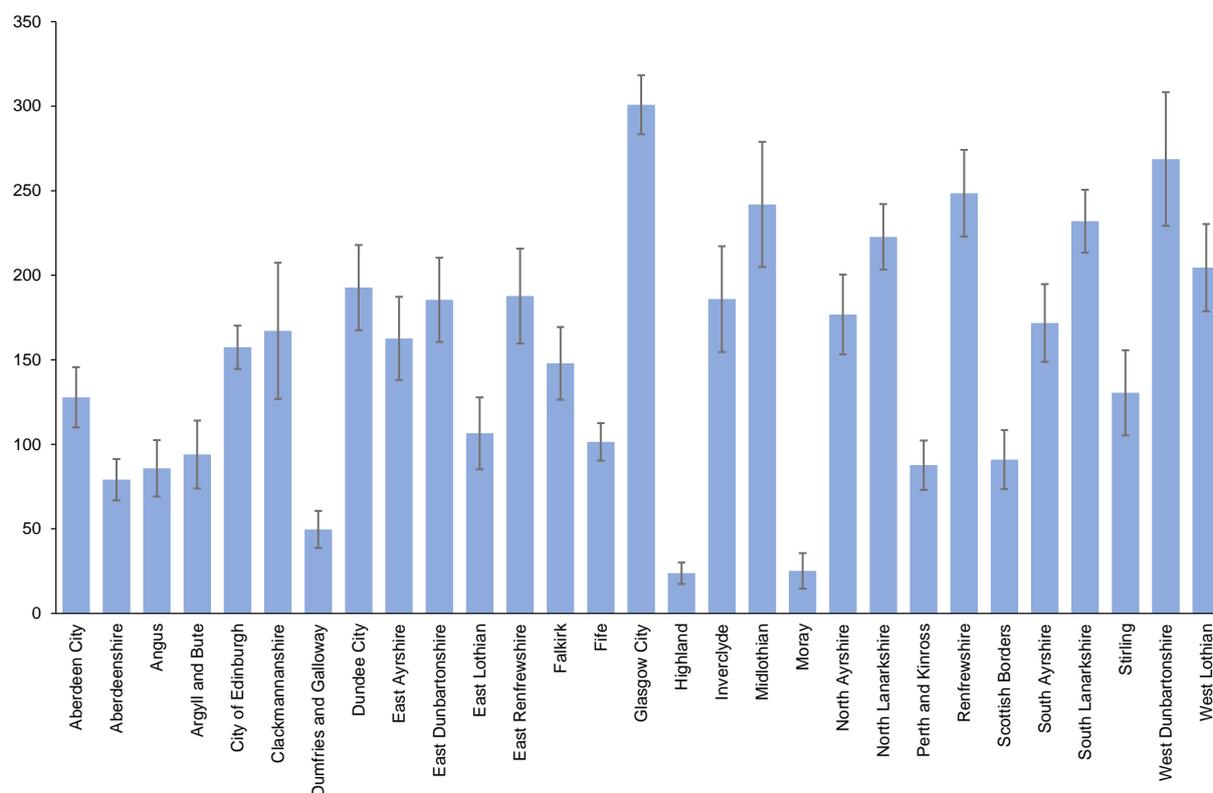
Rates are not shown for Orkney, Shetland and Western Isles as the number of deaths involving COVID-19 are too low to calculate robust age-standardised rates.

**Figure 13: age standardised rates for deaths involving COVID-19 between 1<sup>st</sup> March 2020 and 31<sup>st</sup> December 2020 in NHS health boards**



Glasgow City had the highest age-standardised death rate of all council areas (301 per 100,000 population), followed by West Dunbartonshire (269), Renfrewshire (249) and Midlothian (242). Highland (24 per 100,000), Moray (26) and Dumfries and Galloway (50) had the lowest rates (in addition to Na h-Eileanan Siar, Orkney and Shetland whose numbers were too low to calculate rates) (Figure 14).

**Figure 14: Age-standardised rates for deaths involving COVID-19 between 1<sup>st</sup> March 2020 and 31<sup>st</sup> December 2020 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 number of deaths occurred among process, plant and machine operatives (75 deaths and an age-standardised death rate of 44.3 per 100,000 population) followed by elementary occupations (69 deaths, 30.1 per 100,000 population). For context, there were 412 COVID-19 deaths across all occupations, with a rate of 18.4 per 100,000 population. People in professional occupations had the lowest death rate (22 deaths, 4.1 per 100,000 population). ([Table 10](#))

Compared to the average death rate (of deaths involving COVID-19) for all occupations, health care workers had a lower death rate (10.6 per 100,000 population) whilst social care workers had a higher rate (25.6 per 100,000 population) although the rate for social care workers is not significantly different from the average across all occupations.

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.

## 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.
- Figures in the second half of this report (page 13 onwards) are based on date of death rather than date of registration.
- 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 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. Data for 2020 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 (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 Published</b>
<a href="#">Age group</a>	Weekly	8 <sup>th</sup> April 2020	Week 2 2021	20 <sup>th</sup> January 2021
<a href="#">Sex</a>	Weekly	8 <sup>th</sup> April 2020	Week 2 2021	20 <sup>th</sup> January 2021
<a href="#">Location</a>	Weekly	15 <sup>th</sup> April 2020	Week 2 2021	20 <sup>th</sup> January 2021
<a href="#">Health Board</a>	Weekly	8 <sup>th</sup> April 2020	Week 2 2021	20 <sup>th</sup> January 2021
<a href="#">Local Authority</a>	Weekly	22 <sup>nd</sup> April 2020	Week 2 2021	20 <sup>th</sup> January 2021
<a href="#">Excess deaths by cause</a>	Weekly	22 <sup>nd</sup> April 2020	Week 2 2021	20 <sup>th</sup> January 2021
<a href="#">Excess deaths by cause and location</a>	Weekly	17 <sup>th</sup> June 2020	Week 2 2021	20 <sup>th</sup> January 2021
<a href="#">Age-standardised mortality rates – Scotland</a>	Monthly	13 <sup>th</sup> May 2020	December 2020	20 <sup>th</sup> January 2021
<a href="#">Age-standardised mortality rates – sub-Scotland</a>	Monthly	17 <sup>th</sup> June 2020	March – Dec 2020 combined	20 <sup>th</sup> January 2021
<a href="#">Leading causes of death</a>	Monthly	13 <sup>th</sup> May 2020	December 2020	20 <sup>th</sup> January 2021
<a href="#">Pre-existing conditions</a>	Monthly	13 <sup>th</sup> May 2020	December 2020	20 <sup>th</sup> January 2021
<a href="#">Deprivation</a>	Monthly	13 <sup>th</sup> May 2020	March – Dec 2020 combined	20 <sup>th</sup> January 2021
<a href="#">Urban Rural</a>	Monthly	13 <sup>th</sup> May 2020	March – Dec 2020 combined	20 <sup>th</sup> January 2021
<a href="#">Daily occurrences by location of death</a>	Monthly	13 <sup>th</sup> May 2020	November 2020	16 <sup>th</sup> December 2021
<a href="#">Occupation</a>	Monthly	17 <sup>th</sup> June 2020	March – Dec 2020 combined	20 <sup>th</sup> January 2021
<a href="#">Intermediate Zone</a>	Monthly	17 <sup>th</sup> June 2020	March – Dec 2020 combined	20 <sup>th</sup> January 2021
<a href="#">Ethnic Group</a>	One-off	8 <sup>th</sup> July 2020	March to mid-June 2020	11 <sup>th</sup> November 2020

## 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

### Enquiries and suggestions

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

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