Deaths involving coronavirus (COVID-19) in Scotland

Week 19 (10 to 16 May 2021)

Published on 19 May 2021

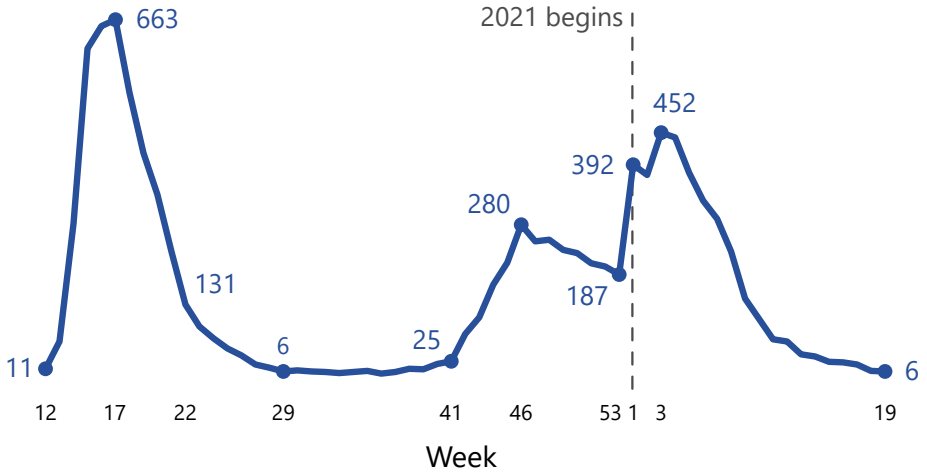
This statistical report includes provisional statistics on the number of deaths associated with coronavirus (COVID-19) and the total number of deaths registered in Scotland, for week 19 of 2021 and additional monthly analysis on deaths occurring up to 30th April 2021.

Deaths involving coronavirus (COVID-19) up to 16th May 2021 Summary

COVID-19 deaths back to early October levels

As of 16th May 2021, 10,109 deaths have been registered which mentioned COVID-19. The highest number were registered in week 17 (20th to 26th April). Since the recent high point of 452 in week 3 (18th to 24th January) deaths have fallen for 16 consecutive weeks.

Deaths per week involving Covid-19



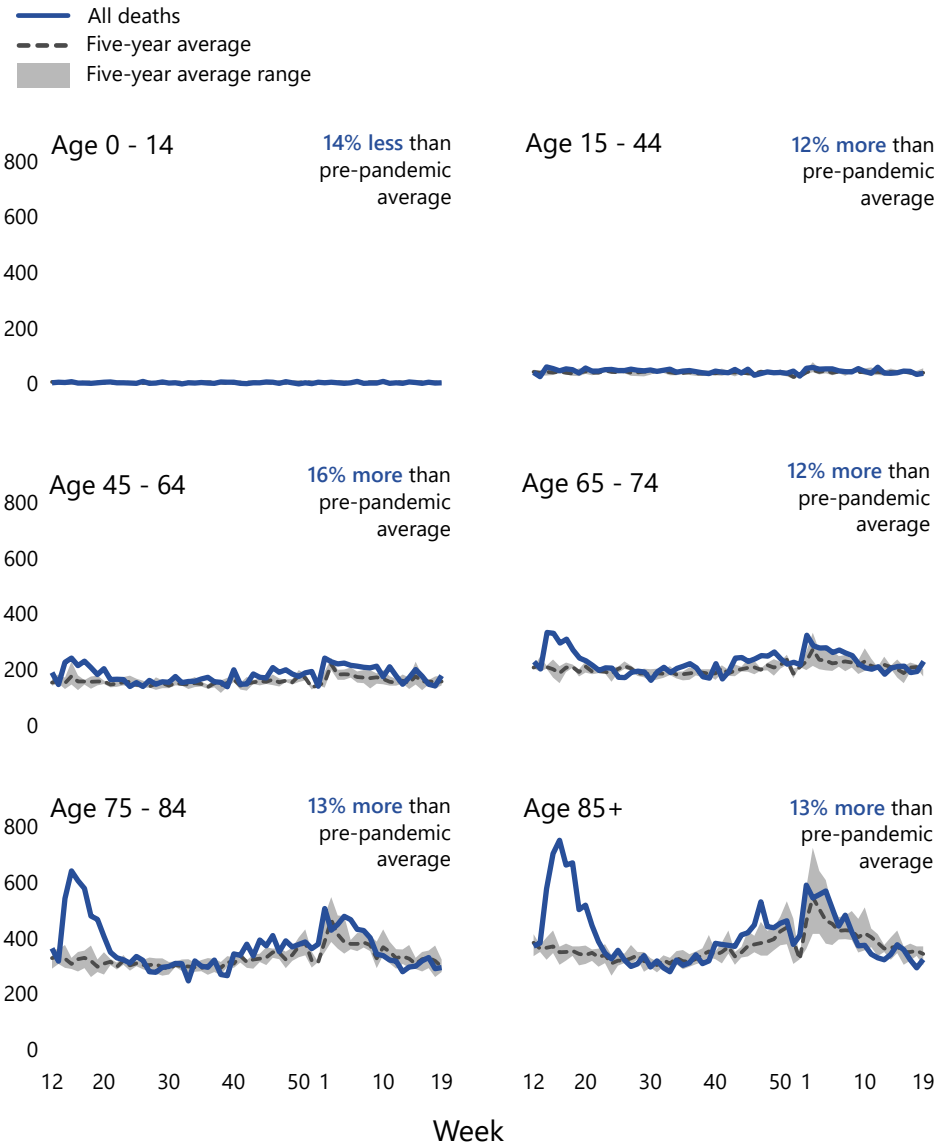
Most excess deaths have occurred among the older population

Since mid-March 2020 there have been around 8,700 (13%) more deaths when compared to average weekly deaths from 2015-2019.

There have been over 2,930 (13%) more deaths in people aged 85 or older compared to the average, with deaths in people aged 75-84 being around 2,520 (13%) higher.

Most of the excess deaths occurred right at the beginning of the pandemic in April 2020. The period of excess deaths at the start of 2021 contributed less than the "first wave" to the overall total as deaths were slightly lower, and more deaths are expected at this time of year anyway.

Excess deaths by age



Key Findings

Deaths involving COVID-19, weekly registrations *(go to section)*

- As at the 16th of May, there have been a total of 10,109 deaths registered in Scotland where the novel coronavirus (COVID-19) was mentioned on the death certificate. In the latest week there were 6 deaths, a decrease of 1 from the previous week.
- Of deaths involving COVID-19 in the latest week:
  - 4 were female, 2 were male.
  - 1 was aged 75 or older, the other 5 deaths were to people under 65.
  - There were 3 deaths in North Lanarkshire, 2 in Glasgow City and 1 in Perth and Kinross.
  - There were 4 deaths in hospitals, with 1 in a care home and 1 at home or in a non-institutional setting.

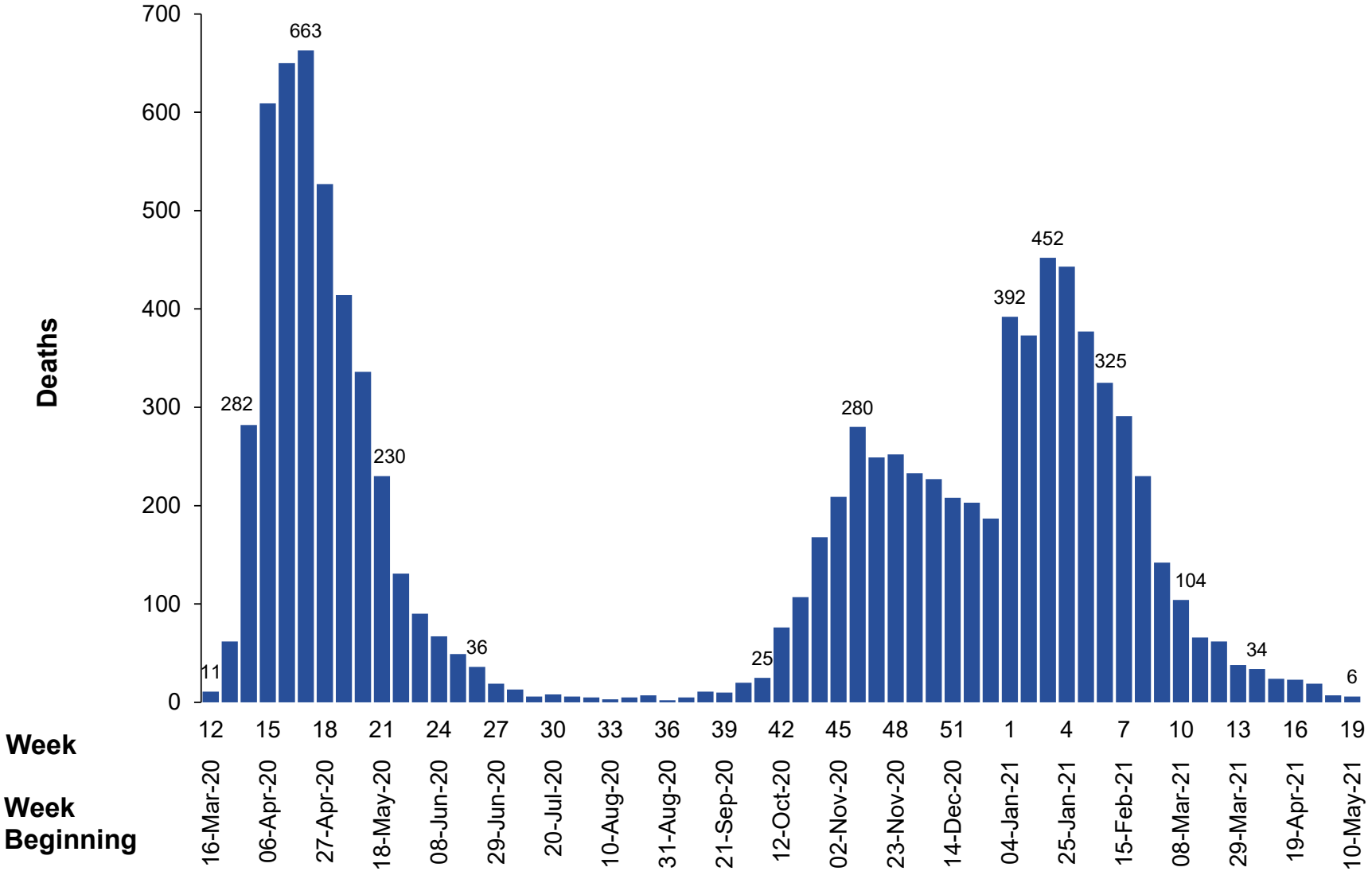
Deaths from all causes, weekly registrations *(go to section)*

- The number of deaths registered in Scotland in week 19 of 2021 was 1,066. This was 32 deaths more than the five year average for week 19 (3% above average).
- In week 19 there were 30 fewer deaths in care homes (13% below average), 123 excess deaths at home or in non-institutional settings (44% above average) and 63 fewer deaths in hospitals (12% below average), compared to the 2015-2019 average.
- There were 32 excess deaths across all locations for the latest week. There were 63 more deaths from cancer compared to the five year average, and 22 excess deaths from other causes. The number of deaths where COVID-19 was the underlying cause was 5. Deaths from respiratory causes (-32), dementia/Alzheimer's (-19) and circulatory diseases (-7) were all below average.

Monthly mortality analysis, deaths occurring up to 30 April 2021 *(go to section)*

- The age standardised rate for deaths involving COVID-19 fell to 21 deaths per 100,000 people in April 2021. Throughout the pandemic, the highest this has been was 583 deaths per 100,000 people in April 2020.
- Age-standardised rates for males were significantly higher than for females (199 compared with 137 per 100,000 population in the period from March 2020 to April 2021).
- After adjusting for age, people living in the most deprived areas were 2.4 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 2.4 over the period of the pandemic.
- Of the 10,097 deaths involving COVID-19 between March 2020 and April 2021, 93% (9,409) had at least one pre-existing condition. One quarter of all people whose death involved COVID-19 also had dementia or Alzheimer's disease, this was the most common main pre-existing condition.
- In the period from March 2020 to April 2021, there were 11 deaths where post COVID-19 conditions (including long COVID) were mentioned on the death certificate.
- There have been three deaths in Scotland where the underlying cause of death was adverse effects of COVID-19 vaccines. By 30 April 2021 statistics from Public Health Scotland state that 2.81 million people had been given at least one vaccine dose.

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



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).

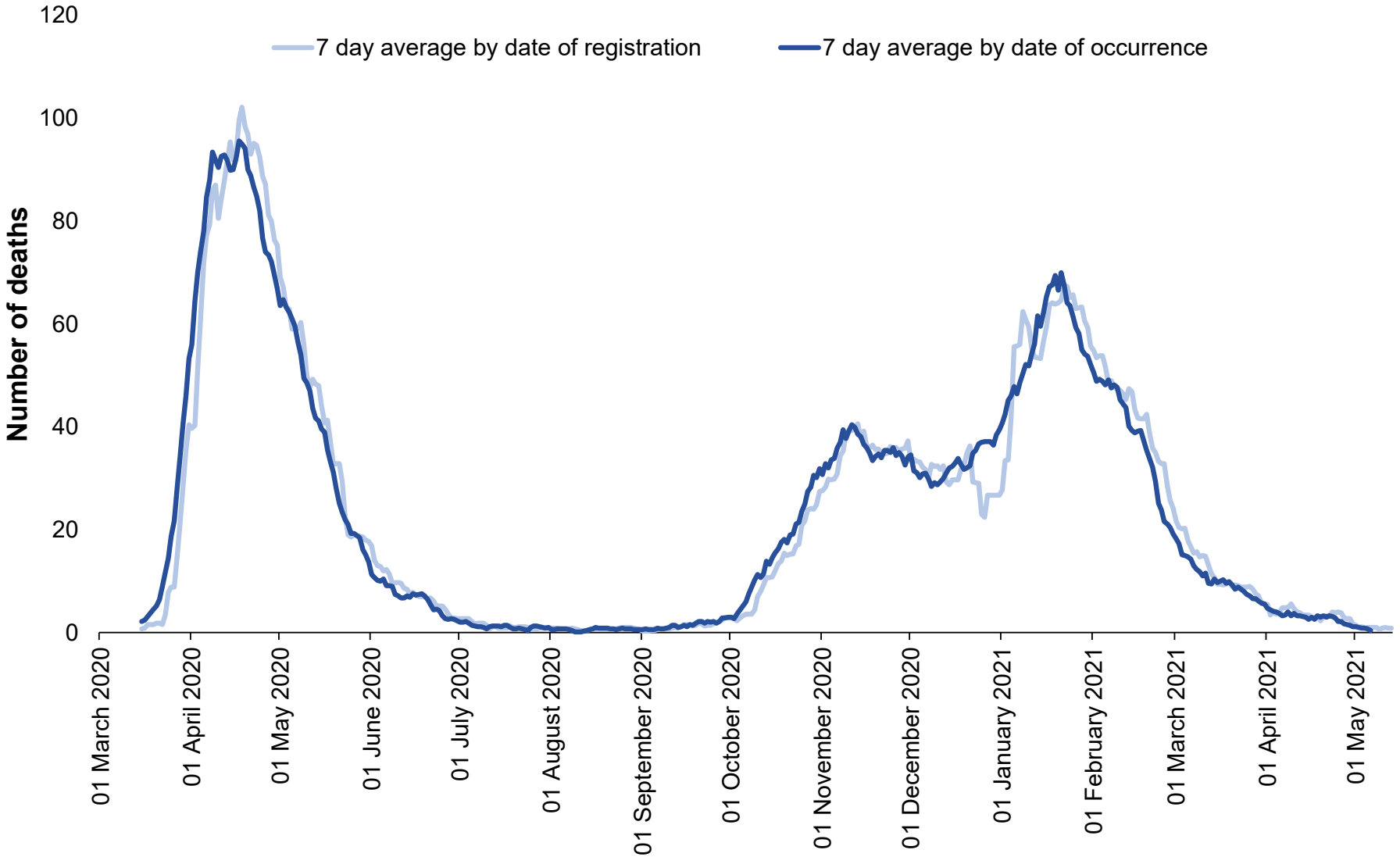
Most of the figures throughout the weekly report are based on the date a death was registered rather than the date the death occurred. When someone dies, their family (or a representative) have to make an appointment with a registrar to register the death. Legally this must be done within 8 days, although 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 16th of May. 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 9th May as the majority of these are likely to have been registered by now.

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



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.

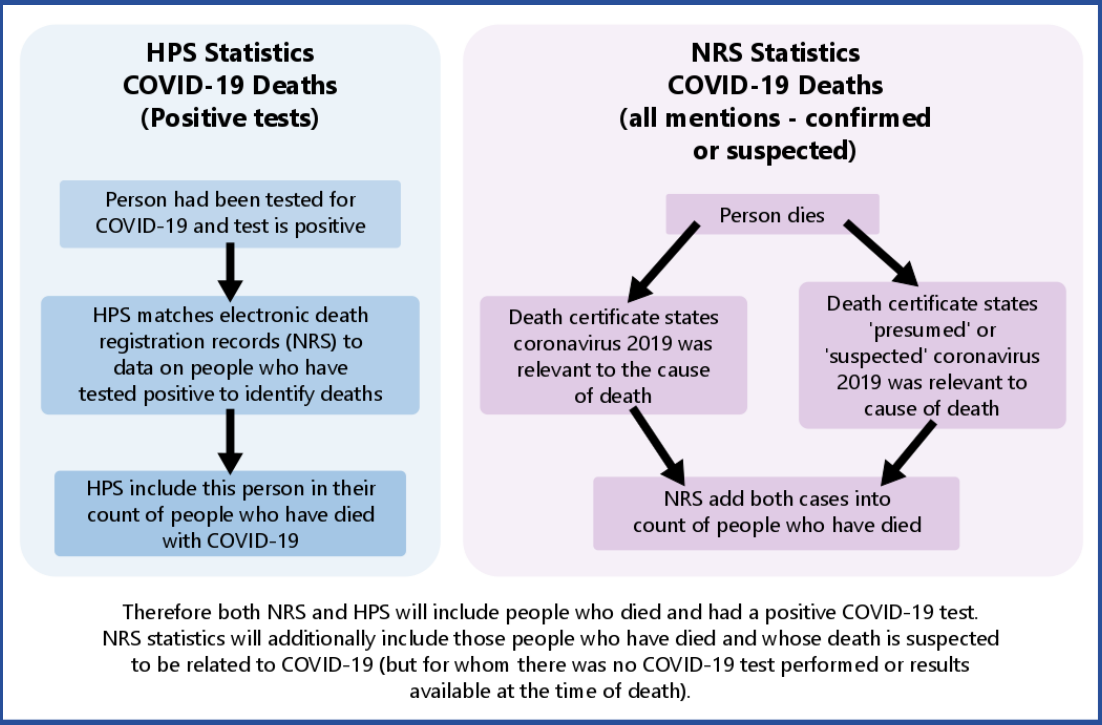
These are important because they are available earlier, and give a quicker indication of what is happening day by day and are broadly comparable with the figures released daily for the UK by the Department for Health and Social Care.

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.

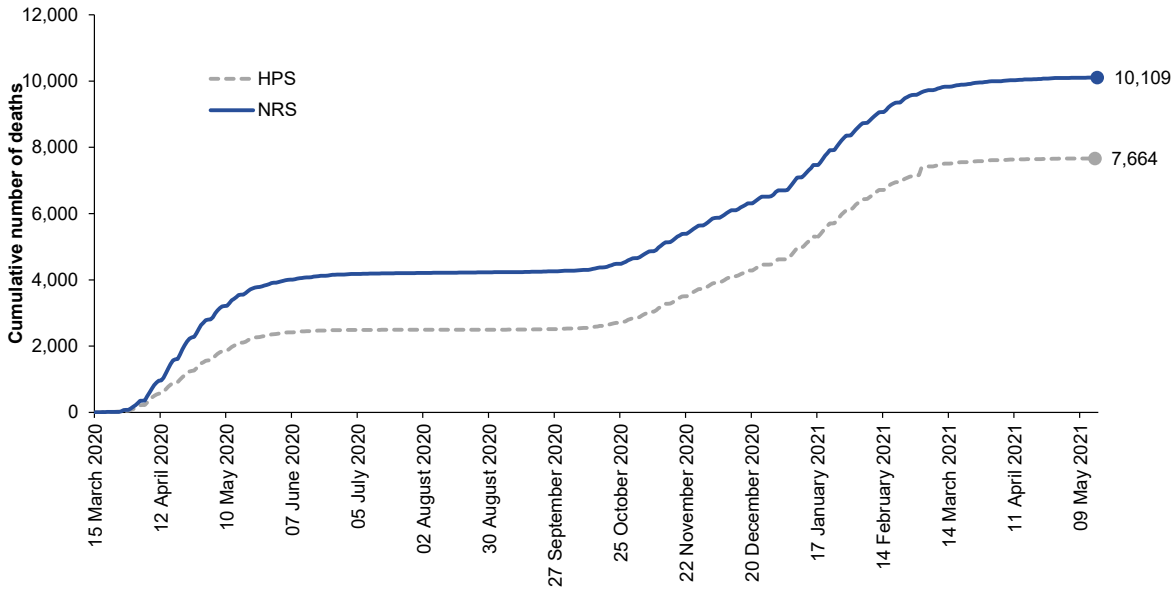
Using the complete death certificate allows NRS to analyse a lot of information, such as location of death and what other health conditions contributed to the death.



Therefore both NRS and HPS will include people who died and had a positive COVID-19 test. NRS statistics will additionally include those people who have died and whose death is suspected to be related to COVID-19 (but for whom there was no COVID-19 test performed or results available at the time of death).

Figure 3 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 3: Cumulative number of deaths involving COVID-19 in Scotland using different data sources 2020 and 2021



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.

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 4 shows that in the most recent week (week 19, beginning 10 May 2021), there were 3% more deaths than the average for the period 2015-2019. Excess deaths began to decrease in week 4 (week beginning 25 January), when they were 22% above average. Due to the fact that public holidays for Easter happen in different weeks every year, excess deaths looked lower than usual in week 13, with week 14 picking up some of the backlog from the previous week.

In 2020 up to week 14, 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. Deaths remained broadly in line with the average from week 23 until week 40 when they began to increase again.

Figure 4: Deaths by week of registration, Scotland, 2020 and 2021

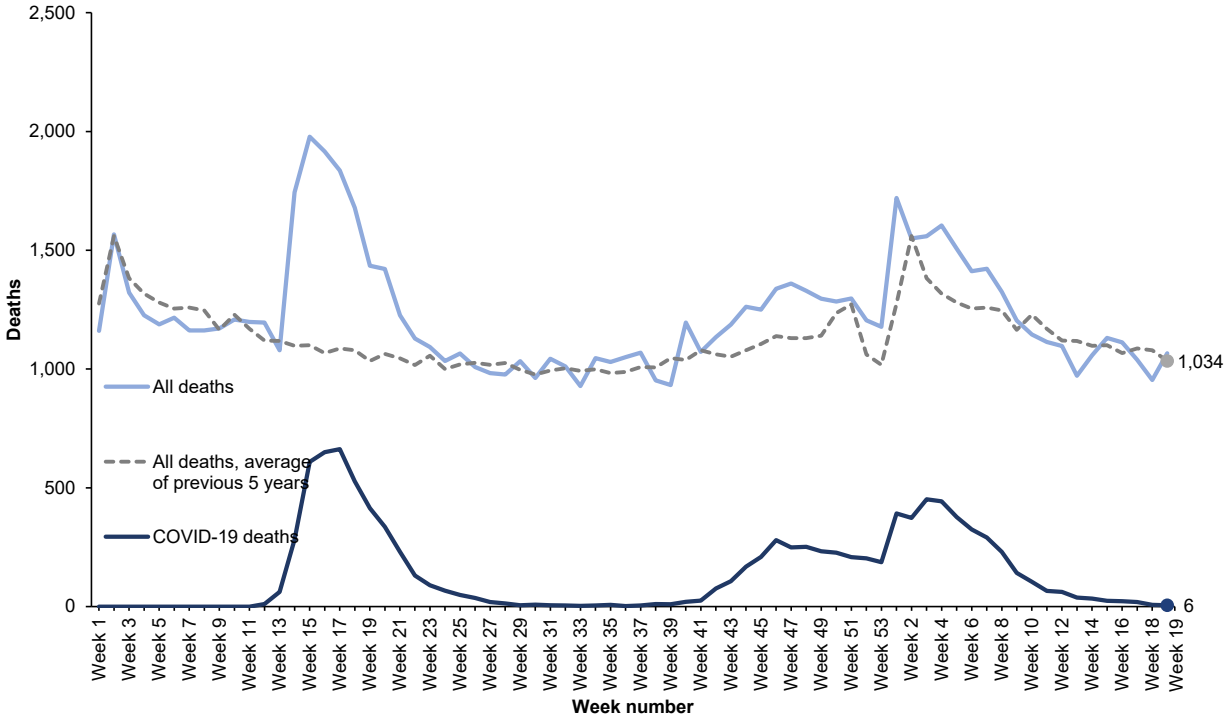
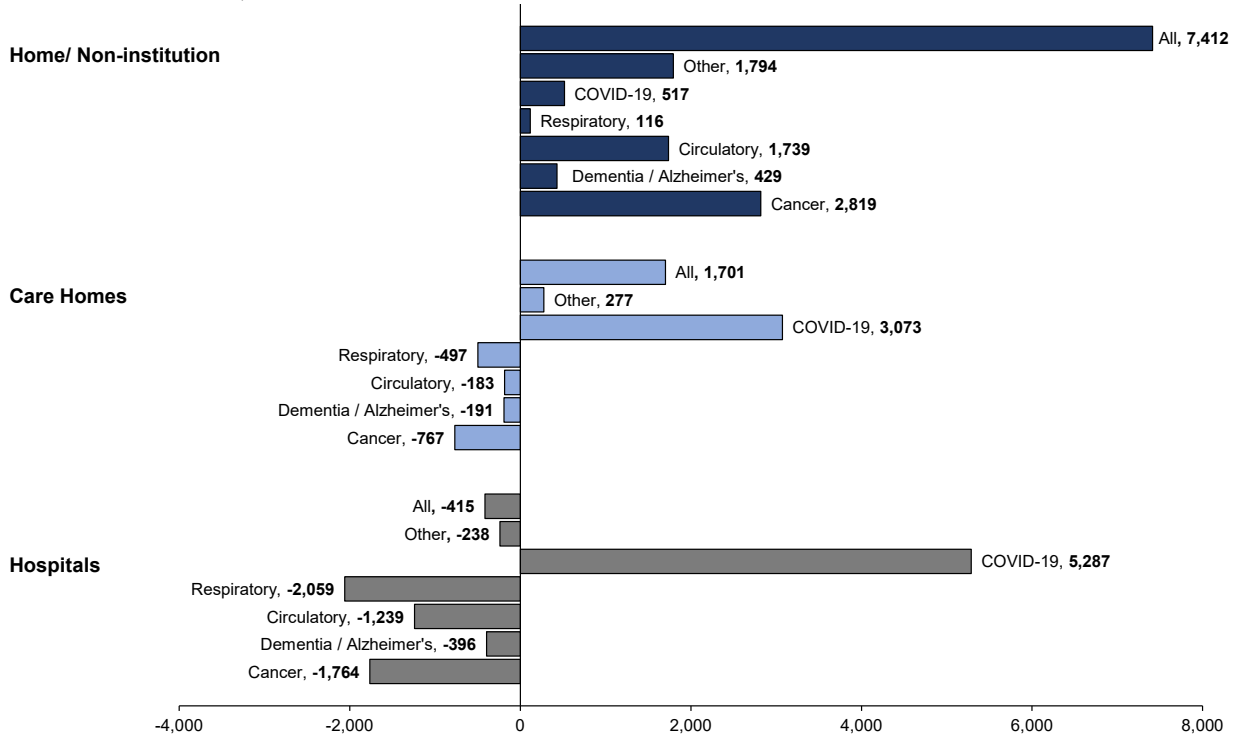


Figure 5 shows the number of excess deaths from week 12 of 2020 to week 19 of 2021 (the period since the first coronavirus death was registered) broken down by location of death and the underlying cause of death.

There were 1,701 excess deaths in care homes (11% above average), 7,412 excess deaths at home or in non-institutional settings (42% above average) whilst hospital deaths were 415 (1%) 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 5: Excess Deaths by underlying cause of death* and location, week 12 2020 to week 19, 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

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.

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 5 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 19 of 2021 (8,897) are slightly lower than the number given for COVID-19 deaths elsewhere in this publication (10,109) as they are deaths involving COVID (either as the underlying cause or as a contributory factor).

Of all deaths involving COVID-19 registered by 16th May, it was the underlying cause in 88% of cases (8,897 out of 10,109 cases).

More information on how the underlying cause of death is determined is available on the NRS website.

Where have COVID-19 deaths taken place?

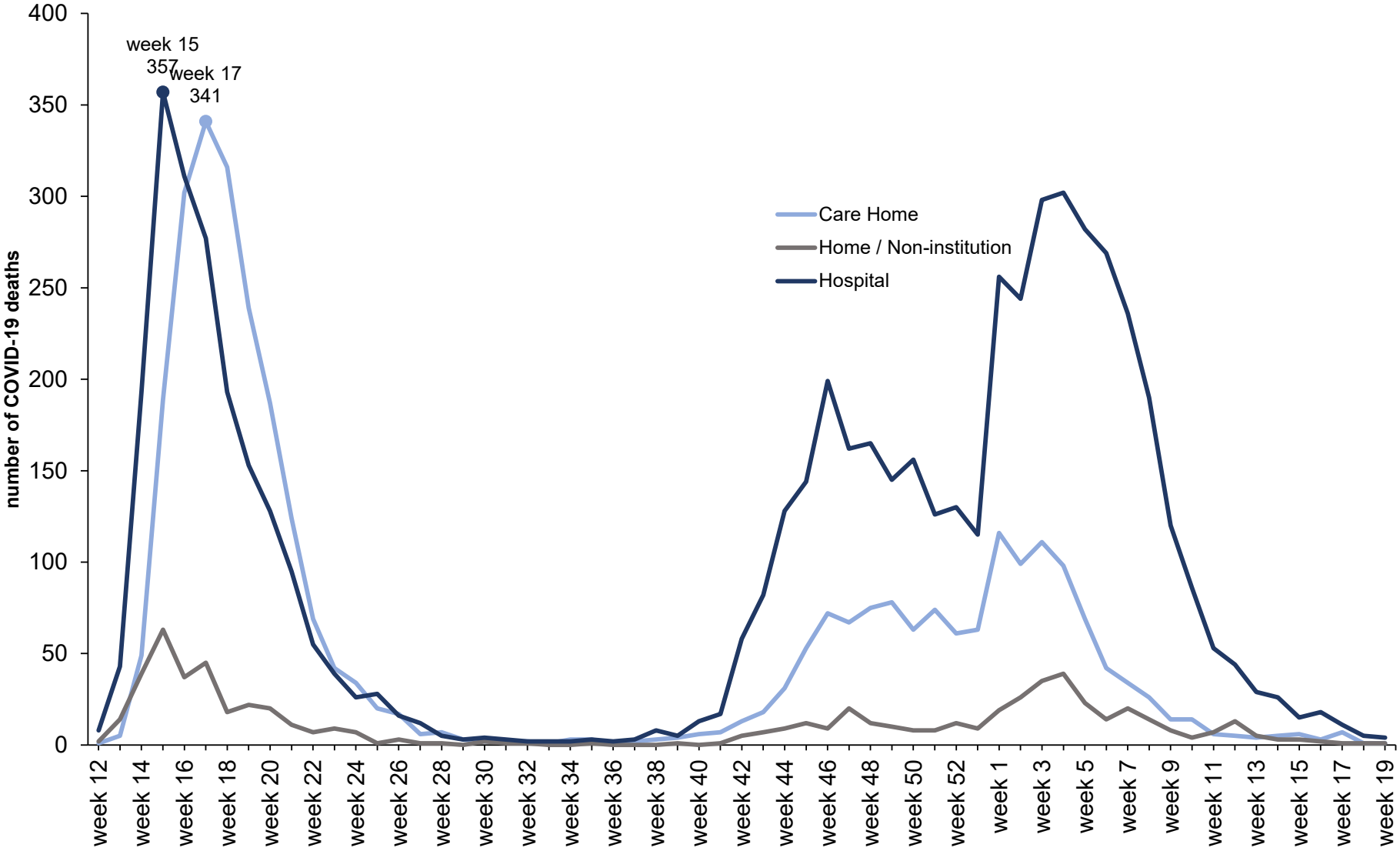
Of the 10,109 deaths involving COVID-19 which were registered to date, 60% related to deaths in hospitals. 33% of deaths were in care homes and 7% of deaths were at home or non-institutional settings.

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

Breakdowns of location of death within health board and council area are available on the related statistics page of our website

Figure 6: Deaths involving COVID-19 by location of death



Monthly mortality analysis (deaths occurring up to 30 April 2021)

This section provides an in-depth analysis of deaths which **occurred** in Scotland between March 2020 and April 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 April 2021 there were 164 deaths per 100,000 population. Rates for males were significantly higher than for females (199 compared with 137 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 (88%) of deaths involving COVID-19. In the combined data for March 2020 to April 2021, the age-standardised mortality rate was 144 per 100,000 population, with a similar differential between males (177) and females (120).

The age standardised death rate for deaths involving COVID-19 fell significantly in April 2021 compared to March 2021, from 70 to 21 deaths per 100,000 population. This was the third consecutive month where the age standardised rate for deaths involving COVID-19 fell.

Figure 7a: Age standardised rates for deaths involving COVID-19 by sex, between 1st March 2020 and 30th April 2021

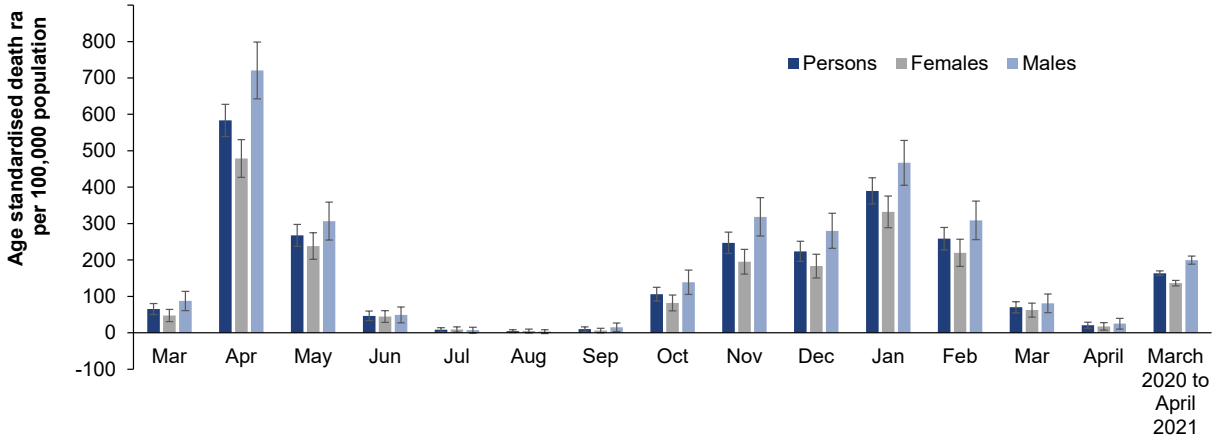
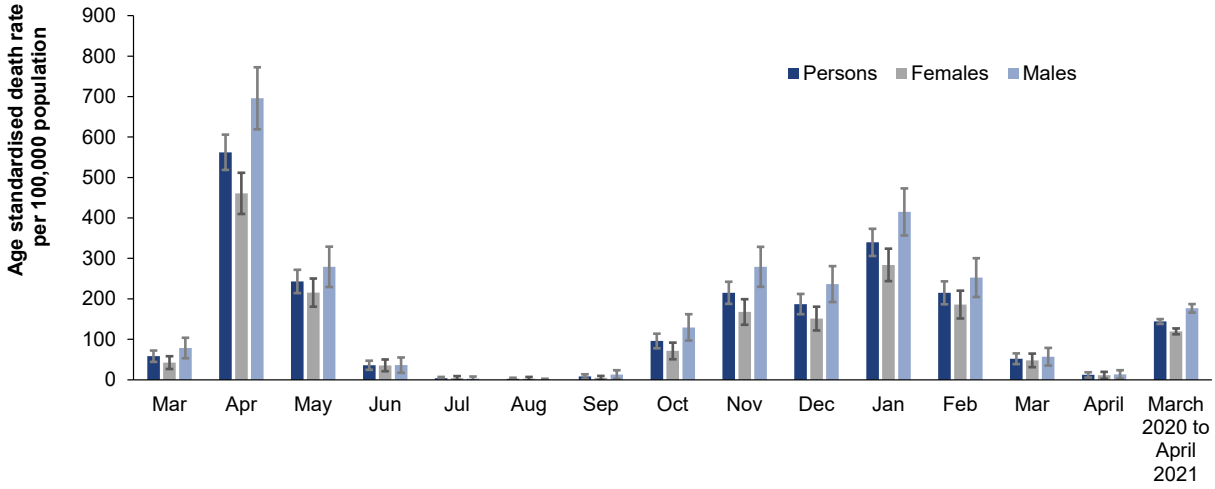


Figure 7b: Age standardised rates for deaths where COVID-19 was the underlying cause, by sex, between 1st March 2020 and 30th April 2021



The age-standardised mortality rate from all causes was 1,215 per 100,000 population in March 2020 to April 2021. 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 2008 (1,283 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 2020 and April 2021, the leading cause of death was COVID-19 (8,890 deaths, 11.8% of all deaths) followed by ischaemic heart diseases (7,786, 10.3%) and dementia and Alzheimer's disease (7,003, 9.3%).

The most common cause of death in April 2021 was ischaemic heart diseases, which accounted for 11.4% of all deaths last month. COVID-19 had previously been the most common cause of death for every month between November 2020 and February 2021 (inclusive)

Between June 2020 and September 2020, COVID-19 didn't appear in the top five most common causes of death, and hasn't made the top five in either of the past two months (March and April 2021).

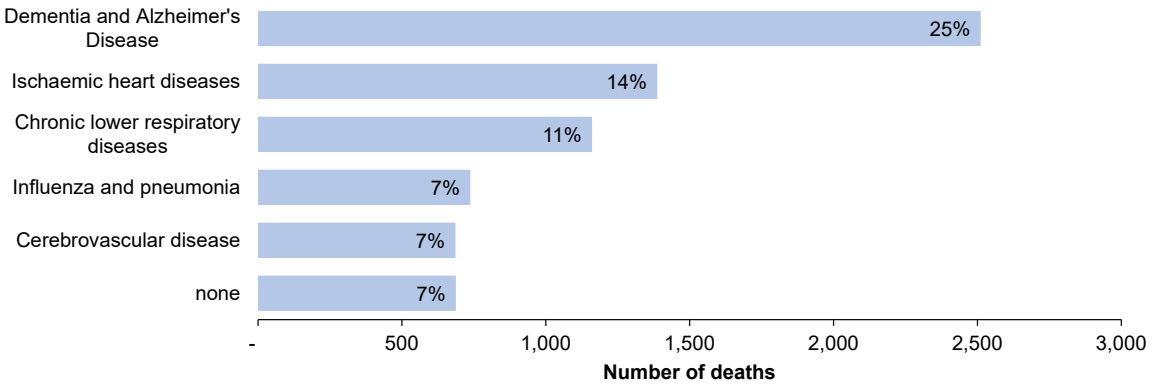
Figure 8: Leading causes of death - 1st March 2020 and 30th April 2021

Month	Rank	Cause	ICD codes	Deaths[1]	Percentage of all deaths
March 2020	1	Dementia and Alzheimer Disease	F01, F03, G30	656	11.6%
	2	Ischaemic heart diseases	I20-I25	598	10.6%
	3	Cerebrovascular disease	I60-I69	378	6.7%
	4	Malignant neoplasm of trachea, bronchus and lung	C33-C34	365	6.5%
	5	Chronic lower respiratory diseases	J40-J47	278	4.9%
April 2020	1	COVID	U07	2,413	31.4%
	2	Dementia and Alzheimer Disease	F01, F03, G30	784	10.2%
	3	Ischaemic heart diseases	I20-I25	575	7.5%
	4	Cerebrovascular disease	I60-I69	375	4.9%
	5	Malignant neoplasm of trachea, bronchus and lung	C33-C34	331	4.3%
May 2020	1	COVID	U07	1,065	18.4%
	2	Ischaemic heart diseases	I20-I25	561	9.7%
	3	Dementia and Alzheimer Disease	F01, F03, G30	501	8.7%
	4	Cerebrovascular disease	I60-I69	319	5.5%
	5	Malignant neoplasm of trachea, bronchus and lung	C33-C34	286	4.9%
June 2020	1	Ischaemic heart diseases	I20-I25	478	10.8%
	2	Dementia and Alzheimer Disease	F01, F03, G30	393	8.8%
	3	Malignant neoplasm of trachea, bronchus and lung	C33-C34	287	6.5%
	4	Cerebrovascular disease	I60-I69	277	6.2%
	5	Chronic lower respiratory diseases	J40-J47	205	4.6%
July 2020	1	Ischaemic heart diseases	I20-I25	531	11.8%
	2	Dementia and Alzheimer 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	Chronic lower respiratory diseases	J40-J47	162	3.6%
August 2020	1	Ischaemic heart diseases	I20-I25	504	11.4%
	2	Dementia and Alzheimer Disease	F01, F03, G30	415	9.4%
	3	Malignant neoplasm of trachea, bronchus and lung	C33-C34	326	7.4%
	4	Cerebrovascular disease	I60-I69	273	6.2%
	5	Chronic lower respiratory diseases	J40-J47	191	4.3%
September 2020	1	Ischaemic heart diseases	I20-I25	508	11.3%
	2	Dementia and Alzheimer Disease	F01, F03, G30	440	9.8%
	3	Malignant neoplasm of trachea, bronchus and lung	C33-C34	320	7.1%
	4	Cerebrovascular disease	I60-I69	307	6.8%
	5	Chronic lower respiratory diseases	J40-J47	215	4.8%
October 2020	1	Ischaemic heart diseases	I20-I25	574	11.0%
	2	Dementia and Alzheimer Disease	F01, F03, G30	497	9.5%
	3	COVID	U07	440	8.5%
	4	Cerebrovascular disease	I60-I69	329	6.3%
	5	Malignant neoplasm of trachea, bronchus and lung	C33-C34	316	6.1%
November 2020	1	COVID	U07	934	16.5%
	2	Ischaemic heart diseases	I20-I25	566	10.0%
	3	Dementia and Alzheimer Disease	F01, F03, G30	503	8.9%
	4	Cerebrovascular disease	I60-I69	309	5.5%
	5	Malignant neoplasm of trachea, bronchus and lung	C33-C34	295	5.2%
December 2020	1	COVID	U07	846	13.9%
	2	Ischaemic heart diseases	I20-I25	642	10.5%
	3	Dementia and Alzheimer Disease	F01, F03, G30	519	8.5%
	4	Cerebrovascular disease	I60-I69	363	6.0%
	5	Malignant neoplasm of trachea, bronchus and lung	C33-C34	358	5.9%
January 2021	1	COVID	U07	1,538	23.0%
	2	Ischaemic heart diseases	I20-I25	623	9.3%
	3	Dementia and Alzheimer Disease	F01, F03, G30	517	7.7%
	4	Cerebrovascular disease	I60-I69	345	5.2%
	5	Malignant neoplasm of trachea, bronchus and lung	C33-C34	338	5.1%
February 2021	1	COVID	U07	886	16.3%
	2	Ischaemic heart diseases	I20-I25	552	10.2%
	3	Dementia and Alzheimer Disease	F01, F03, G30	484	8.9%
	4	Cerebrovascular disease	I60-I69	321	5.9%
	5	Malignant neoplasm of trachea, bronchus and lung	C33-C34	297	5.5%
March 2021	1	Ischaemic heart diseases	I20-I25	577	11.7%
	2	Dementia and Alzheimer Disease	F01, F03, G30	460	9.3%
	3	Malignant neoplasm of trachea, bronchus and lung	C33-C34	342	6.9%
	4	Cerebrovascular disease	I60-I69	314	6.4%
	5	Symptoms, signs and ill-defined conditions	R00-R99	242	4.9%
April 2021	1	Ischaemic heart diseases	I20-I25	497	11.4%
	2	Dementia and Alzheimer Disease	F01, F03, G30	418	9.6%
	3	Malignant neoplasm of trachea, bronchus and lung	C33-C34	326	7.5%
	4	Cerebrovascular disease	I60-I69	279	6.4%
	5	Chronic lower respiratory diseases	J40-J47	180	4.1%
March 2020 - April 2021 combined	1	COVID	U07	8,890	11.8%
	2	Ischaemic heart diseases	I20-I25	7,786	10.3%
	3	Dementia and Alzheimer Disease	F01, F03, G30	7,003	9.3%
	4	Cerebrovascular disease	I60-I69	4,504	6.0%
	5	Malignant neoplasm of trachea, bronchus and lung	C33-C34	4,500	6.0%

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

Of the 10,097 deaths involving COVID-19 between March 2020 and April 2021, 93% (9,409) had at least one pre-existing condition.

Figure 9: Main pre-existing medical condition in deaths involving COVID-19, between 1st March 2020 and 30th April 2021



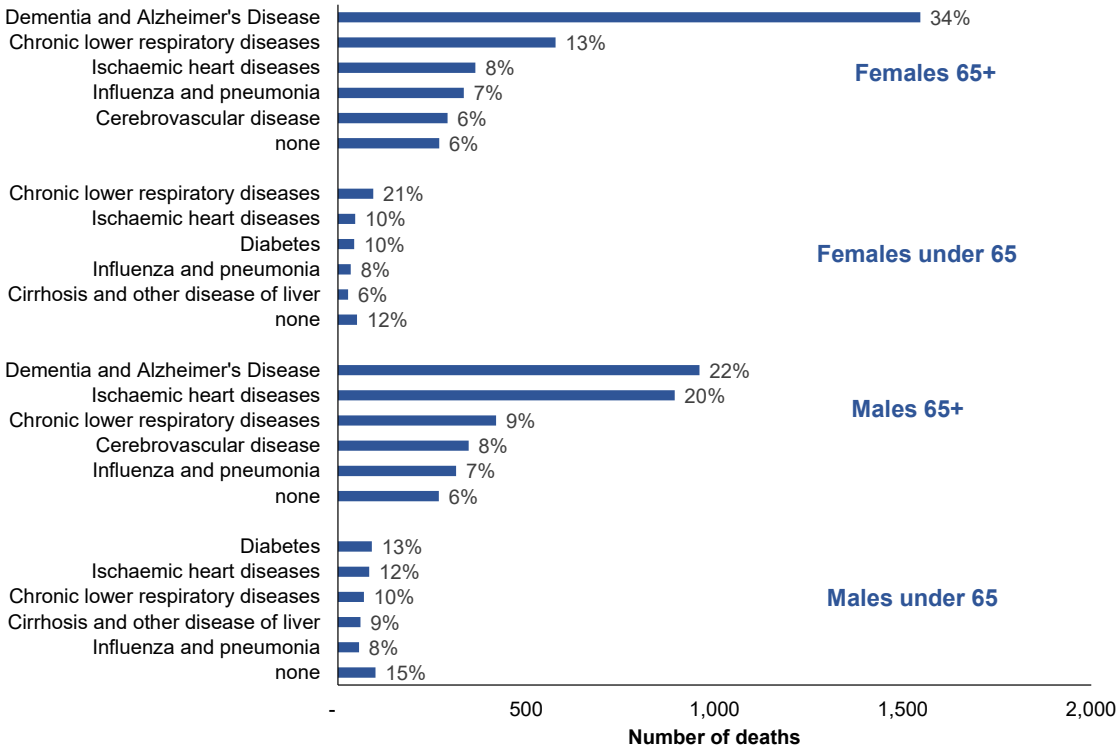
The most common main pre-existing condition among those who died with COVID-19 was dementia and Alzheimer's disease (25%), followed by ischaemic heart disease (14%), chronic lower respiratory diseases (11%), influenza and pneumonia (7%) and cerebrovascular disease (7%).

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 (22% and 34% of all COVID-19 deaths respectively). For females under 65, the most common main pre-existing condition was chronic lower respiratory diseases (21%) and for males under 65 it was diabetes (13%). 12% of females and 15% 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 1st March 2020 and 30th April 2021



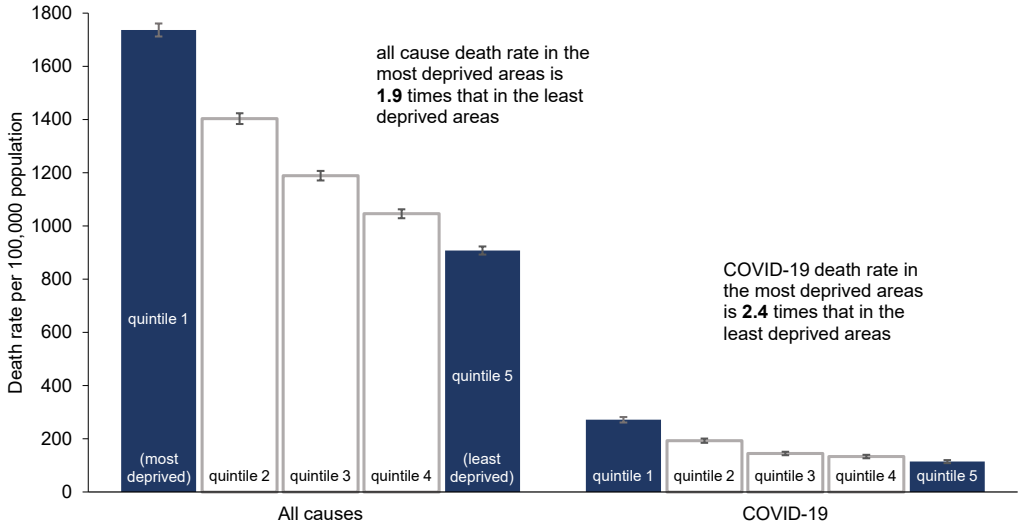
Mortality by deprivation

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 April 2021.

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.

The deprivation gap is greater when looking at deaths involving COVID-19. The rate in the most deprived quintile (272 per 100,000 population) was 2.4 times the rate in the least deprived quintile (114 per 100,000 population). The size of this gap has ranged slowly widened from 2.1 to 2.4 across the period of the pandemic.

Figure 11: Age-standardised death rates by SIMD quintile between 1st March 2020 and 30th April 2021

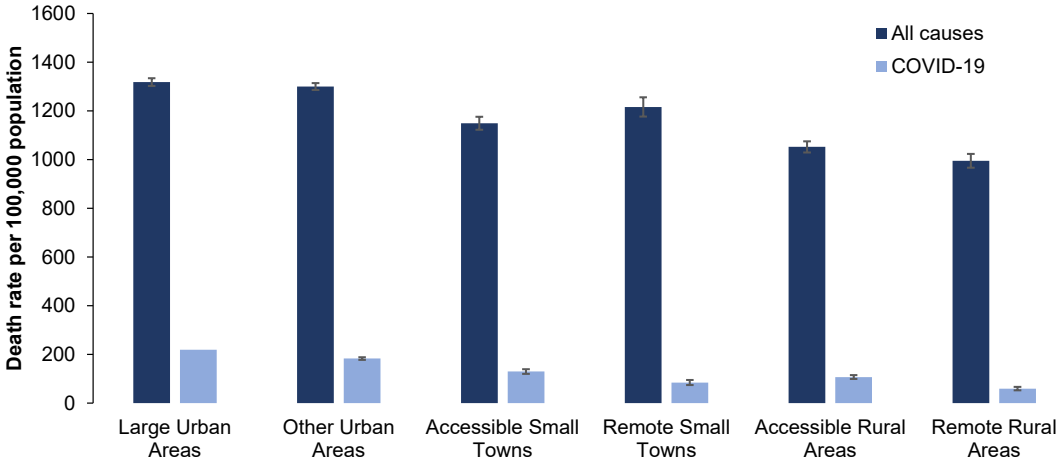


Mortality by urban rural classification

The age-standardised rate for deaths involving COVID-19 in large urban areas (219 deaths per 100,000 population) was 3.7 times the rate in remote rural locations (59 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 1st March 2020 and 30th April 2021

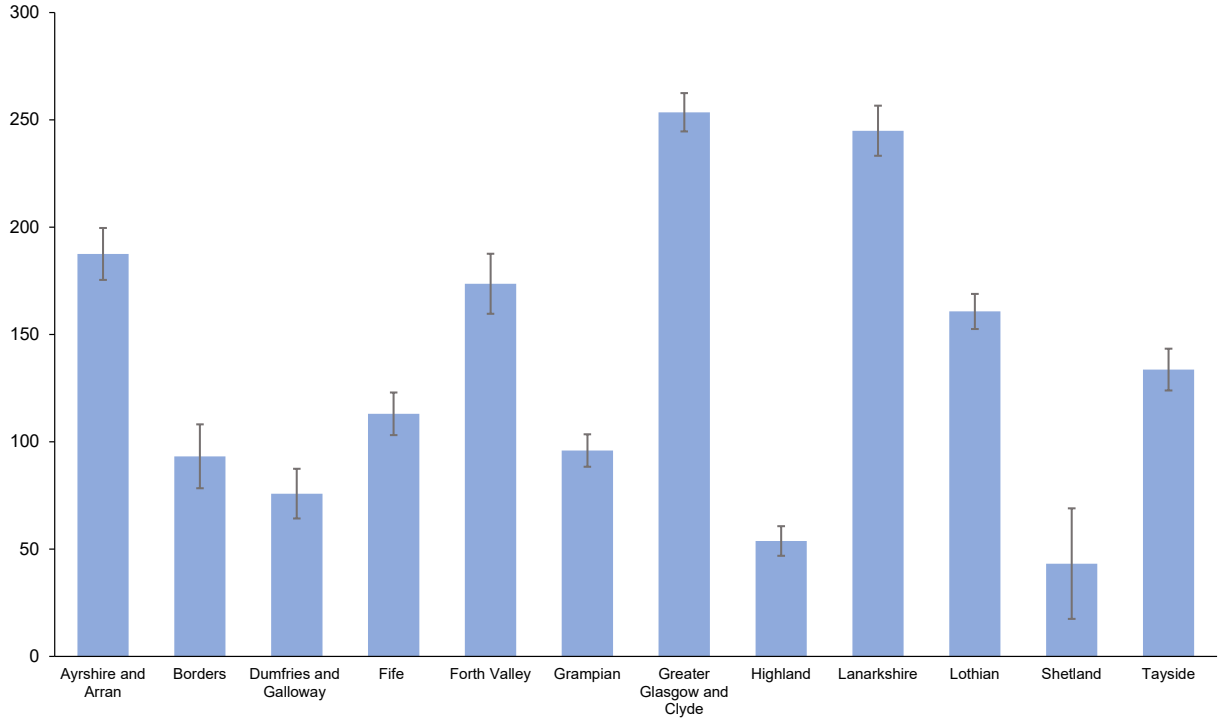


Age-standardised death rates by health board and council area

Figure 13 shows that Greater Glasgow and Clyde had the highest rate of all health boards (254 per 100,000 population), followed by Lanarkshire (245) and Ayrshire and Arran (188).

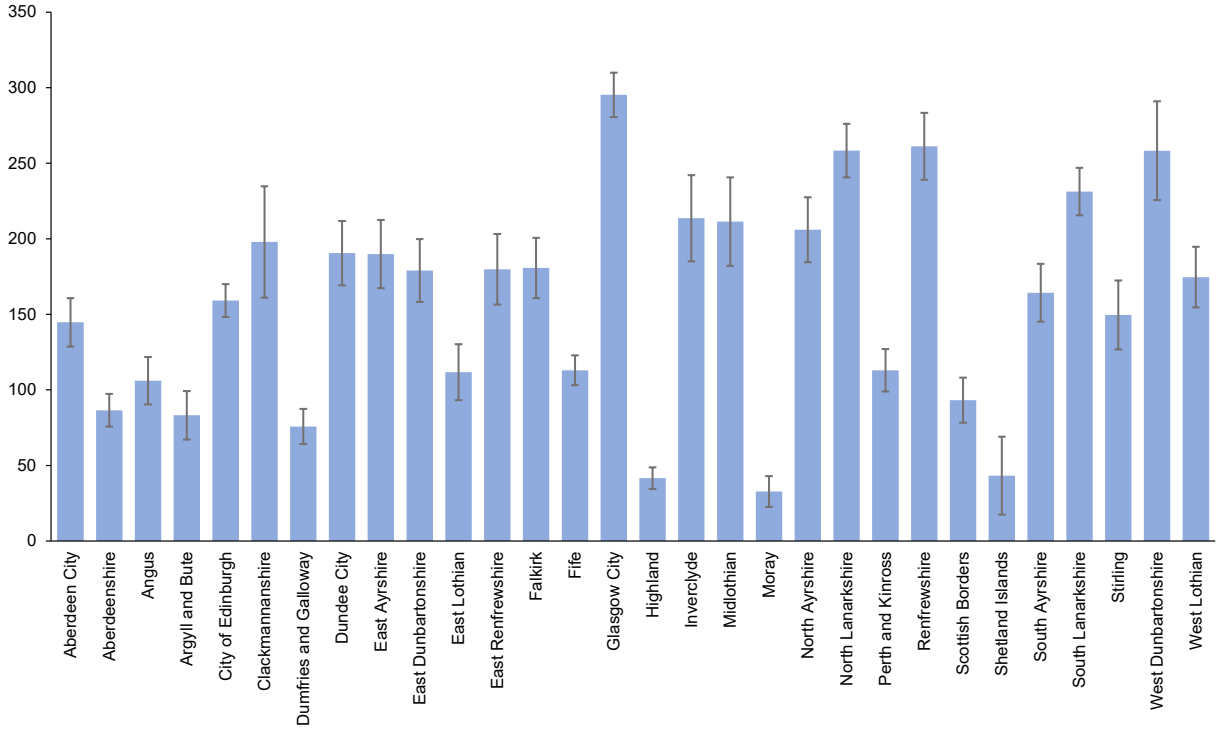
Rates are not shown for Orkney and Western Isles as the number of deaths involving COVID-19 are too low to calculate robust age-standardised rates.

Figure 13: age standardised rates for deaths involving COVID-19 between 1st March 2020 and 30th April 2021 in NHS health boards



Glasgow City had the highest age-standardised death rate of all council areas (295 per 100,000 population), followed by Renfrewshire (261),North Lanarkshire (258) and West Dunbartonshire (258). Moray (33 per 100,000 population), Highland (42) and Shetland Islands (43) had the lowest rates (in addition to Na h-Eileanan Siar and Orkney whose numbers were too low to calculate rates) (Figure 14).

Figure 14: Age-standardised rates for deaths involving COVID-19 between 1st March 2020 and 30th April 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 number of deaths occurred among process, plant and machine operatives (131 deaths and an age-standardised death rate of 66.3 per 100,000 population) followed by elementary occupations (109 deaths, 40.3 per 100,000 population). For context, there were 692 COVID-19 deaths across all occupations, with a rate of 26.9 per 100,000 population. People in professional occupations had the lowest death rate (39 deaths, 6.8 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 (13.1 per 100,000 population) whilst social care workers had a higher rate (43.6 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 April 2021, there were 11 deaths where post COVID-19 conditions (including long COVID) were mentioned on the death certificate.

Between December 2020 and the end of April 2021 statistics from Public Health Scotland state that 2.81 million people had been given at least one COVID-19 vaccine dose. Over this period there have been three deaths where the underlying cause of death was reported as being due to adverse effects of COVID-19 vaccines.

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, 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 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 (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

Breakdown	Frequency	When Added	Latest Period Covered	Date Last updated
Age group	Weekly	8th April 2020	Week 19	19th May 2021
Sex	Weekly	8th April 2020	Week 19	19th May 2021
Location	Weekly	15th April 2020	Week 19	19th May 2021
Health Board	Weekly	8th April 2020	Week 19	19th May 2021
Local Authority	Weekly	22nd April 2020	Week 19	19th May 2021
Excess deaths by cause	Weekly	22nd April 2020	Week 19	19th May 2021
Excess deaths by cause and location	Weekly	17th June 2020	Week 19	19th May 2021
Age-standardised mortality rates – Scotland	Monthly	13th May 2020	April 2021	19th May 2021
Age-standardised mortality rates – sub-Scotland	Monthly	17th June 2020	March 2020 – April 2021	19th May 2021
Leading causes of death	Monthly	13th May 2020	April 2021	19th May 2021
Pre-existing conditions	Monthly	13th May 2020	April 2021	19th May 2021
Deprivation	Monthly	13th May 2020	March 2020 – April 2021	19th May 2021
Urban Rural	Monthly	13th May 2020	March 2020 – April 2021	19th May 2021
Daily occurrences by location of death	Monthly	13th May 2020	April 2021	19th May 2021
Occupation	Monthly	17th June 2020	March 2020 – April 2021	19th May 2021
Intermediate Zone	Monthly	17th June 2020	March 2020 – April 2021	19th May 2021
Deaths by ICD-10 codes	Monthly	19th May 2021	March 2020 – April 2021	19th May 2021
Ethnic Group	One-off	8th July 2020	March to mid-June	11th November 2020
Disability	One-off	24th March 2021	March to Jan	24th 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

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

For all other enquiries, please contact statisticscustomerservices@nrscotland.gov.uk