

Public Health Scotland COVID-19 Statistical Report

As at 21 June 2021

Publication date: 23 June 2021

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This is a Management Information publication

Published management information are non-official statistics. They may not comply with the UK Statistics Authority's Code of Practice with regard to high data quality or high public value but there is a public interest or a specific interest by a specialist user group in accessing these statistics as there are no associated official statistics available.

Users should therefore be aware of the aspects of data quality and caveats surrounding these data, all of which are listed in this document. Therefore, the data presented are subject to change.

Introduction

Since the start of the Coronavirus-19 (COVID-19) outbreak Public Health Scotland (PHS) has been working closely with Scottish Government and health and care colleagues in supporting the surveillance and monitoring of COVID-19 amongst the population.

The Public Health Scotland [COVID-19 Daily Dashboard](#) publishes daily updates on the number of positive cases of COVID-19 in Scotland, with charts showing the trend since the start of the outbreak. From 26 February 2021 the Daily Dashboard also includes daily updates on vaccinations for COVID-19 in Scotland.

This report provides additional information not found in the Daily Dashboard on topics such as Test and Protect and Quarantining Statistics and COVID-19 testing in children and young people.

The accompanying [interactive dashboard](#) contains charts and data on the following topics:

- Hospital and unscheduled care
- Healthcare for cardiovascular disease
- Healthcare for mental health
- New cancer diagnoses
- Uptake of pre-school immunisations
- Coverage of health visitor child health reviews
- Infant feeding
- Child development
- Women booking for antenatal care
- Terminations of pregnancy
- Births and babies
- Excess deaths

There is a large amount of data being regularly published regarding COVID-19 (for example, [Coronavirus in Scotland – Scottish Government](#) and [Deaths involving coronavirus in Scotland – National Records of Scotland](#)). This report complements the range of existing data currently available.

The coronavirus pandemic is a rapidly evolving situation. Future reports will provide further data and analysis to contribute to the evidence base around the outbreak.

Main Points

- In the week ending 20 June 2021, 7,029 individuals were recorded in the contact tracing software, from which 22,689 unique contacts have been traced.
- As at 20 June 2021, there have been 255,575 confirmed COVID-19 cases, with 7,389 in the week ending 20 June.
- In the week ending 15 June 2021, there were 192 admissions to hospital with a laboratory confirmed test of COVID-19. The highest number of new admissions were seen amongst those aged 30-39 years and 40-49 years. Prior to the vaccination roll-out, the highest number of new admissions each week were consistently in people aged 60+ years.
- The proportion of all people who were admitted to hospital within 14 days of a laboratory confirmed COVID-19 positive test has declined, from 13% in the week commencing 25 January 2021, to 3% in the most recent week commencing 31 May 2021.
- In the week ending 19 June 2021 there were 12 new admissions to Intensive Care Units (ICUs) for confirmed COVID-19 patients.
- In the week ending 20 June 2021 there were 9,485 people who arrived in Scotland from outside the UK, of which 8,099 were required to quarantine (of which 739 were quarantined in a hotel) and 3,604 were contacted by the National Contact Tracing Centre.
- In the week ending 20 June 2021, under the Community Testing Programme 14.9% of symptomatic and 5.7% of asymptomatic tests for COVID-19 were positive.

Results and Commentary

Incidence of Variants of Concern and Variants Under Investigation

Recent data confirms that the Delta variant (VOC-21APR-02) is now the dominant COVID-19 Variant of Concern within Scotland. Until recently Alpha (VOC-21DEC-01) had been the dominant variant.

Since early May 2021, there has been a rapid increase in the Delta variant detected through whole genome sequencing (WGS) in Scotland.

Public Health Scotland (PHS) continues to monitor COVID-19 Variants of Concern, in collaboration with other Public Health Agencies in the UK.

The latest [information on the number of such variants detected by genomic analyses across the UK](#) is published by Public Health England.

COVID-19 Daily Data

The Public Health Scotland [COVID-19 Daily Dashboard](#) publishes daily updates on the number of positive cases of COVID-19 in Scotland, with charts showing the trend since the start of the outbreak.

The total number of people within Scotland who have, or have had COVID-19, since the coronavirus outbreak began is unknown. The number of confirmed cases is likely to be an underestimate of the total number who have, or have had, COVID-19. A person can have multiple tests but will only ever be counted once. The drop in the number of confirmed cases at weekends likely reflects that laboratories are doing fewer tests at the weekend.

- There have been 255,575 people in Scotland who have tested positive, at any site in Scotland (NHS and UK Government Regional Testing centres), for COVID-19 up to 20 June 2021.
- In the week ending 20 June there were 7,389 confirmed COVID-19 cases*.

*Correct as at 20 June, may differ from more recently published data on the [COVID-19 Daily Dashboard](#).

The daily dashboard also now includes data on Hospital Admissions and ICU admissions for patients with COVID-19:

- In the week ending 15 June 2021, there were 192 admissions to hospital with a laboratory confirmed test of COVID-19.
- In the week ending 19 June 2021 there were 12 new admissions to Intensive Care Units (ICUs) for confirmed COVID-19 patients.

Additional charts and data are available to view in the [interactive dashboard](#) accompanying this report.

Data is also monitored and published daily on the [Scottish Government Coronavirus website](#).

COVID-19 Hospital Admissions

There is increasing interest in whether or not the age of people admitted to hospital who have a laboratory confirmed case of COVID-19 is changing over time. The table below shows a breakdown across all ages and by age group for the most recent four weeks. Data from 3 March 2021 is available on the [Covid Statistical Report website](#).

Table 1: RAPID hospital admissions by age as at 2021-06-15

| Age Band | 9 – 15 June | 2 - 8 June | 26 May – 1 June | 19-25 May |
|--------------|-------------|------------|-----------------|------------|
| 0-9 | 12 | 15 | 8 | 11 |
| 10-19 | 10 | 8 | 5 | * |
| 20-29 | 20 | 18 | 14 | 11 |
| 30-39 | 35 | 40 | 31 | 29 |
| 40-49 | 38 | 29 | 25 | 21 |
| 50-59 | 17 | 16 | 18 | 18 |
| 60-69 | 24 | 7 | 18 | * |
| 70-79 | 24 | 13 | 12 | 12 |
| 80+ | 12 | 14 | 12 | 12 |
| Total | 192 | 160 | 143 | 124 |

*Total specimen dates may not equal reported new cases due to denotifications.

** These data include admissions to acute hospitals only and do not include psychiatric or maternity/obstetrics specialties.

*** RAPID – Please note a three-day time lag is applied to recent records being incomplete. Data are updated daily and figures are subject to change. Figures are consistent with RAPID data presentation.

****COVID-19 related admissions have been identified as the following:

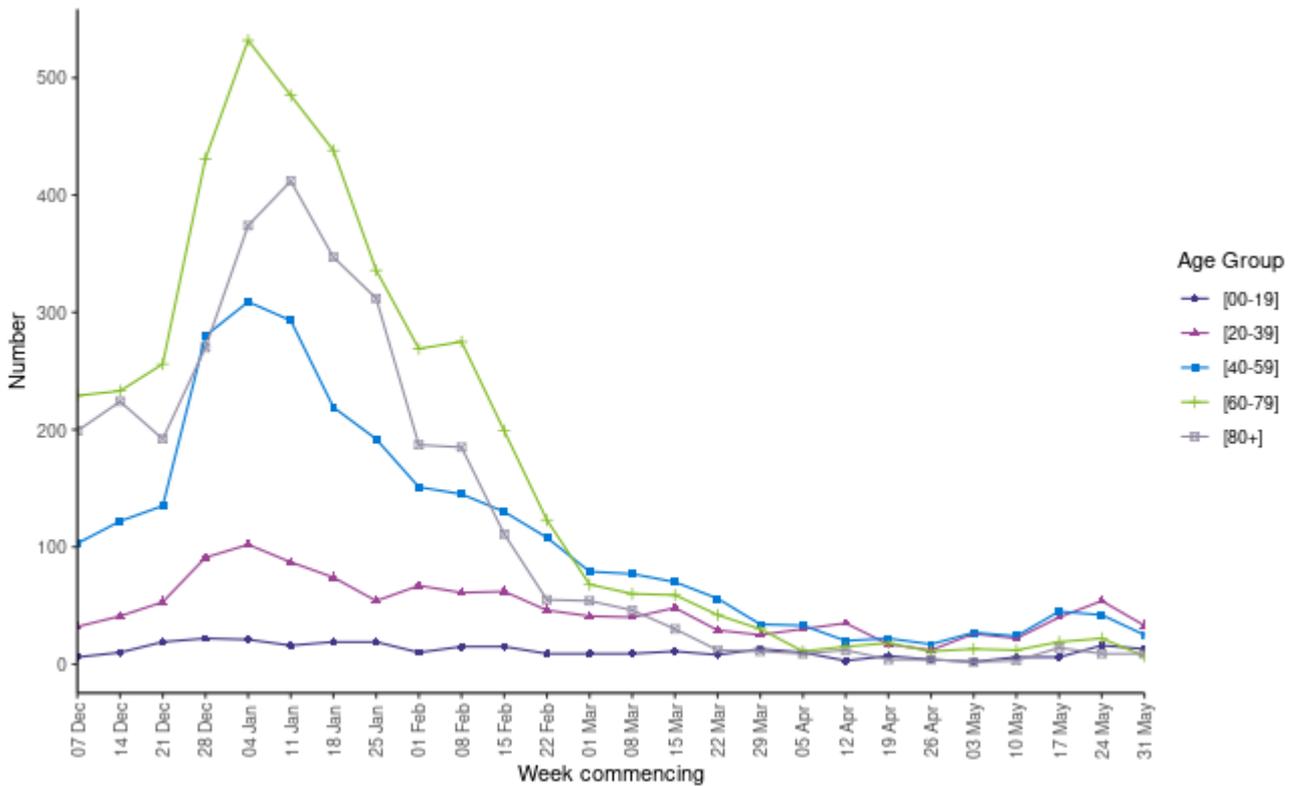
A patient's first positive test for COVID-19 up to 14 days prior to admission to hospital, on the day of their admission, or during their stay in hospital. If a patient's first positive test is after their date of discharge from hospital, they are not included in the analysis.

In the data presented in table 6 and Figure 2, an admission is defined as a period of stay in a single hospital. If the patient has been transferred to another hospital during treatment, each transfer will create a new admission record. Therefore, there may be multiple admissions for a single patient if they have moved between locations during a continuous inpatient stay (CIS), or if they have been admitted to hospital on separate occasions.

RAPID is a daily submission of people who have been admitted and discharged to hospital. Figures are subject to change as hospital records are updated. It can take 6-8 weeks or longer before a record is finalised, depending on the length of stay of the patient; this is especially true in regards to discharge information.

A three day time lag is applied due to recent records being incomplete. Total figures for COVID-19 related admissions published by PHS are updated daily and figures are subject to change, and so total figures presented here will not match data published elsewhere.

Figure 1: Trend in Hospital Admissions, who have tested positive for COVID-19, by age



There has been a fall in admissions amongst the older age groups (aged 60 years plus) since the onset of the vaccination programme. The highest number of new admissions are now in the 30-39 and 40-49 year age groups.

In recent months, the proportion of all people who were admitted to hospital within 14 days of a laboratory confirmed COVID-19 positive test has also declined, from 13% in the week commencing 25 January 2021 to 3% in the most recent week commencing 31 May 2021 (Figure 2).

This reduction can be explained by a change in the age profile of people acquiring COVID-19. Although older people with COVID-19 were more likely to be admitted to hospital than younger people (Figure 3), the number of newly reported cases among older age groups as a proportion of all newly reported cases is smaller in recent months (Figure 4).

Figure 2: Proportion of weekly cases admitted to hospital within 14 days of a first positive test

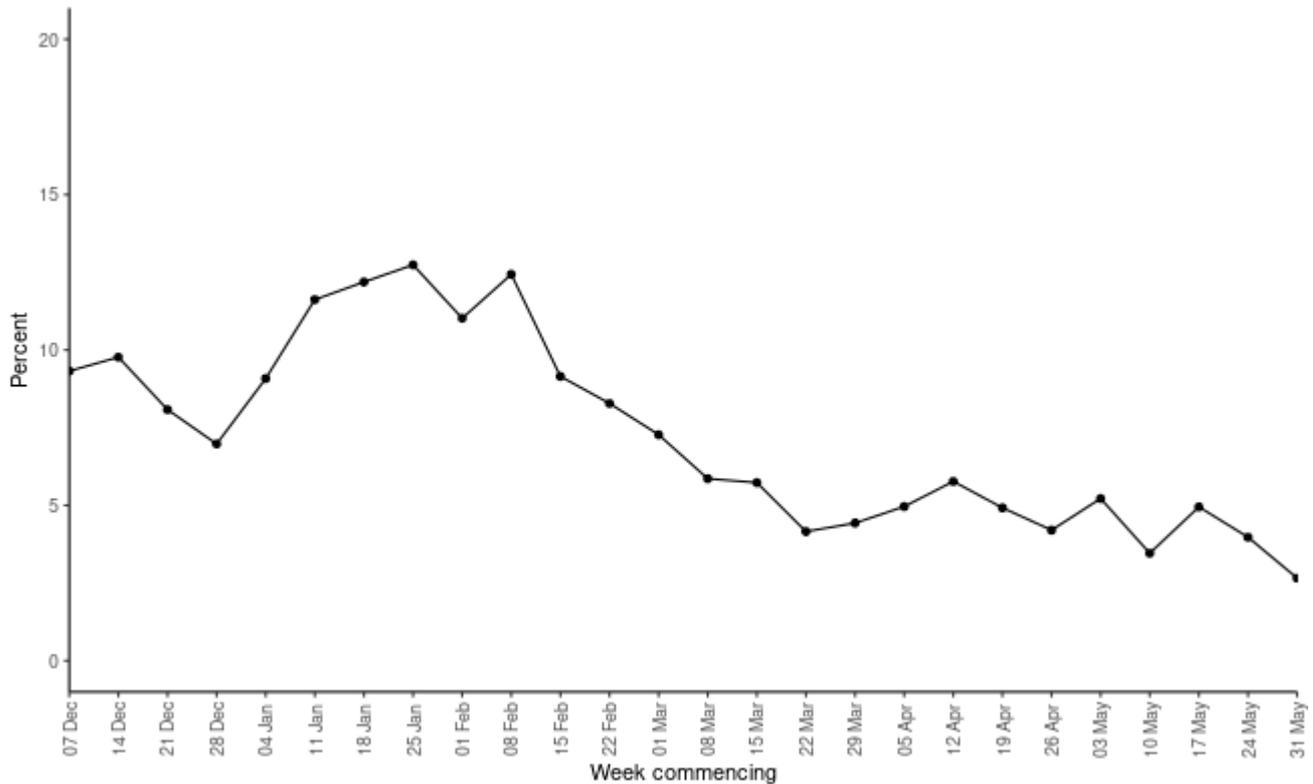


Figure 3: Proportion of weekly cases admitted to hospital within 14 days of a first positive test by age group

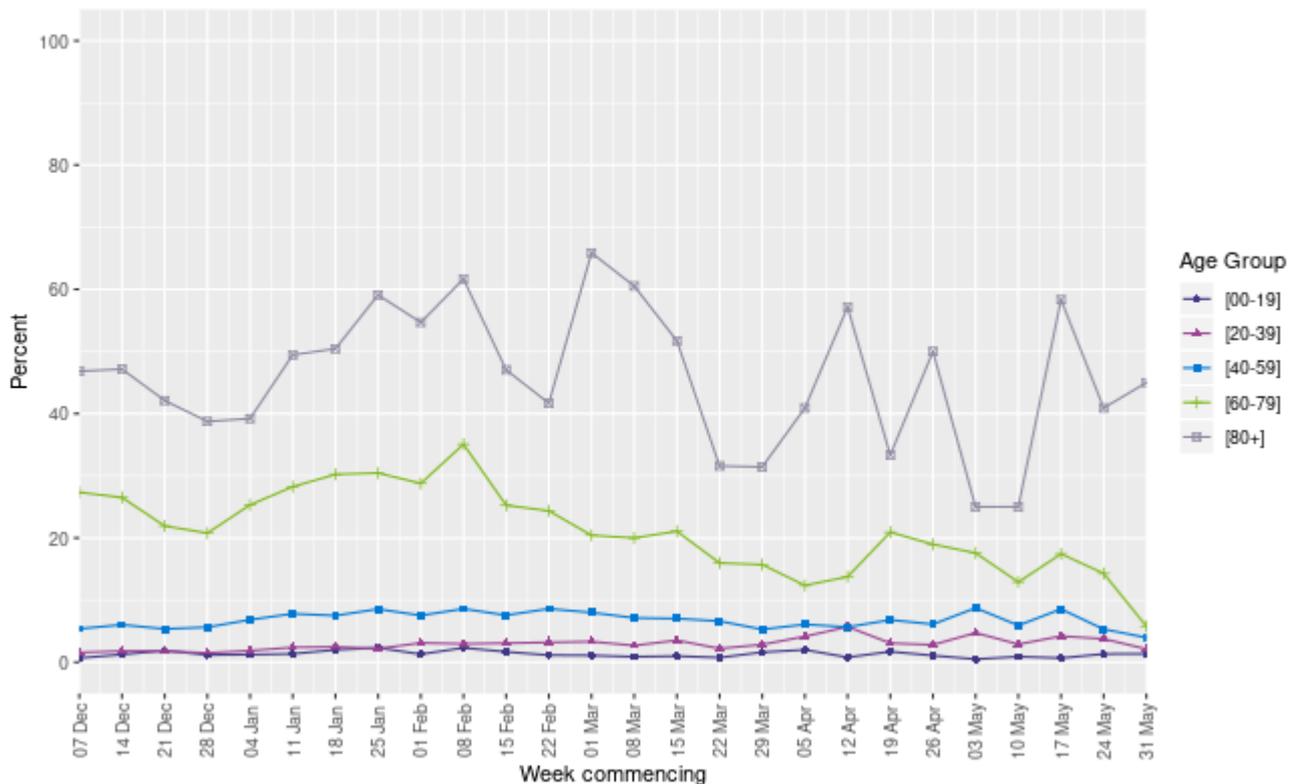
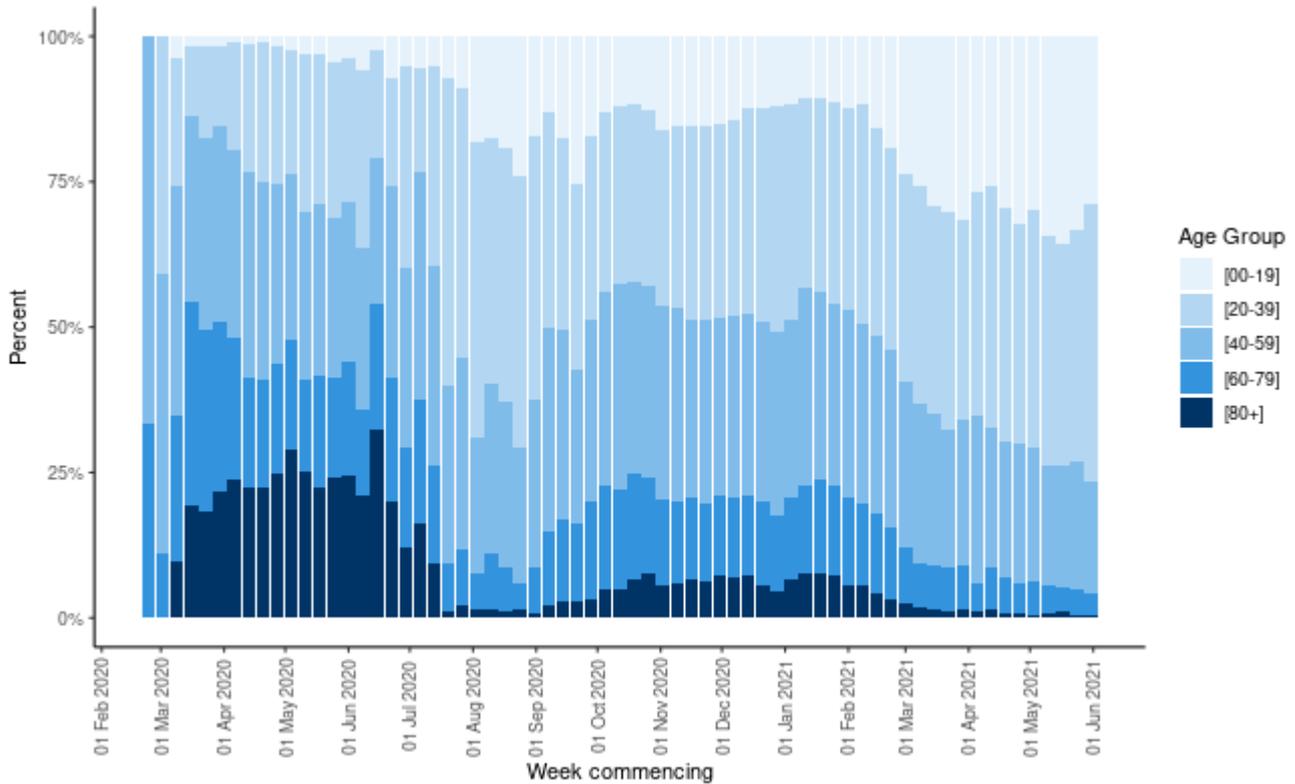


Figure 4: Distribution of confirmed COVID-19 cases by age group

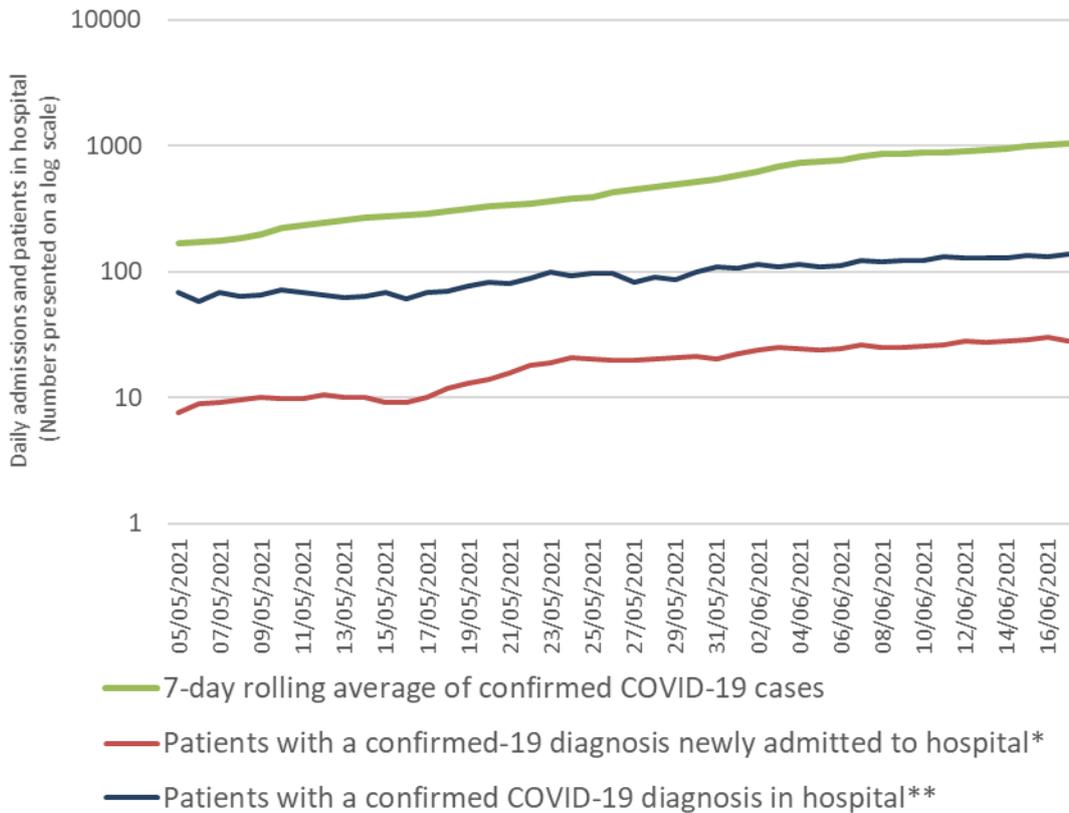


Case, Admissions and Inpatient Trends

Despite the rapid six-fold increase in confirmed COVID-19 cases from 167 to 1043 cases between 5 May and 17 June, daily COVID 19 confirmed hospital admissions have shown a smaller threefold increase, (from a seven-day rolling average of 10 to 28 cases). During this same time period, the number of people with COVID-19 in hospital doubled (from 69 to 140).

The sharper increase in new hospital admissions compared to inpatient hospital numbers is primarily explained by an increase in new admissions over an 8-day period, starting 16 June (Figure 5). Outside the 8 day period in mid-June, the proportional increases in hospital admissions and hospital occupancy were roughly similar. The lower rate of hospital inpatients compared with hospital admissions suggests that short lengths of stays are keeping the number of people in hospital as a proportion of all cases with a confirmed COVID-19 diagnosis relatively small.

Figure 5: Trends in the number of COVID positive daily cases, hospital admissions and inpatients, 5 May – 17 June (logarithmic scale)



Notes:

* COVID-19 related hospital admissions are admissions recorded via the Rapid Preliminary Inpatient Data (RAPID). New hospital admissions are defined as those where a patient has a first positive polymerase chain reaction (PCR) test up to 14 days prior to the day of their admission, on the day of their admission, or during their hospital stay. An admission is defined as a period of stay in a single hospital. If the patient has been transferred to another hospital during treatment, each transfer will create a new admission record. Daily figures are subject to change, as reported updates to hospital records can take 6 weeks or longer.

** SG Management information on the number of patients in acute and long stay community hospitals are reported daily to Scottish Government. These figures include the total number of inpatients who first tested positive whilst in hospital or in the 14 days before admission. Patients are excluded who remain in hospital after 28 days (or 28 days after first testing positive if this is after admission), who have COVID-19 symptoms but who have not yet tested positive, or who visit an Emergency Department.

COVID-19 Testing in Adult Care Home in Scotland

As of 20 January 2021, Public Health Scotland took over reporting of weekly testing data on COVID-19 in adult Care Homes in Scotland – data prior to 11 January 2021 can be found on the [Scottish Government website](#).

This data is provisional management information submitted to the Turas Care Home Management system by Care Homes, and details numbers of people (i.e. staff and residents) tested in the last week. The numbers capture both those tests undertaken via NHS routes and those done via the Scottish Social Care portal.

Figures are an undercount in some cases as complete data was not collected for all Care Homes.

It is the responsibility of Boards to work with care homes as part of their oversight arrangements to quality assure this data. The role of PHS is to collate and publish only. Please use this information with caution.

Table 2: Adult care home testing for week ending 20 June 2021

| NHS Board | Care Home with confirmed COVID-19 | | Care Homes with no confirmed COVID-19 |
|-------------------------|-----------------------------------|------------------|---------------------------------------|
| | Staff tested | Residents tested | Staff tested |
| Ayrshire and Arran | 149 | * | 3,413 |
| Borders | 0 | 0 | 759 |
| Dumfries & Galloway | 0 | 0 | 1,155 |
| Fife | 63 | 67 | 3,162 |
| Forth Valley | 108 | 0 | 2,468 |
| Grampian | 88 | 0 | 4,733 |
| Greater Glasgow & Clyde | 116 | * | 8,357 |
| Highland | 0 | 0 | 2,612 |
| Lanarkshire | 295 | 56 | 3,996 |
| Lothian | 328 | 216 | 6,181 |
| Orkney | 0 | 0 | 138 |
| Shetland | 0 | 0 | 278 |
| Tayside | 0 | 0 | 3,821 |
| Western Isles | 0 | 0 | 397 |
| Scotland | 1,147 | 383 | 41,470 |

Further information on COVID-19 testing in Adult Care Homes can be found at [Coronavirus \(COVID-19\): trends in daily data - gov.scot \(www.gov.scot\)](#).

Healthcare workers – COVID-19 Testing

In July 2020, the Scottish Government expanded COVID-19 testing (PCR) to include key healthcare workers in oncology and haemato-oncology in wards and day patient areas including radiotherapy; staffing wards caring for people over 65 years of age where the length of stay for the area is over three months, and wards within mental health services where the anticipated length of stay is also over three months. A data collection was initially set up to monitor the expansion of testing starting in July 2020. Weekly trend data, broken down by health board, is available on the [interactive dashboard](#).

Work was undertaken with Boards to improve the quality of the data and this collection has moved over to Public Health Scotland. This management information must be treated with caution as it may be subject to change as the quality of the data improves. Public Health Scotland is working closely with SG and Boards to improve data definitions and quality to ensure consistency across Scotland. As a result, data may be revised in subsequent weeks and any changes will be clearly signposted.

Table 3: Number of COVID-19 tests and positive results for healthcare workers for week ending 17 June

| Area | Total Eligible Staff | Total Staff tested | Number of positive tests | Number of Staff not tested - declined to test [^] | Number of Staff not tested for operational reasons [^] | Number of staff not tested for other reasons [^] |
|--|----------------------|--------------------|--------------------------|--|---|---|
| Specialist Cancer Wards and Treatment Areas | 2,765 | 2,649 | * | 46 | 10 | 60 |
| Long Stay Care of the Elderly | 779 | 687 | 0 | 38 | 11 | 43 |
| Long Stay Old Age Psychiatry and Learning Disability Wards | 2,618 | 2,439 | 0 | 64 | 61 | 54 |
| Scotland | 6,162 | 5,775 | * | 148 | 82 | 157 |

*Please note that some of the data is suppressed due to disclosure methodology being applied to protect staff confidentiality.

^Number of Staff not tested – declined a test –The number of staff who were offered a test and actively declined to take it.

^Staff not tested for operational reasons – The number of staff who were not able to be tested for operational/capacity reasons e.g. issues with test availability, staff unable to be tested due to work pressures etc.

^Number of Staff not tested for other reasons –The number of the staff present on wards in the reporting week who were not tested. They were eligible for testing (excluding those who declined and those who were not tested for operation reasons). This should be the remainder of eligible staff not recorded in the other groupings.

Test and Protect

On 26 May 2020, the Scottish Government set out the strategy for Test and Protect - Scotland's approach to implementing the 'test, trace, isolate, support' strategy. This strategy is designed to minimise the spread of COVID-19.

Public Health Scotland is working closely with the Scottish Government and all local NHS Boards to implement 'Test and Protect'. Since 28 May 2020, once an individual receives a positive result, a team of contact tracers will then gather details on individuals who have been in contact with the person who tested positive. The contact tracers will then proceed to contact these individuals and advise them to isolate.

The data within this report are the number of contacts which are recorded in the contact tracing software. The figures presented below are preliminary and may be updated in subsequent publications. A case is generated by a positive test. However, an individual can have multiple tests, and all positive results are reported to the contact tracing system so that each result can be assessed by the contact tracer and followed up as required. In many cases, there is no follow up for a repeat positive test (because the person was already contact traced when their first positive result was reported). To reflect this, test and protect data now includes details on the number of individuals whose positive test resulted in contact tracing being undertaken. The number of individuals who tested positive is also more comparable with the figures given in the [COVID-19 Confirmed Cases section of this report](#), which reports on new positive cases.

Since 18 June, as a result of rapidly increasing case numbers, contact tracers have reverted to, by default, contacting close contacts by SMS, to ensure that timely public health advice is given to people. Please note PHS has moved to weekly reporting of this data and cumulative data is available in the [interactive dashboard](#).

As part of the response to the outbreak of the Delta variant, initially in Glasgow, secondary contacts (contacts of contacts) have been contact traced by Test and Protect where appropriate. From 15 May 2021, the Contact Management System has allowed the recording of contacts of contacts (or secondary contacts), this may have increased the time between case being opened and completed. It is not possible to report on secondary contacts at an individual case level at this time. However, work is ongoing to allow future reporting of secondary contacts within subsequent versions of this publication. Please note, in Tables 4 to 8 below, figures relate to Primary Contacts only.

In the week ending 20 June 2021 (based on test date), the test and protect figures are:

Index Cases* – 7,091 (of which 4,670 have completed contact tracing)

Individuals** - 7,029

Primary Contacts traced*** – 32,065 (of which 22,689 were unique primary contacts)

Since the tracing of Secondary Contacts began, 2,764 have been traced.

*An index case is generated for each positive result with a test date on or after 28 May 2020. This includes tests derived from Scottish laboratories and from UK Government laboratories.

**An individual is a unique person who has had a positive test. An individual can have multiple positive tests which results in multiple cases within the test and protect system. In these figures, each person is only counted once.

***A "Contact" may be contacted more than once if multiple positive cases list them as a contact.

The below table provides a recent time trend, a longer time trend is available on the [interactive dashboard](#).

Table 4: Contact Tracing Scotland

| | Week ending | | | | | | | |
|---|-------------|--------|--------|--------|--------|--------|--------|---------------------|
| | 02 May | 09 May | 16 May | 23 May | 30 May | 06 Jun | 13 Jun | 20 Jun ^P |
| Cases | 1,213 | 1,436 | 2,037 | 2,632 | 3,778 | 5,570 | 6,334 | 7,091 |
| Complete Cases* | 1,184 | 1,399 | 1,968 | 2,525 | 3,577 | 5,203 | 5,500 | 4,670 |
| Individuals | 1,195 | 1,429 | 2,012 | 2,612 | 3,748 | 5,540 | 6,256 | 7,029 |
| Total Primary Contacts | 7,998 | 8,654 | 12,425 | 16,866 | 22,918 | 30,095 | 31,708 | 32,065 |
| Unique Primary Contacts | 5,483 | 5,560 | 7,753 | 10,922 | 15,207 | 20,595 | 22,601 | 22,689 |
| Average number of primary contacts per case | 7 | 6 | 6 | 6 | 6 | 5 | 5 | 5 |

^P – Please treat as provisional as data is still being collected for that week and index/contact being traced,

*Completed cases are cases which are marked as completed in the case management system, which means that all contacts have been followed up and completed. It excludes cases marked as failed, in progress or new. In the latest weeks there will be cases which are still open either because contact tracing is still underway (particularly for the latest week) or the NHS Board is still managing the case as part of an open outbreak.

There are a small proportion of primary contacts who were successfully contacted but then advised that they do not need to isolate. 3,055 primary contacts were not advised to self-isolate, 1.2% of all primary contacts for which this information is known. Some of these primary contacts are children under the age of 16. Other reasons may include that the contact was wearing PPE or did not come into close contact with a positive case. Primary Contacts who receive an SMS message are told to self-isolate.

Data by NHS Board are presented in the below table for the most recent two weeks. This shows the number of individuals and the number of primary contacts by NHS Board. Comparisons between NHS Board figures should be treated with caution due to the variation in complexity of cases which the Boards are dealing with at any point in time (e.g. some cases will be straight-forward with a low number of primary contacts to be traced; others will be more complex with a higher number to be traced). These figures will be updated in subsequent weeks to incorporate any additional primary contacts who had not had their tracing completed by the time the analysis was undertaken.

Table 5: Number of individuals and the number of primary contacts by NHS Board

| NHS Board | Week of first positive result | | | |
|-------------------------|-------------------------------|---|---------------------|---|
| | Week ending 20 June | | Week ending 13 June | |
| | Individual | Unique Primary Contacts within Health Board | Individual | Unique Primary Contacts within Health Board |
| Ayrshire & Arran | 648 | 3,548 | 636 | 4,114 |
| Borders | 116 | 685 | 69 | 423 |
| Dumfries & Galloway | 61 | 401 | 57 | 366 |
| Fife | 276 | 1,249 | 227 | 1,279 |
| Forth Valley | 265 | 1,288 | 212 | 1,137 |
| Grampian | 431 | 2,488 | 252 | 1,022 |
| Greater Glasgow & Clyde | 1,741 | 3,646 | 1,623 | 3,857 |
| Highland | 218 | 694 | 78 | 346 |
| Lanarkshire | 868 | 2,540 | 723 | 1,936 |
| Lothian | 1,573 | 3,123 | 1,432 | 3,212 |
| Orkney | 4 | 37 | 0 | 0 |
| Shetland | 11 | 94 | 0 | 0 |
| Tayside | 675 | 2,788 | 808 | 4,724 |
| Western Isles | * | 0 | 4 | 12 |
| Unknown Health Board** | 141 | 177 | 135 | 235 |

* Denotes data which has been suppressed due to risk of disclosure.

** Please note this includes individuals with no information on their Health Board of residence and from elsewhere in the UK.

While a close contact of multiple index cases within a Health Board is only counted once, please note that a contact may be included in more than one Health Board as the data is related to the positive case Health Board and a contact may have been in close contact with multiple index cases located in different Health Boards.

Figures for the most recent week are provisional and will be updated in next week's publication.

Data are extracted Sunday 20 June at 8pm. Data relate to tests up to 18 June. Weekly data presented from Monday to Sunday in order to be consistent. Figures are provisional and may change as the test and protect tool is updated by contact tracers.

Contact tracers, within the National Contact Tracing Centre and NHS Boards, were unable to contact a very small proportion of individuals with a positive test and their primary contacts:

- 10,668 individuals* with a positive test were unable to be contacted since the (Case Management System (CMS) went live (4.6% of all individuals).
- 17,530 contacts** were unable to be contacted since the CMS went live (1.9% of all contacts).

In some circumstance contacts go on to become a positive case and therefore an index case. The number of contacts which have become an index case – 133,094 (17.7%), represents the number of close contacts which have subsequently had a positive result at any time. PHS will soon amend this figure to only count cases that subsequently had a positive result within the window of infection.

*This information is only available for index cases that have been recorded on the CMS. The CMS went live on 22 June 2020 with NHS Boards migrating on a phased approach with all Boards using CMS from 21 July 2020. Prior to a Board migrating to CMS, data was recorded in a Simple Tracing Tool which did not give the level of granularity required to report on these measures. These data are developmental and an extensive data quality assurance exercise is underway and data may be revised in subsequent publications. Please note the methodology has changed as of 1 November 2020, a refined method has now been applied to identify unique indexes.

** Close contacts of people who have tested positive are telephoned by default. System capacity is monitored and automated SMS messaging of close contacts is only resorted to when case numbers are high, such as was the case during the increase in cases during Autumn 2020. This flexible approach ensures high quality calls can continue to be prioritised for index cases. Even when SMS is defaulted to, in these scenarios, a number of close contacts are still telephoned, following clinical risk assessment, particularly if they are linked to complex cases. When close contacts of index cases are contacted via SMS text message, the GOV.UK Notify Service is used which means it is known if the SMS has been received by the mobile phone, not just that it has been sent. Where the SMS is not received, a contact tracer will attempt to contact the individual through other means. The case will not be marked as complete unless someone has spoken to the individual.

Completed Index cases

Since 3 August 2020, the use of some fields within the Contact Tracing Case Management System has become mandatory – this allows for improvement in data recording and other measures to be explored as to how Test and Protect in Scotland is responding to the number of positives cases. The measures below are the initial exploratory analysis to describe the timeliness of contact tracing. Please note these are preliminary statistics and ongoing work is in place to improve recording and use of fields within the CMS to increase accuracy. The three measures are;

- the time between a sample being taken and the positive individual being interviewed
- the time between the record appearing in the CMS and the positive individual being interviewed
- the time between the record appearing in the CMS and contact tracings being completed (i.e. contacts have been interviewed or attempted to be interviewed).

These figures are now weekly measures, data are available for previous weeks within the [interactive dashboard](#).

Table 6: Time (hours) between date test sample taken (specimen date) and the positive individual being interviewed by a contact tracer.

| Hours taken | Week Ending 20 June** | | Week Ending 13 June | |
|-------------|-----------------------|------------------------|-----------------------|------------------------|
| | Number of Index Cases | % of Total Index Cases | Number of Index Cases | % of Total Index Cases |
| 0-24 | 525 | 15.3 | 922 | 17.3 |
| 24-48 | 1,742 | 50.7 | 2,563 | 48.1 |
| 48-72 | 975 | 28.4 | 1,141 | 21.4 |
| Over 72 | 185 | 5.4 | 400 | 7.5 |
| Not known* | 6 | 0.2 | 306 | 5.7 |

*Records where dates cannot be identified to calculate the difference. Data quality assurance work is taking place to improve this recording.

**Data relates to index cases recorded up to 20 June. Data are provisional and may be updated in future releases.

Table 7: Time (hours) between case created in CMS and the positive individual being interviewed by a contact tracer.

| Hours taken | Week Ending 20 June** | | Week Ending 13 June | |
|-------------|-----------------------|------------------------|-----------------------|------------------------|
| | Number of Index Cases | % of Total Index Cases | Number of Index Cases | % of Total Index Cases |
| 0-24 | 2,158 | 62.9 | 3,349 | 62.8 |
| 24-48 | 1,071 | 31.2 | 1,321 | 24.8 |
| 48-72 | 170 | 5.0 | 256 | 4.8 |
| Over 72 | 28 | 0.8 | 101 | 1.9 |
| Not known* | 6 | 0.2 | 305 | 5.7 |

*Records where dates cannot be identified to calculate the difference. Data quality assurance work is taking place to improve this recording.

**Data relates to index cases recorded up to 20 June. Data are provisional and may be updated in future releases.

Table 8: Time between case created in CMS to its closure, measured by the time taken to complete the final contact interview.

| Hours taken | Week Ending 20 June** | | Week Ending 13 June | |
|-------------|-----------------------|------------------------|-----------------------|------------------------|
| | Number of Index Cases | % of Total Index Cases | Number of Index Cases | % of Total Index Cases |
| 0-24 | 1,370 | 39.9 | 2,157 | 40.5 |
| 24-48 | 1,422 | 41.4 | 1,723 | 32.3 |
| 48-72 | 485 | 14.1 | 759 | 14.2 |
| Over 72 | 156 | 4.5 | 597 | 11.2 |
| Not known | 0 | 0 | 96 | 1.8 |

*Records where dates cannot be identified to calculate the difference. Data quality assurance work is taking place to improve this recording.

**Data relates to index cases recorded up to 20 June. Data are provisional and may be updated in future releases.

Travel outside of Scotland cases

Since 28 September fields have been available to record information about whether a case has travelled outside of Scotland. In the week ending 20 June, 7,091 index cases were newly created on CMS, of which 5,343 had a fully completed index case interview. Of those interviewed:

- 260 travelled to the UK (excluding Scotland).
- 34 travelled to Europe.
- 25 travelled to the rest of the world.

This information is collected on the contact tracing interview and is where outside of Scotland travel information is recorded. Please note we are aware of an undercount for those travelled outside Scotland. This is a data quality issue due to recording of the travel information, Public Health Scotland is working closely with contact tracing leads to improve this recording.

Protect Scotland App

The Protect Scotland App from NHS Scotland's Test and Protect was launched on 10 September 2020 and is a free, mobile phone app designed to protect individuals and reduce the spread of coronavirus. The app alerts individuals if they have been in close contact with another app user who tests positive for coronavirus. If they test positive, it can help in determining contacts that may have otherwise been missed while keeping individual's information private and anonymous. As of 21 June 2021 the total number of people who have downloaded the app is 1,994,008 with the number of contact notifications at 47,978.

Event and Settings cases

Public Health Scotland has been able to present a table of settings and events that index cases have attended over the previous 7 days. This is based on interviews conducted with cases identified in the CMS and involves cases recalling where they have been in the 7 days prior to symptom onset (or date of test if asymptomatic).

These figures are now updated in Settings tab of the [interactive dashboard](#) accompanying this report. Please note that Public Health Scotland cannot infer from the figures whether a specific setting or an event indicates where the COVID-19 transmission took place. This is because cases may have attended multiple settings or events within a short space of time. In addition, it is possible that even though a case visited a few settings and events, transmission may have taken place elsewhere.

More information on event groupings can be found in the [accompanying metadata document](#).

Quarantining Statistics

These statistics provide a summary of the number of people entering Scotland from outside the UK, those required to quarantine, and the numbers contacted by the National Contact Tracing Centre. Passenger arrivals into Scotland are provided by the Home Office to PHS. PHS take a sample of those who are required to quarantine and pass the data to NHS National Services Scotland, which runs the National Centre on PHS's behalf.

Since 15 February 2021 those arriving into Scotland directly from any country are required to quarantine in a hotel for a minimum of 10 days (further information available on the Scottish Government website). Those arriving indirectly from a non-high risk country will be required to quarantine at home. Those individuals quarantining at home will be contacted by the National centre.

Table 9 – Quarantine Statistics by date.

| | Total 22 June 2020 to 20 June 2021 | Week ending 20 June 2021 |
|--|--|-----------------------------|
| Number of people arriving in Scotland ¹ | 672,390 | 9,485 |
| Number of people requiring to quarantine in a hotel (anywhere in the UK) ² | 12,506 | 739 |
| Number of people requiring to quarantine at home ³ | 306,906 | 7,360 |
| Number of people contacted by National Centre ⁴ | 100,052 | 3,604 |

Of the total number of people contacted by the National Centre, the below table shows the breakdown of these contacts.

Table 10: Number of people contacted by National Centre by status.

| | Total 22 June 2020 to 20 June 2021 | Week ending 20 June 2021 |
|---|--|-----------------------------|
| Successful contacts made ⁵ | 91,159 | 2,691 |
| Unable to contact individual ⁶ | 8,138 | 158 |
| In progress ⁷ | 755 | 755 |

1 People who arrive in the UK, as notified to Public Health Scotland by the Home Office

2 From 15 February 2021 any person arriving directly from a high risk country into the UK with a Scottish residence or any arriving directly into Scotland from a non high-risk listed country.

3 From 30 June 2020 – 14 February 2021. Any persons who are required to quarantine in Scotland (all countries prior to 30 June 2020; high risk countries from 30 June 2020), adults aged 18 and over only. From 15 February 2021 this is anyone arriving from a non-high risk country and did not arrive directly into Scotland.

4 Sample of people who are passed to NCTC for follow-up to provide advice and support. Some contacts made relate to arrivals from the previous week; therefore contacts can sometimes exceed arrivals.

5 People who were successfully contacted by NCTC

6 Calls could not be completed because the individual could not be contacted (invalid phone number or no response to call). Where appropriate details of individuals are passed to Police Scotland for further follow up. Includes not completed due to quarantine ending before NCTC could contact individual

7 Calls which are still in progress

Lateral Flow Device Testing

Across Scotland, there are numerous testing pathways being rolled out using Lateral Flow Devices (LFD) - a clinically validated swab antigen test taken that does not require a laboratory for processing. This test can produce rapid results within 45 minutes at the location of the test.

Some of the areas using LFD tests are: schools, health and social care workers, care homes and more. Public Health Scotland has collected the information on the number of LFD tests carried out across Scotland and will now publish this information weekly. This section is the totality of LFD across Scotland and across strategies. Sections focussing in on specific topics such as Schools, Higher Education and Community testing can be found later in the report.

Since 19 November 2020, there have been 6,285,062 LFD tests carried out in Scotland, of which 10,917 were positive (0.2%). Table 11 shows the number of LFD tests carried out in Scotland by testing group, and Table 12 shows the number of LFD tests by Health Board of residence of the individual taking the test.

Any individual who receives a positive test result using a Lateral Flow Device is advised to self-isolate and arrange for a confirmatory PCR test. The PCR result will determine the number of cases of COVID-19 in Scotland.

Table 11: Number of LFD tests by Test group² 19 November 2020 – 20 June 2021

| Test Group | Number of tests | Number of positive tests | % LFT positive |
|---|------------------|--------------------------|----------------|
| Care Home - Visiting Professional | 28,273 | 18 | 0.1 |
| Care Home - Visitor | 209,796 | 63 | 0 |
| Care Home Staff | 854,045 | 532 | 0.1 |
| Community Testing | 52,057 | 348 | 0.7 |
| Emergency Control Room Staff | 22,288 | 20 | 0.1 |
| Food Processing | 2,559 | * | * |
| Healthcare Worker | 1,659,151 | 1,735 | 0.1 |
| Primary Care And Independent Contractors | 85,749 | 28 | 0 |
| Quarantine Hotel Staff/Security Personnel | 1,839 | * | * |
| School | 1,867,987 | 2,144 | 0.1 |
| Social Care | 339,034 | 209 | 0.1 |
| UK Gov Other | 832,584 | 4,842 | 0.6 |
| University Testing | 94,764 | 362 | 0.4 |
| Other | 234,936 | 613 | 0.3 |
| Total | 6,285,062 | 10,917 | 0.2 |

Data extracted: 20/06/2021

1. Those within unspecified cannot yet be grouped into a specific category. Ongoing data quality may improve this and data may change in future publications.

2. Please note bulk uploading functionality is not yet available so data is likely to be an undercount. Data will be update and revised in future publications.

3. Other is any result entered via the [gov.uk website](https://www.gov.uk) where “none of the above” has been selected. Please note anyone requesting a LFD test via the general population offer, will currently report their results via this category.

Table 12: Number of LFD tests, up until 20 June 2021, by NHS Board of Residence (based on the postcode provided by the individual taking the test)

| Board of Residence | Number of tests | Number of positive tests | % LFD positive |
|-----------------------------|------------------|--------------------------|----------------|
| NHS Ayrshire & Arran | 492,604 | 1,022 | 0.2 |
| NHS Borders | 128,115 | 155 | 0.1 |
| NHS Dumfries & Galloway | 180,439 | 126 | 0.1 |
| NHS Fife | 380,941 | 648 | 0.2 |
| NHS Forth Valley | 356,115 | 561 | 0.2 |
| NHS Grampian | 765,339 | 708 | 0.1 |
| NHS Greater Glasgow & Clyde | 1,160,071 | 2,760 | 0.2 |
| NHS Highland | 407,332 | 365 | 0.1 |
| NHS Lanarkshire | 667,066 | 1,312 | 0.2 |
| NHS Lothian | 937,518 | 1,916 | 0.2 |
| NHS Orkney | 22,528 | 5 | 0 |
| NHS Shetland | 34,156 | 13 | 0 |
| NHS Tayside | 534,972 | 964 | 0.2 |
| NHS Western Isles | 48,422 | 34 | 0.1 |
| Unknown | 169,444 | 328 | 0.2 |
| Total | 6,285,062 | 10,917 | 0.2 |

1. Those within unknown is any test has an invalid or missing postcode.

Targeted Community Testing

The Community Testing Programme is ongoing across Scotland. This programme is a mixture of LFD and PCR tests. This is targeted at areas where there are concerns around community transmission levels, and offer testing to any member of that community. Further information is available within the [interactive dashboard](#).

Table 13: Targeted Community Testing

| Symptoms | Total 18 January to 20 June | | | Week to 20 Jun | | |
|--------------------------|--------------------------------|-----------------|------------|-----------------|-----------------|------------|
| | Number of Tests | Number Positive | % positive | Number of Tests | Number Positive | % positive |
| Asymptomatic | 133,931 | 5,202 | 3.9 | 11,788 | 674 | 5.7 |
| Symptomatic ¹ | 92,414 | 10,046 | 10.9 | 7,356 | 1,098 | 14.9 |
| All² | 229,839 | 15,618 | 6.8 | 19,894 | 1,874 | 9.4 |

1. Symptomatic - the individual has selected on the booking website they have symptoms

2. In week ending 20 June, 750 tests were of unknown symptomatic status of which 102 were positive.

Table 14: Targeted Community Testing by Health Board (Week to 20 June)

| Health Board (of site) | Number of Tests | Number Positive ¹ | % positive |
|-------------------------------|-----------------|------------------------------|------------|
| NHS Ayrshire and Arran | 1,019 | 67 | 6.6 |
| NHS Borders | 400 | 45 | 11.3 |
| NHS Dumfries and Galloway | 216 | 22 | 10.2 |
| NHS Fife | 730 | 37 | 5.1 |
| NHS Forth Valley | 1,700 | 108 | 6.4 |
| NHS Grampian | 664 | 31 | 4.7 |
| NHS Greater Glasgow and Clyde | 3,620 | 432 | 11.9 |
| NHS Highland | 352 | 0 | 0.0 |
| NHS Lanarkshire | 5,092 | 547 | 10.7 |
| NHS Lothian | 4,777 | 484 | 10.1 |
| NHS Tayside | 1,324 | 101 | 7.6 |
| Total | 19,894 | 1,874 | 9.4 |

¹ Number of positives test results

COVID-19 Vaccine

On the 8 December 2020, a COVID-19 vaccine developed by Pfizer BioNTech was first used in the UK as part of national immunisation programmes. The AstraZeneca vaccine was also [approved for use](#) in the national programme, and rollout of this vaccine began on 4 January 2021. Moderna vaccine was approved for use on 8 January 2021 and rollout of this vaccine began on 7 April 2021. These vaccines have met strict standards of safety, quality and effectiveness set out by the independent Medicines and Healthcare Products Regulatory Agency (MHRA).

A 2-dose schedule is advised for the vaccines. For the Pfizer BioNTech vaccine, the second vaccine dose can be offered between 3 to 12 weeks after the first dose. For the AstraZeneca and Moderna vaccine, the second dose can be offered 4 to 12 weeks after the first dose.

Information on uptake across the vaccine programme is available on a daily basis via the PHS [COVID-19 Daily Dashboard](#), 7 days a week at 2pm. This provides a cumulative picture of the position nationally and locally.

The dashboard provides total uptake nationally with breakdowns by [Joint Committee on Vaccination and Immunisation \(JCVI\)](#) age based cohorts and non age based cohorts for priority groups 1-9.

The vaccination content of this weekly publication will be kept under continual review with future editions likely to contain more in-depth analyses of uptake by particular groups or characteristics (e.g. ethnicity and deprivation category) building on the information published in this report on 23 March 2021. Going forward the Scottish Government will continue to publish limited information regarding overall uptake on its [COVID-19: daily data for Scotland page](#), this will reflect that shown on the PHS [COVID-19 Daily Dashboard](#).

Overall deaths that have occurred within 28 days of a COVID-19 vaccination

We identified an error in the publication of 9 June 2021, of deaths that had occurred within 28 days of a COVID-19 vaccination. This impacted on the number of cases and ratios presented, but did not impact on the interpretation of the analyses. We have corrected the analyses below and added two further weeks of data.

Analyses are presented to show the number of deaths occurring within 28 days of receipt of a COVID-19 vaccine in Scotland from 8 December 2020 (the beginning of the COVID-19 Vaccination Programme) to 11 June 2021. The analysis includes all recorded deaths due to any cause and does not refer to deaths caused by the vaccine itself. As the vaccination programme is being rolled out to the entire adult population, many people will experience an illness or death in the days following their vaccination by coincidence. This is particularly the case for those vaccinated early in the programme, when the programme prioritised the very elderly population and those with pre-existing underlying health conditions. In order to account for this, we have compared the total number of observed deaths per month to the

number we would have expected, based on the average number of deaths that occurred per month (by age band and gender) for the same time-period between 2015 and 2019. This is called excess mortality.

We have calculated a ratio of the observed versus expected number of deaths and 95% confidence intervals. Calculating the observed versus expected ratio is a standard method for comparing cases or deaths occurring in different time periods. The confidence interval gives the range of values that we can be 95% certain contains the true ratio. For example, an observed versus expected ratio of 0.5 (95%CI: 0.25-0.75) means that the observed number of deaths was 50% below what was expected, but may have ranged from a 25% to a 75% reduction.

Between 8 December 2020 and 11 June 2021, a total of 5,522 people died within 28 days of receiving a COVID-19 vaccine in Scotland (number of days between vaccine and death is 0-27, where 0 is the day of vaccination, all age groups). A breakdown of these deaths by day and vaccine type is available in the [spreadsheet](#) provided along with this report. Using the 5-year average monthly death rate (by age band and gender) from 2015 to 2019 for comparison, 8,718 deaths would have been expected among the vaccinated population within 28 days of receiving their COVID-19 vaccination. This means the observed number of deaths is lower than expected compared with mortality rates for the same time period in previous years (dose 1 observed/expected ratio:0.66, 95%CI= 0.64 to 0.69; dose 2 observed/expected ratio: 0.59, 95%CI=0.57 to 0.62).

Tables 15 and 16 below provide the observed and expected deaths within 28 days of vaccination for the period 8 December 2020 to 11 June 2021, by age group and vaccine dose number.

Table 15: Number of deaths that have occurred within 28 days following a dose 1 COVID-19 vaccination

| Number of days post 1 st dose vaccination | Age Group in Years | Observed number of deaths | Expected Number of Deaths | Observed/Expected ratio | 95 % Lower Confidence Intervals | 95% Upper Confidence Interval |
|--|--------------------|---------------------------|---------------------------|-------------------------|---------------------------------|-------------------------------|
| 0-27 | <50 | 95 | 153 | 0.62 | 0.51 | 0.76 |
| 0-27 | 50-69 | 586 | 940 | 0.62 | 0.57 | 0.68 |
| 0-27 | 70-79 | 764 | 1,239 | 0.62 | 0.57 | 0.66 |
| 0-27 | 80+ | 1,830 | 2,598 | 0.70 | 0.67 | 0.74 |
| 0-27 | All Ages | 3,275 | 4,929 | 0.66 | 0.64 | 0.69 |

The sum of the breakdowns may not match totals due to rounding

Table 16: Number of deaths that have occurred within 28 days following a dose 2 COVID-19 vaccination

| Number of days post 2 nd dose vaccination | Age Group in Years | Observed number of deaths | Expected Number of Deaths | Observed/Expected ratio | 95 % Lower Confidence Intervals | 95% Upper Confidence Interval |
|--|--------------------|---------------------------|---------------------------|-------------------------|---------------------------------|-------------------------------|
| 0-27 | <50 | 27 | 49 | 0.55 | 0.37 | 0.78 |
| 0-27 | 50-69 | 365 | 630 | 0.58 | 0.52 | 0.64 |
| 0-27 | 70-79 | 585 | 1,052 | 0.56 | 0.51 | 0.60 |
| 0-27 | 80+ | 1,270 | 2,057 | 0.62 | 0.58 | 0.65 |
| 0-27 | All Ages | 2,247 | 3,789 | 0.59 | 0.57 | 0.62 |

The sum of the breakdowns may not match totals due to rounding

The lower-than-expected mortality rates observed post dose 1 and dose 2 could be explained by a number of factors. In the pandemic period from 16 March 2020 to 6 December 2020 inclusive, there were 6,358 excess deaths recorded in Scotland compared with the previous 5-year average (2015 to 2019) (<https://www.nrscotland.gov.uk/covid19stats>). In the same period, 5,363 deaths were recorded with a confirmed or suspected COVID-19 cause of death. COVID-19 infection may have caused premature deaths among some individuals prior to the start of the vaccination programme, who would have otherwise died in the months after the vaccination programme commenced. Additional information on excess mortality during the COVID-19 pandemic, including comparisons with other countries is available at <https://ourworldindata.org/excess-mortality-covid>. Furthermore, high mortality rates in winter months are usually attributed to seasonal influenza. However, the 2020/2021 rate of influenza in Scotland was much lower than previous years. This is likely due to the restrictions in place to prevent the spread of COVID-19 as well as a higher than average rate of vaccine uptake for influenza across most eligible cohorts. For more information on the seasonal influenza activity in Scotland, please see the latest [Weekly National Seasonal Respiratory Report](#). Restrictions and behavioural changes to prevent the spread of COVID-19 may have also reduced deaths due to other infectious and non-infectious causes.

Vaccine Surveillance

Public Health Scotland has a [COVID-19 vaccine surveillance strategy](#) to monitor the effectiveness, safety and impact of all approved COVID-19 vaccines in Scotland. The key measure of the success of the vaccination programme in preventing infection, hospitalisations and deaths is vaccine effectiveness. Evidence has shown that vaccination is highly effective in protecting against death from COVID-19. [Data published by Public Health England \(PHE\)](#) has shown that individuals who receive a single dose of the AstraZeneca vaccine have approximately 80% lower risk of death with COVID-19 compared with unvaccinated individuals, and for the Pfizer-BioNTech vaccine this rises from approximately 80% after one dose to 95-99% after two doses.

Work has been undertaken to assess vaccine effectiveness against the Delta variant of Concern (B.1.617.2). A recent [Scottish study](#) shows the two doses of COVID-19 vaccine provides strong protection against the Delta variant however there may be an increased risk

of hospitalisation compared with the Alpha variant. [Analysis by PHE](#) indicates that two doses of Pfizer-BioNTech and Oxford-AstraZeneca vaccines are highly effective against hospitalisation, providing 96% and 92% protective effect, respectively.

COVID-19 Deaths

In Scotland, from the beginning of the COVID-19 vaccination programme to 16 June 2021, over 2.3 million individuals had been fully vaccinated with two doses of COVID-19 vaccine. Of these, 11 individuals (<0.001%) tested positive by PCR for SARS-CoV-2 more than seven days after receiving their second dose of COVID-19 vaccine and subsequently died with COVID-19 recorded as a primary or contributing cause of death. These individuals had several comorbidities which contributed to their deaths.

Covid Hospitalisations by vaccine status and s-gene status

This chapter presents information on the vaccine status of patients with COVID-19 who are hospitalised. It does not look at vaccine effectiveness and should not be interpreted in that way. The latest evidence on the effectiveness of the vaccines against the Alpha and Delta variant can be found in the letter we published in [The Lancet](#), which focusses on a representative subset of all the hospitalisations presented here, and by a report published by [PHE](#). [The Lancet](#) letter focusses only on individuals who first tested positive for SARS-CoV2 in the community (lighthouse laboratory, where S-gene status is known) and followed them up to hospitalisation and is, thus, a subset of all the hospitalisations presented here.

PHS are working with UK partners to harmonise the methodologies and definitions used for this work. Future data presentations may be adapted to reflect this work.

The summary data presented in this chapter record the total number of acute hospital admissions by their vaccination status and does not assess the effectiveness of the vaccine or whether the vaccine has worked in these individuals. This latter requires a careful examination of each case to explore possible reasons, which could be related to the test, virus or the person (e.g. pre-existing conditions).

Results and Commentary

Summary

In the last week, the seven-day rolling average of COVID-19 related acute hospital admissions increased from 21.57 to 25.43 admissions per day.

From the 17 May to 18 June:

- 0.61% of all hospitalisations have had a COVID-19 positive PCR test 14 days prior, on admission or during their stay in hospital. This is an increase of 0.04 % from last week but remains lower than previous waves.
- 60% of COVID-19 related acute hospital admissions were in unvaccinated individuals, of which 68% were in the under 40s age group.
- a larger proportion of unvaccinated COVID-19 related acute hospital admissions were recorded as having COVID-19 symptoms during contact tracing when compared to those that were vaccinated.

COVID-19 related acute hospital admissions have been identified as the following: An individual that has tested positive for COVID-19 by PCR up to 14 days prior to admission to hospital, on the day of their admission, the day after admission (if no discharge date available), or during their stay in hospital. Subsequent acute hospital admissions for an individual are only counted as an additional COVID-19 related acute hospital admission if they test positive for COVID-19 more than 90 days after the first positive test associated with a hospital stay, are readmitted to hospital and meet the criteria described above. If a patient tested positive after their date of discharge from hospital, they are not included in the analysis unless they are readmitted to hospital and meet the criteria described above.

The number of reported acute hospitalisations does not take into account the reason for hospitalisation. Therefore, people that were admitted for a non-COVID-19 related reason (and tested on admission) may be included and result in an overestimation of COVID-19 related acute hospitalisations.

Vaccination status is taken at date of hospital admission, and assigned to number of doses according to case definitions described below.

The presence of COVID-19 symptoms at the point of contact tracing through Test and Protect has been used to try and better estimate likely COVID-19 related acute admissions. However, contact tracing is usually conducted out with the hospital stay, is not assessed by a medical professional and may be subject to bias.

The definition described above is being used for the purposes of evaluating the impact of the COVID-19 vaccine on hospitalisation, accounting for potential reinfections. The number reported in this section may differ from other sections and elsewhere which only count the number of new COVID-19 cases.

Data sources and limitations

Date of extraction and analysis

Data were extracted from the sources described below at 16:00 on Monday 21 June 2021. Data included in this analysis is reported up until the Friday of the previous week. Due to delays in reporting, figures are subject to change as records are updated. A marker (greyed out block) has been applied to latest weeks' data on all results presented in this section to indicate they are preliminary and may be subject to change. Caution should be taken in their interpretation.

COVID-19 PCR test data

All positive COVID-19 PCR test results and associated demographics of an individual are extracted from the Test and Protect database (Corporate data warehouse) which contains test results from ECOSS. Results which are flagged as excluded in the contact tracing index case analysis data are removed from the dataset.

Symptomatic status of a PCR positive individual is extracted from contact tracing data in Test and Protect, and linked by specimen ID to positive PCR tests. This status is determined at point of contact tracing, which may be prior to hospital admission, and may be subject to biases.

Vaccine status data:

Vaccination status for all individuals which test positive for COVID-19 by PCR is extracted from the data used to produce the PHS vaccine uptake/daily dashboard. Vaccine records include the number of doses and date of when each dose was received. Individuals are listed as unvaccinated if there is no vaccination record linked to their unique CHI identifier at the time of analysis. COVID-19 vaccine status is defined as per the following:

- **Unvaccinated:** An individual that has had no doses of COVID-19 vaccine and has tested positive for COVID-19 by PCR or has had one dose of COVID-19 vaccine and

has tested positive less than or equal to ten days after their 1st dose of COVID-19 vaccine.

- **Dose 1:** An individual that has had one dose of COVID-19 vaccine and has tested positive for COVID-19 by PCR more than 10 days after their 1st dose of COVID-19 vaccine or 7 days or less after their second dose of COVID-19 vaccine.
- **Dose 2:** An individual that has had two doses of COVID-19 vaccine and has tested positive for COVID-19 by PCR more than 7 days after their 2nd dose of COVID-19 vaccine.

Acute hospital admission data

Hospital admission data is extracted from the RAPID dataset. RAPID is a daily submission of people who have been admitted and discharged to hospital. Figures are subject to change as hospital records are updated. It can take 6-8 weeks or longer before a record is finalised, depending on the length of stay of the patient; this is especially true in regards to discharge information. Data included in this analysis is reported up until the Friday of the previous week. Total figures for COVID-19 related admissions published by PHS are updated daily and figures are subject to change, and so total figures presented here will not match data published elsewhere. Therefore, the latest results should be interpreted with caution.

In the data presented here, an admission is defined as a period of stay in a single hospital. If the patient has been transferred to another hospital during treatment, each transfer will create a new admission record. Therefore, there may be multiple admissions for a single patient if they have moved between locations during a continuous inpatient stay (CIS), or if they have been admitted to hospital on separate occasions.

Hospital stays are linked to PCR positive tests if the date of test occurs:

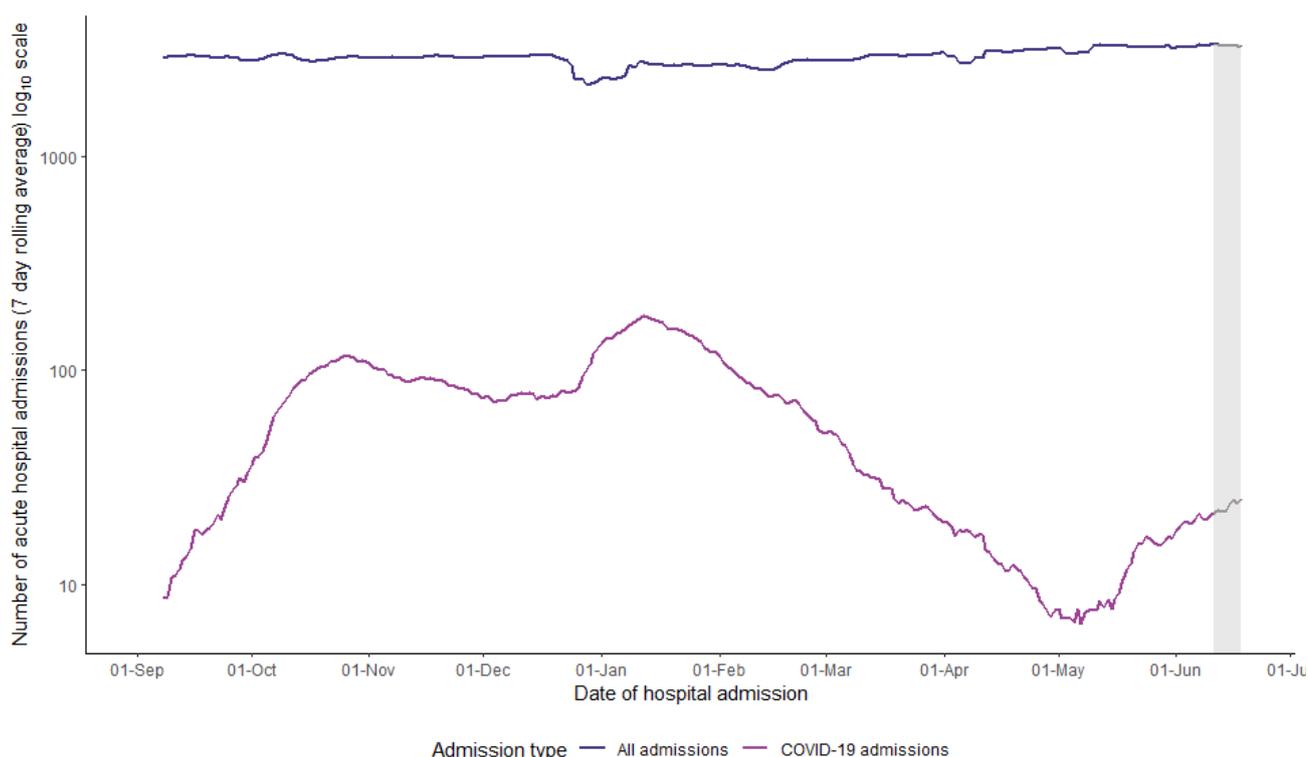
- Up to 14 days prior to hospital admission
- On the day of, or day following admission (if no discharge date is available)
- In between hospital admission and discharge (if there is a valid discharge date available).

Where an individual has more than one PCR positive test, positive results are only included for the first PCR positive test associated with a hospitalisation, or if the positive PCR test is more than 90 days after the previous PCR positive test that was eligible for inclusion. Using this criteria, all records of hospitalisation occurring within 90 days of a previous positive test are excluded. Therefore, if a positive PCR test result for an individual meets these criteria for multiple hospital stays, for example, an individual is admitted twice within a week, only the earliest hospital admission is included in the analysis. If a person tests positive during their stay in hospital, the analysis used the date of admission prior to the test.

COVID-19 related acute hospital admissions compared to all acute hospital admissions from 1 September to 18 June 2021

From 1 September to 18 June 2021, there were a total of 839,970 acute hospital admissions for any cause, of which 25,659 were associated with a COVID-19 PCR positive test 14 days prior, on admission, the day after admission or during their stay. Using the 90-day exclusion criteria between positive COVID-19 PCR tests associated with an acute hospital admission, 17,540 individuals were admitted to hospital.

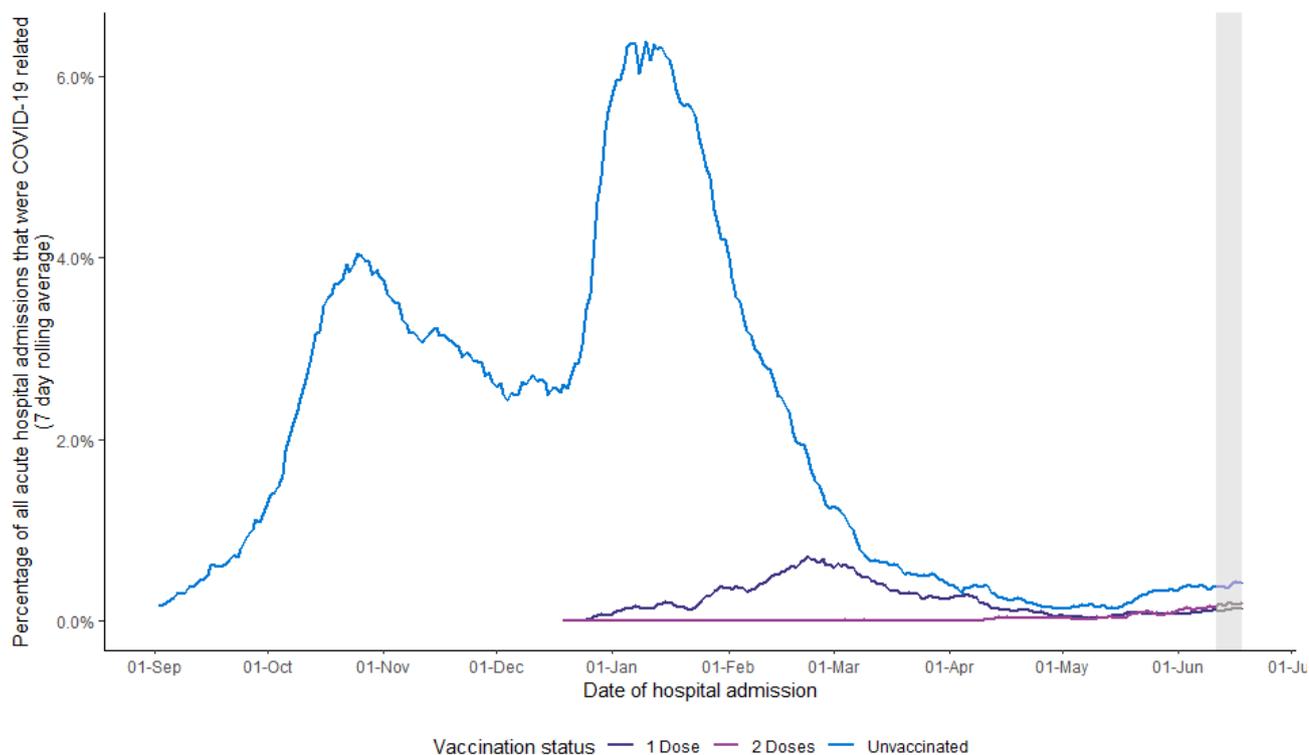
Figure 6: Seven-day rolling average on a log₁₀ scale comparing COVID-19 related acute hospitalisations to all acute hospital admissions, 1 September 2020 to 18 June 2021



Data displayed are on a log₁₀ scale. The data displayed within the greyed out section (1 week) are considered preliminary and are subject to change as more data is updated.

In the last month, the number of COVID-19 related acute hospital admissions have increased but are a small proportion relative to all acute hospitalisations and remain below the previous wave.

Figure 7: Seven-day rolling average of the percentage of COVID-19 related acute hospital admissions compared to all acute hospital admissions by COVID-19 vaccination status, 1 September 2020 to 18 June 2021



Vaccination status is determined as at the date of hospital admission according to the definitions described above. The data displayed within the greyed out section (1 week) are considered preliminary and are subject to change as more data is updated.

The highest proportion of COVID-19 related acute hospital admission were in unvaccinated individuals, which is particularly evident in the past couple of months.

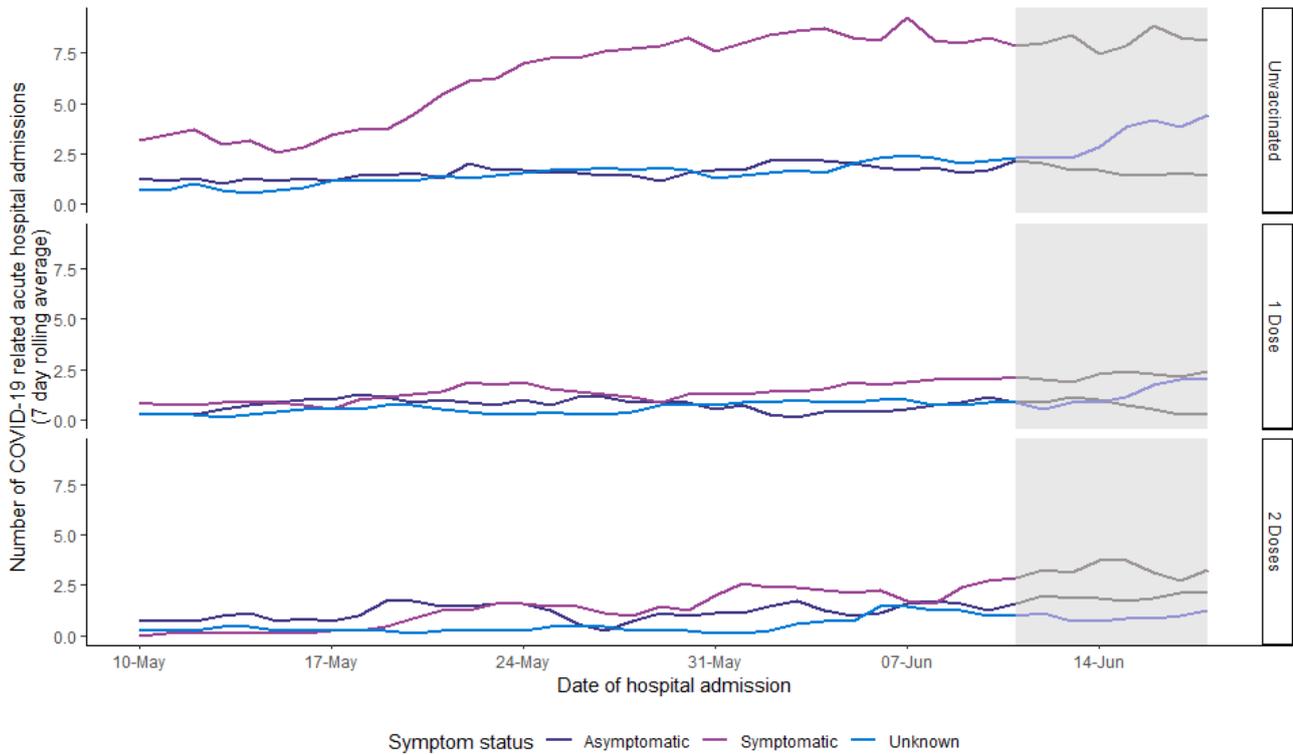
Table 17: Number of COVID-19 related acute hospital admissions by week and number of vaccine doses, 17 May 2021 to 18 June 2021

| Week | No. of COVID-19 related acute hospitalisations / No. of people eligible for COVID-19 vaccination or vaccinated (%) | | |
|------------------------------|--|-------------------------|--------------------------|
| | Unvaccinated | 1 Dose | 2 Doses |
| 17 May 2021 – 23 May 2021 | 66 / 1,956,216 (0.003%) | 19 / 1,340,368 (0.000%) | 24 / 1,631,414 (0.001%) |
| 24 May 2021 – 30 May 2021 | 81 / 1,832,349 (0.004%) | 20 / 1,223,116 (0.002%) | 18 / 1,832,173 (<0.001%) |
| 31 May 2021 – 6 June 2021 | 86 / 1,726,788 (0.005%) | 22 / 1,138,755 (0.002%) | 34 / 2,022,095 (0.002%) |
| 7 June 2021 – 13 June 2021 | 87 / 1,596,676 (0.005%) | 27 / 1,063,679 (0.003%) | 40 / 2,227,283 (0.002%) |
| 14 June 2021 – 18 June 2021* | 74 / 1,498,616 (0.005%) | 24 / 1,017,442 (0.002%) | 33 / 2,371,580 (0.001%) |

*Vaccination status is determined as at the date of hospital admission according to the definitions described above. Data for the most recent week are considered preliminary and are subject to change as more data is updated. * Data is not a complete 7 day week*

Since 17 May 2021, there has been an increase in the overall number of COVID-19 related acute hospital admissions, with the largest number among unvaccinated individuals.

Figure 8: Seven-day rolling average of COVID-19 related acute hospital admissions by vaccine status and by symptom status at time of contact tracing by Test and Trace, 10 May 2021 to 18 June 2021



Symptomatic status is determined at the point of contact tracing, may be conducted prior to hospitalisation and could be subject to bias. Vaccination status is determined as at the date of hospital admission according to the definitions described above. The data displayed within the greyed out section (1 week) are considered preliminary and are subject to change as more data is updated.

A larger proportion of unvaccinated COVID-19 related acute hospital admissions were recorded as having COVID-19 symptoms during contact tracing when compared to those that were vaccinated.

COVID-19 related acute hospital admissions by S-gene target in the last month, 10 May 2021 to 18 June 2021

Tests are used to detect the presence or absence of the S-gene in the virus. The Alpha variant (VOC-20DEC-01, B.1.1.7) that was previously predominant in the UK is S-gene negative, but the Delta variant (VOC-21APR-02, B.1.617.2), which is becoming the most commonly detected variant in the UK, is S-gene positive. Therefore, a positive S-gene result is currently used as a proxy to determine if an individual is positive for the Delta variant. Note other variants might also be S-gene positive and included in the numbers reported.

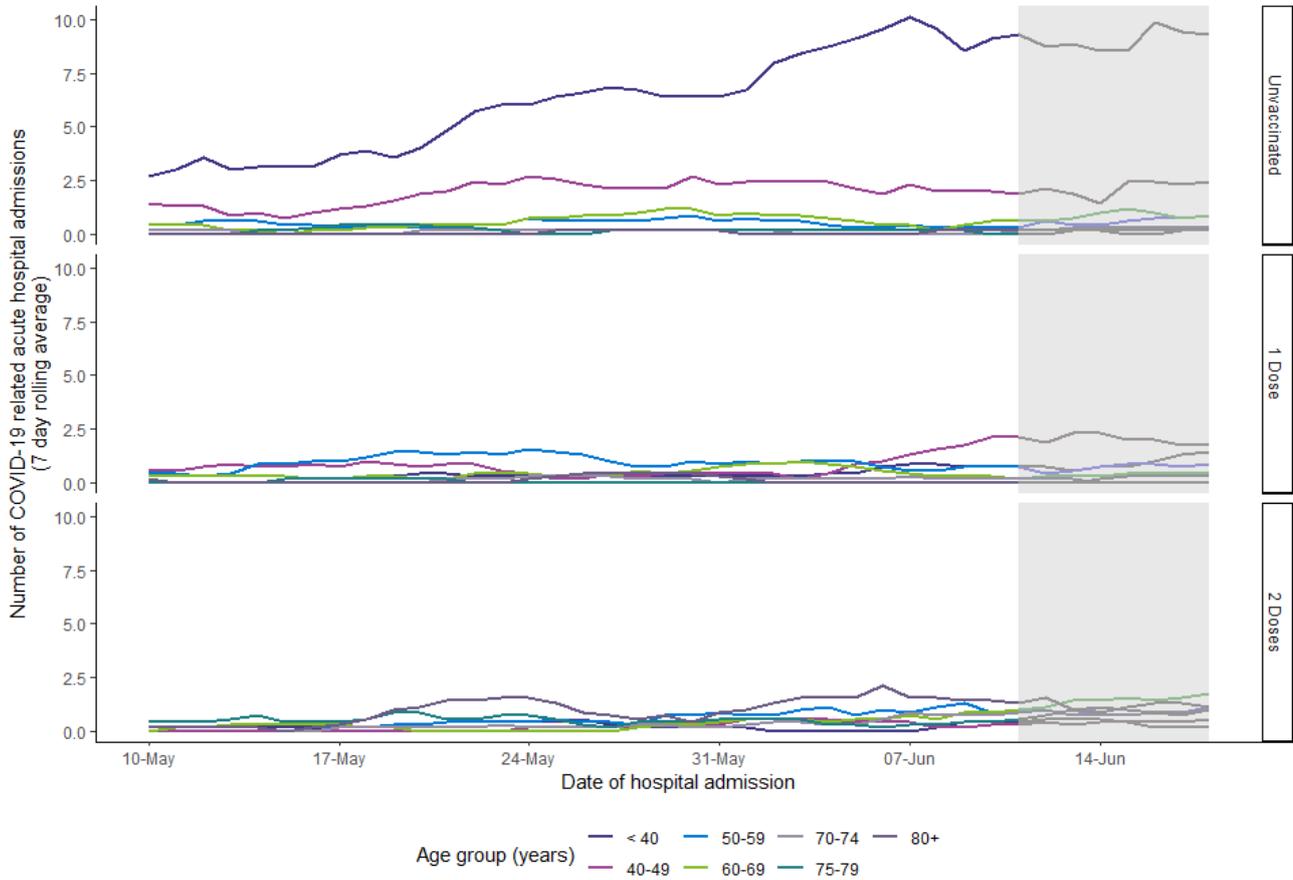
Table 18: COVID-19 related acute hospital admissions by S-gene target, 10 May 2021 to 18 June 2021

| S-gene | No. of COVID-19 related acute hospitalisations / No. of people eligible for COVID-19 vaccination or vaccinated (%) | | |
|-----------------|--|---------------------------------|---------------------------------|
| | Unvaccinated | 1 Dose | 2 Doses |
| S-gene positive | 168 / 1,498,616 (0.011%) | 70 / 1,017,442 (0.007%) | 45 / 2,371,580 (0.002%) |
| S-gene negative | 92 / 1,498,616 (0.006%) | 19 / 1,017,442 (0.002%) | 10 / 2,371,580 (<0.001%) |
| Not available | 169 / 1,498,616 (0.011%) | 39 / 1,017,442 (0.004%) | 103 / 2,371,580 (0.004%) |
| Total | 429 / 1,498,616 (0.029%) | 128 / 1,017,442 (0.013%) | 158 / 2,371,580 (0.016%) |

Symptomatic status is determined at the point of contact tracing, may be conducted prior to hospitalisation and could be subject to bias. Vaccination status is determined as at the date of hospital admission according to the definitions described above. A proportion of PCR tests are able to have their S gene status determined at lighthouse labs. S-gene results are not available for tests undertaken by the UK Government and regional test labs.

Where data is available, unvaccinated individuals are more likely to have a COVID-19 related acute hospital admission irrespective of their S-gene result.

Figure 9: Seven-day rolling average COVID-19 related acute hospital admissions by vaccine status and by age group, 10 May 2021 to 18 June 2021



Symptomatic status is determined at the point of contact tracing, may be conducted prior to hospitalisation and could be subject to bias. Vaccination status is determined as at the date of hospital admission according to the definitions described above. Patient age is determined as their age the date of admission. The data displayed within the greyed out section (1 week) are considered preliminary and are subject to change as more data is updated.

60% of COVID-19 related acute hospital admissions were in unvaccinated individuals, of which 68% were in the under 40s age group.

COVID-19 across the NHS

Charts for a number of measures related to COVID-19 service use in the NHS were presented in the report up until 15 July. Up to date data for these measures are available to view in our [interactive dashboard](#).

This includes:

- Number of positive confirmed cases per day and cumulative total
- Positive cases by age, sex and SIMD
- COVID-19 admissions to hospital
- COVID-19 patients admitted to ICU
- COVID19 Hub and Assessment Consultations
- COVID-19 related contacts to NHS 24 and calls to Coronavirus helpline
- SAS (Scottish Ambulance Service) Incidents related to COVID-19

Wider Impact of COVID-19

The COVID-19 pandemic has direct impacts on health as a result of illness, hospitalisations and deaths due to COVID-19. However, the pandemic also has wider impacts on health, healthcare, and health inequalities. Reasons for this may include:

- Individuals being reluctant to use health services because they do not want to burden the NHS or are anxious about the risk of infection.
- The health service delaying preventative and non-urgent care such as some screening services and planned surgery.
- Other indirect effects of interventions to control COVID-19, such as changes to employment and income, changes in access to education, social isolation, family violence and abuse, changes in the accessibility and use of food, alcohol, drugs and gambling, or changes in physical activity and transport patterns.

More detailed background information on these potential impacts is provided by the Scottish Public Health Observatory in a section on [Covid-19 wider impacts](#).

The surveillance work stream of the Public Health Scotland social and systems recovery cell aims to provide information and intelligence on the wider impacts of COVID-19 on health, healthcare, and health inequalities that are not directly due to COVID-19. The [wider impact dashboard](#) can be viewed online and includes the following topics:

- Hospital and unscheduled care
- Healthcare for cardiovascular disease
- Healthcare for mental health
- New cancer diagnoses
- Uptake of pre-school immunisations
- Coverage of health visitor child health reviews
- Infant feeding
- Child development
- Women booking for antenatal care
- Terminations of pregnancy
- Births and babies
- Excess deaths

These analyses are based on a selected range of data sources that are available to describe changes in health service use in Scotland during the COVID-19 pandemic. More detailed information is available at NHS Board and Health and Social Care Partnership (HSCP) level.

Weekly National Seasonal Respiratory Report

Since 14 October Public Health Scotland is also publishing a weekly report on epidemiological information on seasonal influenza activity in Scotland. Due to COVID health care services are functioning differently now compared to previous flu seasons so the consultation rates are not directly comparable to historical data.

This is available to view here:

<https://beta.isdscotland.org/find-publications-and-data/population-health/covid-19/weekly-national-seasonal-respiratory-report/>

Surveillance of influenza infection is a key public health activity as it is associated with significant morbidity and mortality during the winter months, particularly in those at risk of complications of flu e.g. the elderly, those with chronic health problems and pregnant women.

The spectrum of influenza illness varies from asymptomatic illness to mild/moderate symptoms to severe complications including death. In light of the spectrum of influenza illness there is a need to have individual surveillance components which provide information on each aspect of the illness. There is no single flu surveillance component that can describe the onset, severity and impact of influenza or the success of its control measures each season across a community. To do so requires a number of complimentary surveillance components which are either specific to influenza or its control, or which are derived from data streams providing information of utility for other HPS specialities (corporate surveillance data). Together, the influenza surveillance components provide a comprehensive and coherent picture on a timely basis throughout the flu season. Please see the [influenza page on the HPS website](#) for more details.

Contact

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Further Information

COVID surveillance in Scotland

[Scottish Government](#)

[Daily Dashboard by Public Health Scotland](#) [National Records of Scotland](#)

UK and international COVID reports

[Public health England](#)

[European Centre for Disease Prevention and Control](#)

[WHO](#)

[International Severe Acute Respiratory Emerging Infection Consortium.](#)

The next release of this publication will be 30 June 2021.

Open data

Data from this publication is available to download from the [Scottish Health and Social Care Open Data Portal](#).

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Appendices

Appendix 1 – Background information

In late December 2019, the People’s Republic of China reported an outbreak of pneumonia due to unknown cause in Wuhan City, Hubei Province.

In early January 2020, the cause of the outbreak was identified as a new coronavirus. While early cases were likely infected by an animal source in a ‘wet market’ in Wuhan, ongoing human-to-human transmission is now occurring.

There are a number of coronaviruses that are transmitted from human-to-human which are not of public health concern. However, COVID-19 can cause respiratory illness of varying severity.

On the 30 January 2020 the World Health Organization [declared that the outbreak constitutes a Public Health Emergency of International Concern](#).

Extensive measures have been implemented across many countries to slow the spread of COVID-19.

Further information for the public on COVID-19 can be found on [NHS Inform](#).

Appendix 2 – World Health Organisation (WHO) Standard for Contact Tracing and Scotland Wide Performance Reporting

Details for this standard were previously published and are available within the [Weekly Covid-19 Statistical report \(publication date 27 January 2021\)](#).