

STATISTICS

# Testing data for coronavirus (COVID-19): up to 21 March 2021

Management information update on coronavirus testing up to 21 March 2021.

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This statistical release summarises weekly coronavirus (COVID-19) testing information provided by Public Health Wales and NHS Wales Informatics Service (NWIS). This includes information on the number of tests authorised through laboratories of antigen tests (including a breakdown by key worker and residents where key workers are employed), turnaround times of antigen tests, and the number of antibody tests for key workers and residents.

Tests for coronavirus (COVID-19) are categorised as either antigen tests or antibody tests. The antigen test, which is commonly known as a swab or PCR (polymerise chain reaction) test, is used to test whether a person is currently infected with coronavirus. The antibody test is used to find out whether a person has previously had the virus. Please see **quality and methodology section** for more information.

Antigen lateral flow tests (such as those being used in mass testing centres) are not included in this publication. If a person receives a positive result from an antigen lateral flow test they are advised to complete a PCR test which would be tested in a laboratory, this PCR test would appear in the data presented in this

release. More information is available in the **background section**.

The data are taken from management information and are subject to change. They have not been subject to the same validation processes undertaken for official statistics releases. We are publishing these data to provide a weekly summary of testing activity in Wales, including tests on critical workers, residents and the timeliness of tests. This statistical release is evolving and we appreciate feedback to improve the content.

#### Public Health Wales (PHW) publishes a daily surveillance

**dashboard** including data on authorised tests, testing episodes, positive cases, incidence and deaths due to COVID-19. This is a **weekly summary** of this information, plus additional detail on the number of tests on critical workers and the location that the test sample was collected and turnaround times of tests. The data in this release starts on the 18 March 2020 for daily testing data, and from the week commencing 20 April 2020 for weekly testing data (including turnaround times).

Further detail about the data in this release can be found in the **quality and methodology section** and also in our data explainer, **Understanding data on coronavirus (COVID-19) testing**. These provide further explanation on the data used, including the difference in test dates, location of test and data sources.

Accompanying tables for this release are available separately, including all the data shown in this release and historical data.

## Main results

- Antigen lab capacity in NHS Wales laboratories was 15,167 up to 21 March 2021. This does not include capacity at UK laboratories, where some Welsh residents' samples are processed.
- As at 9am on 21 March 2021, there have been 2.94 million antigen tests authorised for Welsh residents.
- There have been a total of 1.30 million antigen tests performed on critical workers and residents where critical workers are employed in Wales.
- Up to the end of 21 March 2021, 91,571 antibody tests have been authorised

for Welsh residents with 11,370 positive results.

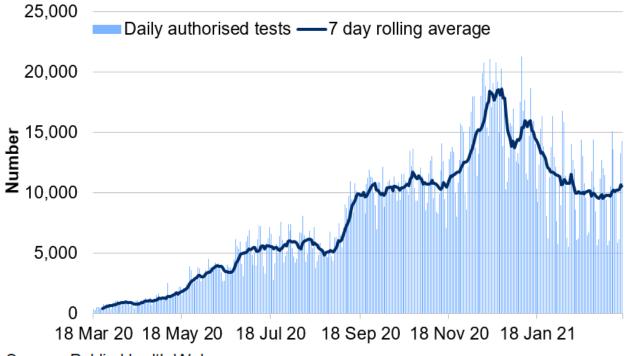
In the latest week (15 to 21 March 2021):

- 95.7% of tests requiring a rapid turnaround were completed within one calendar day\*
- 97.5% of community and mass testing in person tests and 93.4% of hospital tests processed in NHS Wales laboratories were authorised in one day
- 96.8% of community tests processed in non-NHS Wales laboratories were authorised in one day\*
- 75.9% of tests via the organisation portal and 70.2% of home tests were authorised within one day. (See Understanding data on coronavirus (COVID-19) testing for more information about test location categories.)

\*Tests requiring a rapid turnaround time are samples collected at hospitals, community and mass testing: in person sites processed in NHS Wales laboratories and samples collected at community test centres processed in non-NHS Wales laboratories.

## **Antigen tests**

## Chart 1: Total number of antigen tests authorised through NHS Wales and non-NHS Wales laboratories as of 21 March 2021



Source: Public Health Wales

## Total number of antigen tests authorised through NHS Wales and non-NHS Wales laboratories at 9am on 21 March 2021 (MS Excel)

Chart 1 shows the number of tests authorised in both NHS Wales and non-NHS Wales laboratories. These figures include tests processed through laboratories outside NHS Wales, which includes tests for Welsh residents taken at testing centres in England, testing centres in Wales, tests ordered through the organisation portal and home testing kits.

The highest number of tests authorised in a single calendar day was on 7 January 2021, where 21,294 tests were authorised in NHS Wales and non-NHS Wales laboratories.

Tests processed through non-NHS Wales laboratories began to increase

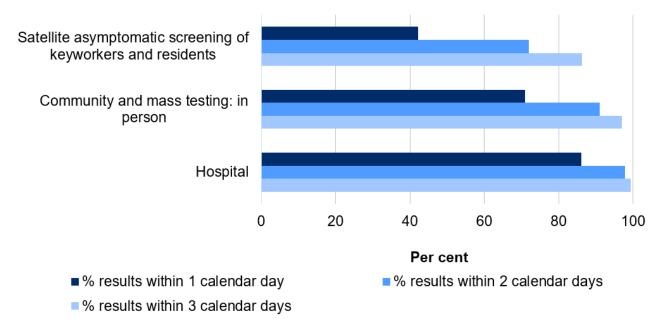
towards the end of June 2020. This is largely due to Welsh residents beginning to book tests through the newly available organisation portal. In the weeks beginning 31 August and 7 September 2020 there was a large growth in the number of authorised tests, this is due to a large increase in community and organisational portal in non-NHS Wales laboratories as demand for testing increased. Higher demand for testing around Christmas is reflected in the data from the end of November to the beginning of January.

### **Turnaround times for antigen tests**

The figures shown are measured from the date a sample is recorded as being collected to the time the result is authorised. It does not indicate how long it takes for an individual to receive their result from point of testing.

Data on the time taken to receive a COVID-19 test result is split by testing route, as this will have an impact on the time taken to complete the test processing. Community tests have been split out by different pathways, with tests completed due to clinical need reported separately to tests completed to screen individuals who have been identified as asymptomatic key workers or residents.

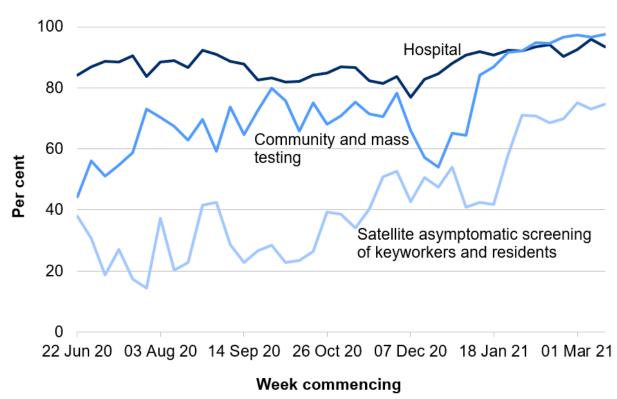
#### Chart 2: Cumulative proportion of antigen tests authorised from NHS Wales laboratories within one, two and three calendar days as at end 21 March 2021



Source: Public Health Wales

Cumulative proportion of antigen tests authorised from NHS Wales laboratories within one, two and three calendar days as at end 21 March 2021 (MS Excel)

# Chart 3: Proportion of antigen tests authorised in one calendar day through NHS Wales laboratories as at end 21 March 2021



Source: Public Health Wales

## Proportion of antigen tests authorised in one calendar day through NHS Wales laboratories as at end 21 March 2021 (MS Excel)

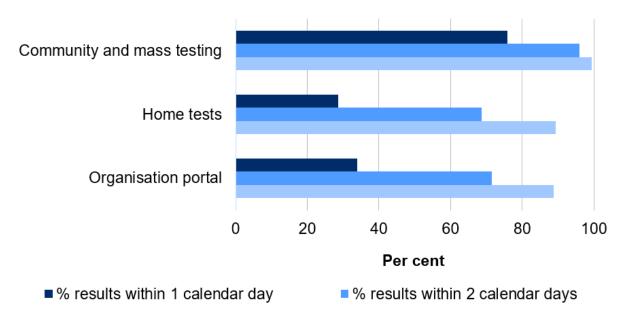
In general the percentage of tests returned within one calendar day for hospital testing has remained relatively stable over the longer term, with an overall increase since early December 2020. For community testing, there has been a general increase over time, with an overall increase since late December 2020. Since the beginning of October 2020, there has been an overall increase in the percentage of satellite asymptomatic tests returned within one calendar day.

In the latest week (15 to 21 March 2021):

• there have been 5,023 tests authorised as part of a key worker satellite asymptomatic screening programme with 74.7% authorised within one day, an increase of 1.7 percentage points compared to the previous week

- there have been 4,277 tests authorised as part of community and mass testing in person with 97.5% authorised within one day, an increase of 0.7 percentage points compared to the previous week
- there have been 13,255 tests authorised at hospital with 93.4% authorised within one day, a decrease of 2.5 percentage points compared to the previous week

## Chart 4: Cumulative proportion of antigen tests authorised from non-NHS Wales laboratories within one, two and three calendar days as at end 21 March 2021

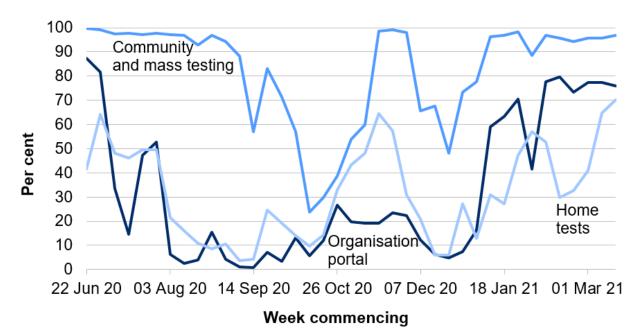


% results within 3 calendar days

Source: Public Health Wales

Cumulative proportion of antigen tests authorised from non-NHS Wales laboratories within one, two and three calendar days as at end 21 March 2021 (MS Excel)

# Chart 5: Proportion of antigen tests authorised in one calendar day through non-NHS Wales laboratories as at end 21 March 2021



Source: Public Health Wales

#### Proportion of antigen tests authorised in one calendar day through non-NHS Wales laboratories as at end 21 March 2021 (MS Excel)

The percentage of tests turned around in one calendar day have increased through all portals after the lower rates seen in December 2020.

In the latest week (15 to 21 March 2021):

- there have been 24,446 organisation portal tests authorised with 75.9% authorised within one calendar day
- there have been 6,137 home tests authorised with 70.2% authorised within one calendar day
- there have been 21,731 tests authorised from community tests processed in non-NHS Wales laboratories with 96.8% authorised within one calendar day

Turnaround times of Non-NHS Wales labs are generally volatile and should be considered in line with processing, policy, prioritisation and demand within the

Department of Health and Social Care (DHSC).

### **Critical workers and residents**

The number of tests as part of satellite asymptomatic screening of key workers and residents decreased at the beginning of August 2020 coinciding with the care homes testing policy from weekly to fortnightly testing. Increases from the end of September 2020 reflects the increases in number of test with most areas having moved back to weekly testing in response to rising incidence and transmission rates. The current testing policy for key workers and social care staff is to have access to twice weekly testing, this testing uses lateral flow tests and is therefore not included in the data presented in this release.

Up to 21 March 2021, 83.7% of tests for satellite asymptomatic screening of key workers and residents processed in NHS Wales laboratories are for care homes. In the latest week 74.0% of asymptomatic screening of key workers were for care home staff. The breakdown is provided in the **accompanying data tables**.

In the latest week (15 to 21 March 2021):

- around 87.6% of all tests for critical workers were performed on care home residents or care home workers
- around 13.0% of tests conducted for healthcare workers identified positive results

## Antibody tests

There are two types of antibody test. Both require a blood sample and currently need to be carried out by trained staff and different procedures exist in Welsh and English laboratories. Further explanation of antibody testing in Wales can be found on our policy pages: **Antibody testing: coronavirus (COVID-19)**.

Since testing began up until the end of 21 March 2021 there have been 20,276 antibody tests for key workers or residents in education and 49,598 antibody tests for healthcare key workers. This reflects the sampling strategy of

prioritising antibody testing for these key workers and residents. These data include 13,247 antibody lateral flow tests.

Further breakdowns are provided in the accompanying data tables.

The number of tests and results reflect a snapshot in time and will be greatly influenced by the sampling strategy at that moment in time. Currently antibody testing is only available to priority groups, more information is available in the **Antibody testing: coronavirus (COVID-19)** pages of our website.

If an antibody test is equivocal, it means that the result is inconclusive.

## Background

We are publishing these data to provide a weekly summary of testing activity in Wales, including tests on critical workers, residents and the timeliness of tests. This statistical release is evolving and we appreciate feedback to improve the content.

The first sample processed by a non-NHS Wales laboratory for a Welsh resident was on 24 April 2020. Testing increased with the roll out of home testing on 18 May 2020.

From 13 July 2020, Public Health Wales combined tests and results processed in NHS Wales laboratories and non-NHS Wales laboratories, which were previously reported separately.

The data in this release is based on a mixture of dates at different stages of the testing process, such as specimen date, processing date and authorised date. Each table in the Open Data spreadsheet details the reporting timeframe.

Our data explainer titled **Understanding data on coronavirus (COVID-19) testing** provides further explanation on the data used including the difference in dates and data sources.

Antigen testing in labs from hospital, community mass testing and asymptomatic screening take place in NHS-Wales laboratories. Antigen testing through the

organisational portal (for example care homes), the community portal and home tests take place in non NHS-Wales (lighthouse) laboratories.

Non NHS-Wales laboratories are managed by Department of Health and Social Care (DSHC), data regarding turnaround times can appear volatile. Therefore, care should be taken when interpreting these figures.

Community and mass testing includes samples collected at mass testing centres, community testing units and mobile testing units and pre-operative screening tests.

Antigen lateral flow tests (such as those being used in mass testing centres) are not included in this publication. If a person receives a positive result from an antigen lateral flow test they are advised to complete a PCR test which would be tested in a laboratory, this PCR test would appear in the data presented in this release. This test has a higher likelihood of being positive than other tests in the data as it proceeds a positive lateral flow test and so this might have a small positive effect on the positivity rate of the data.

The majority of samples collected at community testing centres are processed in NHS Wales laboratories, however, a number of these may use the non-NHS Wales laboratories (known as lighthouse laboratories).

Satellite asymptomatic screening of keyworkers and residents are samples collected as part of community key worker screening programmes, such as asymptomatic tests in care homes. Although the term satellite is used, some of the screening tests of asymptomatic keyworkers or residents included in this category may be conducted in person as part of a wider mass and community testing. Public Health Wales are conducting further work to fully understand this distinction and may lead to some reallocation of tests between categories in the future.

COVID-19 antibody tests are used to find out whether a person has previously had the virus. The antibody test works by taking a blood sample and testing for the presence of antibodies. Antibodies are produced by the body in response to an infection and can usually be found in the blood after around 2 weeks following infection. Some local health boards are now using lateral flow tests,

which are finger prick antibody tests with the sample not analysed in a laboratory.

Antibody testing is only available to priority groups at the moment with testing prioritised for a sample of school staff who have previously worked in education hubs and healthcare workers. Further explanation of antibody testing in Wales can be found on our policy pages: **Antibody testing: coronavirus (COVID-19)**.

Data included in this release is correct at 23:59 on 21 March 2021 unless otherwise stated.

## **Quality and methodology information**

## Context

The data is management information which has been collected to support testing operations. We're publishing these data to provide a timely summary of testing activity but they have not undergone the same level of quality assurance as official statistics, with the data subject to future revisions. This weekly summary of COVID-19 testing information includes data from the **Public Health Wales** (PHW) daily surveillance dashboard, plus further detail on the number of tests on critical workers and the location that the test sample was collected.

This information helps to monitor the impact of COVID-19 and contribute to Wales monitoring and decision-making.

Between the weeks commencing 14 September 2020 and 12 October 2020, following changes in the source data provided by non-NHS Wales Laboratories, there were issues with allocating testing data to different pathways. This has now been resolved and a permanent solution is in place which is reflected in the data from the week commencing 19 October 2020. The interim solution used by Public Health Wales during this period was robust, therefore the data is comparable.

Reduction in turnaround times for the organisation portal from 27 July 2020 were

caused by capacity issues while community tests were prioritised. Improvements in laboratory processes caused an increase in turnaround times for community and home tests on the 16 November 2020.

On the evening of Friday 11 December 2020, there was planned maintenance of the Welsh Laboratory Information Management System (WLIMS), the source of the COVID-19 testing data, to allow essential service upgrades to take place. As anticipated, this affected the testing data flows from the WLIMS, therefore there was no update of the Public Health Wales (PHW) dashboard figures on Sunday 13 December 2020.

Turnaround times were effected by planned maintenance of the Welsh Laboratory Information Management System (WLIMS) system on the week beginning 7 December 2020.

On Monday 14 December 2020, figures were updated for the period of 1pm on Friday 11 to 9am on Sunday 13 December 2020, a total of 44 hours. However the data flows for tests from the WLIMS had been affected during this period.

In the week beginning the 15 December 2020 PHW changed their most recent 7 days incidence from a lag of 37 hours from sample collection date to inclusion within this measure to 81 hours. This change allows for the inclusion of more consistently complete data and results in a more accurate figure and so we have also removed the most recent four days from our data.

#### Relevance

Public Health Wales analyse patient testing data from Welsh Laboratory Information System (WLIMS) as part of their disease surveillance responsibilities. In addition, these statistics are used daily for a number of other purposes:

- to understand the impact of the COVID-19 pandemic
- to support evidence-based advice on future decisions around reviews of lockdown arrangements
- contributions to Wales and UK wide monitoring and decision-making

Data on the time taken to receive a COVID-19 test result is split by testing route, as this will have an impact on the time taken to complete the test processing:

- home tests need to be posted and couriered to the laboratory
- screening tests in settings such as care homes may be completed in batches of tests across different staff shifts before returning the tests by courier

These methods can have an impact on the turnaround time of the test.

Screening care home tests processed by NHS Wales laboratories are included in the satellite asymptomatic screening of key workers figures.

Tests carried out as part of satellite asymptomatic screening of key workers and residents which are authorised in NHS Wales laboratories are mainly satellite tests. However, there may be a small proportion which are in person screening of key workers at testing sites. Satellite tests are when the sample is collected in a different setting other than a testing centre, for example care homes. Once the sample has been collected a courier is requested to collect the samples and deliver to a laboratory for processing. Care homes may complete batches of tests across different staff shifts before returning the tests by courier. These methods can have an impact on the turnaround time of the test with a large number of tests included in these categories being from care homes.

Although the term satellite is used, some of the screening tests of asymptomatic key workers or residents included in this category may be conducted in person as part of wider mass and community testing. Further work is needed to fully understand this distinction and may lead to some reallocation of tests between categories in future releases.

## Accuracy

Public Health Wales Communicable Disease Surveillance Centre is responsible for carrying out surveillance of respiratory infections in Wales including the coronavirus (COVID-19).

Clinical data is stored in the Welsh Laboratory Information System (WLIMS), this

includes COVID-19 testing data. The data is accessed and cleansed by Public Health Wales analysts, this includes removing duplicate positive cases prior to publishing the data on their daily surveillance dashboard. The data is revised on a daily basis and is classed as provisional subject to future revision.

Different test dates have been used when reporting test data depending on the nature of the data and the use. For rapid surveillance data the authorised test date has been used and is included in the headline figures presented by Public Health Wales, whereas for detailed surveillance over time the specimen date has been used.

Further information can be found in our data explainer: **Understanding data on coronavirus (COVID-19) testing**.

#### **Timeliness and punctuality**

The data in this release provides data from the 18 March 2020 and onwards.

#### Accessibility and clarity

This statistical release has been pre-announced and then published on the **Statistics and Research section of our website**. It is accompanied by an **Open Document Spreadsheet** to allow users to have direct access to the data that underlies the charts in this release.

## Comparability

Public Health Wales produce a **daily surveillance dashboard** where users can access the most up to date information on the number of tests authorised, individuals tested (testing episodes) and positive cases.

Data for **England** is published on the **Coronavirus (COVID-19) in the UK** pages of the GOV.UK website.

Data for Scotland is published on the Coronavirus (COVID-19): daily data for

Scotland pages of the GOV.SCOT website.

The Department of Health and Social Care (DHSC) also publish daily information on tests and positive cases.

The type of antigen (swab) test processed differs between Welsh and English laboratories. The type of test processed through Welsh laboratories involves a 'single dry swab' taken from the back of the throat. Tests processed through English laboratories involve 'two wet swab' sample collections taken from the nose and throat.

#### **National Statistics status**

These statistics are not National Statistics. However, as far as has been practicable, they have been collected and validated in accordance with the pillars and principles within the **Code of Practice for Statistics**. We continue to develop the data collection and quality assurance process to improve the data.

These statistics have been produced quickly in response to developing world events.

## Well-being of Future Generations Act

The Well-being of Future Generations Act 2015 is about improving the social, economic, environmental and cultural wellbeing of Wales. The Act puts in place seven wellbeing goals for Wales. These are for a more equal, prosperous, resilient, healthier and globally responsible Wales, with cohesive communities and a vibrant culture and thriving Welsh language. Under section (10)(1) of the Act, the Welsh Ministers must (a) publish indicators ('national indicators') that must be applied for the purpose of measuring progress towards the achievement of the wellbeing goals, and (b) lay a copy of the national indicators before Senedd Cymru. The 46 national indicators were laid in March 2016.

Information on the indicators, along with narratives for each of the well-being goals and associated technical information is available in the **Well-being of** 

#### Wales report.

Further information on the Well-being of Future Generations (Wales) Act 2015.

The statistics included in this release could also provide supporting narrative to the national indicators and be used by public services boards in relation to their local wellbeing assessments and local wellbeing plans.

#### Next update

The next release will be on Wednesday 31 March 2021.

#### We want your feedback

We welcome any feedback on any aspect of these statistics which can be provided by email to kas.covid19@gov.wales.

## **Contact details**

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## About this document

This document is a copy of the web page **Testing data for coronavirus** (COVID-19): up to 21 March 2021 downloaded.

Go to https://gov.wales/testing-data-coronaviruscovid-19-21-march-2021-html for the latest version.

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