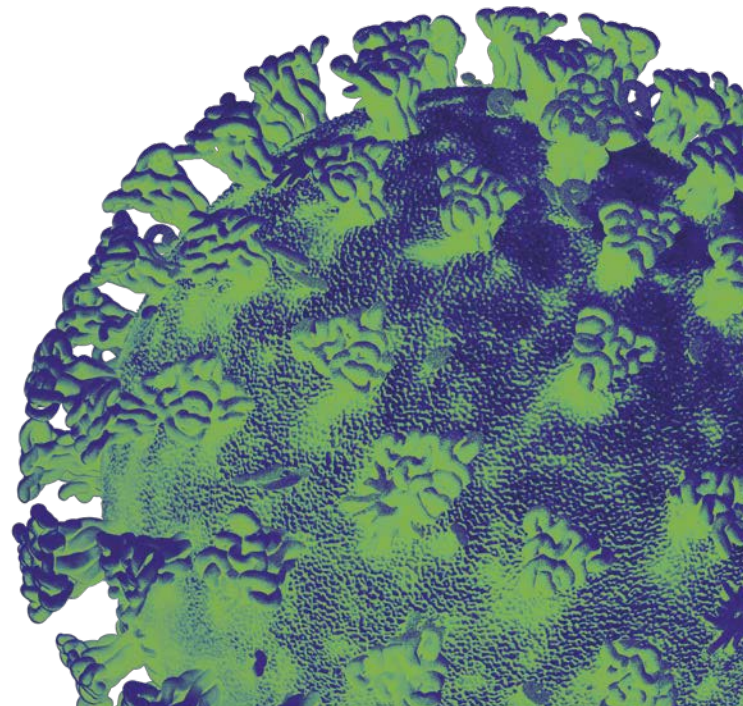
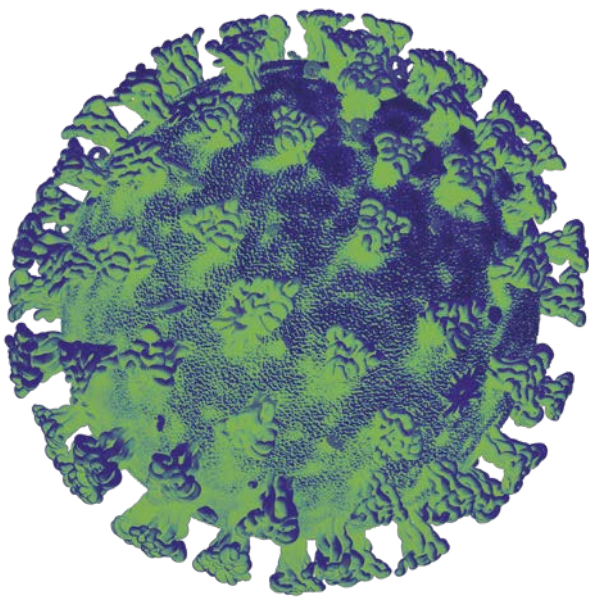
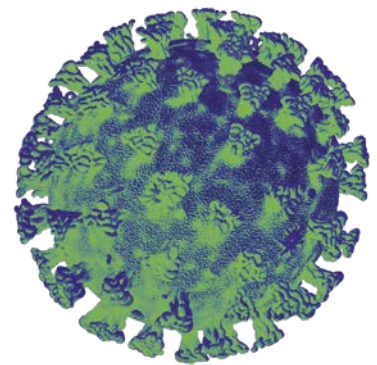




Advice from the Technical Advisory Cell and Chief Scientific Advisor for Health: 21-Day Review

07 June 2022



This advice has been drafted based on the available evidence at the time of writing and has been assembled to support policy colleagues and Welsh ministers. The purpose of scientific advice is to provide an overview of what we know from scientific and technical investigations, what we can infer indirectly from the evidence base or by a consensus of expert opinion. This is advice, not Welsh Government policy.

Top Line Summary

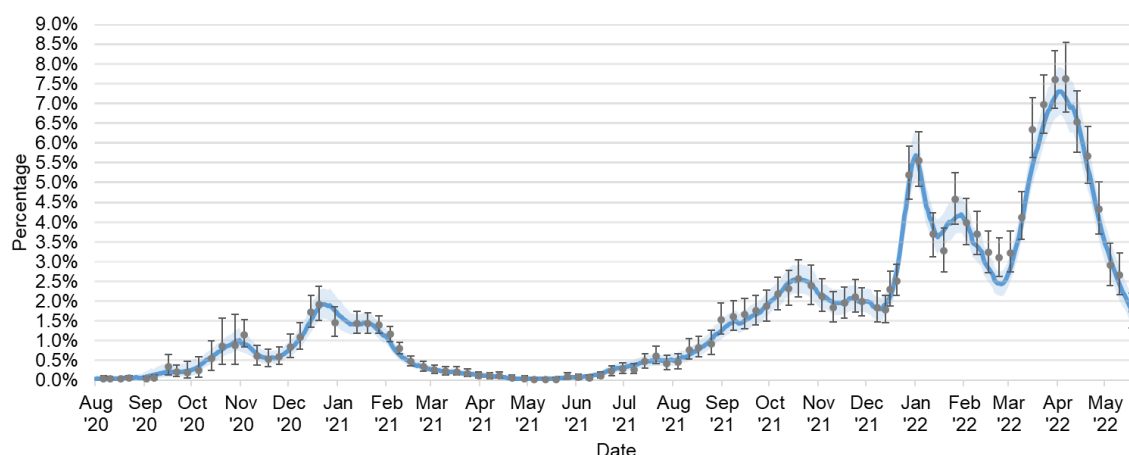
- As at 7 June, NHS Wales remains under considerable pressure, although the COVID-19 situation continues to improve compared to the previous week.
- As at 25 May 2022, UKHSA's Epidemiology Modelling Review group estimate the Reproduction number (Rt) for Wales to be between 0.7 and 9, with a halving time of 19 days.
- The ONS community infection survey estimates that for the period 21 to 27 May 2022, 1.30% of the community population in Wales had COVID-19 (95% credible interval: 0.97% to 1.17%). This equates to approximately 1 person in every 75 (95% credible interval: 1 in 100 to 1 in 60), or 39,600 people during this time (95% credible interval: 29,400 to 52,000).
- NHS staff absence figures up to 30 May show absence due to self-isolation of 0.4% and due to COVID-19 sickness of 0.7%.
- As at 25 May, 103 adult care homes in Wales have notified CIW of one or more confirmed cases of COVID-19, in staff or residents, in the last 20 days. There are 1,033 adult care homes and 17 adult and child care homes in Wales. In the last two weeks, there have been 8 reported deaths of care home residents relating to suspected or confirmed COVID-19. (Source: [StatsWales](#)).
- The WHO Weekly Epidemiological Update [dated 25 May](#) reports that globally, the number of new weekly cases has continued the declining trend observed since a peak in January 2022.
- As at 31 May PHW report 12 cases of BA.4 and 11 cases of BA.5 confirmed in Wales.
- This week's medium term projections (MTPs) are similar to last week's MTPs. They project that NHS pressure and deaths will stabilise at a low level in the coming months.
- As set out in previous advice, sustaining adherence to key personal protective behaviours will require a continued focus on communicating their effectiveness, providing appropriate environmental cues, targeting support as necessary and ensuring supporting in reducing infection.

1. Wales situation

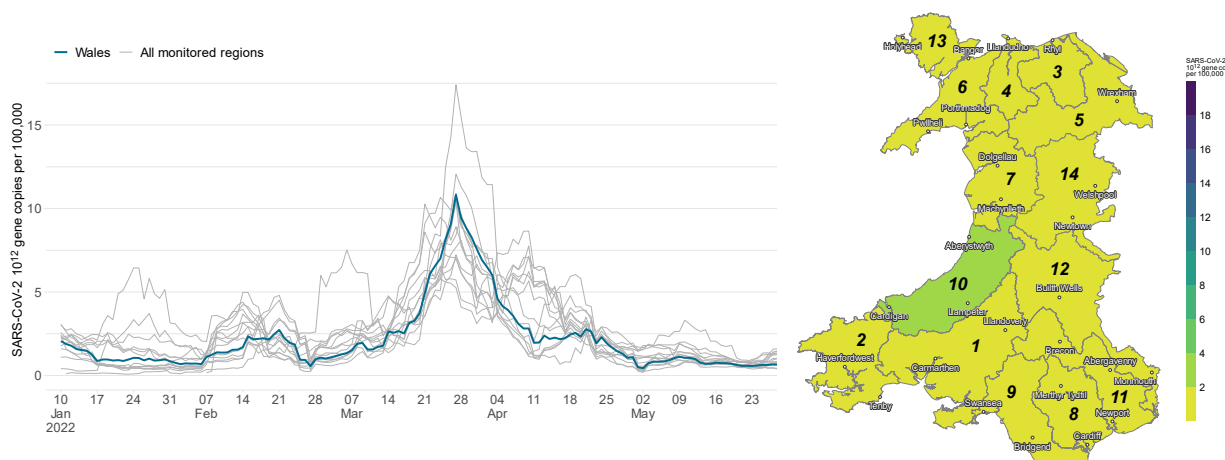
- The last COVID-19 Situational Report was dated 19 May 2022; this product has now been placed on hold.

Case and infection surveillance

- Recent reporting from the [ONS COVID Infection Survey](#), which provides a relatively unbiased but lagged estimate of levels of infection, estimates for the period 21 to 27 May 2022, 1.30% of the community population had COVID-19 (95% credible interval: 0.97% to 1.17%). This equates to approximately 1 person in every 75 (95% credible interval: 1 in 100 to 1 in 60), or 39,600 people during this time (95% credible interval: 29,400 to 52,000). Overall the percentage of people testing positive for COVID-19 in Wales continued to decrease in the most recent week. Caution should be taken in over-interpreting any small movements in the latest trend.



- Wastewater surveillance dated 1 June 2022 suggests that the SARS-CoV-2 viral load has increased across the country. However, the signal has remained level at the South East Valleys and Tawe to Cadoxton regions. The trends in the national mean wastewater signal are unstable.



- Lagged [ONS death registration reporting](#) up to 20 May shows the total number of deaths registered in Wales was 720; 12 lower than the previous week and 14.1%

above the five-year average (89 more deaths). 2.5% of total deaths involved COVID-19 (18 deaths).

- As at 25 May, 34 adult care homes in Wales have notified CIW of one or more confirmed cases of COVID-19, in staff or residents, in the last 7 days. 103 adult care homes in Wales have notified CIW of one or more confirmed cases of COVID-19, in staff or residents, in the last 20 days. There are 1,033 adult care homes and 17 adult and child care homes in Wales. In the last two weeks, there have been 8 reported deaths of care home residents relating to suspected or confirmed COVID-19. (Source: [StatsWales](#)).
- As at 25 May 2022, UKHSA's Epidemiology Modelling Review group estimate the Reproduction number (Rt) for Wales to be between 0.7 and 9, with a halving time of 19 days.
- PHW [report](#) that confirmed influenza case numbers have increased during April, and include a number of community cases confirmed in sentinel GPs. **This is later than usual seasonal activity, at low levels.** During Week 20 (ending 22/05/2022) there were 28 cases of influenza confirmed. COVID-19 cases continue to be detected in symptomatic patients in hospital and in the community. Rhinovirus and parainfluenza are the most commonly detected cause of non-COVID-19 Acute Respiratory Infection (ARI), with increasing confirmed cases in recent weeks. There has been a small decrease in confirmed cases of RSV activity, this unseasonal activity is currently at low levels.

Vaccination and immunity

- The Joint Committee on Vaccination and Immunisation (JCVI) has provided interim advice to the government regarding COVID-19 booster doses this Autumn for the purposes of operational planning for the health and care sector. JCVI recommends that a COVID-19 vaccine should be offered to those groups most at risk of hospitalisation or death, as well as to health and care staff. These groups are:
 - residents in a care home for older adults and staff;
 - frontline health and social care workers;
 - all those 65 years of age and over;
 - adults aged 16 to 64 years who are in a clinical risk group.
- According to PHW there are around 681,000 people aged 65 and over in Wales, around 180,000 health care and care home workers and at least 45,000 social care workers. Around 76,000 people aged 16-69 are classed as clinically extremely vulnerable and 350,825 aged 5-64 in a clinical risk group (including those aged 5-15 who would be ineligible under current advice). Source: [COVID-19 vaccination - PHW](#).
- The JCVI will continue its on-going review of the vaccination programme and the scientific data, particularly in relation to the timing and value of doses for less vulnerable older adults and those in clinical risk groups ahead of autumn 2022. The committee will announce its final plans for the autumn programme, including further detail on the definitions of clinical risk groups, in due course.

NHS capacity and mortality

- As at 7 June, NHS Wales remains under considerable pressure, although the COVID-19 situation continues to improve compared to the previous week. The total number of COVID related patients in hospital beds today is 484. This is seven higher than yesterday and 48 (9%) lower than the same day last week.
- The number confirmed COVID patients in hospital currently occupying a bed is 152. This is two lower than yesterday and six lower than the same day last week.
- The number of occupied surge and normal beds in a critical care environment today is 174, which is 22 higher than the pre-COVID baseline of 152 for critical care beds. This is two higher than yesterday and three higher than the same day last week.
- The number of COVID related patients in critical care today was 6 patients occupying a bed. This is two lower than yesterday and two lower than the same day last week.
- Today's data showed that of the 123 confirmed COVID patients in an acute and major acute hospital bed (excluding Velindre), 15 patients (12%) are actively being treated for COVID.
- As at 25 May 2022, deaths in confirmed COVID-19 cases in hospital, reported by clinicians through PHW mortality rapid surveillance, increased within March 2022 (although at lower levels compared to previous waves). In recent weeks reported deaths have reduced and are more stable, with 19 deaths reported in the most recent week. In deaths where information is available from PHW rapid mortality surveillance, chronic heart disease, Type 2 diabetes and chronic respiratory disease are the most commonly reported risk factors (in 34%, 27% and 22% of deaths respectively).
- NHS staff absence figures up to 30 May show absence due to self-isolation of 0.4% and due to COVID-19 sickness of 0.7%.¹

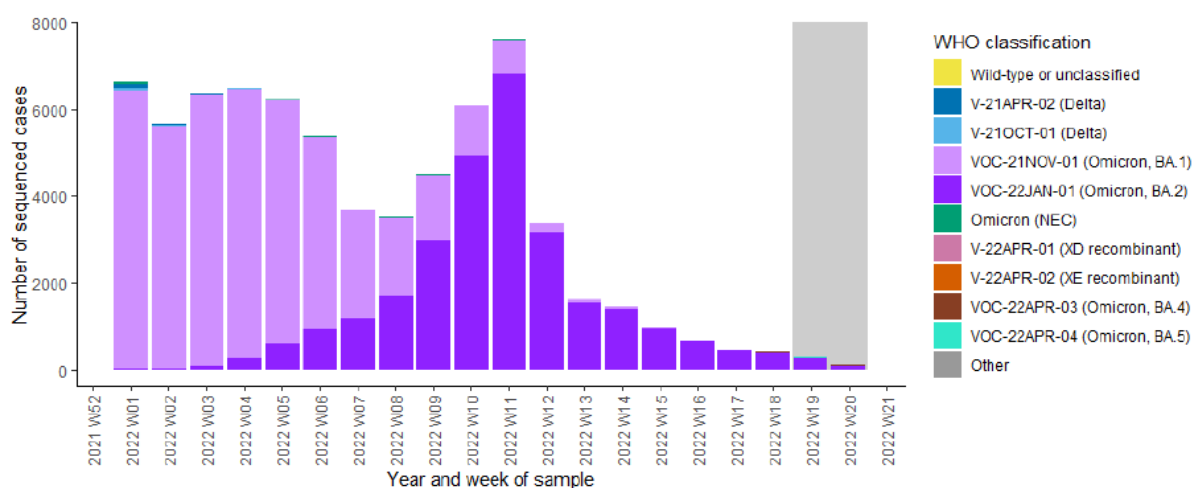
Public Health Wales variant surveillance, 31 May ([Source link](#))

- In the latest reporting week (2022 W21) there were no variants sequenced, however, this should be interpreted with caution as this is indicative of a lag in the sequencing data. In the previous week (2022 W20), 88% of sequenced cases were VOC-22JAN-01 (Omicron, BA.2).
- The current dominant variant in Wales is VOC-22JAN-01 (Omicron, BA.2) which accounted for 86.3% of sequenced cases in the last 14 days.
- As of 31/05/2022 there have been:

¹ [COVID-19 in Wales: interactive dashboard | GOV.WALES](#)

- 57,113 cases of VOC-21NOV-01 (Omicron, BA.1)
- 28,523 cases of VOC-22JAN-01 (Omicron, BA.2)
- 0 cases of V-22APR-01 (Omicron, XD)
- 47 cases of V-22APR-02 (Omicron, XE)
- 12 cases of VOC-22APR-03 (Omicron, BA.4)
- 11 cases of VOC-22APR-04 (Omicron, BA.5)
- In the reporting week 2022 W18 there were 7 Critical Care Admission (CCA) cases, 71% of these had a sequencing result for Omicron. Please note, not all CCA cases are sequenced.

Figure: Epicurve of all sequenced variant cases in Wales, data as at 24/05/2022, Public Health Wales Variant Surveillance Update



Please note data in the grey shaded region is indicative of a lag in sequencing data and should be interpreted with caution.

2. Situation in the UK and comparator regions

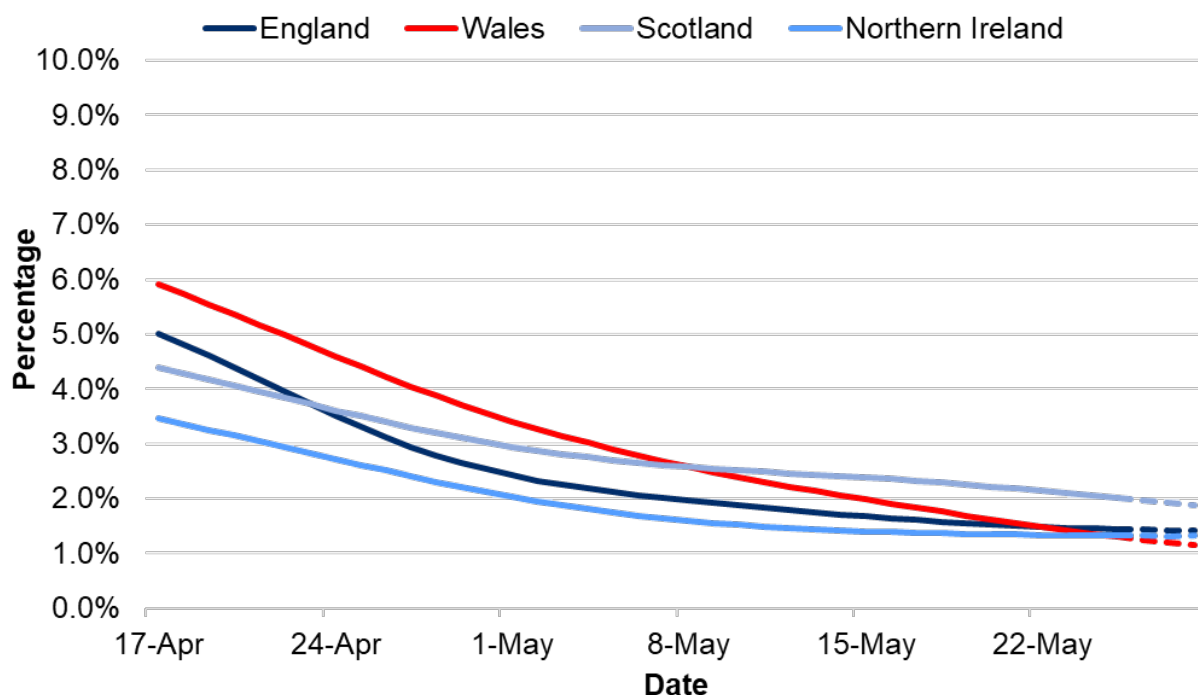
UK Overview

UK Infection positivity – ONS Coronavirus Infection Survey, 22 to 28 May 2022

- During the most recent period, it is estimated that an average of 39,600 people in Wales had COVID-19 (29,400 to 52,000) equating to 1 in 75 people (1 in 100 to 1 in 60). This compares to 1 in 70 people in England (1 in 75 to 1 in 65), around 1 in 75 people (1 in 110 to 1 in 55) in Northern Ireland and 1 in 50 people (1 in 60 to 1 in 40) in Scotland.
- The percentage of people testing positive for COVID-19 has decreased in the latest week in Wales, England and Scotland, the trend is uncertain in Northern Ireland.
- Note that there is uncertainty around the estimates and credible intervals are provided in the figures above to indicate the range within which we may be

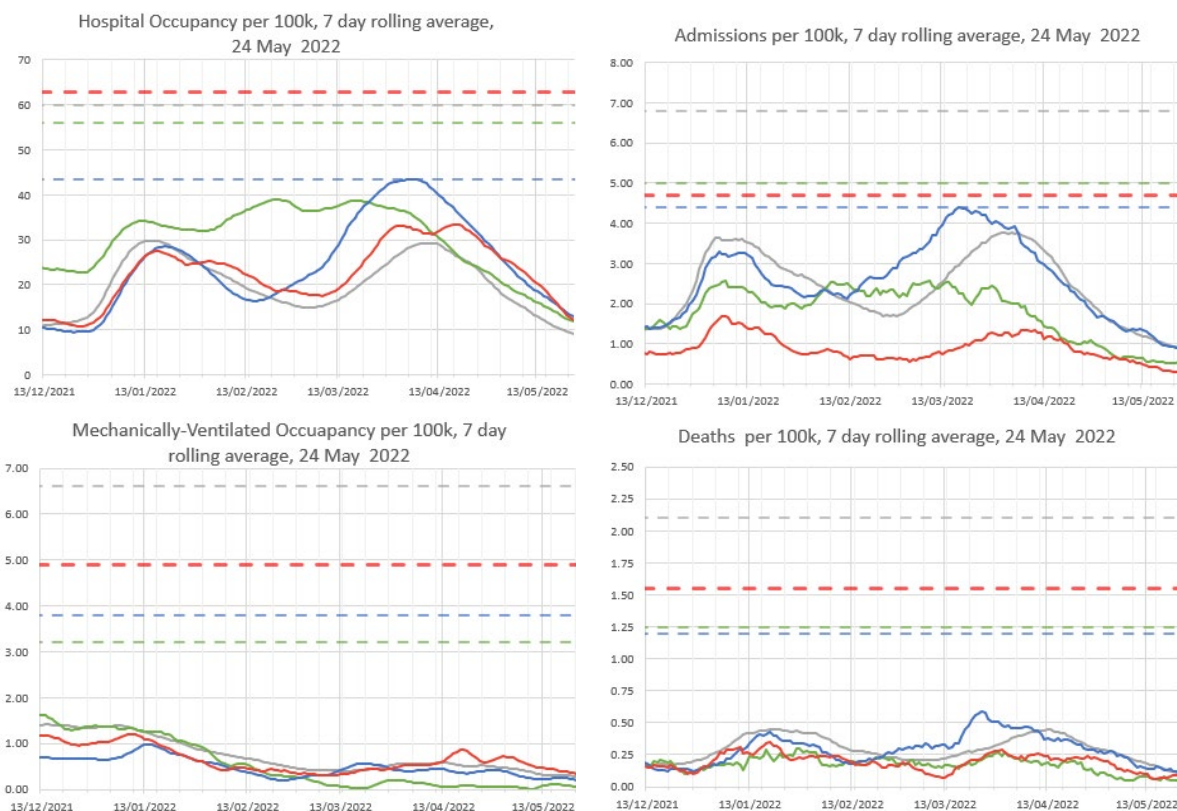
confident the true figure lies. Since the estimates are based on a relatively low number of positive tests, there is some uncertainty and the results should be interpreted with caution.

Positivity rates (%) across UK countries since 17 April 2022



UK Hospitalisation and deaths- UK Coronavirus Dashboard data up to 24 May 2022

- **Note that this data is classified as management information rather than official statistics and there may be differences in methodology between the nations.** As a result caution should be taken when interpreting this data, especially comparing between nations. Full documentation is available at [Metrics documentation | Coronavirus in the UK \(data.gov.uk\)](#). The dotted lines indicate peak levels.
- **Northern Ireland's DoH has recently [announced](#) that from 20 May NI data on cases, deaths and testing will no longer be updated.**
- COVID-19 admissions and hospital occupancy continue to decreasing across all four UK nations, although unlike other nations Wales COVID-19 admissions include suspected cases and do not include patients who tested positive while in hospital, **so comparisons of admissions with the other UK nations should be interpreted with caution.**
- COVID-19 ICU/ Mechanically ventilated bed occupancy is decreasing slightly in Wales and generally stable at a low level relative to previous waves in the other UK nations, but remains far lower than previous waves.
- Following an increase in February/March the number of COVID-19 deaths is decreasing in England and Scotland and stable/ increasing slightly in Northern Ireland and Wales, although numbers remain lower than previous waves.



International overview – World Health Organisation

- The WHO Weekly Epidemiological Update dated 1 June² reports that globally, the number of new weekly cases has continued the declining trend observed since a peak in January 2022. During the week of 23 through 29 May 2022, over 3.3 million cases were reported, a 11% decrease as compared to the previous week. The number of new weekly deaths also continues to decline, with over 9600 fatalities reported, representing a 3% decrease as compared to the previous week. As of 29 May 2022, over 526 million confirmed cases and over six million deaths have been reported globally.
- There continues to be a decline in the number of SARS-CoV-2 sequences submitted to GISAID, with 152 476 submitted within the last 30 days. The Omicron VOC remains the dominant variant circulating globally, accounting for nearly all sequences reported. Among the Omicron sublineages, BA.2 is the dominant sublineage, despite declining from 78% to 75% of Omicron sequences submitted in the last 30 days. The BA.1 sublineage has also declined in prevalence from 7% to 4%. Three Omicron sublineages have shown an increasing trend among Omicron sequences submitted in the last 30 days: BA.2.12.1 has risen from 11% to 16%; BA.4 has risen from 2% to 3%; and BA.5 has risen from 1% to 2%. During the same period, the prevalence of BA.3 has declined to <1%.
- Studies are ongoing to further elucidate the characteristics of Omicron lineages that appear to show a growth advantage as compared to BA.1 and BA.2. With

² [Weekly epidemiological update on COVID-19 - 1 June 2022 \(who.int\)](https://www.who.int/news-room/feature-stories/20220601-covid-19-epidemiological-update)

currently available data, BA.4, BA.5 and BA.2.12.1 appear to be spreading faster in countries with substantial prior waves of cases due to BA.1; while countries that experienced more substantial BA.2 waves appear to have fewer cases due to BA.4, BA.5 and BA.2.12.1 at this stage. The extent of vaccination in each country, also likely influences the impact of these emerging Omicron descendent lineages.

- Globally, the WHO report influenza activity has continued to decrease as at 15 May 2022, following a peak in March 2022. Countries are recommended to prepare for the co-circulation of influenza and SARS-CoV-2 viruses. In the temperate zones of the northern hemisphere, influenza activity decreased or remained stable. In the countries of North America, influenza activity was stable compared to the previous period and influenza positivity was higher than usual for this time of year. In the temperate zones of the southern hemisphere, influenza activity was low overall, except in Argentina and Chile. Influenza detections increased in South Africa and Australia.

2. UK variant update

- BA.2 remains dominant in the UK, but the proportion of BA.2 continues to reduce.
- BA.4 (VOC-22APR-03) and BA.5 (VOC-22APR-04) have been escalated to VOC status by UKHSA, due to growth advantage over BA.2, and a degree of immune escape.
- As of 27 May 2022, 287 cases of BA.4 and 212 cases of BA.5 have been confirmed in the UK2 and are accounting for an increasing proportion of sequenced cases (BA.4 3.95%, BA.5 3.58%). *Due to changes in testing policies, variant surveillance has been significantly impacted. Variant case numbers are thought to be greatly underestimated and should be interpreted with caution.*
- BA.5 is showing a growth advantage in Germany and France, and BA.4 & BA.5 are showing growth in UK, USA and Denmark - all experienced or are experiencing a national-level BA.2 wave¹. Increases in comparative countries, Germany, Denmark and the Netherlands are yet to be accompanied by increasing incidence.
- BA.2.12.1, a sub-lineage of Omicron BA.2, has been designated a variant, V-22MAY-01. BA.2.12.1 is growing rapidly in the USA. Modelling suggests, as of 08 May 2022 it makes up 1.29% of sequenced cases in England and has a doubling time of 5.42 days.³

³ UKHSA COVID-19 Situational Awareness Main report 31 May 2022

3. Swansea University COVID-19 Medium Term Projections – 20 May

- These medium-term projections (MTPs) are produced regularly by Swansea University. The Swansea University (SU) projections are also combined with other models to go into a consensus MTP for admissions and deaths which is agreed every two weeks by the UKHSA Epidemiological Modelling Review Group (EMRG), which has recently taken over from SPI-M-O in agreeing these MTPs.
- The SU projections are typically more up-to-date and include more outcomes (e.g. ICU), but may be less robust because they are based on one model only. Both MTPs are based on projecting forward from current data and do not explicitly factor in policy changes, changes in testing, changes in behaviour, or rapid changes in vaccinations.

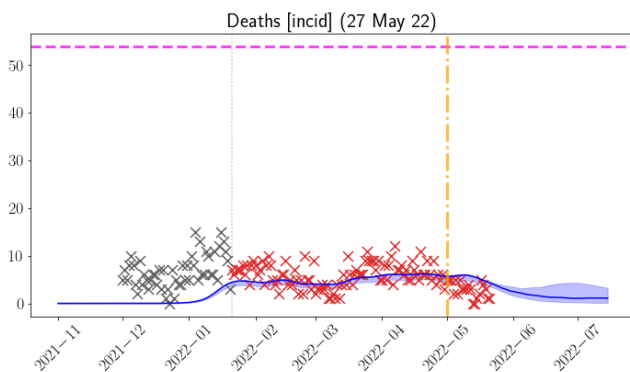
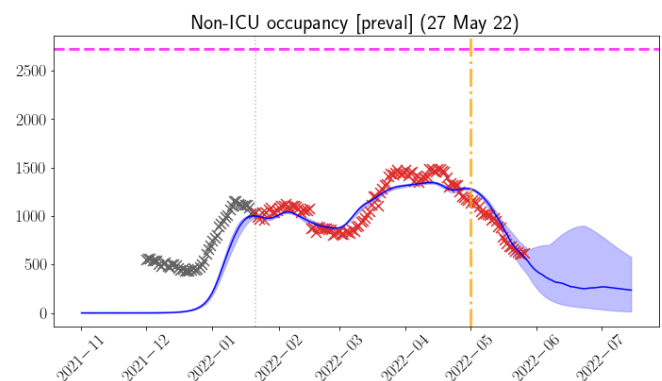
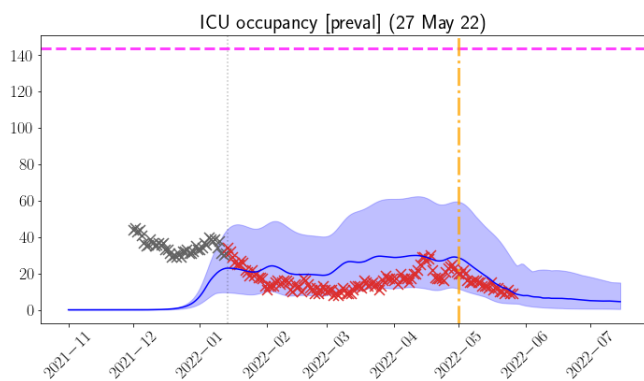
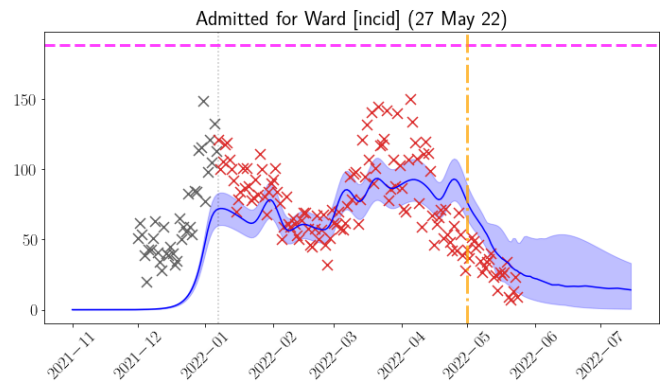
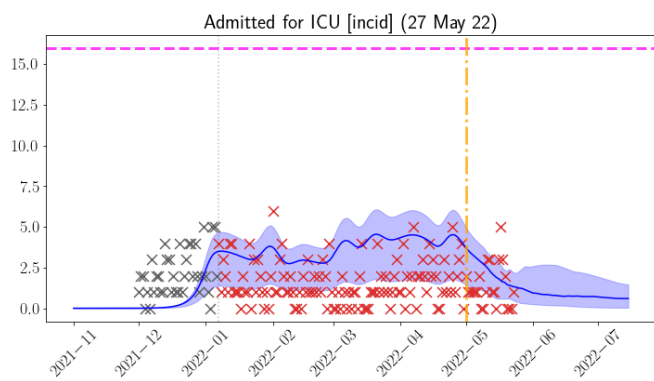
Swansea University MTPs, 27 May

In the below charts crosses represent actual data, while the blue line represents the central modelling estimate and blue highlight indicates confidence intervals. The pink dotted line in the charts below represent pre-Omicron peaks, while the crosses show Actuals data. Red actuals represent Omicron cases, which the model is fitted to, while the black actuals are from the Delta period.

- This week's projections are similar to last week's MTPs. They project that NHS pressure and deaths will stabilise at a low level in the coming months.
- Admissions and deaths continue to decrease and have fallen to levels below that indicated by the MTP projections at this point in time.
- ICU admissions fluctuate at low levels.
- Bed occupancy and ICU bed occupancy levels agree closely with the MTP projections and are continuing to decrease at rates similar to those anticipated by the MTP projections. However, the bed occupancy MTP shows increased uncertainty in coming weeks (wider confidence interval shown).
- Changes in hospital testing policy and length of stay can affect the models. This week, MTPs have been fit to a shorter time period than normal (indicated by the vertical orange line) since this improved model fit to hospital admissions and occupancy considerably. This indicates that a key model parameter, such as length of stay, has changed in recent weeks, impacting model fitting. This will be investigated in the coming weeks.

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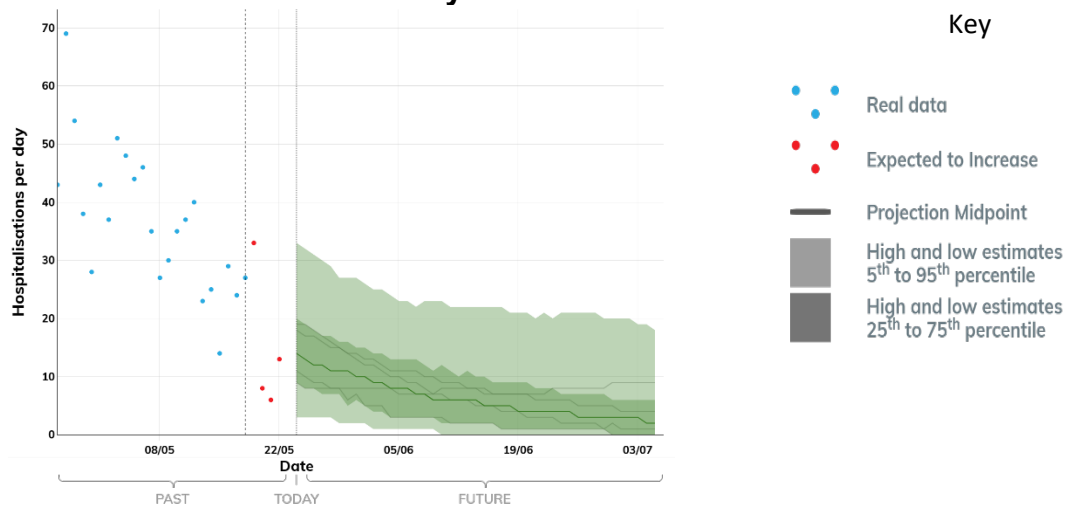


UKHSA EMRG Consensus MTPs, 25 May 2022

- These Medium-Term Projections (MTPs) for COVID-19 hospitalisations and deaths are not forecasts or predictions. They represent a scenario in which the trajectory of the epidemic continues to follow the trends that were seen in data available to 23 May 2022.
- The most recent medium-term projections suggest admissions in Wales will continue to decline before stabilising at a low level.
- The number of deaths has fallen to very low levels in Wales making forward projection difficult, therefore projections for deaths are not provided for Wales this week. However, the consensus view is that the number of deaths will remain low over the next six weeks.
- The delay between infection, developing symptoms, the need for hospital care, and death means the MTPs cannot fully reflect the impact of policy and behavioural

changes made in the two to three weeks prior to 23 May 2022. An assumed effect of school holidays has been included.

Modelled projections of new hospital admissions per day in Wales based on data available on 23 May 2022



4. Adherence to protective measures/ Behavioural Response

- See previous advice on adherence to protective measures, which remains relevant during the current COVID Stable scenario.^[1]

[\[1\] Advice from the Technical Advisory Cell and Chief Scientific Advisor for Health: 21 day review 19 May 2022 | GOV.WALES](#)