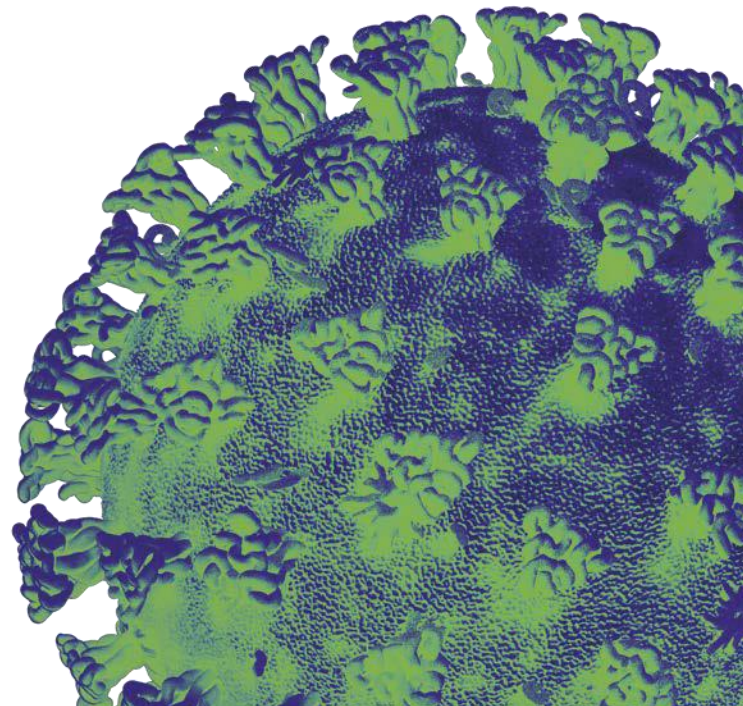
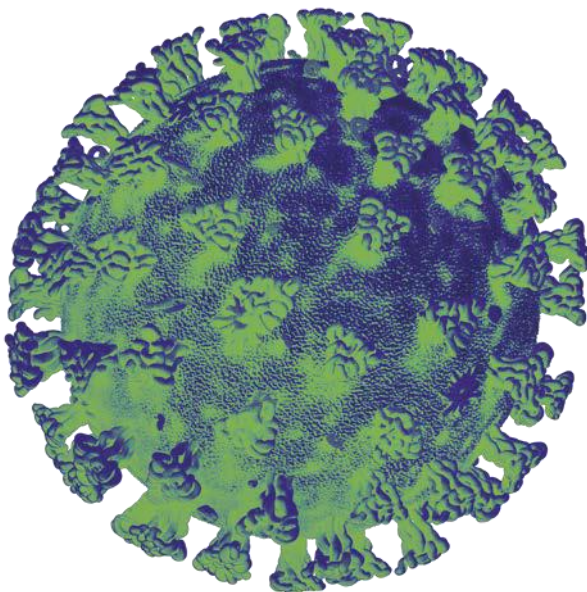
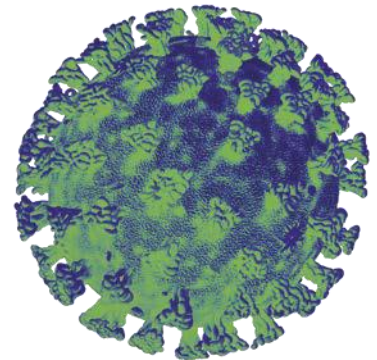




Advice from the Technical Advisory Cell and Chief Scientific Advisory for Health: 21-Day Review

24 February 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.

Summary

- In previous advice dated 10 February TAC advised that, considering the current levels of direct and indirect harms from COVID-19 and the COVID-19 regulations in Wales, **it would seem reasonable to continue the easing of protective measures in Wales.**
- Recent Public Health Wales surveillance data suggests that PCR cases and test positivity have continued to decrease.
- This may be impacted by the reduced number of reported tests because of changes to testing policy as well as potential behavioural changes within the population. Around 50% of cases are now found with LFD rather than PCR tests.
- ONS reports that the percentage of people testing positive for COVID-19 decreased in the two weeks up to 19 February 2022, but the trend was uncertain in the most recent week. Overall ONS reports that positivity in Wales has been around 3-4% for the last month.
- Hospital occupancy has continued to decrease, although ICU occupancy and COVID-19 positive admissions appear stable. Deaths have fallen after a resurgence in mid-January.
- Survey data continue to suggest no obvious waning in protective behaviours in Wales, despite the relaxation of measures in recent weeks and removal of Plan B measures in England.

1. Wales situation

- The latest COVID-19 Situational Report dated 24 February 2022, containing the most recent data on epidemiological surveillance, NHS status, wastewater monitoring, education and children, international travel, mobility, vaccination and population immunity and forward projections for Wales will be available here.

Case surveillance

- Case data from recent COVID-19 episodes suggests a return to rapid reductions across Wales, following a brief uptick that may have coincided with a return to non-holiday activity following the festive period. Case rates

continue to fall, and PCR cases stand at 210 cases per 100,000 population¹. The main decline has been in PCR positives, while LFD positivity is more stable (but still falling slowly). The two data streams are not currently combined which makes the data more difficult to interpret.

- ONS reports that the percentage of people testing positive for COVID-19 decreased in the two weeks up to 19 February 2022, but the trend was uncertain in the most recent week; ONS estimates that 98,200 people in Wales had COVID-19 (95% credible interval: 83,100 to 114,900), equating to around 1 in 30 people. According to ONS, the positivity rates in older age groups is uncertain, however, nursery/primary/secondary and young adults' positivity rates have decreased.
- Data from the ZOE COVID Study suggests that COVID-19 cases have decreased by 11% in the UK in the most recent week, to 203,973 new daily symptomatic cases in the UK on average, based on PCR and LFT test data from up to three days ago. The study also estimates R_t may currently be 1.0 in Wales.²
- The trends in the national mean wastewater signal appear to be rapidly increasing driven by increases in South Wales. Analysis of mutations associated with variants of concern in North Wales indicate that Omicron is dominant across several sites, while Delta is still being detected at several sites. No analysis of mutations associated with variants of concern for South Wales sites last week are available for this report, due to problems transporting samples associated with the Red Weather Warning.

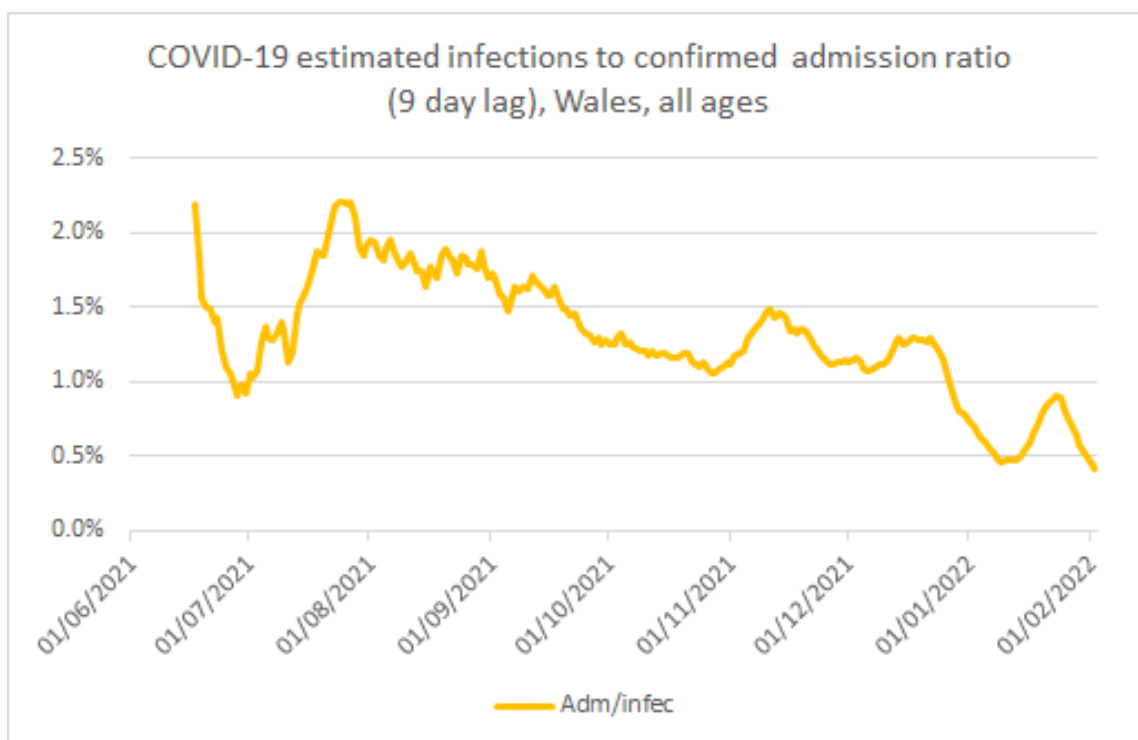
NHS and mortality

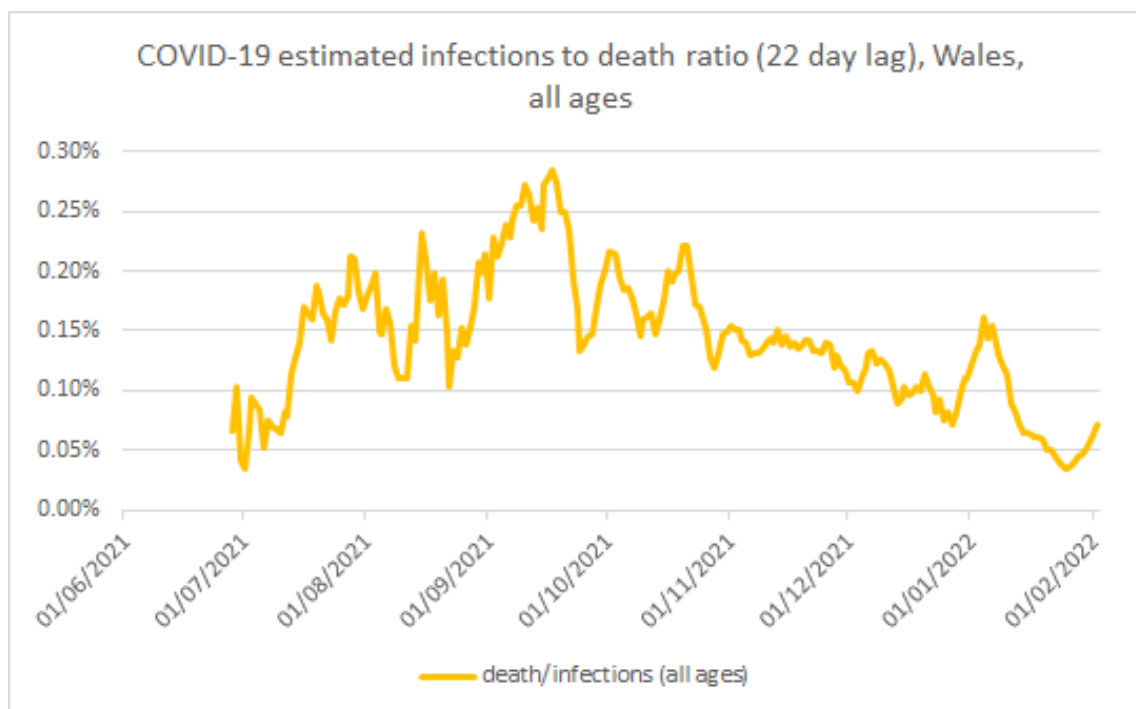
- Non-COVID-19 urgent & emergency pressures continue to result in high levels of hospital bed occupancy and escalation across hospital sites, with this week being particularly challenging in South Wales. Around 450 patients in hospital beds are COVID positive. In contrast to previous waves, the number of 'incidental' cases was a significant factor with the most recent operational data indicating that only approximately 25% of patients actively requiring treatment for COVID. Omicron has also increased the staffing challenge across the health and care system, while 'medically fit' for discharge patients remain a challenge. These factors continue to constrain flow through the whole health and care system resulting in extended waits for: ambulance in the community and in emergency departments.
- There remains the potential for significant harm in the community (and our hospitals) for people with non-COVID-19 illnesses or injuries, which may exceed the direct harm from COVID-19 at this point in time. Health Boards are looking at returning to pre-COVID levels of elective activity over the next few months and how they start dealing with the significant backlog.

¹ Rolling 7 day PCR average 13-19 Feb, PHW Tableau

² [UK back to 200,000 a day \(joinzoe.com\)](https://joinzoe.com)

- As at 19 February 2022, PHW reports the 7 day rolling sum of COVID-19 deaths have decreased to 34, a decrease of 8 since the previous 7 day period (12 February).
- ONS reports that the number of deaths registered in Wales in the week ending 11 February 2022 (Week 6) was 672; this was 33 fewer deaths than the previous week (Week 5) and 8.8% below the five-year average (65 fewer deaths).
- Infection to hospital admission ratios (first chart below) suggest that the number of infections translating into admissions have generally decreased since mid-January.
- Infection to fatality ratios (second chart below) also decreased substantially following the rise of Omicron, although there may be early signs of an increase.





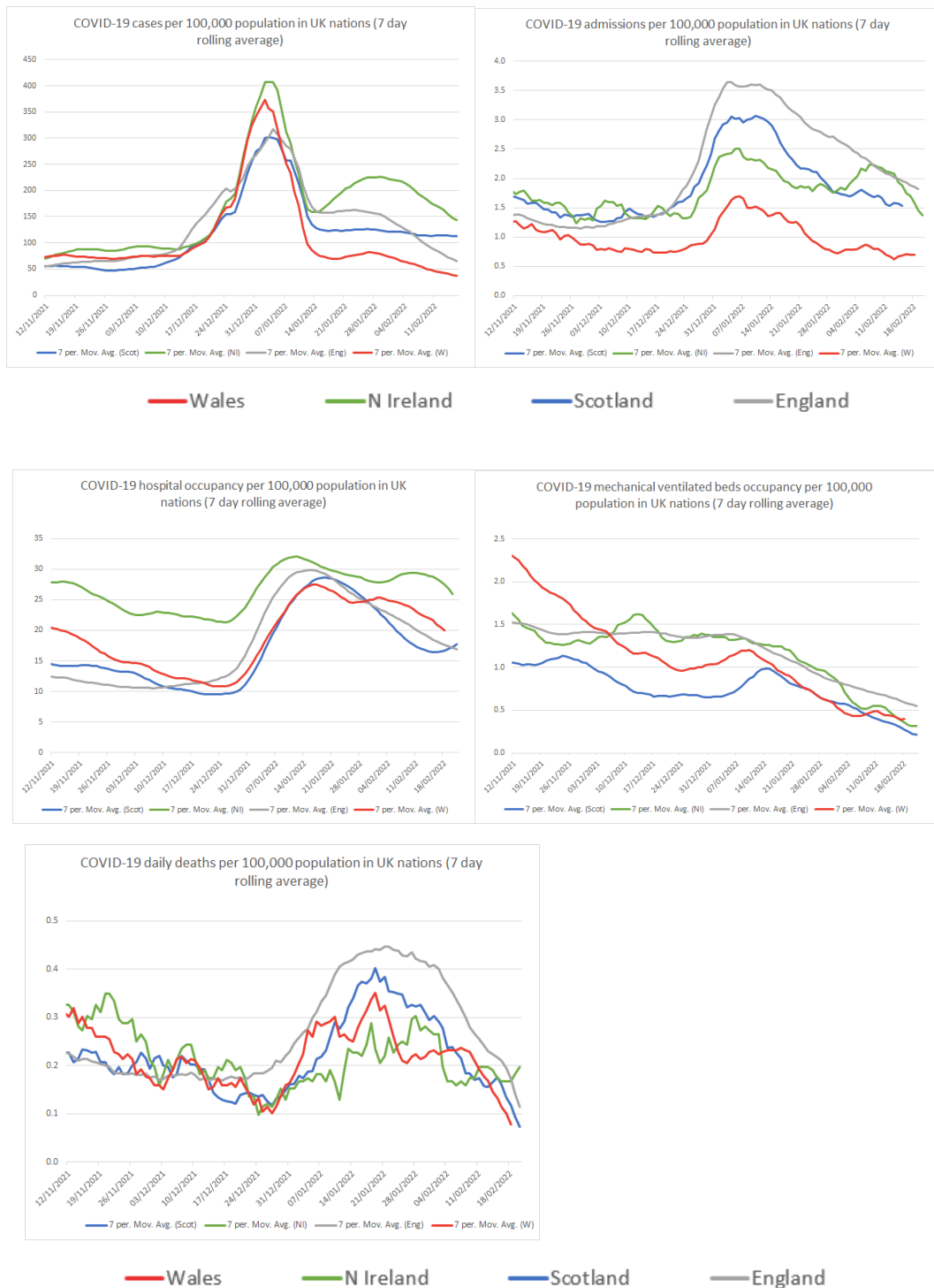
Transmission estimates and variants

- As at 24 of February, the UKHSA R_t Estimate for Wales is 0.7 to 0.9 with a doubling time of -37 to -17 days. PHW's R_t estimate is 0.7, with a doubling time of -11 days (23 February 2022).
- BA.1 remains the dominant strain in Wales at present, based on results from whole genome sequencing.

2. Situation in the UK and comparator regions

UK Overview

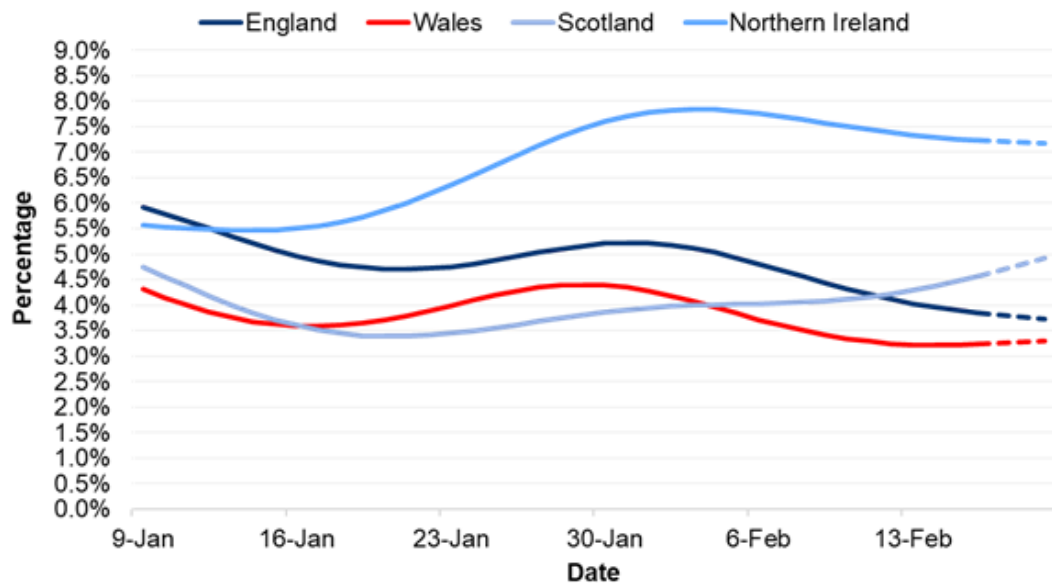
- As at 22 February weekly case rates per 100,000 population are decreasing in all UK nations.
- The number of COVID-19 patients admitted to hospital is decreasing in all four nations. Hospital occupancy is decreasing in England, Wales and Northern Ireland and slightly increasing in Scotland. Mechanical ventilated bed occupancy is decreasing in all four nations and admissions to ICU due to COVID-19 continue to be lower than previous waves as a proportion of hospital cases.
- Death rates appear to be decreasing in England and Scotland, stable in Wales and rising in Northern Ireland.
- The data above are shown in the charts below.



Data source: [UK Summary | Coronavirus \(COVID-19\) in the UK \(data.gov.uk\)](https://data.gov.uk/collections/coronavirus-covid-19-in-the-uk)

- In Wales, the percentage of people testing positive for COVID-19 decreased in the two weeks up to 19 February 2022, but the trend was uncertain in the most recent week. It is estimated that 98,200 people in Wales had COVID-19 (95% credible interval: 83,100 to 114,900). This equates to 3.23% of the population who had COVID-19 (95% credible interval: 2.73% to 3.78%) or around 1 in 30 people (95% credible interval: 1 in 35 to 1 in 25).
- The ONS CIS estimates at a UK level the numbers of people testing positive has decreased in Wales, England and Northern Island in the most recent

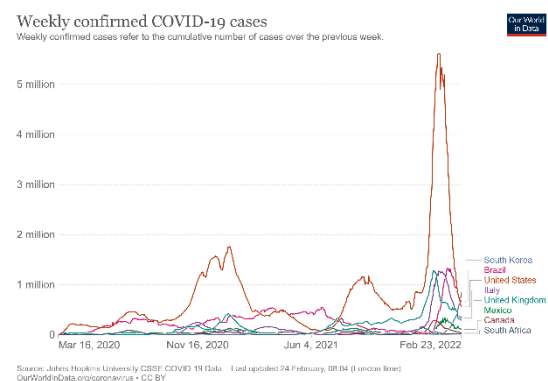
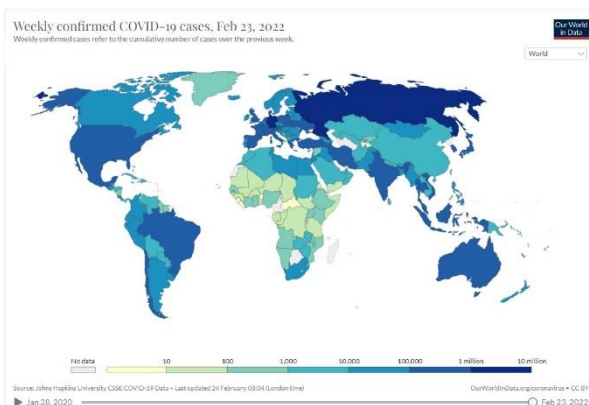
week. In Scotland, the percentage of people testing positive for COVID-19 increased in the week up to 20 February 2022.



Source: [COVID-19 Infection Survey, ONS, 23/02/22](#)

3. International overview

- Our World in data charts below illustrate that weekly confirmed COVID-19 cases appear to have declined, although cases continue to grow in a few geographic areas. The most recent wave was due almost exclusively to Omicron, which has outcompeted the now declining Delta variant and there is a very low or non-existent level of circulation of other variants.



4. Omicron variant of concern – BA.2 (VUI-22JAN-01) sub-lineage update

- BA.2 is a sister lineage to BA.1, the dominant version of the Omicron variant in the UK, although both lineages are defined as the Omicron variant. The majority of globally sequenced Omicron cases have been BA.1, although BA.2 appears to be growing in a number of countries with plausible evidence

of higher secondary attack rates but limited apparent immune evasion relative to BA.1. BA.2 has now become dominant in Northern Ireland and is increasing in England.

- PHW analysis has confirmed 1,337 sequenced BA.2 cases in Wales as at 22 February, with the earliest case on 30th December. There have been 301 in Hywel Dda, 256 cases in Cardiff and Vale, 236 in Swansea Bay, 223 in Betsi Cadwaladr, 159 in Aneurin Bevan, 90 in Cwm Taf Morgannwg, and 69 in Powys (for 3 cases the location is unknown). The median age of BA.2 cases in Wales is 32 years old (range 0 – 96 years old).
- A PHW analysis dated 22 February reports that for those BA.2 cases for whom vaccine status is available (1,108/1,337), 188 cases were unvaccinated, 72 cases had 1 dose, 827 cases had 2 doses and 21 cases had a 3rd dose. Booster status was available for 1,329 out of 1,337 cases and 586 cases had had a booster dose. Only six individuals have been hospitalised and the median length of stay in hospital was 3 days. Small numbers overall preclude an accurate comparison of risk of ICU admission between variants at present.
- UKHSA has published an updated risk assessment for BA.2³. The RAG rating given to growth advantage and transmissibility remains Red, with preliminary analysis using contact tracing data suggesting a shorter serial interval for BA.2 compared to BA.1. The RAG rating for immune evasion remains Amber, with evidence of a small antigenic difference between BA.1 and BA.2 but no evidence in difference in vaccine effectiveness. There is not enough data to assess the variant's impact on infection severity.
- UKHSA estimates of vaccine effectiveness against symptomatic disease for BA.2 relative to BA.1⁴ suggest vaccine effectiveness is similar. After 2 doses effectiveness was 10% (9 to 11%) and 18% (5 to 29%) respectively for BA.1 and BA.2, after 25+ weeks. Note that confidence intervals for BA.2 are wide due to limited numbers. Vaccine effectiveness increased to 69% (68 to 69%) for BA.1 and 74% (69 to 77%) for BA.2 at 2 weeks following a booster vaccine before decreasing to 49% (48 to 50%) and 46% (37 to 53%) respectively after 10+ weeks.
- BA.1 remains the dominant strain in Wales at present based on results from whole genome sequencing, however BA.2 case numbers continue to grow as a proportion of overall case numbers. With the known transmissibility advantage of BA.2 it could become the dominant strain in Wales in the future. It is unclear whether this will result in another wave of infections or a stabilisation of cases at current levels, however there are high levels of population immunity following the recent Omicron wave, along with increased booster uptake and no evidence of increased immune evasion for BA.2.

³ [Risk assessment for SARS-CoV-2 variant: VUI-22JAN-01 \(BA.2\): 9 February](#)

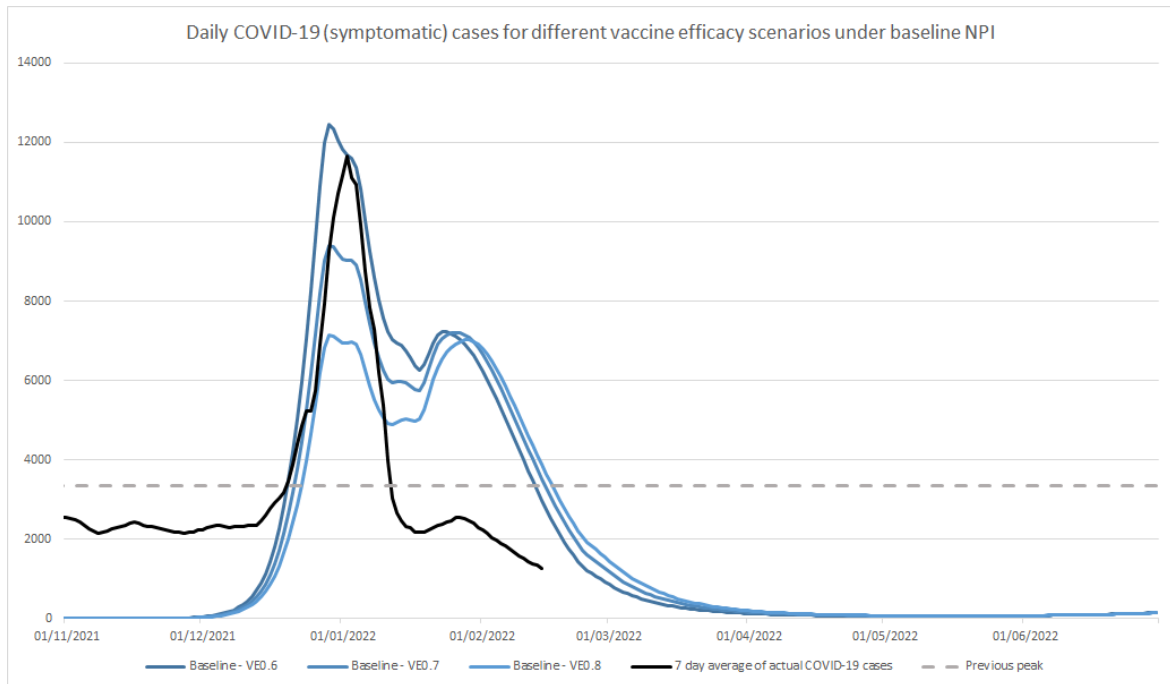
⁴ [COVID-19 vaccine surveillance report - week 6 \(publishing.service.gov.uk\)](#)

5. Swansea University COVID-19 modelling including long-term scenarios

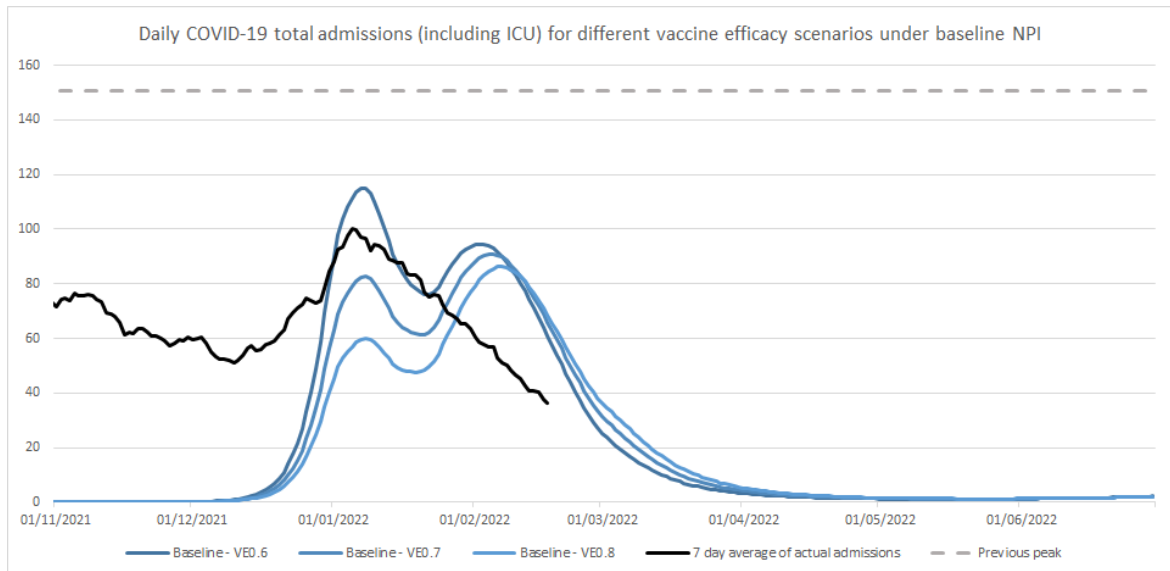
- Modelling to the end of June 2022 from Swansea University was updated on 4 February 2022 to fit to initial omicron Rt rise more closely, faster booster rollout, and most recently to fit to the ONS prevalence data dated 26 January 2022 (since the testing policy change affects the PCR case data previously fitted to).
- The model is an Omicron model and the model results on the charts start at zero, when Delta was still dominant. Model scenarios are only likely to be robust for the next three weeks and are being continuously refined. Models are fitted to vaccine efficacy scenarios of 60%, 70% and 80% vaccine efficacy against infection. Models assume alert level 2 restrictions for four weeks from 26 December 2021, followed by a return to alert level 0 with baseline measures.
- Overall, current models and data suggest the Omicron wave will recede in the short-term. There was a small rebound in cases which may be due to lifting of restrictions going to Alert level 0, but overall numbers are reducing.
- The ONS COVID-19 Infection Survey estimates around 3.23% prevalence for Wales in the week to 19 February 2022. Wales did not see the prevalence levels of other parts of the UK that have peaked, with London and North West England peaking at around 10%, so may still have a number of susceptible individuals left. There is uncertainty over how many more people are susceptible to infection in the Omicron wave, with the historical timings of infection, reinfection and vaccination being very complex across the population. If BA.2 becomes dominant and it is more transmissible, this may cause a slightly elongated plateau.
- There will be a need to try to quantify the additional harms that have happened in the omicron wave in terms of Long Covid and other sequelae of infection, and indirect health harms from displaced activity.

Daily COVID-19 cases

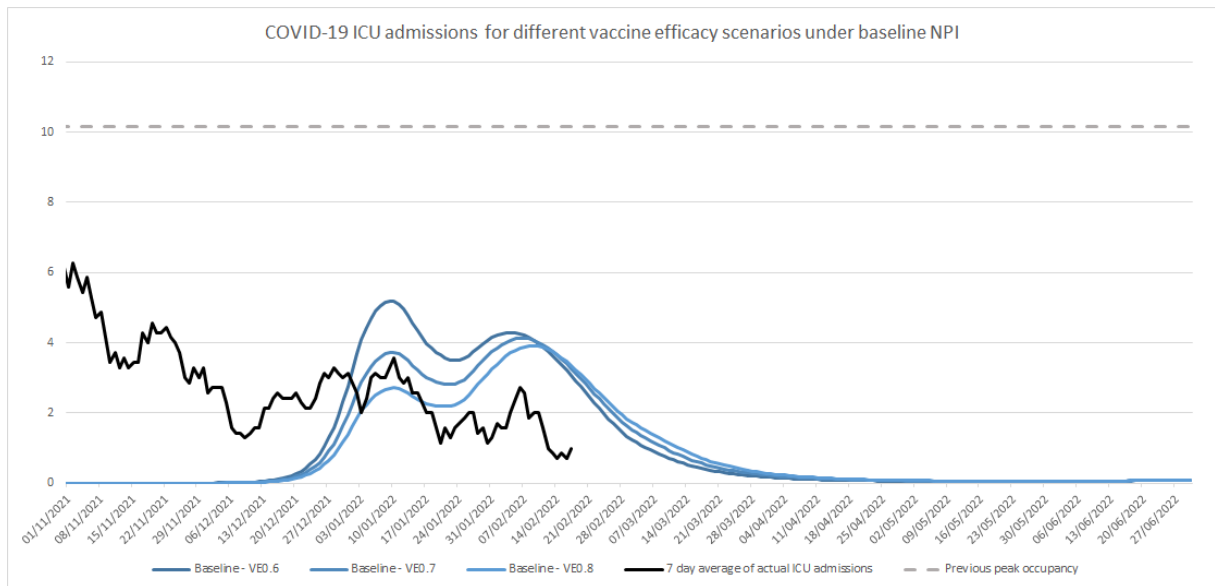
(note that actuals are PCR cases, so distorted by changes in testing behaviour).



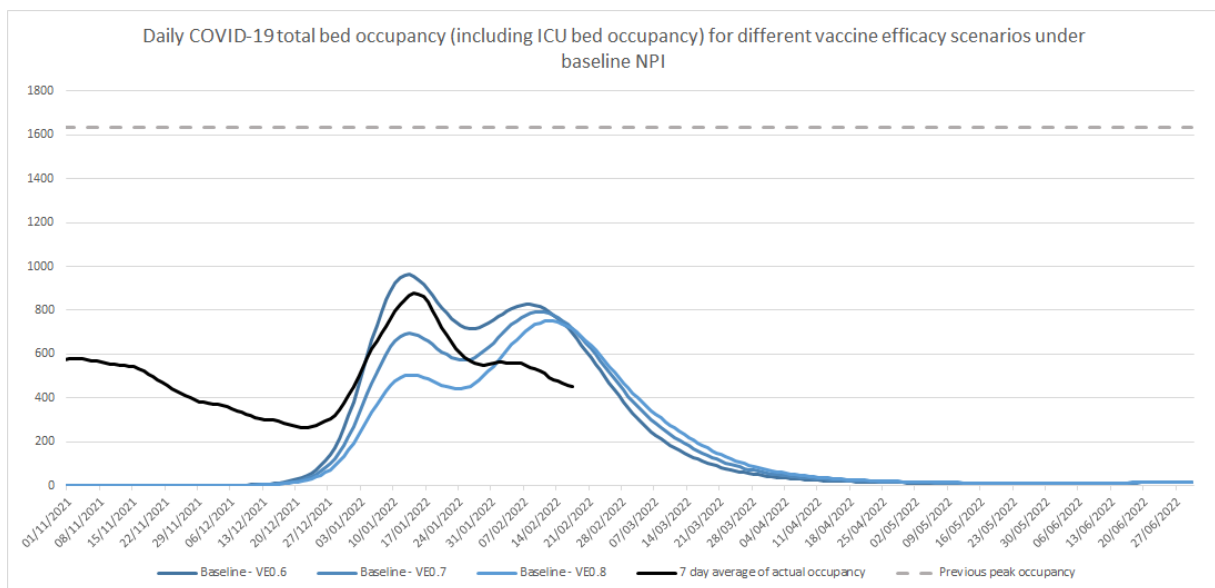
Daily COVID-19 hospital admissions (Including ICU admissions)



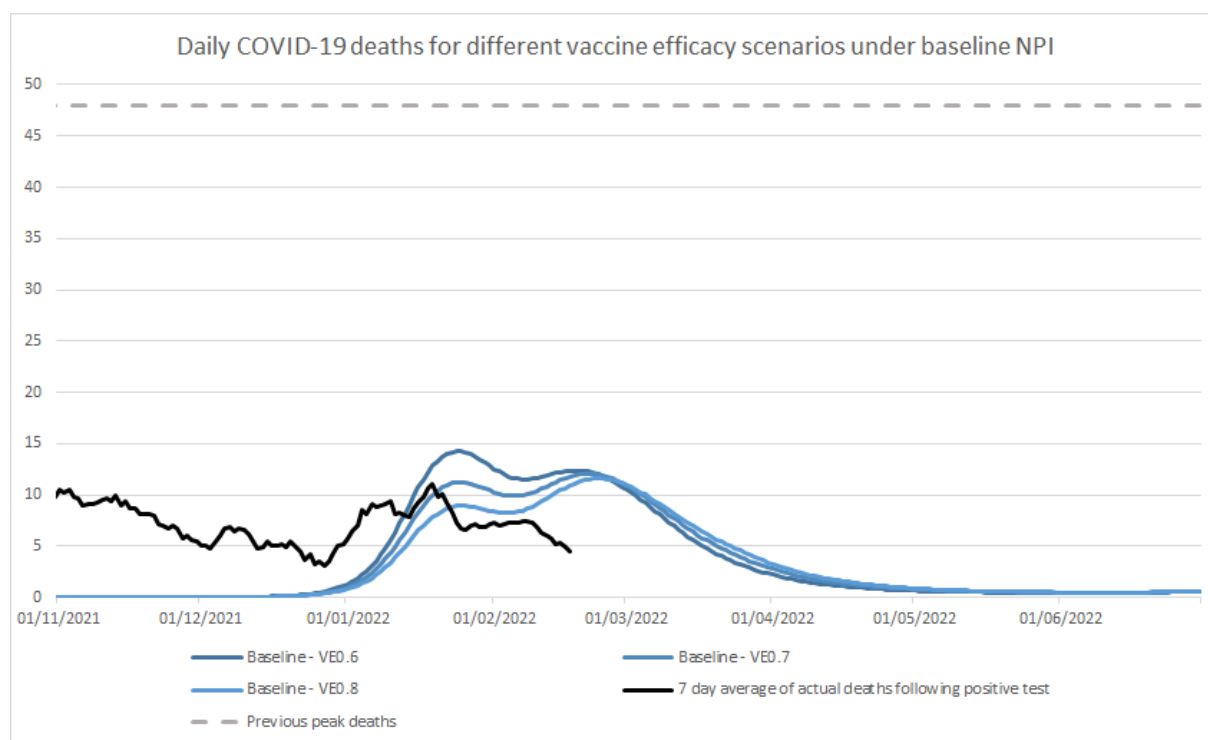
Daily COVID-19 ICU admissions



Daily COVID-19 hospital bed occupancy (Including ICU)



Daily COVID-19 deaths



6. Adherence to protective measures

- Recently available SAGE minutes⁵ note the combined effect of behavioural change and mitigations such as testing and self-isolation likely reducing transmission by 20–45%, noting the potential for transmission to rise if behaviours revert to pre-pandemic norms and the removal of mitigations (medium confidence).
- Evidence for Wales suggests that while the perceived threat (both personal and to the country) from COVID-19 has gradually fallen, the high degree of (self-reported) adherence to a range of protective measures reported in previous advice has been maintained in recent weeks. For example, Ipsos MORI survey data⁶ collected over the period 18-21 February 2022 suggest three in four (76%) continue to report wearing a face covering, just under half (48%) report keeping their distance when out and two in three (66%) report regular hand washing. Furthermore, one in three (32%) continue to report the use of lateral flow tests before meeting other people and of those in work, three in ten (30%) report working from home where feasible. Given the evidence around trust in government and lower infection rates⁷, it is worth noting that some seven in ten (71%) continue to report Welsh Government doing a good job in its handling of the

⁵ [SAGE 105 minutes: Coronavirus \(COVID-19\) response, 10 February 2022 - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/news/sage-105-minutes-coronavirus-covid-19-response-10-february-2022)

⁶ [Survey of public views on the coronavirus \(COVID-19\): 28 to 31 January 2022 | GOV.WALES](https://gov.wales/government/news/survey-of-public-views-on-the-coronavirus-covid-19-28-to-31-january-2022)

⁷ See for example [Pandemic preparedness and COVID-19: an exploratory analysis of infection and fatality rates, and contextual factors associated with preparedness in 177 countries, from Jan 1, 2020, to Sept 30, 2021 - The Lancet](https://www.thelancet.com/journal/S0140-6736(21)00448-4)

pandemic. These levels remain broadly consistent when compared with previous waves of data collection since autumn 2021, with no evidence of waning in adherence or support for the current approach at this point in time.

- This contrasts to some extent with the latest ONS data at GB level from the Opinions and Lifestyle Survey⁸, which suggest (self-reported) use of face coverings and maintaining distance has fallen since the removal of Plan B measures in England, as has the proportion reporting to work from home. The most recent CoMix data⁹ cover the period up to 7 February 2022 and suggest the mean number of contacts reported by adults in the UK recovered during January but remain low at around three reported contacts per day, on average. The CoMix data also provide evidence of a large drop in reported use of face coverings, coinciding with the lifting of Plan B measures in England, with no such fall in Wales or Scotland where mandates remained in place.

⁸ [Coronavirus and the social impacts on Great Britain - Office for National Statistics \(ons.gov.uk\)](https://www.ons.gov.uk/coronavirus)

⁹ [Comix Report Survey Week 98 \(cmmid.github.io\)](https://cmmid.github.io)