

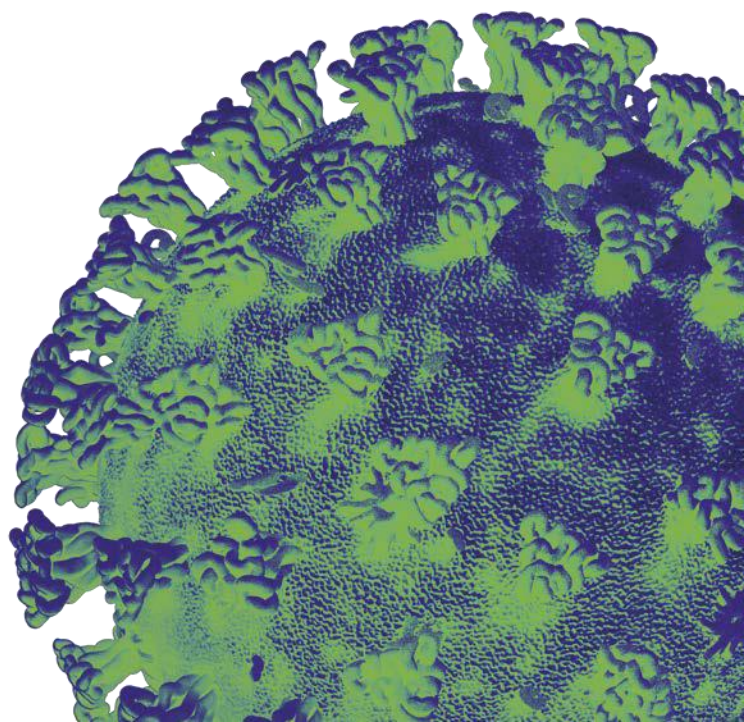
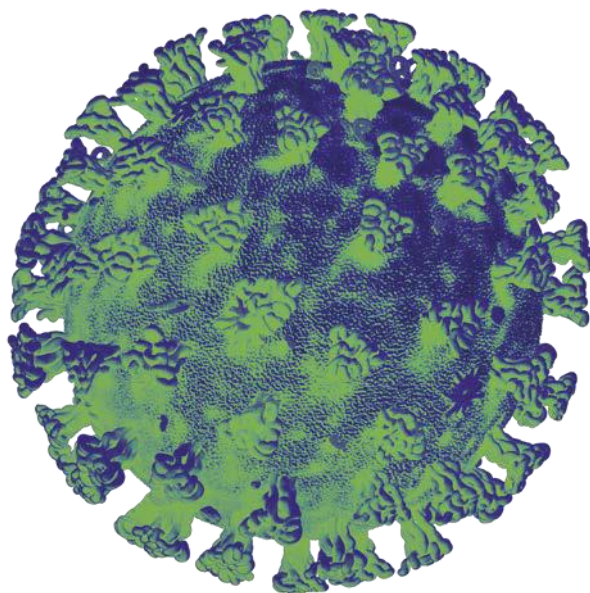
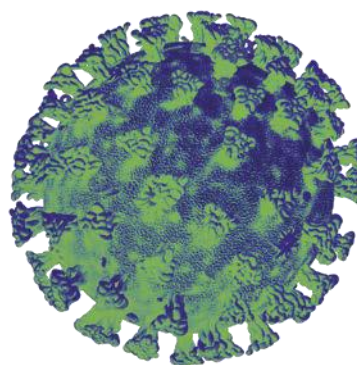


Llywodraeth Cymru  
Welsh Government

# Technical Advisory Cell

## Summary of advice

9 March 2021





## Technical Advisory Cell: Summary Brief

9 March 2021

- The number of new cases in Wales is decreasing more slowly at a national level (high confidence). As reported by Public Health Wales (PHW) on 4 March, incidence has decreased in all age groups. The number of new cases remains highest in those aged 85 years and older.
- The most recent estimate of the reproduction number ( $R_t$ ) from SAGE is between 0.7 and 0.9 for Wales and the UK.
- There are regional differences in case numbers. For example, cases in Gwynedd, Anglesey and Conwy are above 70 cases per 100,000 population, whereas cases in Pembrokeshire and Ceredigion are below 20 cases per 100,000 population (week ending 6 March).
- As of 9 March, VOC 202012/01 (first identified in Kent) continues to be dominant in Wales and the UK. There have been 25 genomically confirmed and probable cases of VOC 202012/02 (the variant linked to South Africa) in Wales, an increase of 1 since the last report. Reducing the number of cases continues to be the most effective way to reduce the risk of new variants emerging (high confidence).
- As of 9 March the number of people with confirmed COVID-19 in hospital has decreased, but remains high with a weekly average of over 400 beds occupied. COVID-19 ICU occupancy is decreasing, with a weekly average of 35 beds occupied (in contrast, a weekly average of 20-30 beds were occupied at the beginning of the pandemic). The number of people recovering from COVID-19 continues to drop slowly although is still over 700 in the most recent week.
- [Results](#) of policy modelling carried out by Swansea University suggest that as long as 'adherence with restrictions' remains high, the gradual unlocking of restrictions, combined with a gradual 'step up' of children being physically in school, should be achievable without another large wave of cases, hospitalisations and deaths in this period. There are still uncertainties around the impact of school attendance on transmission, adherence to personal protective behaviours, the impact of vaccines on transmission and the impact of new variants on transmission and morbidity.
- Over 1 million first doses of COVID-19 vaccine have been given in Wales, with 192,030 people having received two doses (as at 9 March). As [reported by PHW](#) on 3 March, vaccination coverage (first dose) is over 90% for people aged 80



years or older, 52% for people aged 60-69, and just under 90% for clinically extremely vulnerable (aged 16-69).

- COVID-19 deaths reported by PHW (4 March) continues to decrease, but there are still over 50 deaths per week. Deaths reported by ONS for week ending 26 February, lag behind the rapid surveillance data but are more complete and show 41 fewer deaths than the previous week. The number of registered deaths involving COVID-19 is at its lowest level since late October.
- Self-reported adherence to current restrictions remains similar to previous weeks, however this indicator will be affected by individuals understanding of the rules and the circumstances that apply to them. Mobility data show an increase between the 25/26 February and 1/2 March, possibly due to warmer weather at the weekend and then the return of some pupils to school. Data since from Apple and Facebook suggest little change.
- Published papers from SAGE considered by the Technical Advisory Cell are published [here](#).

### **Growth rate and Reproduction number**

- The Reproduction number ( $R_t$ ) is the average number of secondary infections produced by a single infected individual.  $R_t$  is an average value over time, geographies, and communities. This should be considered when interpreting the  $R_t$  estimate for the UK given the differences in policies across the four nations. The estimate of  $R_t$  is shown as a range (90 or 95% confidence intervals) without a central estimate and is a lagging indicator.
- The most recent estimate of the  $R_t$  for Wales from SAGE (as approved on 4 March) is predicted to be between 0.7 and 0.9 (90% confidence interval).
- Growth rate reflects how quickly the numbers of infections are changing day by day. It is an approximation of the percentage change in the number of infections each day. Growth rate is also a lagging indicator and shown as a range (90 or 95% confidence intervals) without a central estimate.
- The current daily growth rate estimated by SAGE (as approved on 4 March) is between -0.07 and -0.03 (90% confidence interval) in Wales, indicating that infections could be shrinking by between -7% and -3% per day.
- PHW also estimate  $R_t$  for Wales using data on the number of positive cases only. These figures should be interpreted with caution as the number of positive cases



detected can be a reflection of the amount of testing. It is assumed there is no change in testing patterns for the duration of these estimates.

- As at 26 February,  $R_t$  (95% confidence interval) in Wales is estimated to be 0.7 (0.7 to 0.8).
- Care should still be taken when interpreting  $R_t$  and growth rate estimates for the UK, due to their inherently lagged nature, testing availability and, as these figures mask variation in the number of infections, how rates of transmission are changing in some parts of the country.

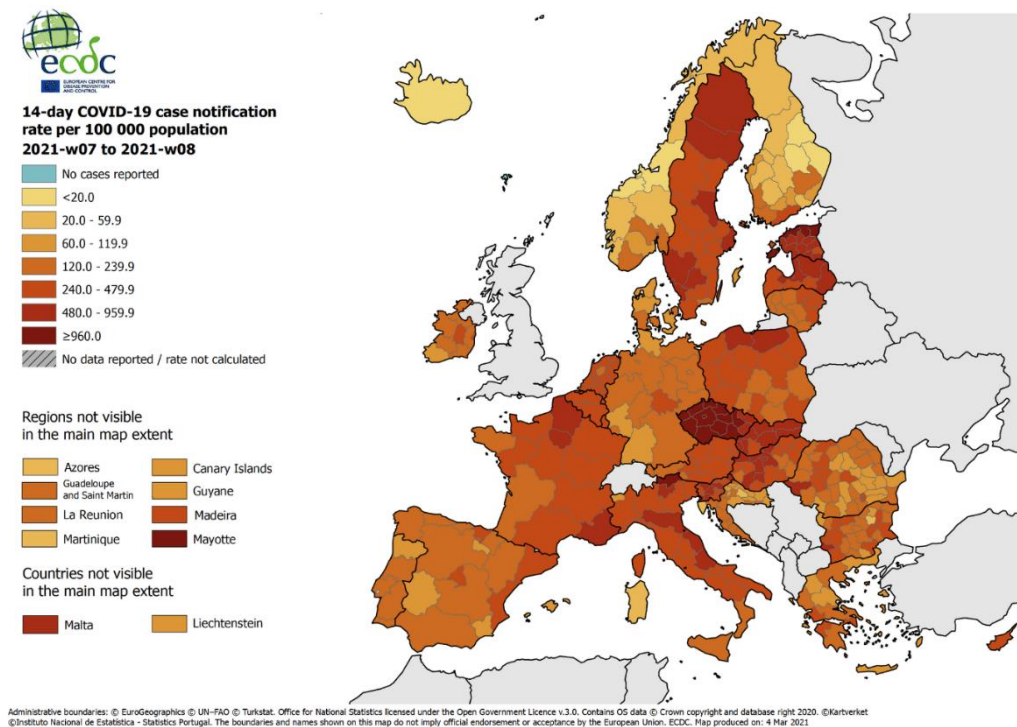
### **Halving time**

- As at 2 March, PHW estimated the halving time (the time it takes for the number of cases to half) to be 19 days, using data from 13/02/2021 to 26/02/2021. The 95% confidence interval for this estimate is between 11 and 69 days.
- Halving time (and  $R_t$  and growth rates), gives an indication of the rate of change and therefore it should be treated with caution for the reasons outlined above.

### **International update**

- The overall situation in Europe shows, at best, a steady state in infection rates but there are worrying signs that parts of Europe are beginning to deteriorate. In particular, several east European countries and countries surrounding the Baltic are showing varying deteriorations with some showing sharp deteriorations; countries with recent rising levels include Greece, Bulgaria, Czechia, Slovakia, Poland, Serbia, Hungary, Italy, Finland, Lithuania and Estonia.
- The map below shows the 14-day average notification rate per 100,000 people in Europe but does not necessarily show the very recent rises.



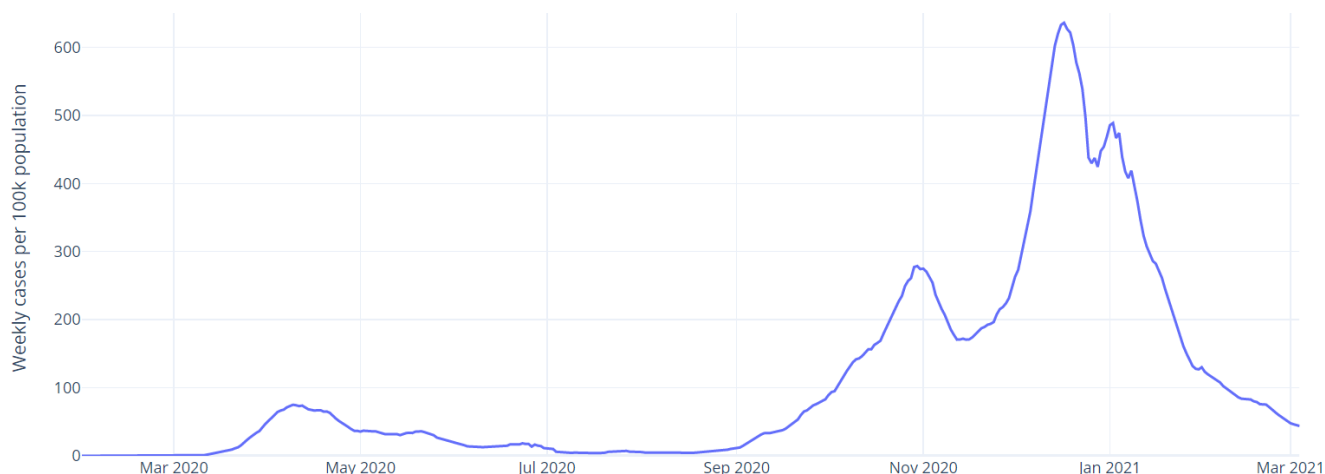


- A few countries are considering or have started unlocking measures but many others are either maintaining or increasing the level of non-pharmaceutical interventions (NPIs) in response to the worrying signs of increasing infection rates.
- For most European countries, the level of vaccination rollout is not enough to have an impact on the spread of the virus and the only effective control remains the use of NPIs. For most countries, this is likely to remain so for many months to come.

## Case numbers

- The figure below shows that numbers of confirmed COVID-19 cases per day (7 day rolling sum, per 100,000 of the population). Cases continue to show a downward trend, but less rapidly than previous weeks.

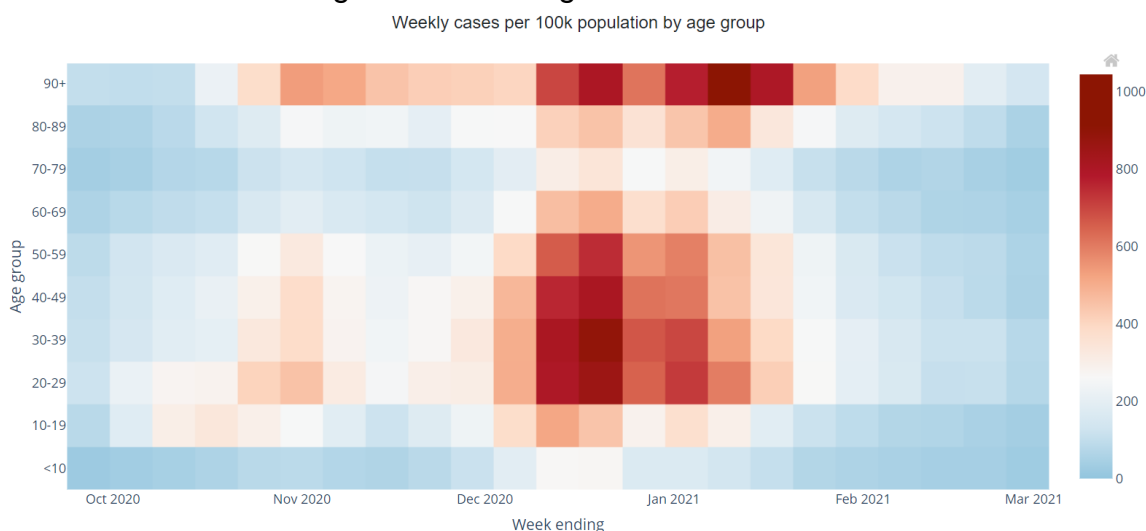




**Source:** Data from PHW as of 8 March, time period to 4 March

### Age profile

- The Figure below shows the number of confirmed COVID-19 episodes per 100,000 population, by week of sample collection and age group. The darker red indicates an increased number of weekly cases.
- According to PHW, during week 08, incidence decreased in all age groups. Incidence was highest in those aged 85+.



**Source:** Welsh Government dashboard, data from PHW as at 5 March.

### Covid-19 Infection Study results (Office for National Statistics)

- Analysis of data from the ONS infection survey is helpful because it provides the only estimates of infection covering asymptomatic as well as symptomatic cases, and they are not affected by other factors such as testing capacity or the number



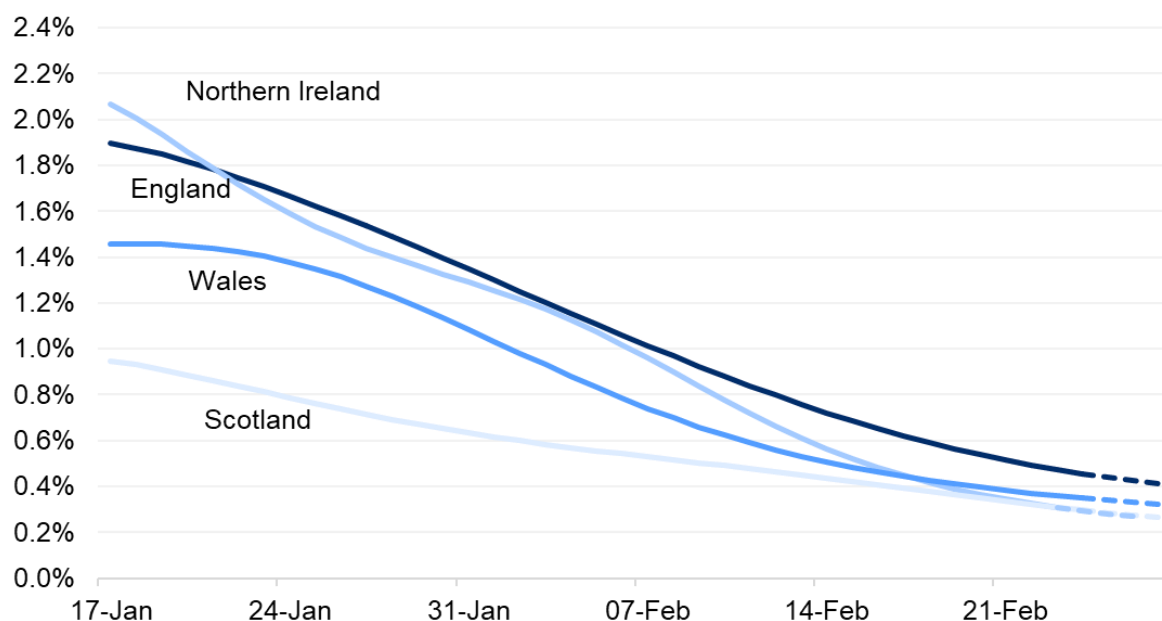
of people coming forward for testing. The results are for private households only – the ‘community population’ – and do not apply to those in hospitals, care homes or other institutional settings.

- However there is a greater lag in data from the infection survey than from other sources such as PHW. It is also important to stress the uncertainty around these estimates. Since the survey picks up relatively few positive tests overall, the results can be sensitive to small changes in the number of these positive tests. The sequencing data from PHW for positive cases may be more robust and less subject to a time lag, even though it generally only includes people who have chosen to be tested.
- Work is underway to understand the current differences between results from the Covid Infection Survey and figures published by PHW.

### Estimated positivity

- For the week 21 to 27 February 2021, an average of **0.35%** of the [community population](#) had COVID-19 (95% credible interval: 0.24% to 0.49%).
- This equates to approximately **1 person in every 285** (95% credible interval: 1 in 415 to 1 in 205), **or 10,600 people** during this time (95% credible interval: 7,300 to 14,800).
- The positivity rate in Wales has continued to decrease in the most recent week.
- The Figure below shows the latest estimates for positivity rates (%) since 17 January 2021 across the 4 UK Nations. There is some uncertainty around the individual point estimates for the nations. Estimates for the last few days of the series, shown as dashed lines in the chart below, have more uncertainty.





**Source:** Coronavirus (COVID-19) Infection Survey, ONS, 03/03/21

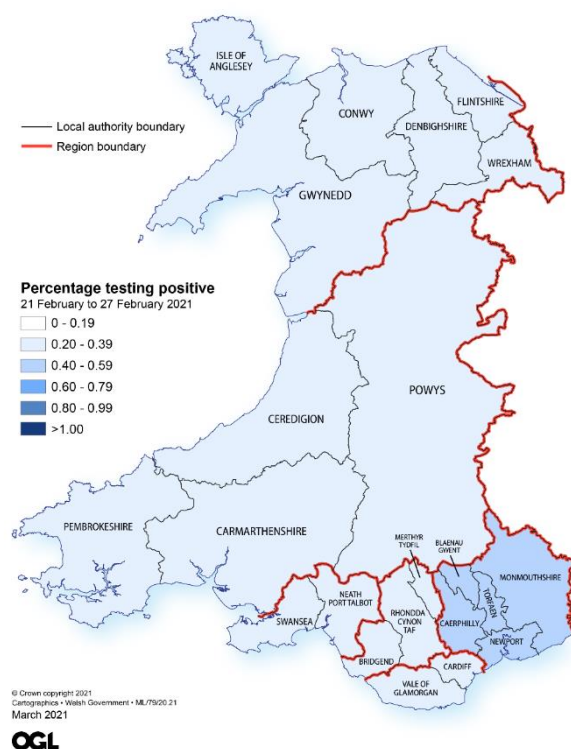
- The percentage of people testing positive for strains compatible with the new UK variant and where the virus is too low for the variant to be identifiable have decreased in the most recent week. The trend is uncertain for cases not compatible with the new variant.
- Rates of positive cases vary by age, but have decreased in all age groups in recent weeks.

#### Regional analysis:

- Regional modelled estimates are now available for Wales. Estimates are provided for the seven days up to 27 February 2021 based on modelling the entire seven-day period.
- Rates of positive cases are highest in the region including Caerphilly; Blaenau Gwent; Torfaen; Monmouthshire and Newport.
- Due to smaller sample sizes, there is a higher degree of uncertainty in estimates for individual regions, as indicated by larger credible intervals.
- The categories used in the map below have been updated and therefore are not comparable with last week's map.



## Estimates of the percentage of the population in Wales testing positive for the coronavirus (COVID-19) by region 21 February to 27 February



Source: Coronavirus (COVID-19) Infection Survey, ONS, 03/03/21

- See [here](#) for analysis from the ONS and [here](#) from the Welsh Government.

## Vaccination in Wales

- Whilst numbers will be higher due to ongoing data entry, 1,007,391 first doses of COVID-19 vaccine have been given in Wales, with 192,030 people having received two doses (as at 9 March).
- As reported by PHW on 3 March, vaccination coverage (first dose) is over 90% for people aged 80 years or older, 52% for people aged 60-69, and just under 90% for clinically extremely vulnerable (aged 16-69).
- The actual number of doses will be higher due to ongoing data entry.
- Vaccinations data, including coverage is available from the [PHW tableau](#).



## Deaths

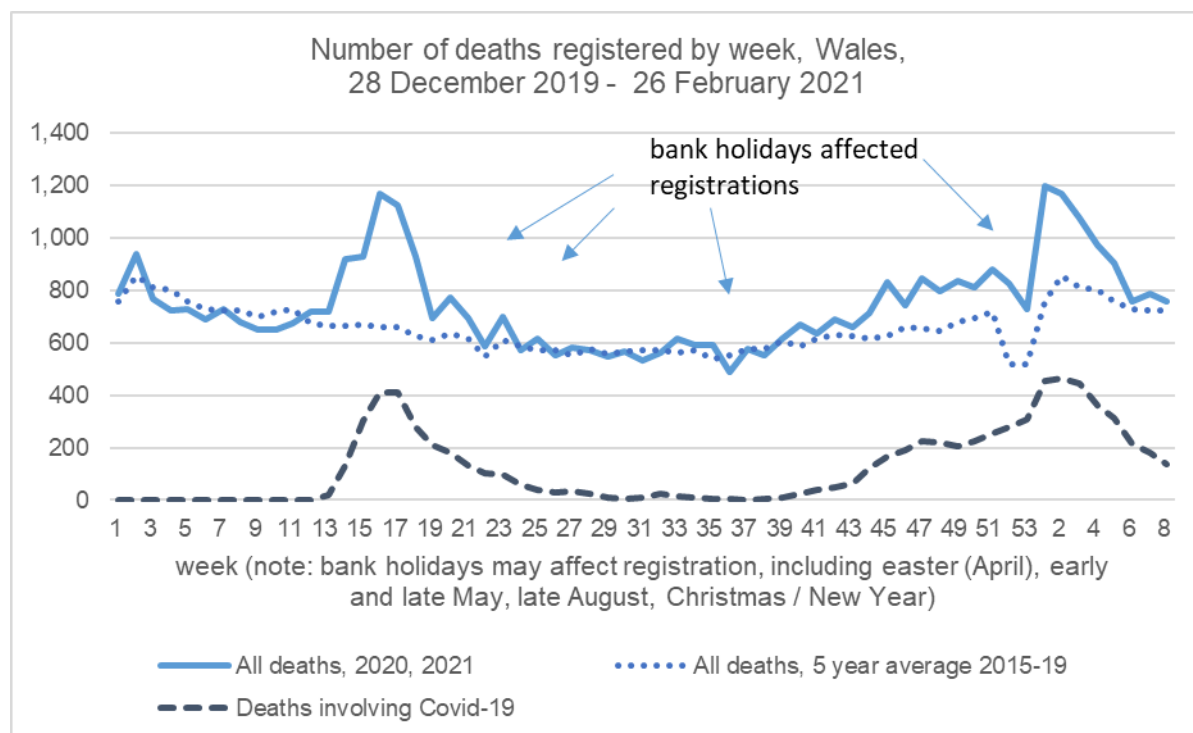
- The Figure below shows the 7 day rolling sum of COVID-19 deaths reported by PHW rapid mortality surveillance as at 4 March, and continues to decrease. However there are still just over 50 deaths per week. Care should be taken in interpreting the most recent trends.



**Source:** Welsh Government dashboard, data from PHW as at 4 March

- It is important to note that this data includes reports of a death of a hospitalised patients in Welsh hospitals or care homes where COVID-19 has been confirmed with a positive laboratory test and the clinician suspects COVID-19 was a factor that caused death. It does not include patients who may have died from COVID-19 but who were not confirmed by laboratory testing, those who died in other settings, or Welsh residents who died outside of Wales. The true number of deaths will be higher.
- The Office for National Statistics (ONS) reports on both suspected and confirmed COVID-19 deaths using data available on completion of the death registration process and whilst subject to a time lag, is more complete.
- Of the deaths registered in the week ending 26 February 2021, there were provisionally 138 deaths involving COVID-19 registered in Welsh residents. This was 18% of all deaths and 41 fewer than the previous week. The number of registered deaths involving Covid has declined for six successive weeks and is at its lowest level since late October.
- The Figure below shows ONS data of the number of deaths involving COVID-19 registered by week in Wales and the number of all cause deaths registered by week from 28 December 2019 to 26 February 2021.



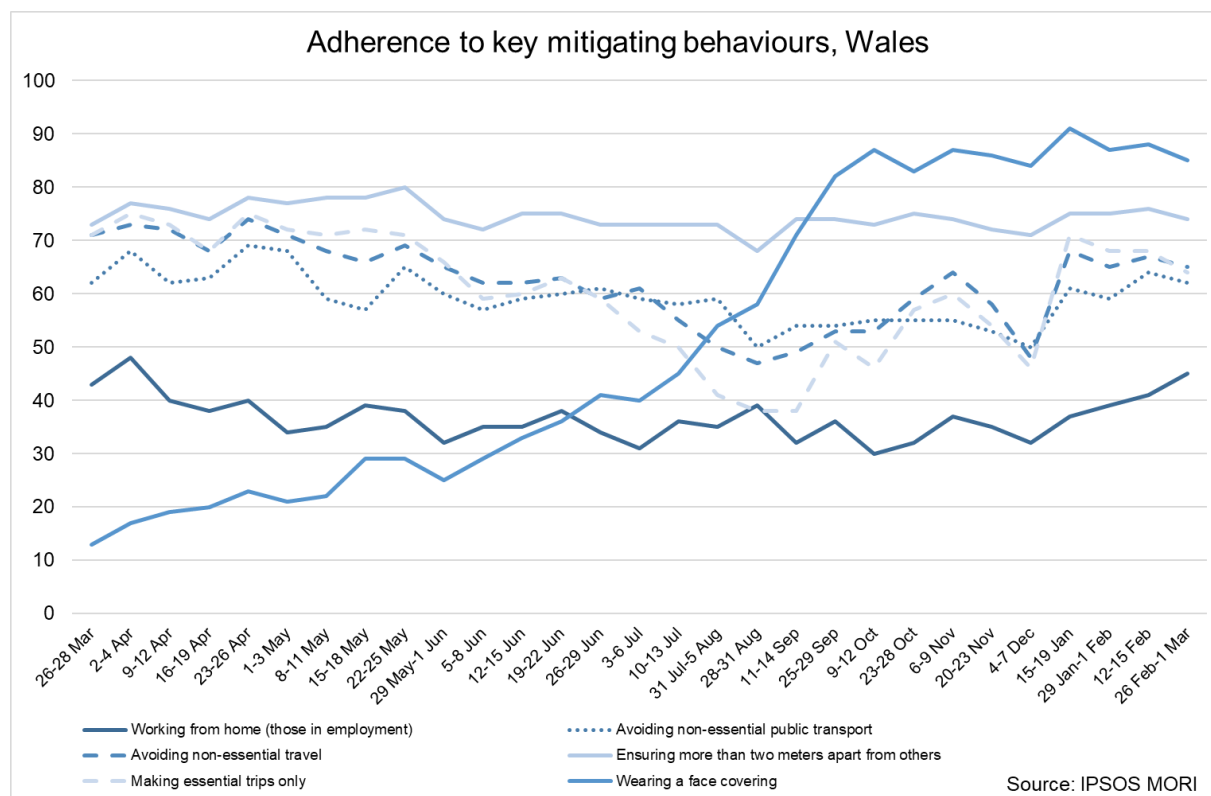


Source data: [Office for National Statistics](#)

### Adherence and understanding of current measures

- There is new data from IPSOS MORI this week. The results from PHW are the same as last week.
- The most recent [IPSOS MORI data](#) for the period 26 February – 1 March for Wales shows a similar picture to the last survey wave which was 2 weeks prior (12 - 15 February). It should be noted that this is self-reported adherence and will be affected by individuals understanding of the rules and the circumstances that apply to them.
- The figure below represents data collected online by IPSOS MORI as part of a multi-country survey on the Global Advisor platform. Each of the waves has included c.500 respondents in Wales. The sample is broadly representative of the adult population aged 16-74. Data is weighted to reflect the age and gender profile of the Welsh population aged 16-74. All samples have a margin of error around them. For a sample of around 500, this is +/- 4.8 percentage points.



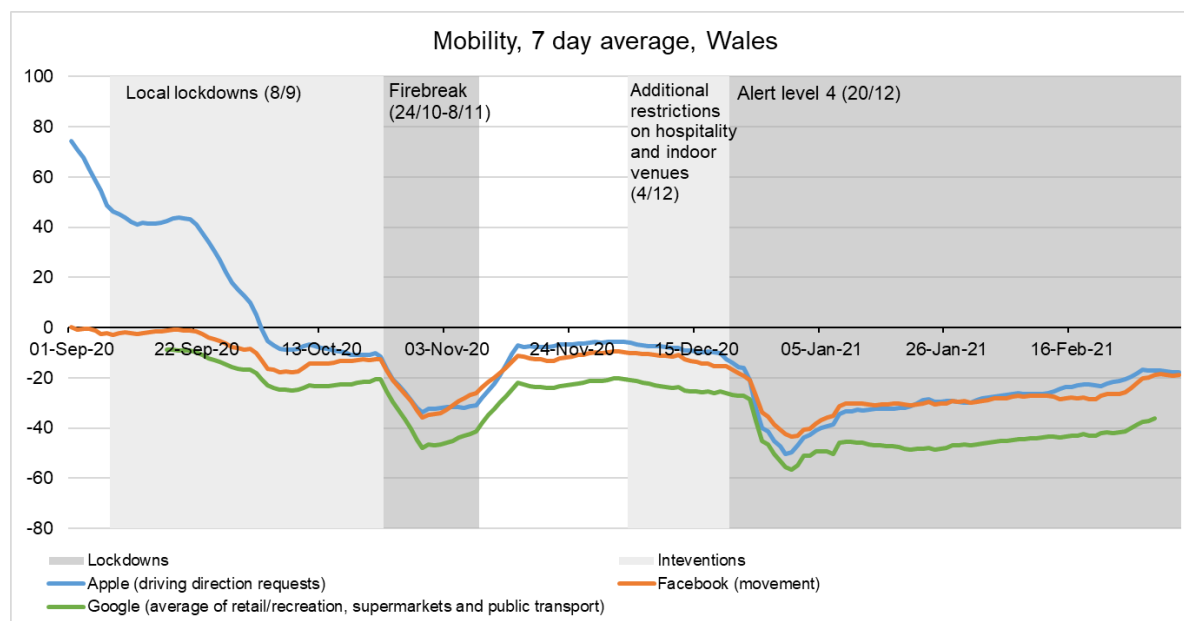


- The latest results from the [Public Engagement Survey on Health and Wellbeing during Coronavirus Measures](#) for the period 15 February – 21 February show that 53% of people say they understand the current restrictions in Wales ‘very well’. A further 41% reported understanding the restrictions ‘fairly well’. The survey also shows that 46% of people said they were following coronavirus restrictions ‘completely’ and a further 46% reported majority compliance. 19% reported having people outside their household/permitted extended household come into their house, whilst 14% reported going into others people’s houses. These results have been broadly the same since alert level 4 started.

## Mobility

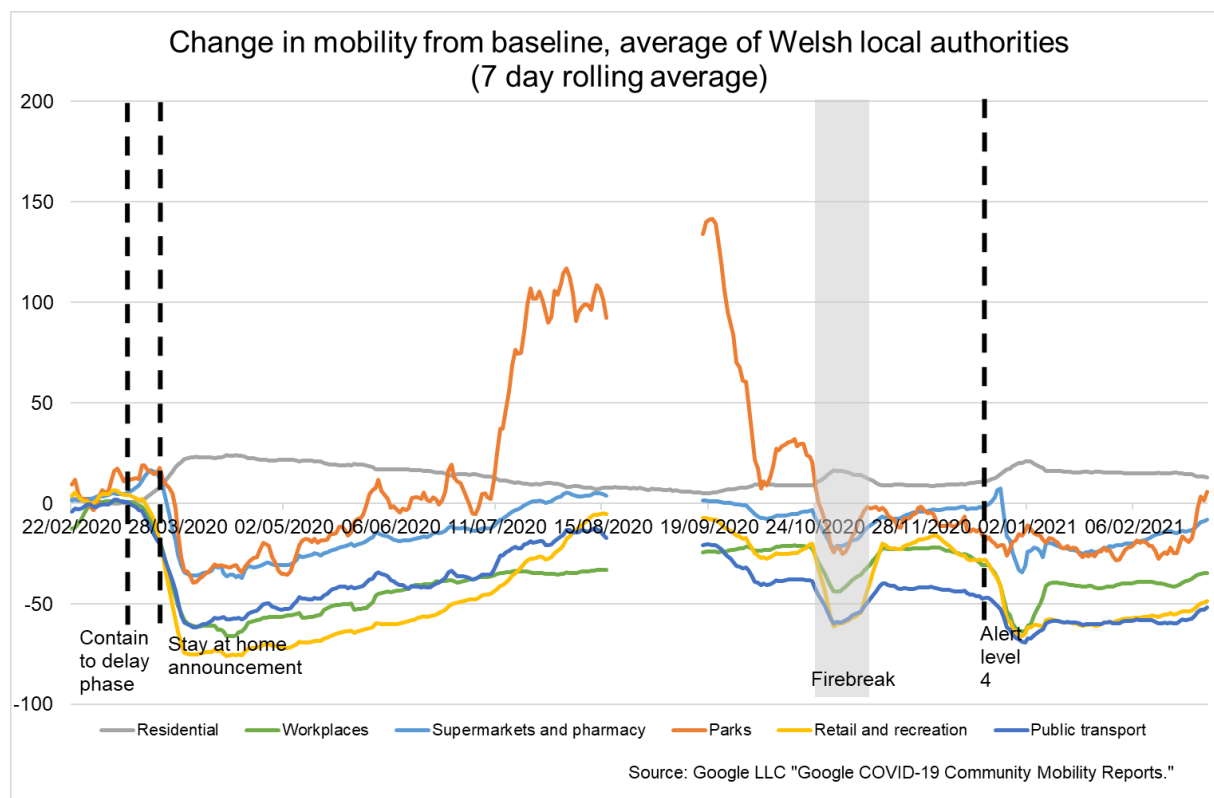
- Mobility data show an increase between the 25/26 of February and the 1/2 March, possibly due to the warmer weather that weekend and then the return of some pupils to school. Data since from Apple and Facebook suggest little change.





- Mobility of [Facebook users](#) in Wales shows movement was 19% below the baseline for the week to the 6 March. This is higher than the week before (22%). The percentage of users staying put (near to home) was 30%, lower than the week before (31%). The baseline is the average value, for the corresponding day of the week, during the 4-week period 2 February – 29 February 2020.
- [Apple data](#) for the week to the 6 March shows that requests for driving directions in Wales were unchanged from the previous week at 82% of the baseline. Requests for walking directions and requests for public transport directions were also unchanged from the previous week relative to the baseline. The baseline is the 13<sup>th</sup> of January 2020.
- The [Google mobility data](#) to the week of the 2 March for residential (i.e people spending time at home) fell from the week before to 13% above the baseline (down from 15%). Workplaces were up (at 35% below the baseline, up from 39%). Retail & recreation mobility was up from last week (48% below the baseline, up from 54%) and supermarkets & pharmacy increased (8% below the baseline, up from 14%). Public transport and parks increased over the week relative to the baseline.
- The figure below shows the change in mobility in Wales using Google mobility data. The figures are based on the average of the local authorities that have data. The baseline is the median value, for the corresponding day of the week, during the 5-week period Jan 3–Feb 6, 2020. The data for several categories is not available for August 17<sup>th</sup> – September 10<sup>th</sup> due to the data not meeting quality thresholds.





- Anonymised and aggregated mobile phone data from O2 for the week to the 26 February shows a small increase in trips compared to the week before. Trips starting in Wales rose by 1 percentage point to 55% of the baseline. The baseline for the O2 data is the same day of the week in the first week of March.

## Research

- There are currently 12,997 Welsh patients recruited to COVID-19 urgent public health studies, an increase of 527 since last report.

## COVID-19 weekly surveillance and epidemiological summary from PHW

As at 4 March

- The proportion of calls to NHS 111 and NHS Direct related to possible COVID-19 symptoms are stable compared to the previous week.
- Overall GP consultations for any Acute Respiratory Infection (ARI) and suspected COVID have decreased this week compared to the previous week.
- The number of ambulance calls possibly related to COVID-19 remained stable in the most recent week compared to the previous week.



- The all-Wales number of lab confirmed COVID-19 episodes has continued to decrease in the most recent week. Sample positivity for testing episodes was 5.4% in week 08.
- During week 08, incidence decreased in all age groups. Incidence was highest in those aged 85+.
- Confirmed case incidence has decreased or remained stable in all regions of Wales. Testing episode positivity continues to decrease nationally.
- At a national level, confirmed case admissions to hospitals and confirmed cases who are inpatients in hospital decreased compared to the previous week. In the most recent week, admissions to critical care wards decreased compared to the previous week.
- Recent surveillance data suggest that COVID-19 infections in Wales are decreasing in most regions of Wales. Cases remain geographically widespread, however the majority of local authority (LA) areas are seeing decreasing overall trends in confirmed case incidence in the most recent week.
- There was a decrease in the number of incidents reported in the most recent week, with care homes accounting for the highest proportion.
- From 22 February, children in the Foundation Phase (aged three to seven) began to return to school in a phased manner. Vulnerable children and children of critical workers remain able to receive face-to-face learning on school sites. Schools surveillance information is available on the [PHW dashboard](#).
- VOC 202012/01 (VOC1, identified in Kent) has been detected in all parts of Wales. Although overall confirmed case incidence is declining, the proportion accounted for by VOC1 has increased to between 77% and 100% (identified by the proxy indicator SGTF) across Health Boards. 4,474 genomically probable or confirmed cases have been identified as of 03/03/2021. There have been 24 genomically confirmed and probable cases of VOC 202012/02 (the variant linked to South Africa) in Wales (as of 03/03/2021). No cases of the variant VUI-202101/01 linked to Brazil have yet been identified in Wales.
- All-cause deaths have increased in the most recent week and are slightly above the 5 year average.
- Deaths in confirmed cases in hospital, reported through PHW mortality surveillance decreased in the most recent week.



- In deaths where information is available from PHW rapid mortality surveillance, chronic heart disease, diabetes and chronic respiratory disease are the most commonly reported risk factors (in 34%, 28% and 22% of deaths respectively).
- Influenza is not currently circulating in Wales.

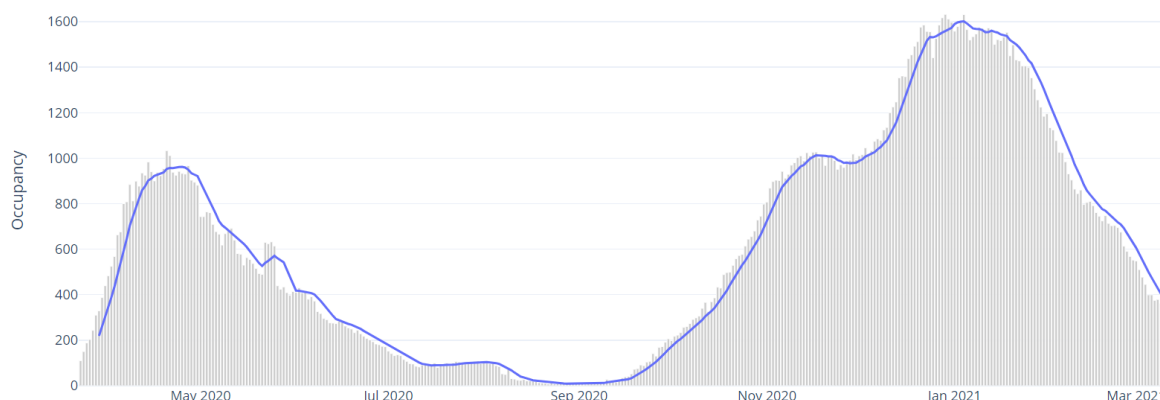
### Local authority analysis from PHW

(Period covering 26 February to 4 March 2021)

- Pembrokeshire has the lowest incidence, at 15 to <20 cases per 100,000. Monmouthshire is the only local authority with an incidence per 100,000 of 20 to < 25. Blaenau Gwent, Bridgend, Cardiff, Carmarthenshire, Neath Port Talbot, Newport, Powys, Rhondda Cynon Taf, Swansea, Torfaen and Vale of Glamorgan have an incidence of 25 to < 50 per 100,000 population. The remaining local authorities have an incidence of 50 cases per 100,000 population or higher.
- Test positivity is 2.5 to 5% in all local authorities, apart from Caerphilly, Conwy, Denbighshire, Flintshire, Gwynedd, Isle of Anglesey, Merthyr Tydfil, Powys, Wrexham.
- Further information is available on the [PHW dashboard](#). Please use caution in interpreting trends for the most recent period as testing data is not always complete and figures will be subject to future revision if late data feed through.

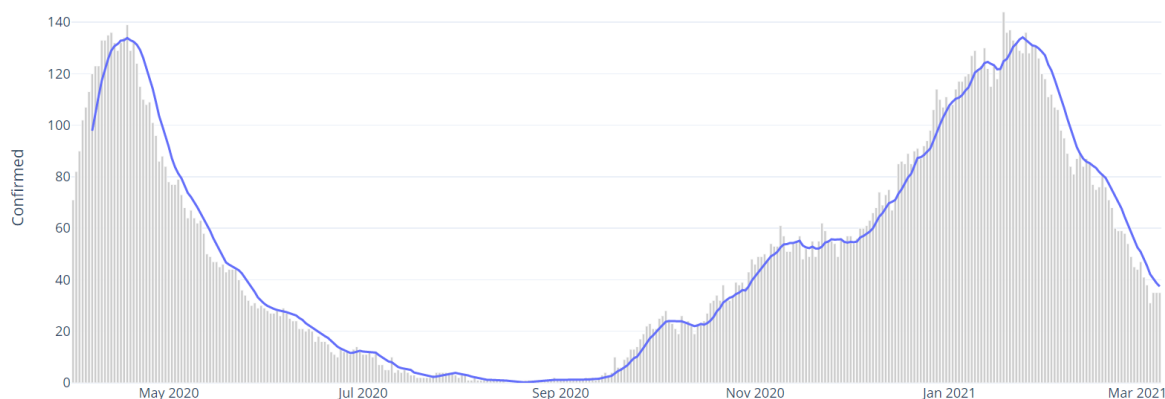
### Hospital occupancy

- The figure below shows the confirmed COVID-19 hospital occupancy over the first and second wave of the pandemic (7 day rolling average, as at 9 March).

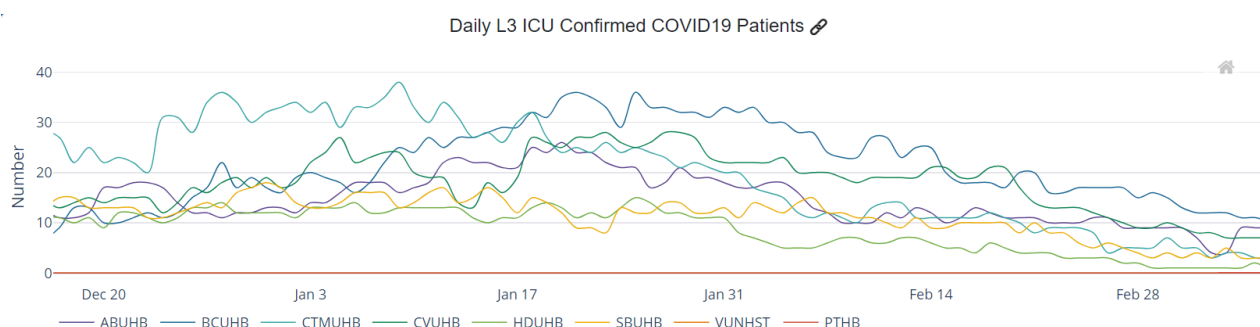




- The Figure below shows the confirmed COVID-19 intensive care unit (ICU) occupancy over the first and second wave of the pandemic (7 day rolling average, as at 9 March).

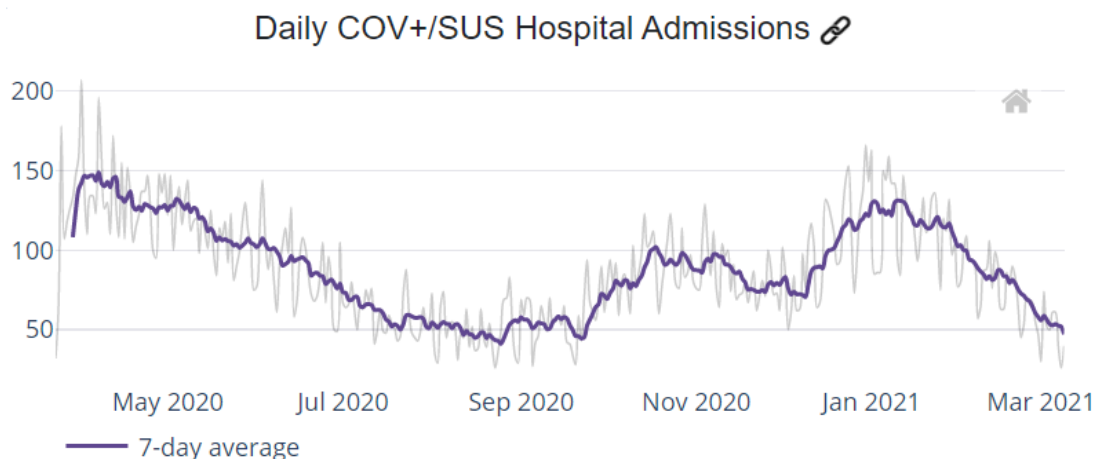


- As of 9 March the number of people with confirmed COVID-19 in hospital has decreased, but remains high with a weekly average of over 400 beds occupied. COVID-19 ICU occupancy is decreasing, with a weekly average of 35 beds now occupied (occupancy was around 20-30 at the beginning of the pandemic). The number of people recovering from COVID-19 continues to drop slowly although is still over 700 in the most recent week.
- When considering data on capacity (221 beds) and occupancy (147 beds) reported to us by local health boards, Level 3 ICU across Wales is approximately 67% occupied with both COVID and non-COVID patients (as of 9 March). However, there are normally approximately 152 critical care beds (Level 3 ICU equivalent) and so hospitals are creating additional critical care bed capacity due to increased demand. Therefore, critical care units in Wales are at or over 100% occupied for their normal critical care capacity and 1:1 nursing staffing ratio for all critical patients may not be possible for many patients, even with non-critical care staff helping to care for patients.
- The Figure below shows the total number of people who have tested Covid-19 positive and are in ICU in hospitals across the different health boards in Wales. Data as of 9 March.

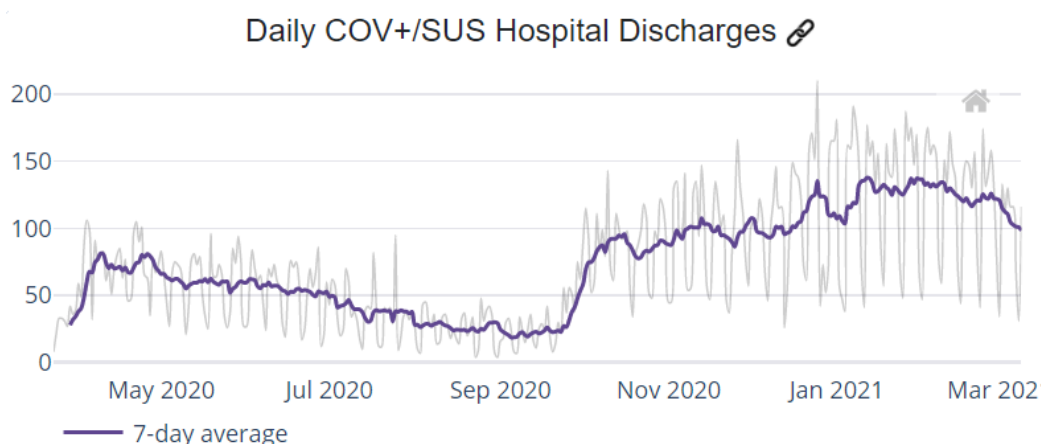




- The Figure below shows the number of people admitted to hospital and are either suspected (SUS) or confirmed as having Covid-19 (COV+). The purple line represents the total number over a rolling 7 day average, whilst the fainter grey lines show the actual figures at that time. Data as of 9 March.

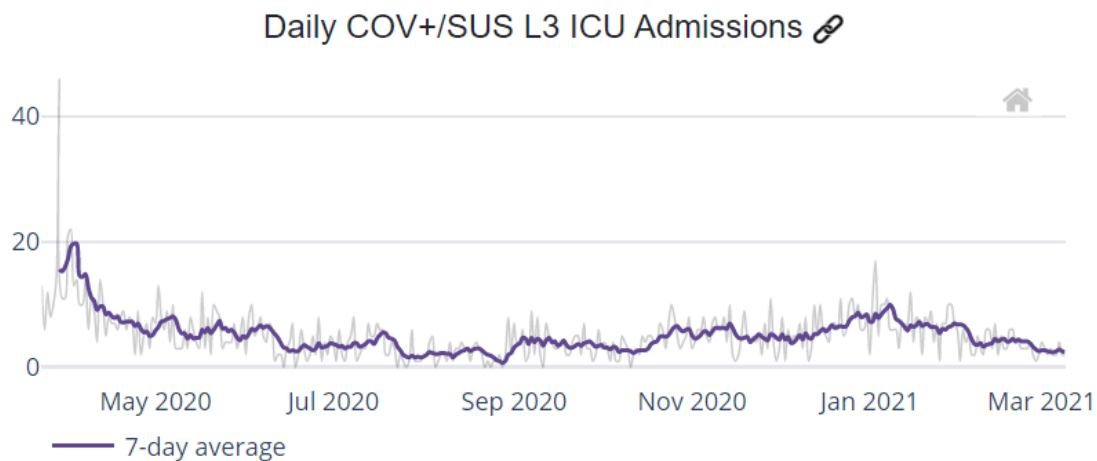


- The Figure below shows the number of hospital discharges of people who are either suspected (SUS) or confirmed as having Covid-19 (COV+). The purple line represents the total number over a rolling 7 day average, whilst the fainter grey lines show the actual figures at that time. Data as of 9 March.



- The Figure below shows patients admitted to the intensive care units and are either suspected (SUS) or confirmed as having Covid-19 (COV+). The purple line represents the total number over a rolling 7 day average, whilst the fainter grey lines show the actual figures at that time. Data as of 9 March.





**Professional Head of Intelligence Assessment (PHIA) probability yardstick**

- Where appropriate, TAC advice will express Likelihood or confidence in the advice provided using the PHIA probability yardstick to ensure consistency across the different elements of advice.

