

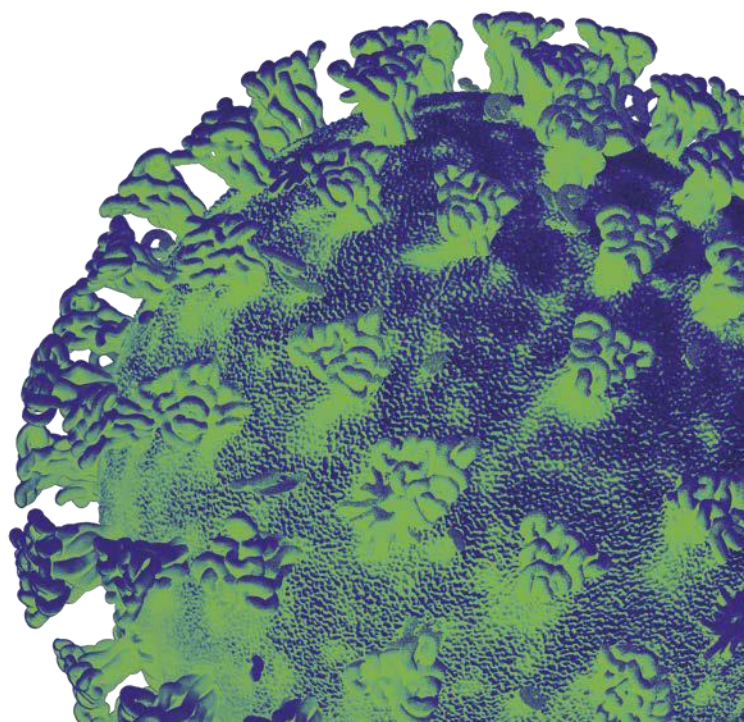
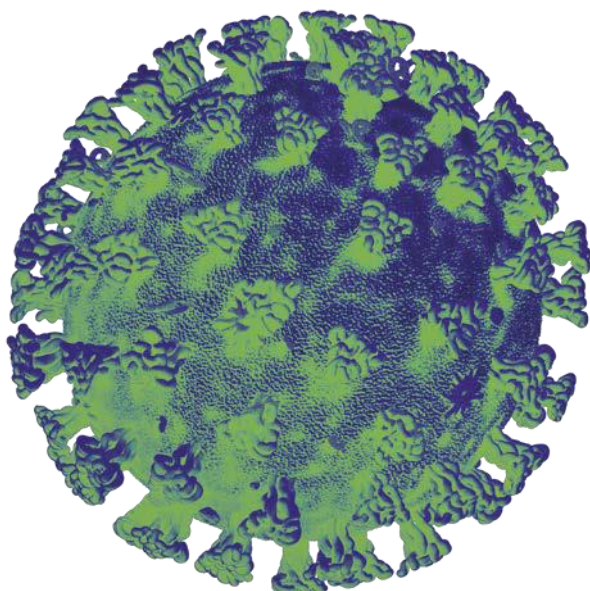
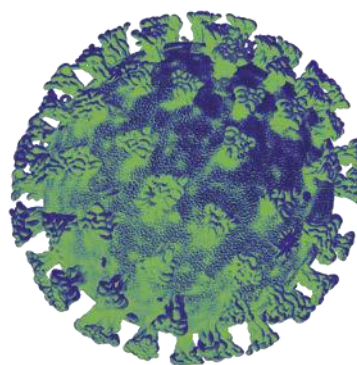


Llywodraeth Cymru
Welsh Government

Technical Advisory Cell

Summary of advice

31 July 2020



Technical Advisory Cell: Summary Brief

31 July 2020

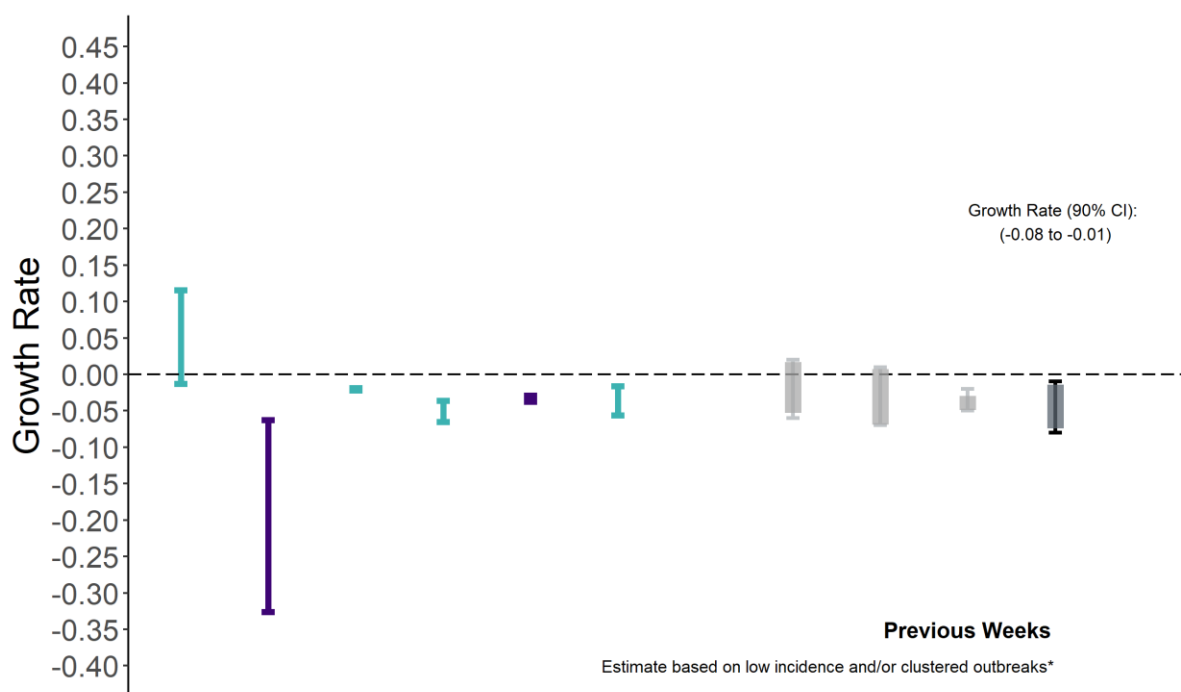
Top-line summary

- The current growth rate estimate for Wales suggests that infections are currently declining between 1% and 8% per day.

Growth Rate

- There are currently five models that estimate growth rates for Wales. The results from these models are also combined using equal weights to provide an overall central estimate of growth rate. Figure 1 shows the latest growth rate estimates for Wales, including the combined model. The current growth rate is between -0.08 and -0.01 which means that infections are currently estimated to be declining by between 1% and 8% per day.

Figure 1: Current estimates for growth rate in Wales – with 90% confidence intervals, along with the combined model based on equal weights



Key

● Cases ● Deaths ● Multiple ● Survey ● Combined

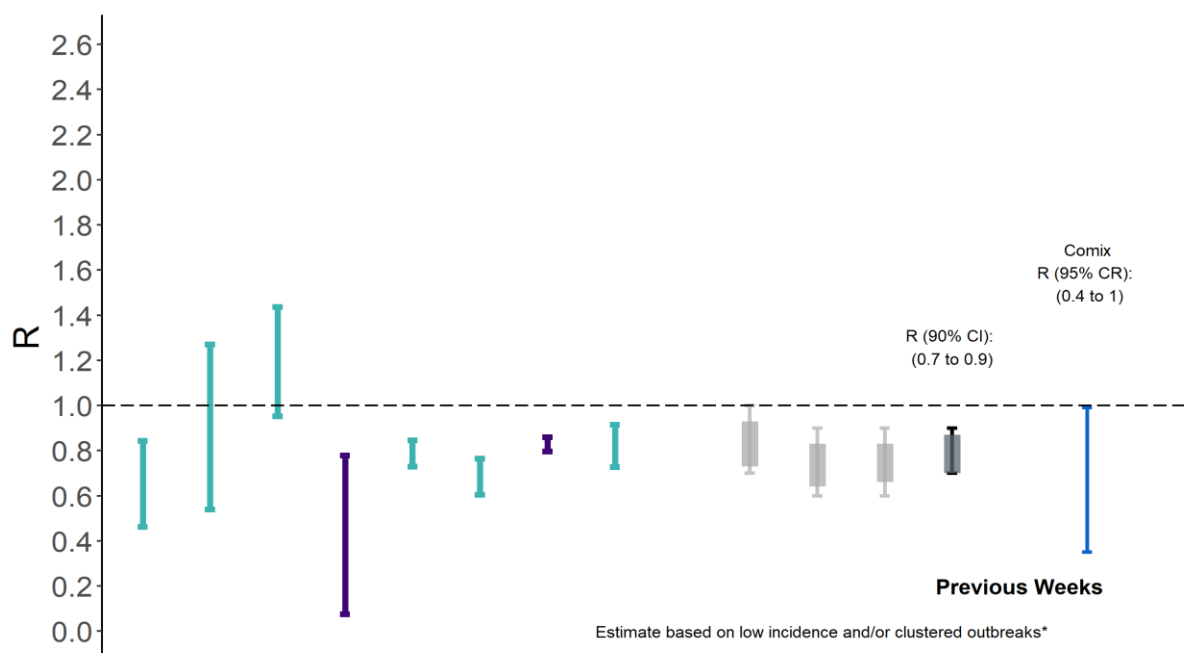
Reproduction ratio

- The most recent estimate of the Reproduction number R_t for Wales from the Scientific Advisory Group for Emergencies (SAGE) is predicted to be between 0.7 and 0.9. Due to the low number of cases, the estimate of R_t is now shown as a range without a central estimate.
- R_t has been below 1 since May which has led to a reduction in cases and hospitalisations. If R_t remains below 1, then cases will continue to fall. As the number of cases falls, the impact of over-dispersion events may increase where instances of the virus being spread to several people in a short space of time may lead to fluctuations in the number of cases. We have seen this with detected cases being driven by outbreaks centred on specific communities or workplaces.

Current Estimate of R_t

- SAGE best estimate for the UK is that R is between 0.8 and 0.9. This UK estimate of R is the average over very different epidemiological situations and should be regarded as a guide to the general trend rather than a description of the epidemic state of the country as a whole.
- SAGE best estimate for R in England is between 0.8 and 1.0. However, estimates of R always rely on lagged data. Models that use pillar 2 testing data, a likely leading indicator for changes in transmission, suggest higher values for R in England and several of its regions than those models using more lagged indicators, such as the number of deaths. The increasing proportion of pillar 2 tests returning a positive result over the past two weeks also supports this. As a result, SAGE do not have confidence that R is currently below 1 in England.
- Estimates of R and the growth rates per day are less reliable and less useful in determining the state of the epidemic when disease incidence is low or where there is significant variability in the population, for example, local outbreaks. Both are average measures and will smooth over outbreaks at small spatial scales or over short periods of time.
- In order to take into account all evidence and approaches results from all models are combined using equal weights to provide an overall estimate of R_t for Wales. This is shown in black to the right of Figure 2 below.
- Results are anonymised to avoid giving precedence to one particular model over another. Confidence intervals (90%) are also shown. The assessment of this evidence from SAGE is that R_t was likely to be below 1 in Wales. The methodology for the Comix model is very different, so cannot be compared with the other models. It is therefore plotted separately from the others, and shown in blue on the right of Figure 2.

Figure 2. Current estimates of R_t in Wales –with 90% confidence intervals, along with the combined model based on equal weights. Note: Comix estimate is shown separately as based on different methods to the other estimates.



Key

● Cases
 ● Deaths
 ● Multiple
 ● Survey
 ● Combined

Halving time

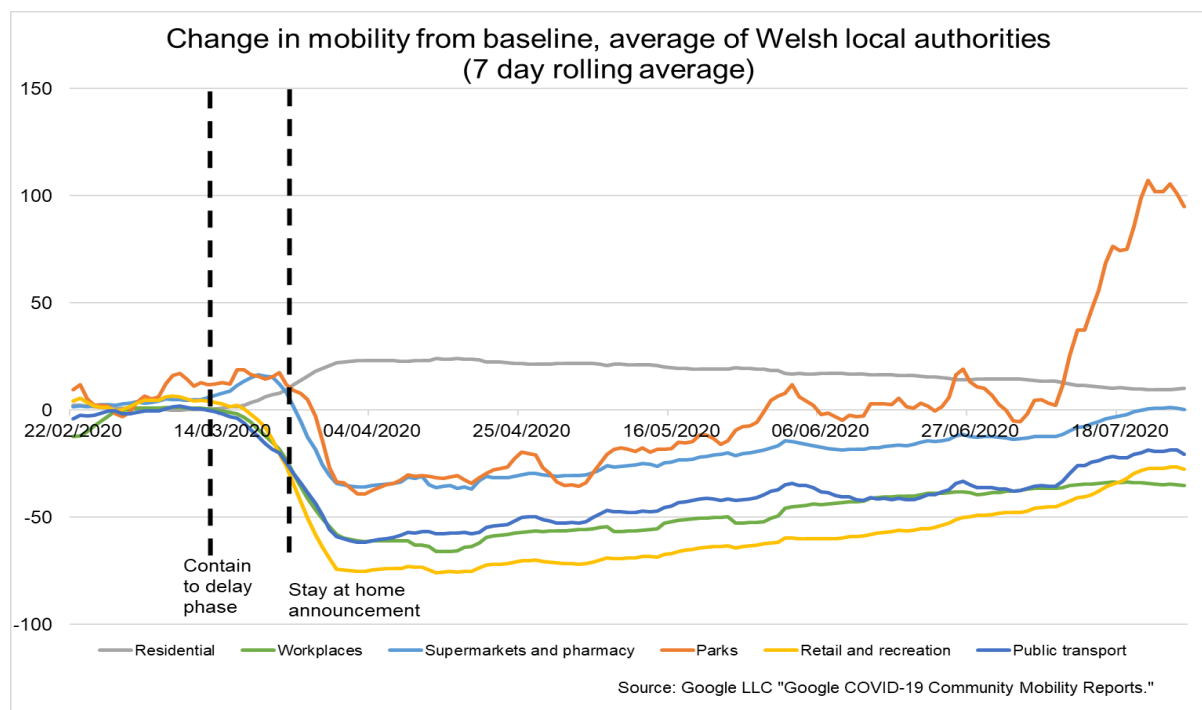
- Reliable estimates of halving times cannot currently be estimated due to low numbers of admissions.

Adherence to current measures and mobility

- The most recent [IPSOS MORI survey results](#) showed that many people in Wales were continuing to follow the social distancing guidelines but there was a further reduction in those making only essential trips.
- The latest results from the Public Engagement Survey on Health and Wellbeing during Coronavirus Measures show that 44% of people came into close contact (within 1 metre) with at least 3 people from outside their household/extended household in the last 7 days. 39% reported that others outside their household/extended household had been in their house in the last week and 29% reported going into one or more other houses in the last week (excluding their extended household).

- Between mid-April and early June travel has increased steadily. For the remainder of June the increases were generally smaller. The first half of July saw large increases, but the last week has seen some stability.
- In mid-April travel of [Facebook users](#) in Wales was 50% lower than the baseline, this is now around 10% and has fallen slightly in the last week following large increases earlier in July. 27% of Facebook users in Wales are staying put, up a little from last week, but down from over 30% in early July.
- [Apple data](#) showing requests for driving directions in Wales have increased significantly since early July and are now the highest they have been since the data started in January. The [Google mobility data](#) shows minimal change in most categories in the last week, following several weeks of increasing travel.
- After lockdown patterns of travel between England and Wales were broadly similar. Between mid-May and early-June England saw larger increases in travel than Wales, with Scotland showing a similar pattern to Wales. During July travel increased more in Wales than in England, but were similar to changes in travel in Scotland.
- Figure 4 below shows the change in travel 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.

Figure 4: Change in travel in Wales



Local Interventions

- TAG agrees with the SPI-B consensus statement on the behavioural aspects to consider when implementing a local or regional intervention to control community transmission of the virus.
- It is considered that the terminology of 'local lockdown' is not helpful as it gives the impression of punishment and a restriction of liberty. The group advocated for adopting 'areas of intervention' as the terminology, with a focus on care and support.
- The likely barriers to public and community acceptance and adherence to 'areas of intervention' include:
 - The perception of contradictory messaging – i.e. that an ongoing national narrative of easing restrictions is inconsistent with the necessary local messaging outlining greater restrictions in 'areas of intervention'
 - A lack of clear support arrangements (compared to initial national lockdown in March) i.e. no clear furlough arrangements, support for small business, volunteer networks, advice on shielding, etc.
 - A lack of motivation to adhere – there is a perception that the 'lockdown' approach has failed to prevent continued transmission, so why should people adhere to something that they perceive to be unsuccessful
 - Questions on the legitimacy of local interventions – there is a sense that they are arbitrary or discriminatory, particularly where there is not enough transparency around the information used to base decisions on, and no clear support to address the disproportionate effects such local interventions could have.
- Consideration of local interventions in other countries has suggested that getting the spatial scale of the intervention correct is a key aspect of success – approaches that are either too narrowly focused or too widely defined can feel disproportionate and undermine legitimacy and compliance.
- The main effects of non-adherence (beyond slowing transmission of the virus) are the potential for erosion of social cohesion (particularly where the areas of intervention are perceived to be along racial/ethnic lines) and economic decline.
- To mitigate against these risks, policies for introducing local/regional 'areas of interventions' should consider:
 - The proportionality of the area of intervention

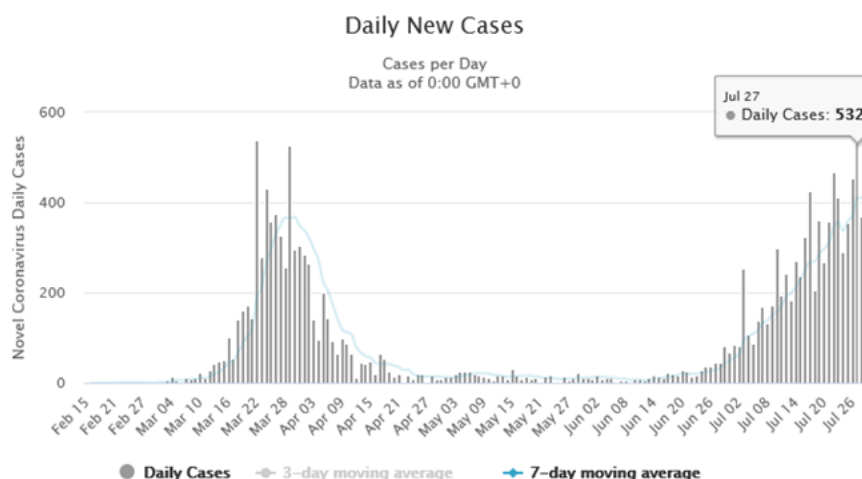
- Opportunities for co-production of the approach and messaging – a national framework might be required, but this could be locally ‘tuned’
- Introduction of support measures to mitigate impacts of the restrictions
- Considered communications – take care to avoid ‘punishment’ perception, alignment with the wider national messaging, culturally appropriate, etc.

Research

- There are currently 4717 Welsh patients recruited to COVID-19 urgent public health studies, an increase of 204 in last seven days.

International Analysis

- Several countries are showing very obvious second waves (or continuation of previously suppressed initial outbreaks), even in countries which had achieved very good control over their pandemics such as Australia.
- In Melbourne, despite 6 weeks of an increased level of control, the incidence of infections, and deaths, has risen sharply and to such an extent that it has raised the infection incidence for the whole of Australia to a level comparable to or exceeding the first wave (see graph below).
- The incidence of obvious infection and deaths has been mainly among the age group 70-90 but other age groups have been affected to a lesser extent. Australia has closed the borders to the State of Victoria and the State will impose a mandatory face covering requirement anywhere in public in the whole State from midnight on Sunday 2nd August and other measures (such as restrictions on gatherings at weddings and funerals, etc.).



- The second wave outbreaks in Australia and in other countries demonstrates the continued risk of outbreaks in all countries, even those that have suppressed their infection incidence to near zero. So far, localised or regional outbreaks has been the pattern but as winter approaches and people's behaviours change, the number of outbreaks is likely to increase. Furthermore in many affected communities, there is likely to remain a subdued level of infection which will not go away despite increased control measures and these are likely to be the sources of renewed hotspots as restrictions are eased.
- The fear is that, once the virus becomes spread evenly across a whole country, it will be impossible to control it without major imposition of controls – India is an example where the virus has escaped from the densely populated urban areas and has spread to rural populations and is becoming an out-of-control pandemic. Other countries are showing similar symptoms.
- In Europe, the pandemic is fairly well controlled still except for some countries in the Balkans (Serbia, Croatia, Bosnia & Herzegovina, North Macedonia, etc.), Spain, Bulgaria and Romania where there are significant second waves. Elsewhere in Europe, there worrying signs that have not yet developed into full second waves but have the potential to do so, for example Belgium (in Antwerp a night curfew is being introduced), Luxembourg and France.

COVID-19 weekly surveillance and epidemiological summary from Public Health Wales

- NHS 111 and NHS direct calls for COVID-related symptoms are low and stable
- Ambulance calls possibly related to COVID are stable
- Testing positivity has declined from nearly 50% in April to 1% for the 7 days ending 29th July.
- During week 30 the number of lab confirmed COVID-19 episodes increased nationally (due to increases mainly in the North East)
- Both hospital and ICU admissions are still falling overall

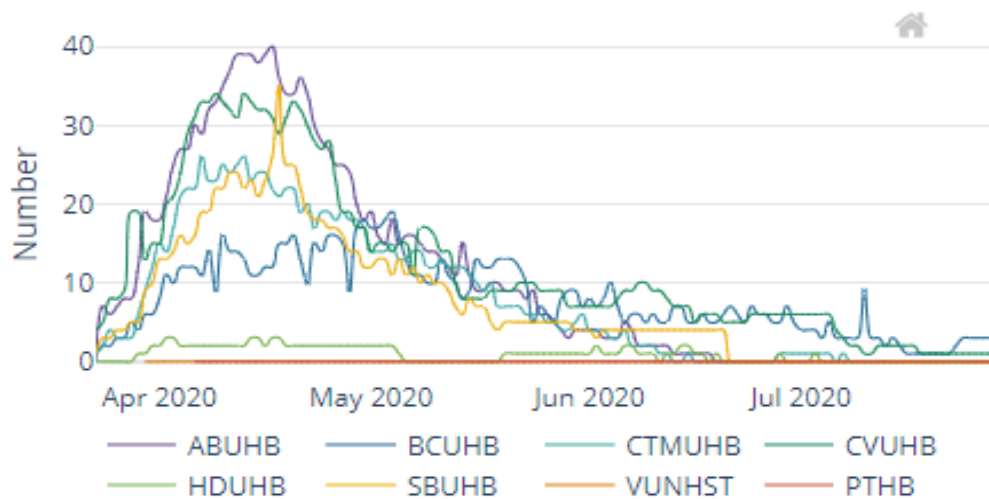
NHS Data Dashboard

- PHW data updated at 29/07/2020
- Hospital data updated at 29/07/2020

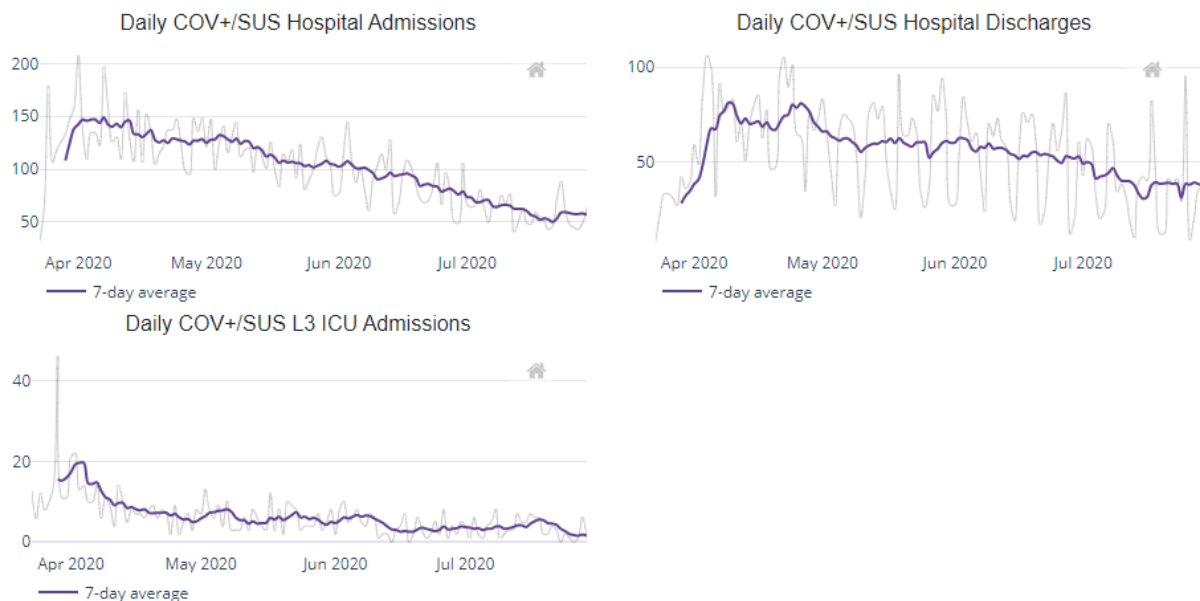
L3 ICU

- Of the total of 135 patients in L3 ICU in Wales (up from 126 in previous report):
 - 4 are confirmed COVID patients (3 in BCUHB & 1 in CVUHB);
 - 7 are suspected COVID patients (4 in ABUHB, 2 in BCUHB, & 1 in HDUHB)
- Of the health boards with L3 ICU units:
 - HDUHB is at 67% occupancy (with 1 suspected COVID patient)
 - ABUHB is at 59% occupancy (with 4 suspected COVID patients)
 - BCUHB, CTMUHB, CVUHB and SBUHB are at less than 50% occupancy.

Daily L3 ICU Confirmed COVID19 Patients



7-day Averages



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.

