

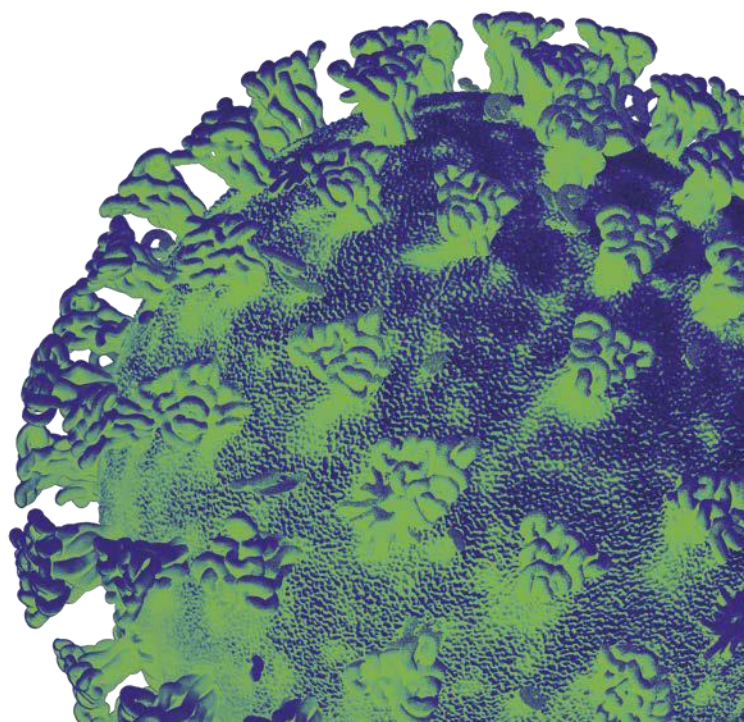
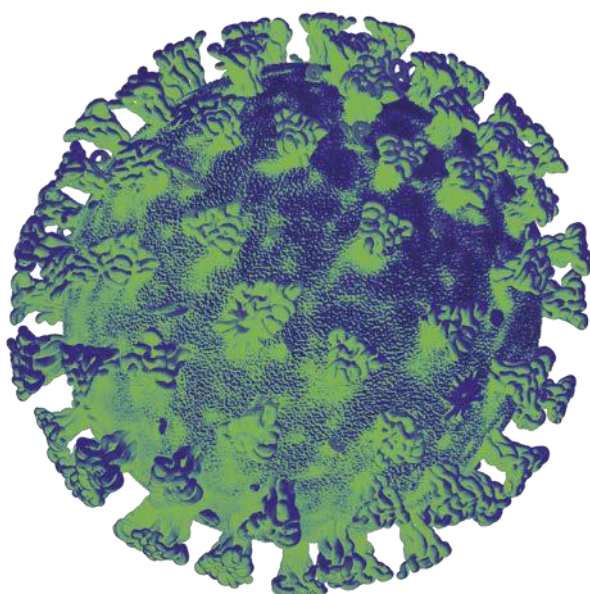
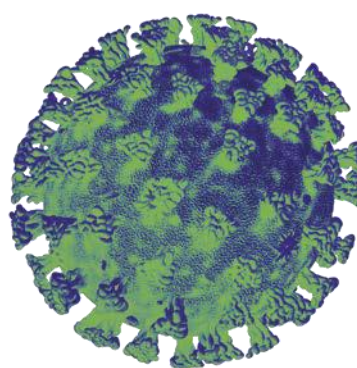


Llywodraeth Cymru
Welsh Government

Technical Advisory Cell

Summary of advice

17 July 2020



Technical Advisory Cell: Summary Brief

17 July 2020

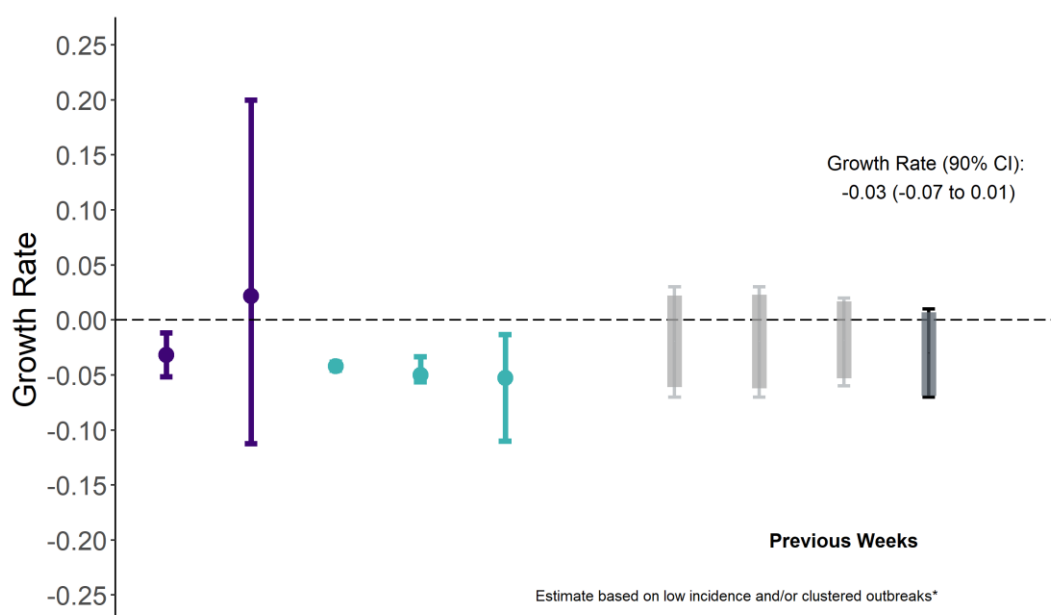
Top-line summary

- It is highly likely that the growth rate in Wales is declining and is estimated to be -0.03, meaning that COVID-19 infections in Wales are currently declining by around 3% per day.
- The R_t number in Wales is below 1 and has been for at least eight weeks. However, as numbers continue to fall, TAG does not have confidence that the R_t estimate alone is sufficiently robust to inform decisions.
- TAG has [published](#) a series of statements on testing. It is important that tests are used in ways that are appropriate to their design and performance characteristics; and that the purpose of testing, and the action that will follow from the results, are clearly defined and agreed prior to implementation.

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 -0.03 (90% confidence intervals from -0.07 to 0.01) which means that infections are currently estimated to be declining by around 3% 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

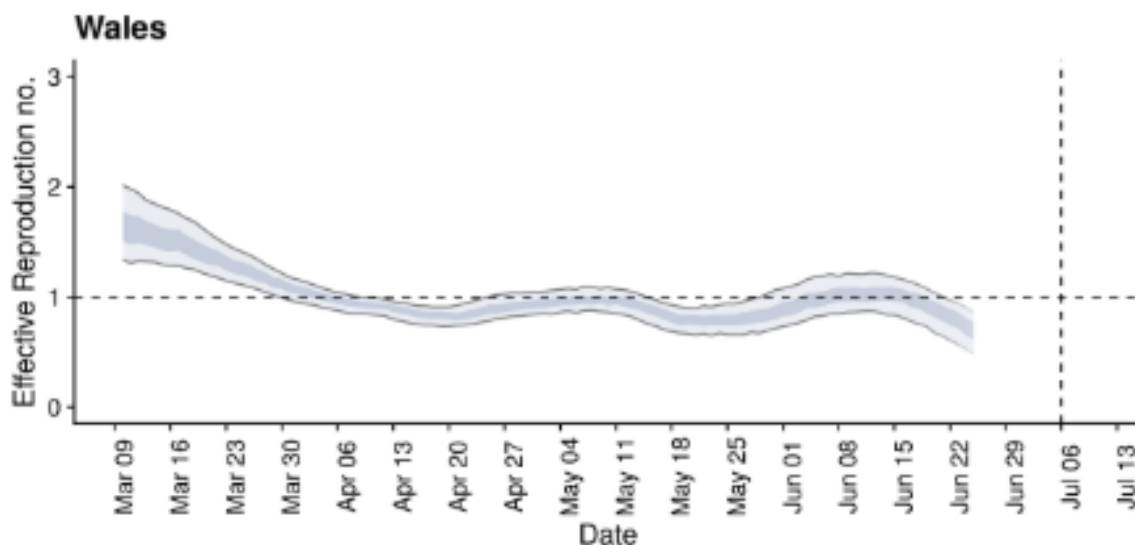
 Cases
  Deaths
  Multiple
  Survey
  Combined

Source: SPI-M

Reproduction Number

- The most recent estimate of the Reproduction number R_t for Wales from SPI-M is predicted to be between 0.60 and 0.80 with a central estimate of 0.7. Because we are in a low incidence phase, SAGE do not advise making policy decisions based on this R number which is not reliable.
- This estimate and the estimate produced for 23/06/20 are based on different sets of models, so the two cannot be compared directly. R_t has been below 1 for at least eight weeks which has led to a reduction in cases and hospitalisations.
- If R_t remains below 1, then cases will continue to fall. If the incidence of infections continues to decline, other measures such as number of new cases and GP reports will become more important than using R_t as the primary indicator
- Figure 2 below shows the time-varying estimate of the effective reproduction number in Wales based on one estimate produced by London School of Hygiene and Tropical Medicine. This estimate is based on confirmed cases and does not go into the SPI M consensus estimate but it shown because we can clearly see the trend.
- Estimates from existing data are shown up to the 26th June 2020. However, numbers have been too small to produce reliable estimates since June 22nd in Figure 1. These should be considered indicative only. The horizontal dotted line indicates the target value of 1 for the effective reproduction no. required for control. The vertical dashed line indicates the date of report generation.

Figure 2: R_t in Wales



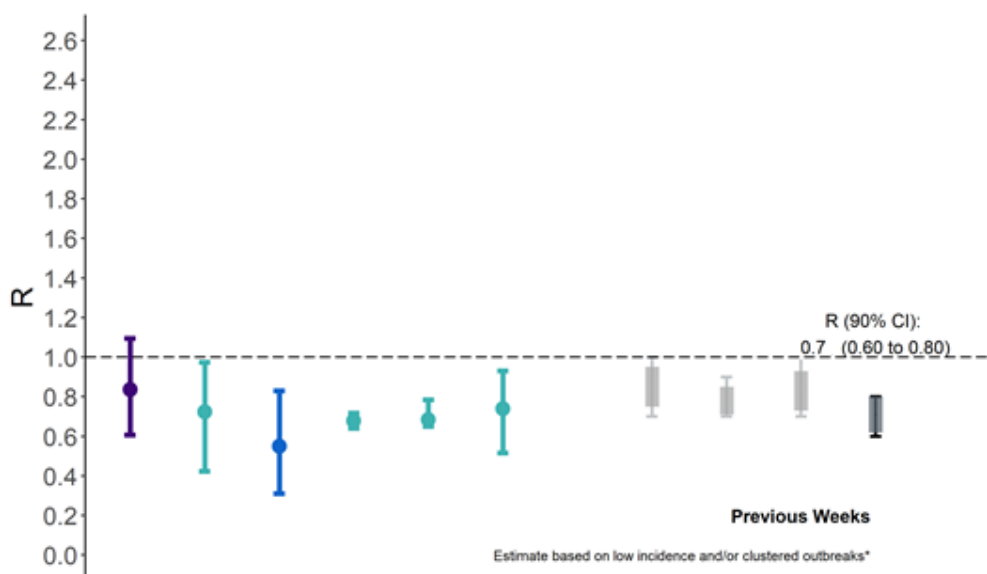
Source and further information: National and Subnational estimates for the United Kingdom <https://epiforecasts.io/covid/posts/national/united-kingdom/>

Current Estimate of R_t

- There is evidence of small variations in R_t between the different nations of the UK. There is, however, greater uncertainty in the estimates for Scotland, Wales, and Northern Ireland partly due to the smaller numbers of cases and deaths compared to England.
- Any changes in transmission that may have occurred in the past two to three weeks will not yet be reflected in clinical data, nor therefore in current estimates of R_t .
- There are three settings which are particularly relevant to the current situation: the community, care homes, and hospitals. These are not independent; infection can be spread between hospitals and care homes, from these settings back into the community, and vice versa. These cannot be captured though estimating R_t separately for care homes and hospitals. R_t only considers onward transmission after the virus has been introduced into a particular population. There are signs that healthcare acquired infections are accounting for a lower proportion of cases over time.
- SPI-M-O recommends that the situation in particular settings is not monitored using R_t , but rather in terms of how the number of cases and deaths in them is changing and, where possible, epidemiological investigation of how the three epidemics interact.

- 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 3 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 SPI-M is that R_t was likely to be below 1 in Wales.

Figure 3. Current estimates of R_t in Wales –with 90% confidence intervals, along with the combined model based on equal weights Source: SPI-M



Key

● Cases
 ● Deaths
 ● Multiple
 ● Survey
 ● Combined

Halving time

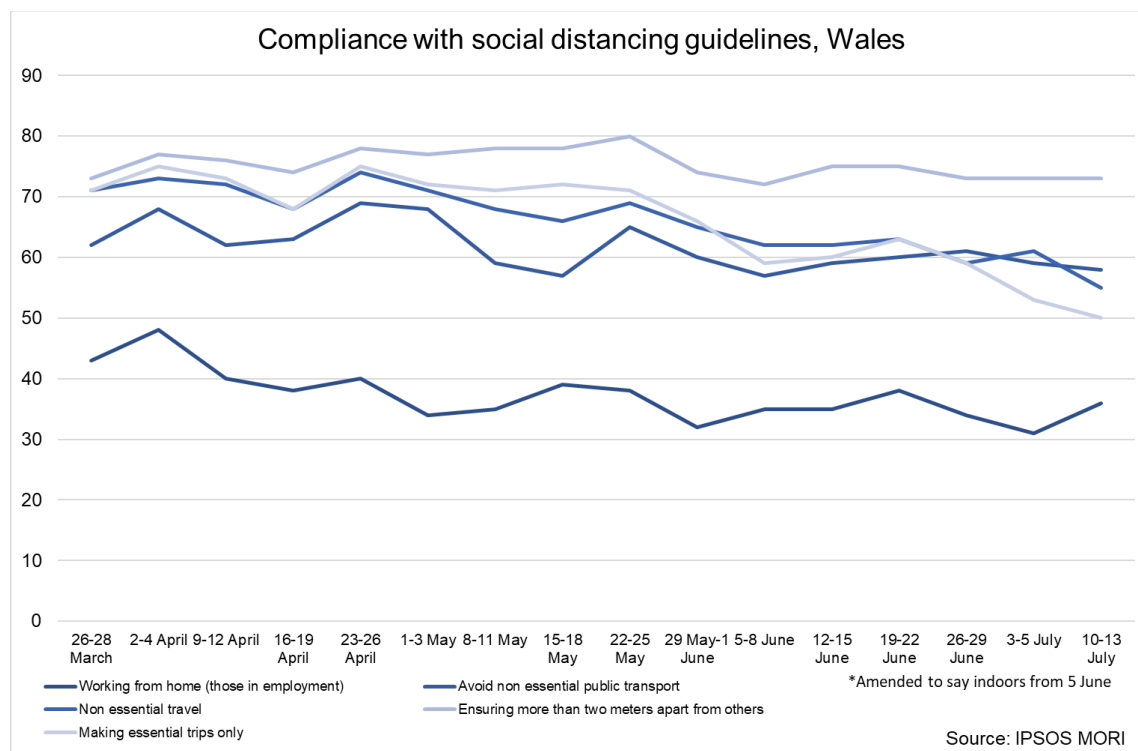
- Reliable estimates of halving times cannot currently be estimated due to low and stable numbers of admissions.

Adherence to current measures and mobility

- The latest data shows that many people in Wales continue to follow the social distancing guidelines. The number of people in Wales travelling for reasons other than essential trips only has been increasing in the last week, reflecting the easing of restrictions.
- Figure 4 represents data collected as part of a multi-country survey. Each of the waves has included approximately 600 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. For further information on public views on COVID-19, please see: <https://gov.wales/surveypublic-views-coronavirus-covid-19>.

Figure 4: Compliance with social distancing in Wales

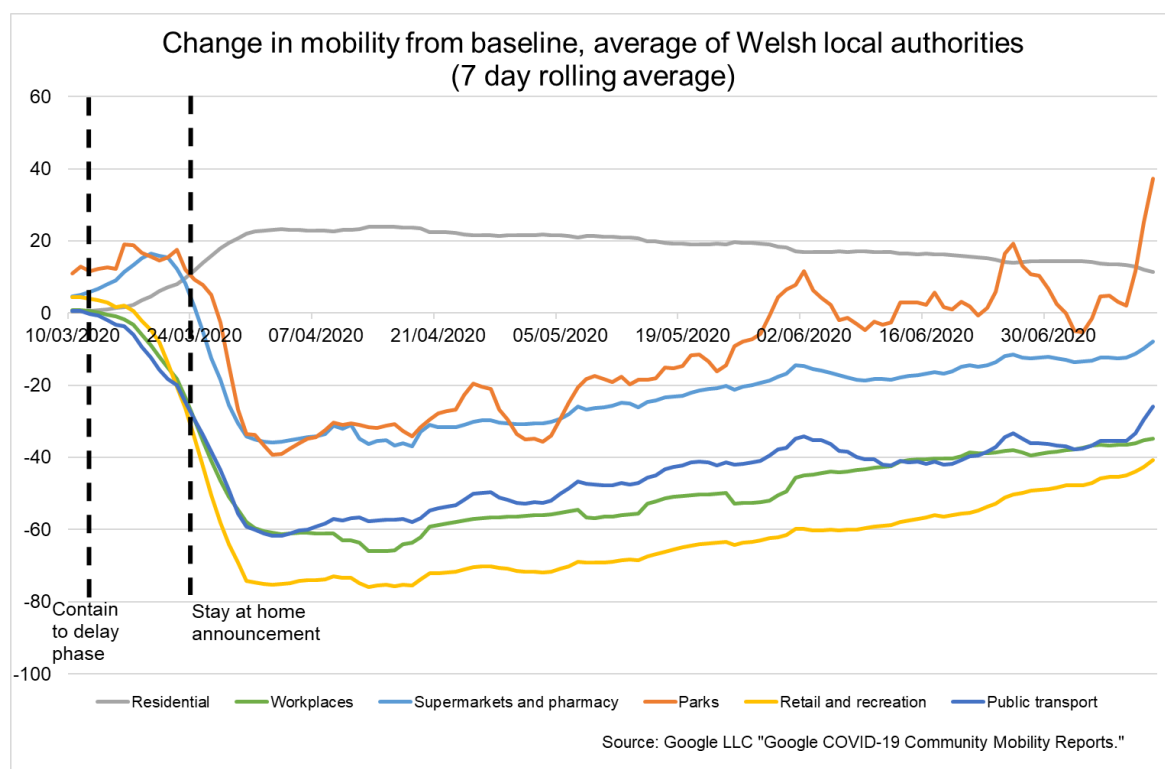


- The latest results from the Public Engagement Survey on Health and Wellbeing during Coronavirus Measures shows more people are coming into close contact with others. 38% of people came into close contact (within 1 metre) with at least 3 people from outside their household in the last 7 days, up from 29% in week 12 of the survey. 36% reported that others outside their household had been in their house in the last week and 35% reported going into one or more other houses in the last week.
- Between mid-April and early June travel increased steadily. For the remainder of June the increases were generally smaller, but there have been large increases since early July.
- In mid-April travel of [Facebook users](#) in Wales was 50% lower than the baseline, this is around 14% and has increased quickly in the last week. 28% of Facebook users in Wales are staying put and this has fallen a little in the last week. [Apple data](#) showing requests for driving directions in Wales have

increased significantly in the last 2 weeks and are now above the baseline (which is the 13th of January, and was 65 percentage points lower at the end of March) The [Google mobility data](#) shows increases across all categories - in particular public transport and parks.

- 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. There have been larger increases in Wales than all the other nations in most of the data in the last week.
- Figure 5 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 5: Change in travel patterns in Wales



TAC Consensus Statements on Testing

- Three Technical Advisory Cell consensus statements, each relating to a different aspect of testing, have been published alongside the publication of the latest iteration of Wales COVID-19 Testing Strategy.
- The three statements are:
 - Use of tests to detect antibody to SARS-CoV-2 virus;

- Repeat antibody testing of school staff;
- Principles for using RT-PCR test to detect SARS-CoV-2 virus.
- Common themes across the three statements include: the importance of ensuring that tests are used in ways that are appropriate to their design and performance characteristics; and that the purpose of testing, and the action that will follow from the results, are clearly defined and agreed prior to implementing testing.
- The published statements can be found at: <https://gov.wales/advice-coronavirus-technical-advisory-cell#Subjectspecificreports>.

Research

- There are currently 4407 Welsh patients recruited to COVID-19 urgent public health studies, an increase of 168 in last seven days.

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 peaked in April but have fallen and are now stable.
- In NHS Wales laboratories, testing positivity has declined from nearly 50% to 0.85% as at 16th July and has been stable for the last few weeks.
- positivity has decreased in hospital-tested persons but increased slightly in persons tested from other locations (in part related to increased testing associated with a small number of local outbreaks currently under investigation)
- Both hospital and ICU admissions are still falling overall
- The main recent focus of activity has been in north Wales and parts of the south Wales valleys, but surveillance indicators have now decreased.
- There are still between 1 and 15 new incidents per week, mainly in residential care homes, with a recent small peak of 12 incidents reported in one day.
- All cause deaths have returned to baseline seasonal levels

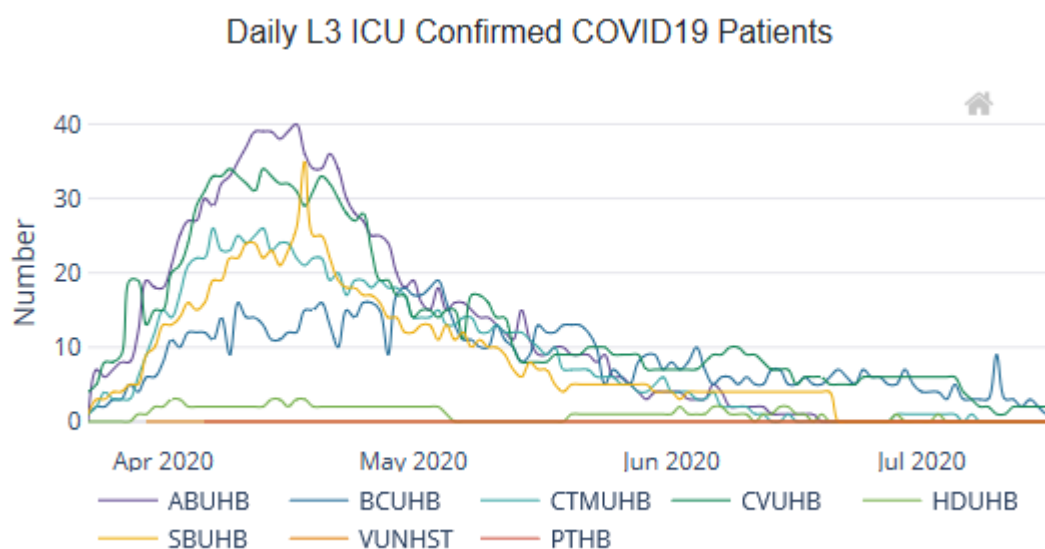
- In deaths where information available, chronic heart disease, diabetes and chronic respiratory disease are the most commonly reported risk factors (in 34%, 26% and 23% of deaths respectively)

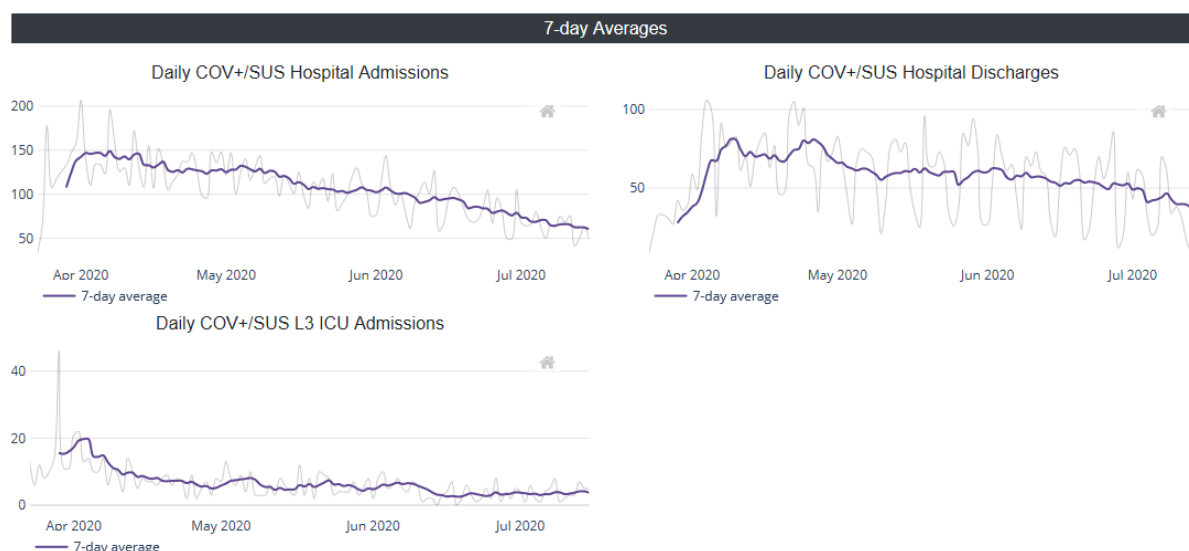
NHS Data Dashboard

- *PHW data updated at 15/07/2020*
- *Hospital data updated at 15/07/2020*

L3 ICU

- Of the total of 122 patients in L3 ICU in Wales (down from 124 in previous report):
 - 4 are confirmed COVID patients (3 in ABUHB & 1 in BCUHB);
 - 4 are suspected COVID patients (2 in BCUHB & 2 in CVUHB)
- Of the health boards with L3 ICU units:
 - HDUHB is at 72% occupancy (all non-COVID)
 - ABUHB is at 50%;
 - BCUHB, CTMUHB, CVUHB and SBUHB are at less than 50% occupancy.





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.

