

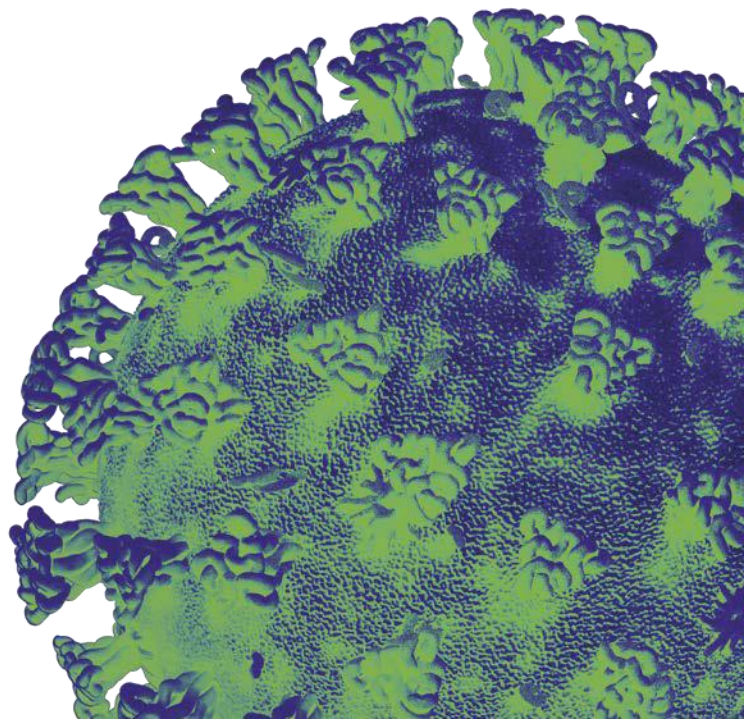
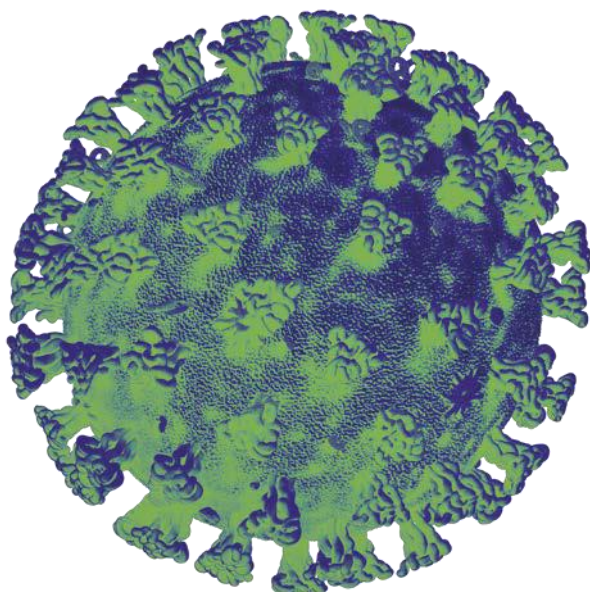
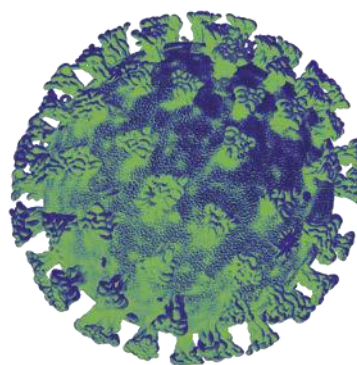


Llywodraeth Cymru
Welsh Government

Technical Advisory Cell

Summary of advice

10 July 2020



Technical Advisory Cell: Summary Brief

10 July 2020

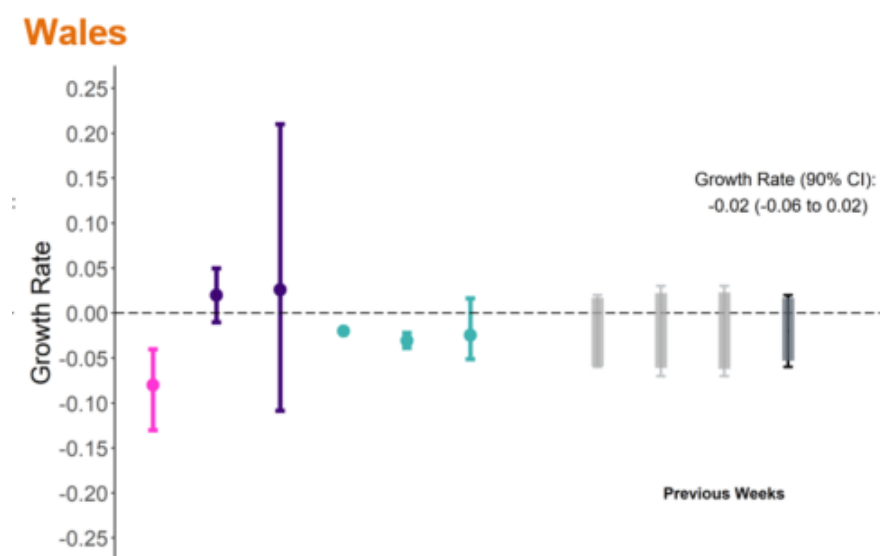
Top-line Summary

- It is likely or probable that the growth rate in Wales is declining by around 2% per day.
- The R_t number in Wales is below 1 and has been for at least seven weeks. However, as numbers continue to fall, the Technical Advisory Group (TAG) does not have confidence that the R_t estimate alone is sufficiently robust to inform decisions.
- Evidence suggests that Covid-19 transmissibility in children is lower than originally thought. This reduces the risk of direct harm from Covid-19 in schools, and increases the need to reduce the other significant harms associated with school closure. Advice from the Children and Education TAG subgroup is published here: <https://gov.wales/technical-advisory-group-advice-return-school>
- There is much to learn from studying the first local outbreaks in the UK since the first wave of Covid-19 subsided. There are also examples of policy and public health prevention internationally that can inform the approach in Wales. TAG and SAGE are continuing to work with other nations to learn lessons from these outbreaks.
- It is important for actions to be taken that inform forward-planning and facilitate responses should a resurgence of Covid-19 occur.

Growth rate

- There are currently six 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 below shows the latest growth rate estimates for Wales, including the combined model. The current growth rate is -0.02 (90% confidence intervals from -0.06 to +0.02) which means that infections are currently estimated to be declining by around 2% 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

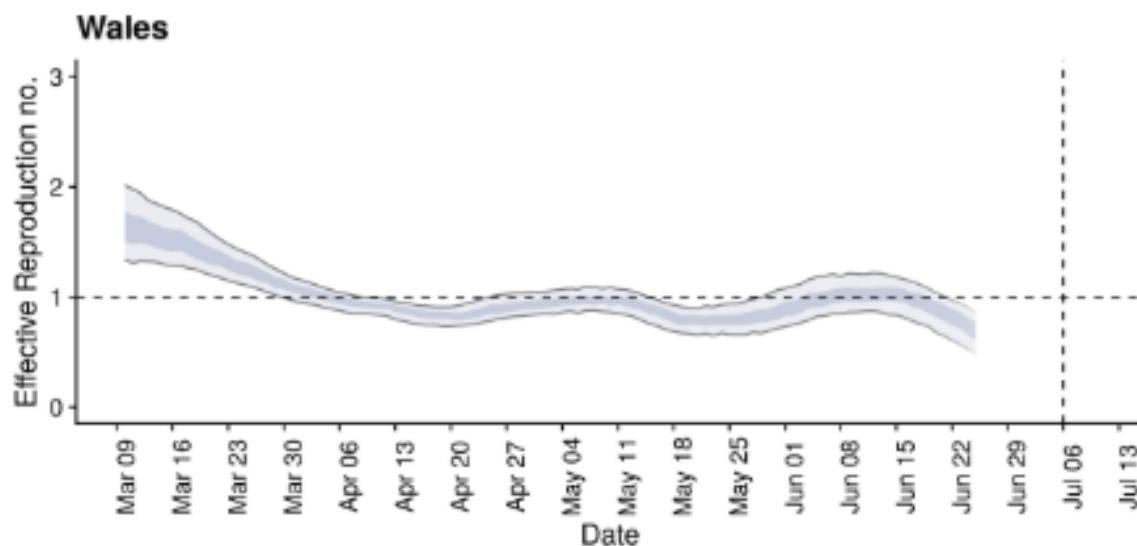
● Cases
 ● Deaths
 ● Multiple
 ● Survey
 ● Combined

Reproduction Number

- The most recent estimate of the Reproduction number R_t for Wales from SPI-M is predicted to be between 0.7 and 1.00 with a central estimate of 0.8.
- 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 seven 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. Estimates from existing data are shown up to the 26th June 2020 from when forecasts are shown. 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. Due to the low number of cases in Wales, it is no longer possible to provide a reliable forecast estimate.

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/>

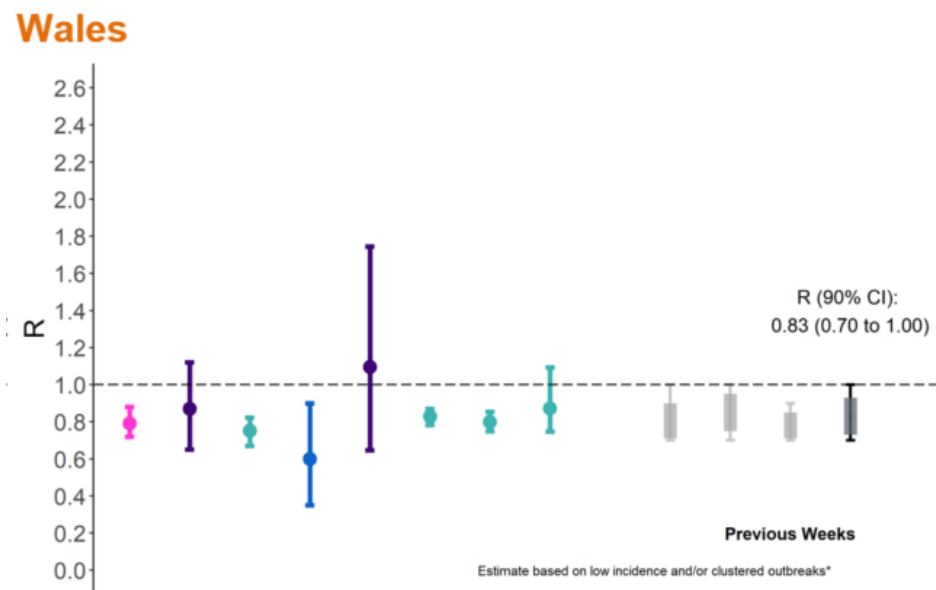
Current Estimate of R_t

- 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.

- 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 the 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



Key

● Cases ● Deaths ● Multiple ● Survey ● Combined

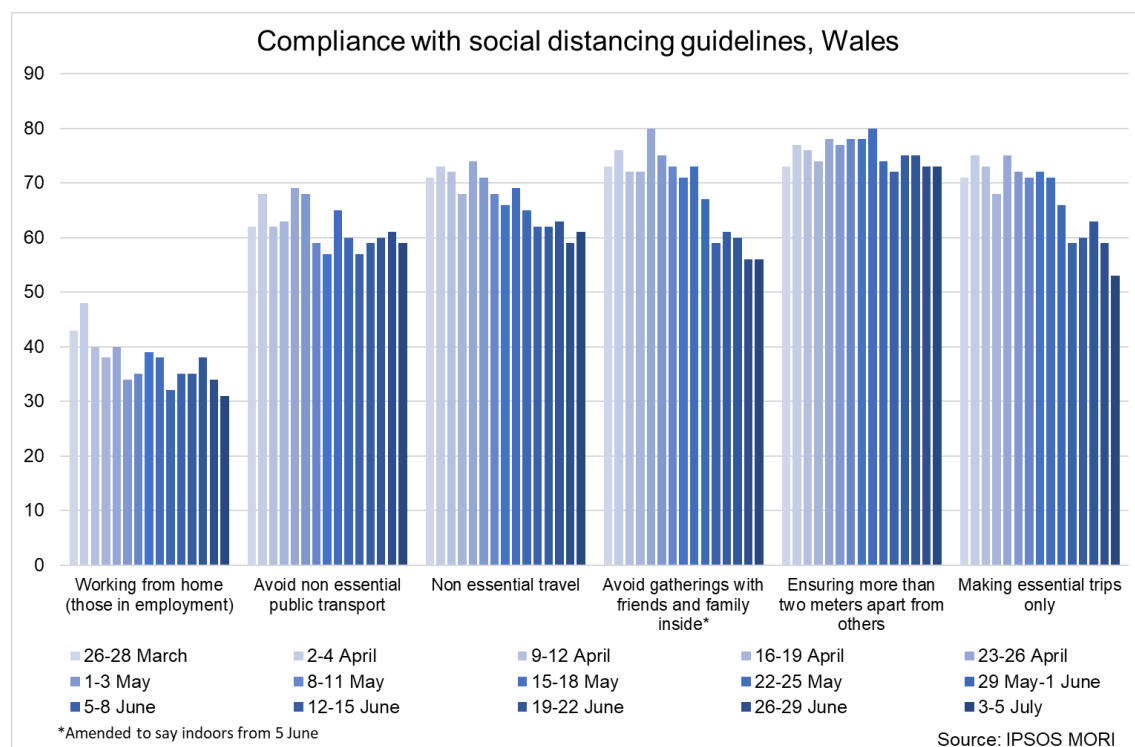
Halving time

- There is no update on halving time as due to falling numbers of cases, there is not sufficient data to compute.

Adherence to current measures and mobility

- The latest data shows that many people in Wales continue to follow the social distancing guidelines. Compliance with restrictions remains broadly stable. There has been a slight reduction in those making essential trips only in Wales in the last week. This may be due to further relaxations of the guidelines.
- Figure 4 below represents data collected online 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 guidelines in Wales

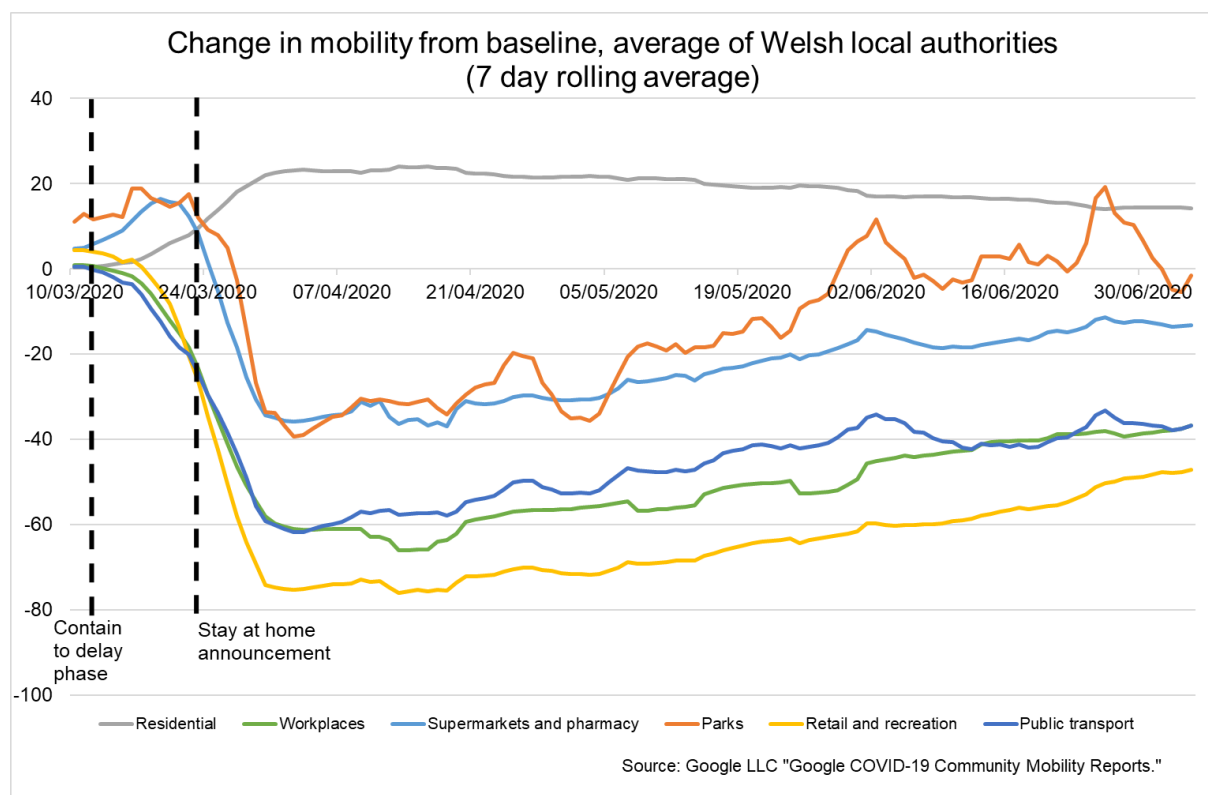


- Between mid-April and early June mobility increased steadily. However since early June the increases have generally been less. The last two weeks have seen little change in Facebook and Google mobility data with increases in requests for driving data from Apple.
- In mid-April mobility of [Facebook users](#) in Wales was 50% lower than the baseline, this is around 21% and little changed over during the last two weeks. Just over 30% of Facebook users in Wales are staying put and this has been stable for the last two weeks. [Apple data](#) showing requests for driving directions in Wales have continued to increase in the last week and are now around the baseline (which is January 13th). The [Google mobility data](#) shows some increases for retail &

recreation and workplaces in the last week. Residential, public transport and supermarkets & pharmacy show little change.

- After lockdown patterns of mobility between England and Wales were broadly similar. However since mid-May England has seen larger increases in mobility than Wales. In the last week Wales has seen larger increases than England in the Apple data, but a similar pattern in the other data.
- Figure 5 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.

Figure 5: Changes in mobility in Wales



Research

- There are currently 4239 Welsh patients recruited to COVID-19 urgent public health studies, an increase of 250 in last seven days.

Preparing for the future

- It is important for actions to be taken that inform forward-planning and facilitate responses should a resurgence of COVID-19 occur.

- Prevention and mitigation strategies need to be adapted and refined as new evidence emerges (including analysis of the evidence from the first wave).
- Mitigation strategies should not pose further disadvantage to the most vulnerable in society or the highest risk patients or communities.
- Implementation of prevention and mitigation strategies require enhanced coordination, collaboration and data sharing.
- To maximise effectiveness (and to ensure they do not exacerbate inequalities), preparations must be informed by engagement with patients, carers, public and healthcare professionals; and, whenever possible, be developed through co-production.
- Potential 'circuit breakers' signalling an immediate need to reverse relaxation measures, as well as other 'early warning indicators', are under consideration and will likely form an important part of future action plans.

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, the number of positive tests has declined from nearly 50% to 1.1% as at 9th July and has been stable for the last few weeks.
- The number of positive tests has decreased in hospital-tested persons but increased slightly in persons tested from other locations. This is 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 foci of activity remain in north Wales and parts of the south Wales valleys, but surveillance indicators are mostly decreasing.
- BCUHB has the highest median number of cases per area and the largest range in number of cases per area.

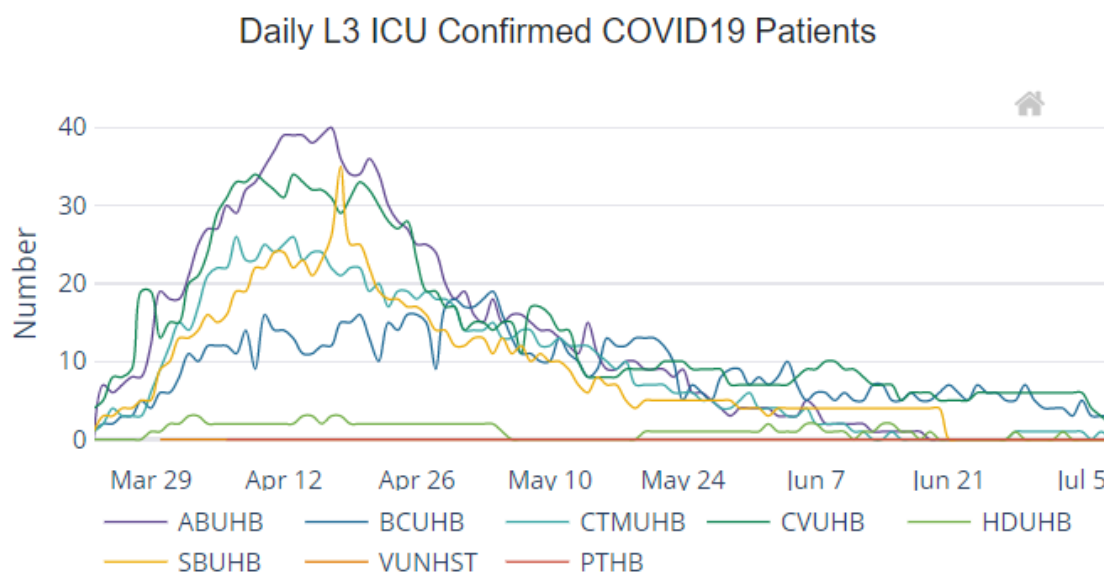
- There are still between 1 and 10 new incidents per week, mainly in residential care homes.
- Recent cases have been mostly in key workers in hospital and care homes, and care home residents or identified through screening activities following incident investigation.

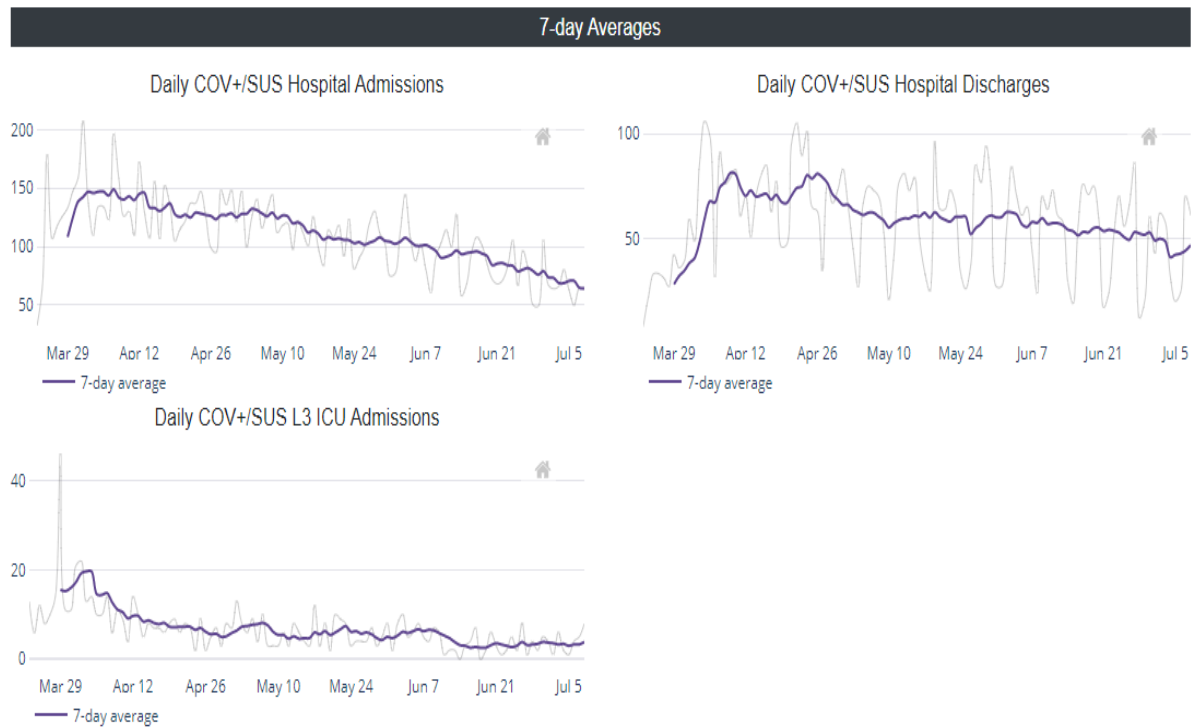
NHS Data Dashboard

- PHW data updated at 07/07/2020
- Hospital data updated at 08/07/2020

L3 ICU

- Of the total of 124 patients in L3 ICU in Wales (down from 130 in previous report):
 - 4% are confirmed COVID patients (down from 8% of previous report);
 - 2% are suspected COVID patients (down from 6%); and
 - 92% are non-COVID patients (up from 83%).
- Of the health boards with L3 ICU units:
 - SBUHB is at 66% occupancy and ABUHB is at 53%;
 - BCUHB, CTMUHB, CVUHB and HDUHB 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.

