

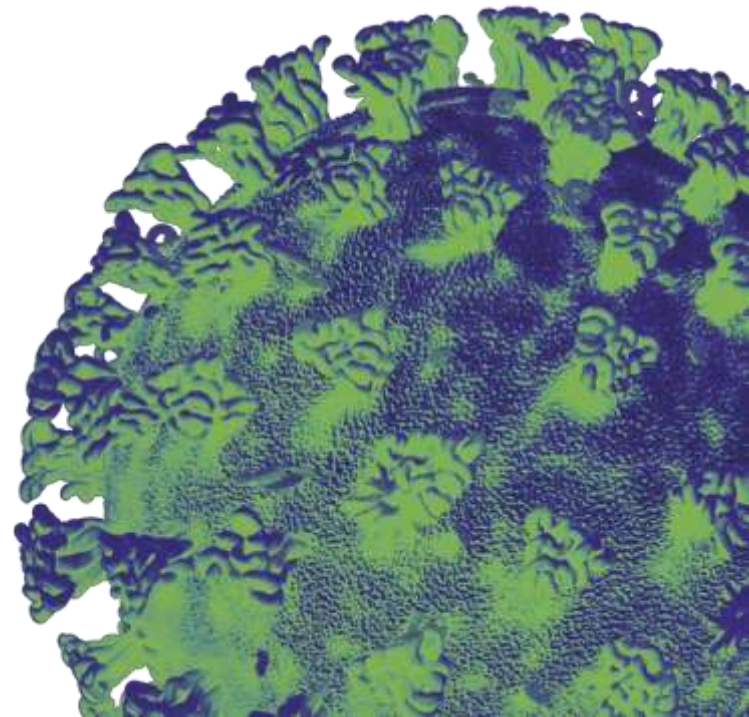
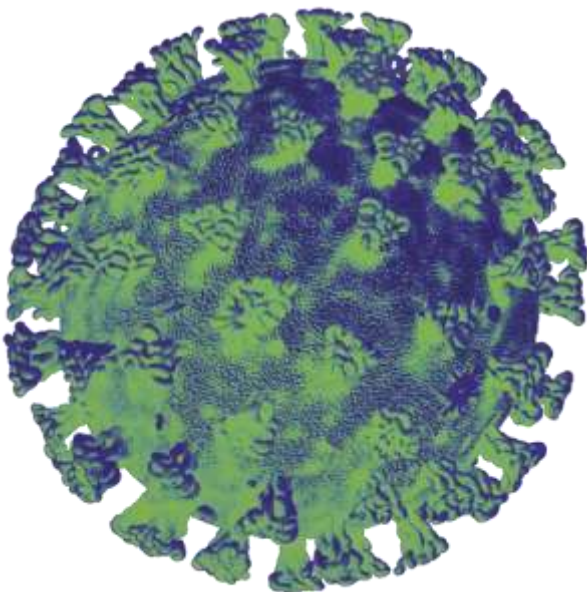
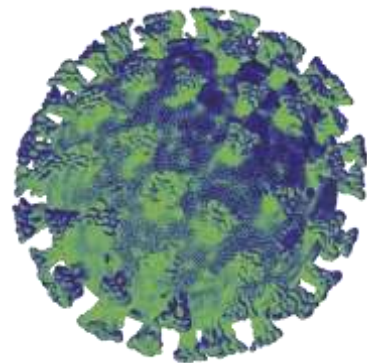


Llywodraeth Cymru
Welsh Government

Technical Advisory Cell

Summary of advice

26 June 2020



Technical Advisory Cell: Summary Brief

26 June 2020

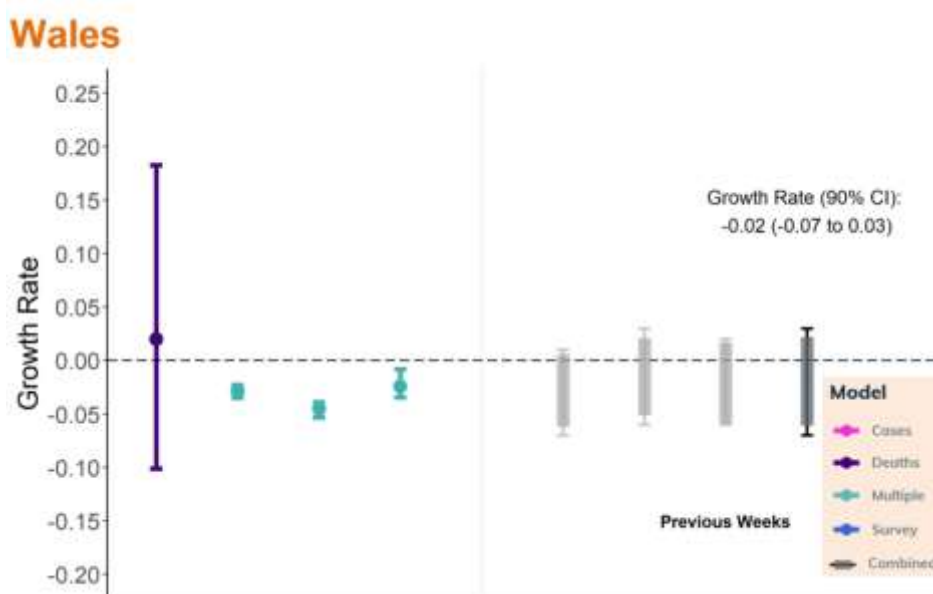
Top-line Summary

- The most recent estimate of the Reproduction number R_t for Wales from SPI-M is predicted to be between 0.7 and 1.0 with a central estimate of 0.9. R_t has been below 1 for at least six weeks which has led to a reduction in cases and hospitalisations. If R_t remains below 1 then cases will continue to fall.
- The current growth rate is -0.02 (90% confidence intervals from -0.07 to 0.03) which means that infections are currently estimated to be declining by around 2% per day
- Both hospital and ICU admissions are still falling overall.
- A recent focus of activity in Wales has been around three outbreaks in food processing plants.

Growth rate

- There are currently four 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. Results from different modelling groups are anonymised to avoid giving precedence to one particular model over another.

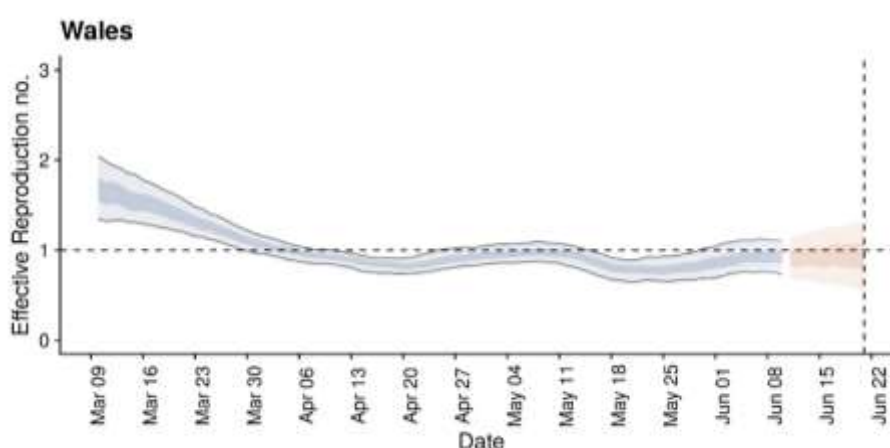
Figure 1: Current estimates for growth rate in Wales – with 90% confidence intervals, along with the combined model based on equal weights



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 1.0 with a central estimate of 0.9.
- This estimate and the estimate produced for 16/06/20 are based on different sets of models, so the two cannot be compared directly.
- As the number of new cases drops to low levels, R_t becomes very sensitive to daily changes in cases found through testing and tracing, causing R_t to fluctuate weekly and tend towards $R_t = 1$.
- 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.
- Given low numbers of infections in Wales, other devolved administrations and some regions of England, there is growing uncertainty in estimates of R and growth rate for these areas and they are now less useful indicators of the epidemic. SPI-M-O are formalising proposals for when they consider R to no longer be useful for decision makers and believe that this point is close, especially in Wales and the other devolved administrations.
- Figure 2 below shows the time-varying estimate of the effective reproduction number in Wales. Estimates from existing data are shown up to the 11th 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.

Figure 2: R_t in Wales¹

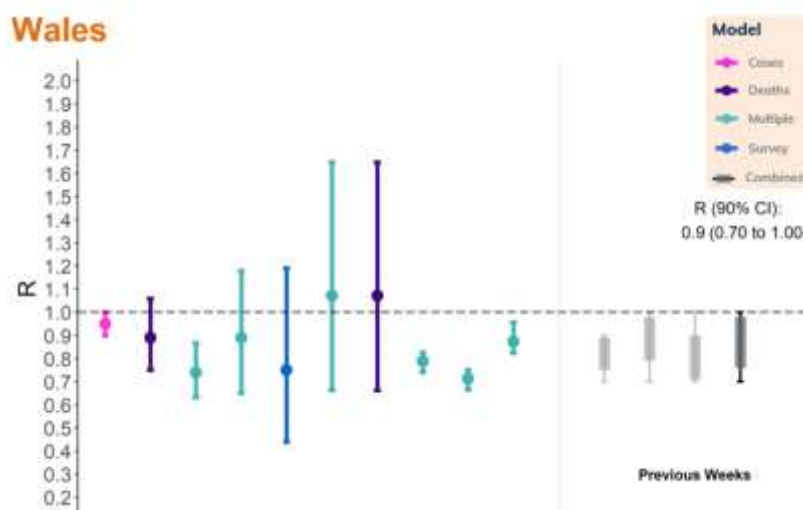


¹ **Source and further information:** National and Subnational estimates for the United Kingdom <https://epiforecasts.io/covid/posts/national/united-kingdom/>

Current Estimate of R_t

- There is no evidence of R_t being significantly different in 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 .
- We use R_t to estimate the rate of reproduction in the community. There are other settings that are particularly relevant to the current situation that we consider to be separate epidemics, such as hospitals and care homes. These are not independent; infection can be spread between hospitals and care homes, from these settings back into the community, and vice versa. These trends or transmissions cannot be captured though estimating R_t separately for care homes and hospitals.
- It is recommended that the situation in smaller settings is monitored using number of cases and deaths, where possible, epidemiological investigation of how the multiple settings interact.
- The latest estimates from the different models we use for R_t in Wales are shown in Figure 3 below. Results from different modelling groups are anonymised to avoid giving precedence to one particular model over another. Results using the combined model using equal weights are also shown in black along with 90% confidence intervals.

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



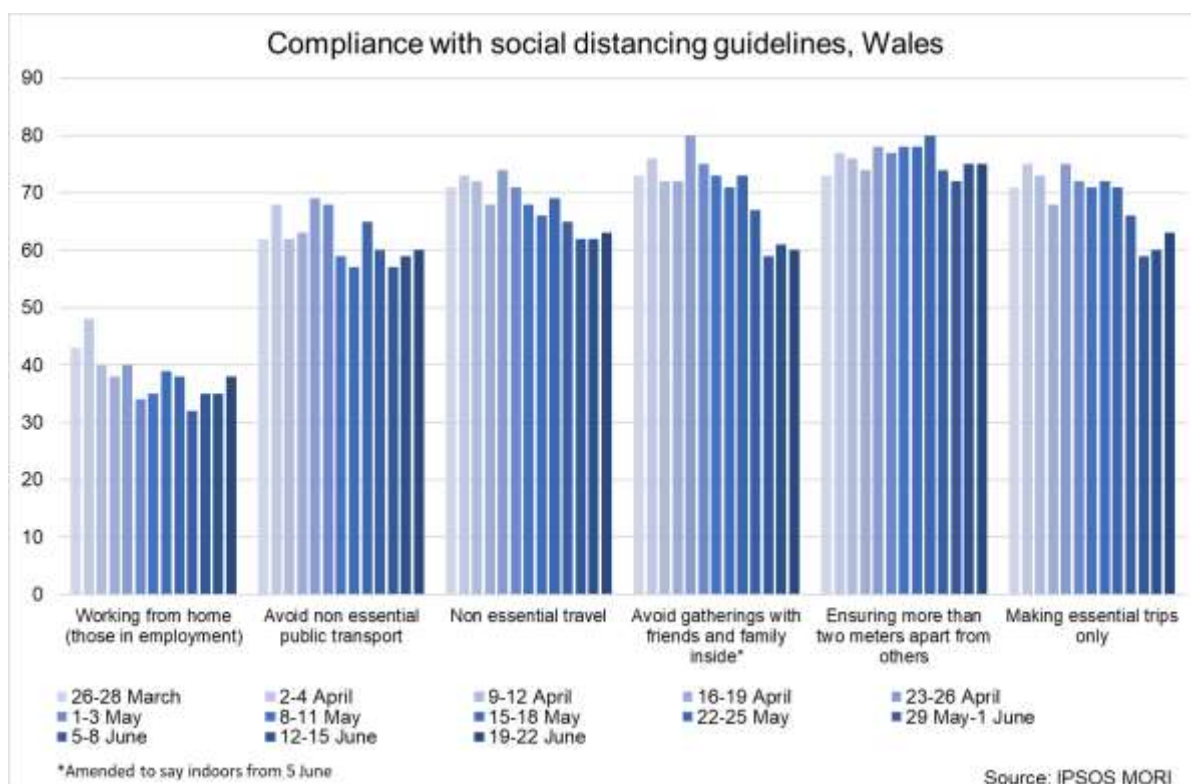
Halving time

- Halving time estimates are on hold due to low numbers of community acquired COVID-19 hospitalisations over the past two weeks. Low case numbers impact the validity of the model.

Adherence to current measures and mobility

- The latest survey data shows that many people in Wales continue to follow the social distancing guidelines. Compliance remains stable following a drop in compliance at the end of May/early June. Data at a GB level ([from ONS](#)) continues to show increases in those leaving their home for 'non-essential' reasons.
- 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



- The latest results from the [Public Engagement Survey on Health and Wellbeing during Coronavirus Measures](#) shows that just over half (54%) of people have come into close contact (less than one metre) with someone from outside their household in the last week. 30% reported that others outside their household had been in their

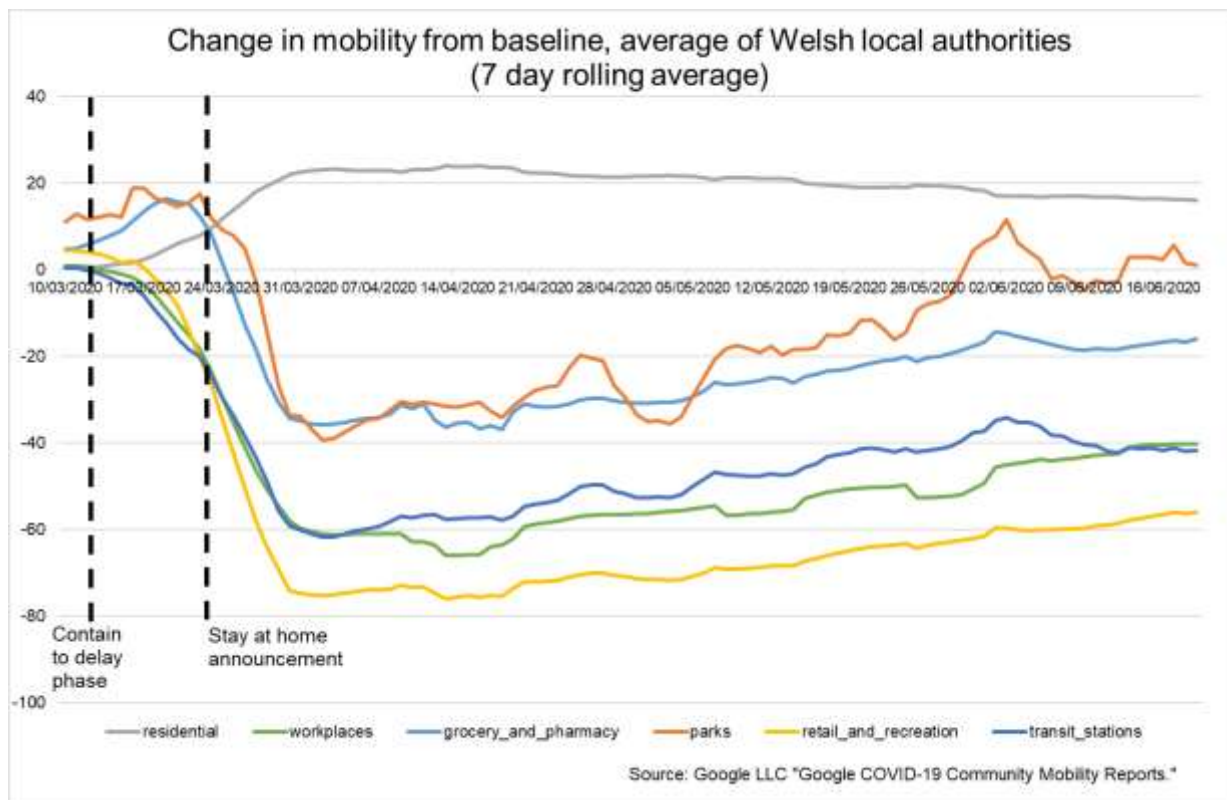
house in the last week and 26% reported going into one or more other houses in the last week.

- Since mid-April travel has been increasing steadily, however since early June the increases have been much slower (or no change in some cases). In mid-April travel of [Facebook users](#) in Wales was 50% lower than the baseline, this had risen to a little over 30% by 2nd of June and has increased slightly since. After a dip in early June [Apple data](#) showing requests for driving directions in Wales have continued to increase. The [Google mobility data](#) also shows some increases for workplaces, retail and recreation and grocery and pharmacy.

However transit stations shows no change (after a fall), along with parks.

- After lockdown patterns of travel between England and Wales were broadly similar. However between mid-May and early June England saw larger increases in travel. In the last 2 weeks England has generally slightly larger increases in travel than Wales (the first week in June England had a slightly larger reduction in travel than Wales).
- Figure 5 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. This pattern is mostly similar to that of the UK as a whole, but the last week has seen larger increases in the rest of the UK for transit stations, parks and retail & recreation compared to Wales.

Figure 5: Changes in mobility in Wales



Research

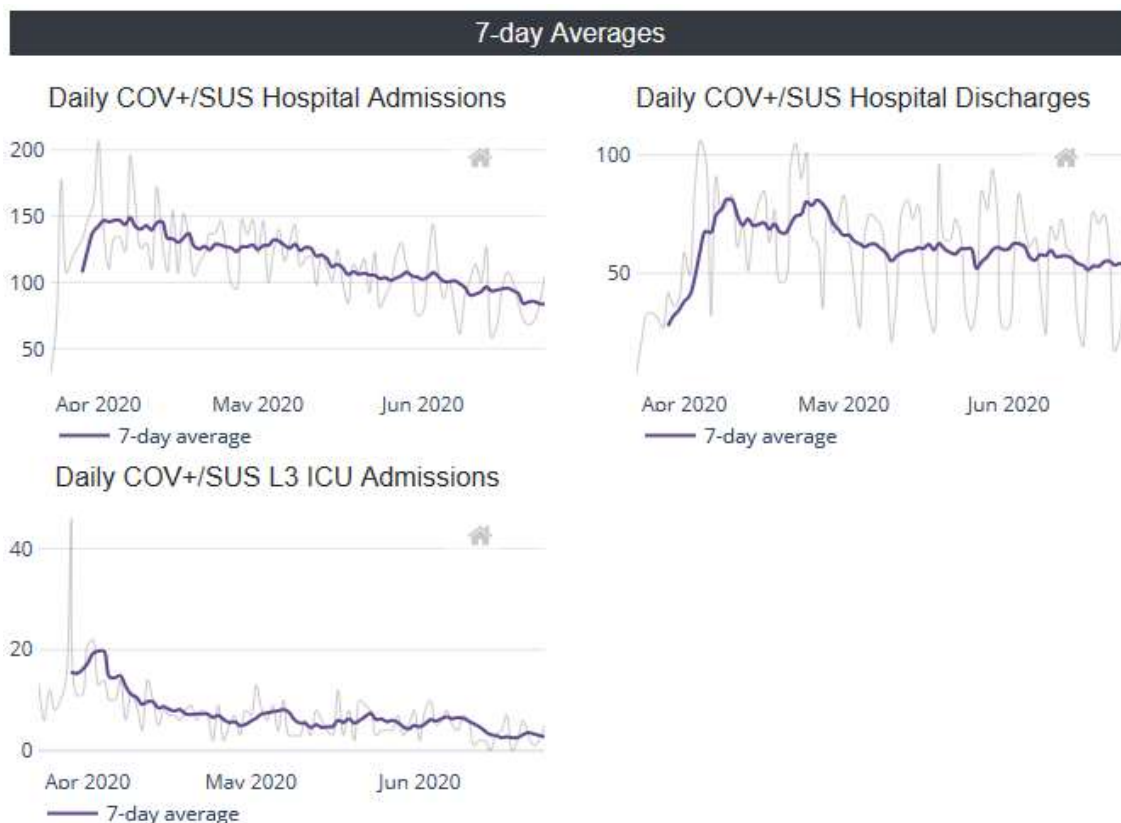
- There are currently 3171 Welsh patients recruited to COVID-19 urgent public health studies, an increase of 315 in last seven days.
- The Office for National Statistics community prevalence study has now extended to Wales. The results will build a detailed and reliable picture of infection rates within Wales informing the ongoing response. Initial findings are expected towards the end of July.

NHS Data Dashboard

- PHW data updated at 23/06/2020
- Hospital data updated at 24/06/2020

L3 ICU

- Overall occupancy is at 49% (Marginally up from 47% in previous report)
- Of the total of 134 patients in L3 ICU in Wales:
 - 10% are confirmed COVID patients (up from 8% of previous report);
 - 7% are suspected COVID patients (down from 8%); and
 - 80% are non-COVID patients (up from 79%).
- Of the health boards with L3 ICU units:
 - SBUHB is at 63% occupancy;
 - CTMUHB is at 53% occupancy;
 - HDUHB is at 52% occupancy;
 - ABUHB, BCUHB, and CVUHB are at less than 50% occupancy.



Public Health Wales (PHW) Surveillance Summary

- 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 Covid-19 positive test results has declined from nearly 50% to 3.5% as at 25th June, and has been stable for the last few weeks.
- The number of positive test results in hospital-tested persons has decreased but has 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.
- The main recent focus has been in North Wales, Anglesey and Wrexham in particular. BCUHB currently has the highest median number of cases per area and largest range in number of cases.
- There continue to be between 1 and 5 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.

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.

