Technical Advisory Cell

Summary of advice

28th August 2020
Technical Advisory Cell: Summary Brief
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Top-line summary

- Results from the Office for National Statistics infection study show that for the week 14 August to 20 August, an average of 0.04% of the community population in Wales had COVID-19. This equates to approximately 1 person in every 2,800 or 1,100 people during this time. Modelling suggests the rate has been fairly stable over the past 6 weeks.

- The current growth rate is estimated to be between -0.09 and -0.02. There is significant uncertainty around the actual growth rate; infections could be shrinking by two to nine percent a day.

- Care should be taken when interpreting these figures due to low sample sizes and case numbers.


- Additional papers published by the Technical Advisory Group are available here: https://gov.wales/advice-coronavirus-technical-advisory-cell#Subjectspecificreports

Growth Rate

- The current growth rate is estimated to be between -0.09 and -0.02. There is significant uncertainty around the actual growth rate; infections could be shrinking by two to nine percent a day. Care should be taken when interpreting the growth rate and reproduction number of Wales. This is because these estimates are based on low case numbers and dominated by clustered outbreaks and are not sufficiently robust to inform policy decisions.

Reproduction number

- The most recent estimate of the Reproduction number $R_t$ for Wales from SAGE is predicted to be between 0.50 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. The large
confidence interval suggests a high degree of uncertainty of the exact value of $R_t$.

- A consistent $R_t$ value below 1 will lead to a reduction in cases and hospitalisations, however a consistent $R_t$ value above 1 will lead to an increase in cases and hospitalisations. 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.

**Current Estimate of $R_t$ in Wales**

- 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.

**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 data showed that many people in Wales continued to follow the social distancing guidelines. There were further reductions in those making essential trips in Wales whilst working from home, avoiding non essential public transport and keeping 2 meters away from others remained stable.

- 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.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.

![Compliance with social distancing guidelines, Wales](image)

- Mobility in the last week shows little change mostly. Changes in mobility over that period have been generally similar in Wales to the UK average.

- In mid-April mobility of Facebook users in Wales was 50% lower than the baseline, this is now around 6% lower and is down slightly from last week. 24% of Facebook users in Wales are staying put, similar to the previous week. In early April around 45% were staying put – this was around 18% in early March.

- Apple data showing requests for driving directions in Wales have increased slightly in the last week, but are lower than two weeks ago. Relative to the baseline the data are higher than the other nations. The Google mobility data shows continued
increases in retail & recreation. Public transport shows a fall whilst other categories show little change.

- After lockdown patterns of mobility between England and Wales were broadly similar. Between mid-May and early-June England saw larger increases in mobility than Wales, with Scotland showing a similar pattern to Wales. During July mobility increased more in Wales than in England and that continued into early to mid-August. Since then changes have been mostly similar.

- 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.

![Change in mobility from baseline, average of Welsh local authorities](image)

**ONS Infection Study**

- For the week 14 August to 20 August, an average of 0.04% of the community population had COVID-19 (95% credible interval: 0.01% to 0.09%). This equates to approximately 1 person in every 2,800 (95% credible interval: 1 in 14,700 to 1 in 1,200), or 1,100 people during this time (95% credible interval: 200 to 2,700).

- Modelling suggests the rate has been fairly stable over the past 6 weeks.
• There will be considerable uncertainty in this estimate until the sample size increases over further weeks.

Research

• There are currently 5321 Welsh patients recruited to COVID-19 urgent public health studies, an increase of 270 in last 7 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 are now stable.
• Testing positivity has declined from nearly 50% in April and has remained below 1% since week 31 (ending 2nd August).
• During week 34 the number of lab confirmed COVID-19 episodes increased nationally compared to the previous week but remain low.
• Hospital and ICU admissions are low and stable.
• The main recent foci of activity has been in Cardiff and Merthyr Tydfil.
• The distribution of cases suggests that incidence of confirmed cases across Wales remains low, with a small number of outliers.
• There continues to be 1 to 10 new incidents reported per week, mainly in residential care homes, but with recent increases in other settings including family and friends clusters and workplaces.

NHS Data Dashboard

• PHW data updated at 26/08/2020
• Hospital data updated at 27/08/2020

L3 ICU

• Of the total of 123 patients in L3 ICU in Wales (down from 125 in previous report):
  o 1 is a confirmed COVID patient (in HDUHB)
5 are suspected COVID patients (2 in ABUHB and 3 in SBUHB)

- Of the health boards with L3 ICU units:
  - CTMUHB is at 63% occupancy (all non-COVID patients)
  - CVUHB is at 53% occupancy (all non-COVID patients)
  - BCUHB is at 51% occupancy (all non-COVID patients)
  - HDUHB is at 50% capacity (with 1 confirmed COVID patient)
  - SBUHB and ABUHB are at less than 50% occupancy.

Daily L3 ICU Confirmed COVID19 Patients

7-day Averages

Daily COV+/SUS Hospital Admissions

Daily COV+/SUS Hospital Discharges

Daily COV+/SUS L3 ICU Admissions
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.