Technical Advisory Cell

Summary of advice

16th October 2020
Technical Advisory Cell: Summary Brief
16th October 2020

Top-line summary

- As of 15th October, all Welsh Local Authorities (LAs) are above 50 cases per 100,000 of the population, with the exception of Ceredigion, Pembrokeshire and Powys (28, 33 and 48 cases per 100,000, respectively). There is a similar picture for positivity, where all LAs are above 5% positivity, apart from Pembrokeshire (3.7%).

- Cases, hospital occupancy and deaths due to COVID-19 have shown an increase over recent weeks.

- According to the Office for National Statistics COVID-19 Infection study, for the week 02 to 08 October, an average of 0.26% of the community population had COVID-19, equating to approximately 1 person in every 390. Data suggest the positivity rate increased in recent weeks, but may have since levelled off. It is important to stress the uncertainty around these figures as the results are very sensitive to small changes in the number of positive tests.

- Evidence shows that cases are continuing to be seen in older age groups.

- Without intervention, a continued increase in cases of COVID-19 in Wales will put pressure on the NHS in terms of demand for hospital and ICU beds. Based on current evidence and in order to balance the direct and indirect harms from COVID-19 effectively, the Technical Advisory Cell (TAC) recommends urgent consideration of a national “fire break”. This would aim to reduce the number of cases to a sustainable level and would be followed by a set of sustainable, national interventions to keep $R_t$ around 1 while maximising social, economic and health benefits. An evidence summary paper on a “fire break” approach for Wales was published here.

- Easing of lockdown rules from July/August has corresponded with an increase in cases, with the genomics data suggesting that increases in Wales may partly be driven by imports from outside of Wales. The supporting evidence paper is available here.

- Papers from Scientific Advisory Group for Emergencies (SAGE) considered by the TAC and wider Technical Advisory Group are published here.

Growth rate and Reproduction number
The current daily growth rate is estimated by SAGE (14\textsuperscript{th} October) to be between 0.02 and 0.06 in Wales, indicating that infections could be increasing by between 2\% and 6\% per day.

The most recent estimate of the Reproduction number (R\textsubscript{t}) for Wales from SAGE (14\textsuperscript{th} October) is predicted to be between 1.1 and 1.4. The estimate of R\textsubscript{t} is shown as a range without a central estimate.

Care should still be taken when interpreting R\textsubscript{t} and growth rate estimates for the UK, due to their inherently lagged nature, and as these figures mask variation in the number of infections and how rates of transmission is changing in some parts of the country. Availability of testing may also be a constraint.

**Doubling time**

SAGE estimates doubling times for new infections across the UK to be between 10 and 15 days. There are continued difficulties in interpreting testing data and so estimates of doubling times remain uncertain. There is significant heterogeneity across geographies and the potential for faster doubling times in certain areas.

**Estimated number of infections in Wales**

Currently we estimate the total number of infections in Wales is around 2,554 infections per day (90\% confidence interval 347 - 4,761). Note that the lower confidence interval is not really plausible as it is lower than the current number of confirmed cases per day.

This is an estimate of the number of coronavirus infections per day in Wales and is calculated weekly by SPI-M (Scientific Pandemic Influenza Group on Modelling) using a consensus of sophisticated computer models, which use the current R number.

**Age profile of cases**

As reported by Public Health Wales, incidence has increased across all age groups, and is highest in those aged under 50.

The chart below shows data from up until the week ending 11\textsuperscript{th} October. There continues to be an increasing proportion of cases (shown in darker red) in older age groups.
Deaths

- As reported by Public Health Wales, the weekly number of deaths reported through rapid mortality surveillance has increased in the most recent week, although still lower than levels seen during April 2020 (the peak was seen during week ending 12th April at 236).

- According to provisional death certificate data provided by ONS, there were 24 COVID-19 deaths in Welsh residents registered with COVID-19 mentioned on the death certificate during week 40 (ending 2 October). This has increased from the previous week.

- The Figure below shows the weekly number of COVID-19 deaths registered by place of occurrence in Wales for the week ending 13 March 2020 (Week 11) to week ending 2 October 2020 (Week 40).
International update

- There has been a continued general deterioration in pandemic conditions across all parts of Europe but with some differences in the rate of growth and relative magnitude of recorded cases between different countries.

- The Czech Republic has experienced the fastest growth in the number of cases of any part of Europe but several countries are experiencing very rapid growths also – France, Poland, Italy and Germany have all recorded record daily increases in recorded cases in the last two days (Wednesday and Thursday) since mass testing began.

- Countries with high and still rapidly rising number of cases (per 100,000 population and in absolute numbers) include: France, Netherlands, Belgium, Czech Republic, Slovakia, Poland, Hungary, Romania, Bulgaria and some Balkan states. Countries that have rapidly rising rates of infection, but which are starting from a lower base line include Germany, Italy and Sweden. All countries have $R_t$ values greater than 1.
• On deaths, Russia has recorded the highest daily number of deaths since the start of the pandemic. Russia struggled to get control of its pandemic through the summer (never having suppressed its infection rate below about 5000 daily cases) and the high death rate is the compound result of this and a rapid and early deterioration from early September onwards.

• The World Health organisation has stated that the European continent has passed the threshold of 1000 daily deaths.

• In many countries, harsher restrictions, states of emergency and curfews are being introduced, with closure of bars, restaurants, nightclubs, gyms, mandating face coverings in and out doors and many controls (including closure of schools, shops, etc. in some areas), are common responses, all of which reflect the struggle Governments are having in controlling the spread of the virus. What is becoming obvious is that continued compliance of peoples is becoming of serious concern in many countries, i.e. compliance fatigue is a growing problem.

• The map below shows the 14-day average incidence rate per 100,000 people for weeks 40-41. It is clear that in many regions, the incidence has risen to over 120 cases per 100,000 people and to over 240 cases per 100k people in a rising number of areas.

• Data on the picture across Europe, including caveats around data lags and variable testing policies is available here.
Adherence to current measures and mobility

- The most recent [IPSOS MORI data](#) for Wales shows similar results to 2 weeks ago for a number of key mitigating behaviours. The percentage who reported using a face covering increased further to 87% (from 83%), whilst those who said they had worked from home fell from 36% to 30%. It should be noted that this is self-reported adherence and will be affected by individuals understanding of the rules and the circumstances that apply to them.

- 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.
• The latest results from the Public Engagement Survey on Health and Wellbeing during Coronavirus Measures show that 48% of people say they understand the restrictions in their local area ‘very well’ and a further 37% ‘quite well’. The results also show that 47% of people said they were following coronavirus restrictions ‘completely’ and a further 43% reported majority compliance. This is very similar to the results from the covid social study.

• Mobility data for Wales and the UK shows little change mostly from last week.

• In mid-April mobility of Facebook users in Wales was 50% lower than the baseline, this is 15% lower than the baseline (and is up from last week). 26% of Facebook users in Wales are staying put, similar to last 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 are similar to last week. Requests for walking directions are up a little over the week whilst requests for public transport directions has fallen slightly.

• The Google mobility data shows small reductions in workplaces and increases in residential in the last week (i.e people spending more time at home than last week). Other categories all show reductions.

• 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 throughout August. Following small reductions in early to mid-September, there
have been large reductions in mobility in Wales since the first local lockdowns were introduced.

- Anonymised and aggregated mobile phone data from O2 to the 9th of October has shown that following the introduction of the local lockdowns there were notable falls in trips in all areas the day after the lockdown started (which has been at 6pm). Trips appear to be back to around pre-lockdown levels in several areas, with others still showing an overall reduction. Trips in Wales show little change in the last week and are around levels seen in early July. Over much of the summer trips were similar in Wales and the UK relative to March, but are now lower in Wales – around 34% lower than they were in the first week March compared to 22% in the UK.

- 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. The data for several categories is not available for August 17th – September 10th due to the data not meeting quality thresholds.

![Change in mobility from baseline, average of Welsh local authorities (7 day rolling average)](image)

### COVID-19 Infection Survey results (Office for National Statistics)

- For the week 02 to 08 October, an average of 0.26% of the community population had COVID-19 (95% credible interval: 0.08% to 0.59%).
• This equates to approximately 1 person in every 390 (95% credible interval: 1 in 1,250 to 1 in 170), or 7,900 people during this time (95% credible interval: 2,400 to 18,200).

• Data suggest the positivity rate increased in recent weeks, but may have since levelled off.

• It is important to stress the uncertainty around these figures. Since the survey is still only picking up relatively few positive tests overall, the results are very sensitive to small changes in the number of these positive tests.

Research

• There are currently 5820 Welsh patients recruited to COVID-19 urgent public health studies, an increase of 183 in last 7 days.

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

(As at 15th October, 2020)

• The proportion of calls to NHS 111 and NHS direct related to possible COVID-19 symptoms increased compared to the previous week.

• GP consultations for Acute Respiratory Infection (ARI) and suspected COVID-19 decreased in week 41 compared to the previous week.

• Ambulance calls possibly related to COVID-19 are currently stable.

• The number of lab confirmed COVID-19 episodes increased nationally compared to the previous week and testing positivity was at 10%.

• During week 41, incidence increased across all age groups, incidence was highest in adults under 50, particularly those younger than 30.

• Confirmed case incidence and testing episode positivity continue to rise in all health board regions of Wales.

• Confirmed cases in patients who are tested on admission to hospital and patients in ICU have remained stable in week 41 compared to the previous week. There has been an increasing trend in inpatients testing positive, particularly in Cwm Taf Morgannwg health board.

• Recently increasing trends in confirmed case incidence have been noted in the majority of local authority areas of Wales.
• The distribution of cases suggests increasing geographical spread, with an increasing median and range of case numbers per area also.

• There are increasing numbers of incidents reported, mainly in residential care homes, school settings and university students.

• Activity in schools recently is noted, with cases reported in most local authorities.

• The highest activity seen in Cardiff, Merthyr Tydfil and Wrexham. As at 15th October, local restrictions currently in place in 15 local authority areas, one town (Llanelli) and one city (Bangor).

• Incidents have been noted in young adults of university student age with reports of transmission occurring in shared accommodation.

• All-cause deaths are at seasonally expected levels. Increases in deaths in confirmed cases in hospital have been seen.

NHS Data Dashboard

• Hospital data updated as at 19/10/2020.

• The table below details the occupancy of Intensive Care Units (ICU) across health boards in Wales. Overall ICU occupancy has risen slightly since last week’s brief from 59.5% to 62.1%\(^1\).

<table>
<thead>
<tr>
<th>Health Board</th>
<th>L3 ICU Occupancy %</th>
<th>COVID-19 Suspected Patients</th>
<th>COVID-19 Positive Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABUHB</td>
<td>68.7%</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>BCUHB</td>
<td>68.8%</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>CMTUHB</td>
<td>56.4%</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>CVUHB</td>
<td>59.4%</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>HDUHB</td>
<td>59.4%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>SBUHB</td>
<td>62.0%</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Wales</td>
<td>62.1%</td>
<td>7</td>
<td>24</td>
</tr>
</tbody>
</table>

• The Figure below shows the total number of people who have tested Covid-19 positive and are in Intensive Care Units in hospitals across the different health boards in Wales.

\(^1\) Correction: This sentence originally referred to ICU occupancy of Covid-19 patients, when the actual numbers shown in the table refer to ICU occupancy overall.
The Figure below shows the number of people admitted to hospital and are either suspected or confirmed as having Covid-19. The purple line represents the total number over a rolling 7 day average, whilst the fainter grey lines show the actual figures at that time.

The Figure below shows the number of hospital discharges of people who are either suspected or confirmed as having Covid-19. The purple line represents the total number over a rolling 7 day average, whilst the fainter grey lines show the actual figures at that time.
- The Figure below shows patients admitted to the intensive care units and are either suspected or confirmed as having Covid-19. The purple line represents the total number over a rolling 7 day average, whilst the fainter grey lines show the actual figures at that time.

**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.