

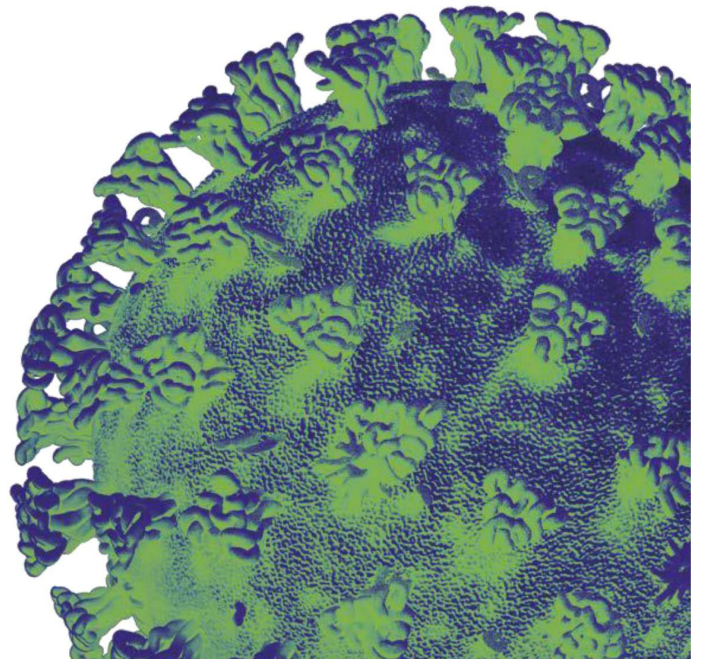
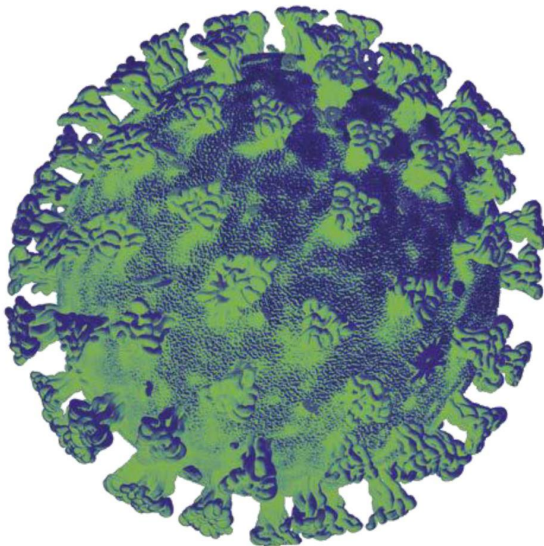
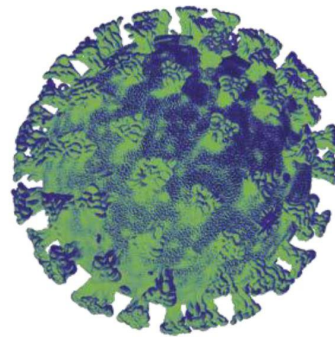


Llywodraeth Cymru  
Welsh Government

# Technical Advisory Cell

## Summary of advice

9<sup>th</sup> October 2020



# Technical Advisory Cell: Summary Brief

9<sup>th</sup> October 2020

## Top-line summary

- The Scientific Advisory Group for Emergencies (SAGE) estimate of the reproduction number ( $R_t$ ) has fallen since last week, but there is still exponential growth of COVID-19 cases in Wales as  $R_t$  is still above one. Exponential growth of the epidemic occurs when large numbers of infections are accrued over a short period of time as a result of widespread infection.
- This may lead to hospital admissions rising across Wales unless further control measures are applied.
- Both intervening and not intervening has the potential to cause harm. For example, not intervening will cause direct harm arising from infection and harm to the NHS and other services. Intervening can cause both long-term and short-term indirect harm (e.g. economic harm, psychological harm, with particularly severe impacts on younger people).
- Measures are more likely to work if the public are engaged, understand and there is a clear message with achievable actions and goals.

## **The current situation in Wales**

- For the first time in this wave of infections, the incidence for Wales is higher than 100 cases per 100,000 people and the total test positivity for Wales is 7.8%. All local authorities have seen more than 25 cases per 100k over the past week and have above 2.5% test positivity.
- We are continuing to monitor how the upwards trajectory in cases, hospital admissions and deaths might evolve in the coming weeks. If exponential growth were to continue for more than six weeks this could result in scenarios that exceed our reasonable worst case and planning scenarios.
- Incidence of COVID-19 has increased across all age groups, and is highest in those aged under 50. However an increasing proportion of cases is now seen in older age groups.

## **Potential actions to reduce the impact of the virus**

- Non-pharmaceutical Interventions (NPIs) are actions, apart from getting vaccinated and taking medicine, that people and communities can take to help slow the spread of illnesses such as COVID-19.

- SAGE has published evidence of the impact of NPIs on the harms of COVID-19, the indirect harms associated with the interventions and implementation considerations. These papers are available here (SAGE meeting 58):

<https://www.gov.uk/government/collections/sage-meetings-september-2020#meeting-58,-17-september-2020>

- In some areas across Wales, a concerted effort from the population and local agencies to adopt NPIs has helped to successfully reduce spread of the disease. Whilst this is encouraging, the current package of restrictions for local areas in Wales may not represent a sustainable approach and alternative options require further and ongoing consideration.
- Papers from SAGE considered by the Technical Advisory Cell and Group are published here: <https://www.gov.uk/government/collections/scientificevidence-supporting-the-government-response-to-coronavirus-covid19#meeting-minutes-and-supporting-papers>

### Growth rate and reproduction number

- The current daily growth rate is estimated by SAGE to be between 0.02 and 0.07 in Wales, indicating that infections could be increasing by between 2% and 7% per day.
- The most recent estimate of the Reproduction number ( $R_t$ ) for Wales from SAGE is predicted to be between 1.0 and 1.4. The estimate of  $R_t$  is shown as a range without a central estimate.
- The table below shows the Growth rate and  $R_t$  estimated by SAGE (7<sup>th</sup> October 2020) across the 4 UK Nations.

Nation	Growth rate per day	$R_t$
Wales	+2% to +7%	1.0 – 1.4
England	+4% to +8%	1.2 – 1.5
Scotland	+6% to +9%	1.3 – 1.6
Northern Ireland	+3% to 7%	1.2 – 1.5
UK	+4% to +9%	1.2 – 1.5

- Uncertainty remains about the precise value of estimates such as  $R$ , however there is consensus that the  $R$  number is significantly above 1 and that the epidemic is growing exponentially.
- The number of positive cases has increased in Wales over the last six weeks and we are starting to see an increase in hospital admissions as well as deaths.
- Care should still be taken when interpreting  $R_t$  and growth rate estimates for the UK, due to their inherently lagged nature, and as these figures mask

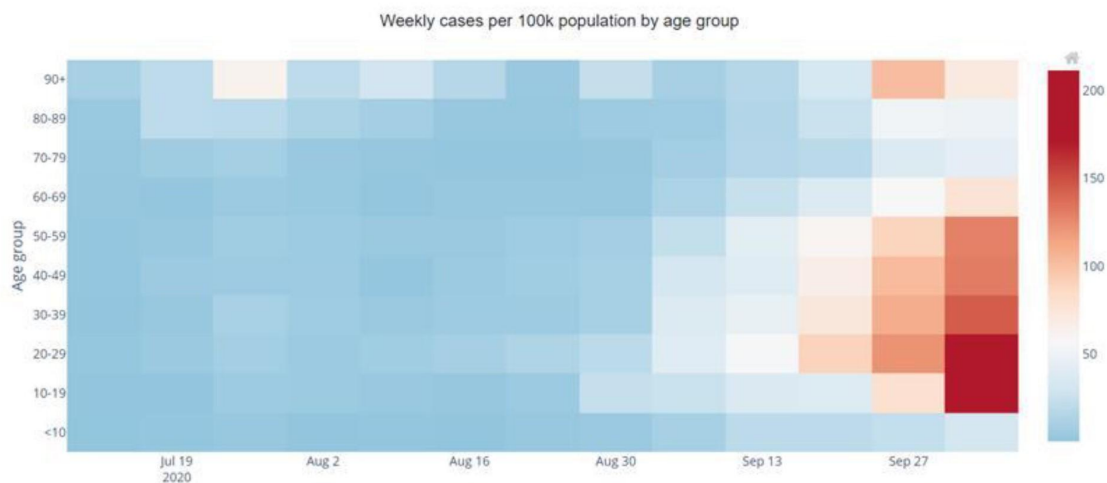
variation in the number of infections and how rates of transmission is changing in some parts of the country. Availability of testing may also be a constraint.

### Doubling time

- SAGE estimates doubling times for new infections across the UK to be between 8 and 16 days. There are continued difficulties in interpreting testing data and so estimates of doubling times remain uncertain. There are significant differences across geographies and the potential for faster doubling times in certain areas.

### 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 Figure below shows the increasing proportion of cases (shown in darker red) now seen in older age groups. This suggests that cases in young people are now beginning to move into older age groups, who are more likely to have poorer outcomes from COVID-19 due to more co-morbidities.



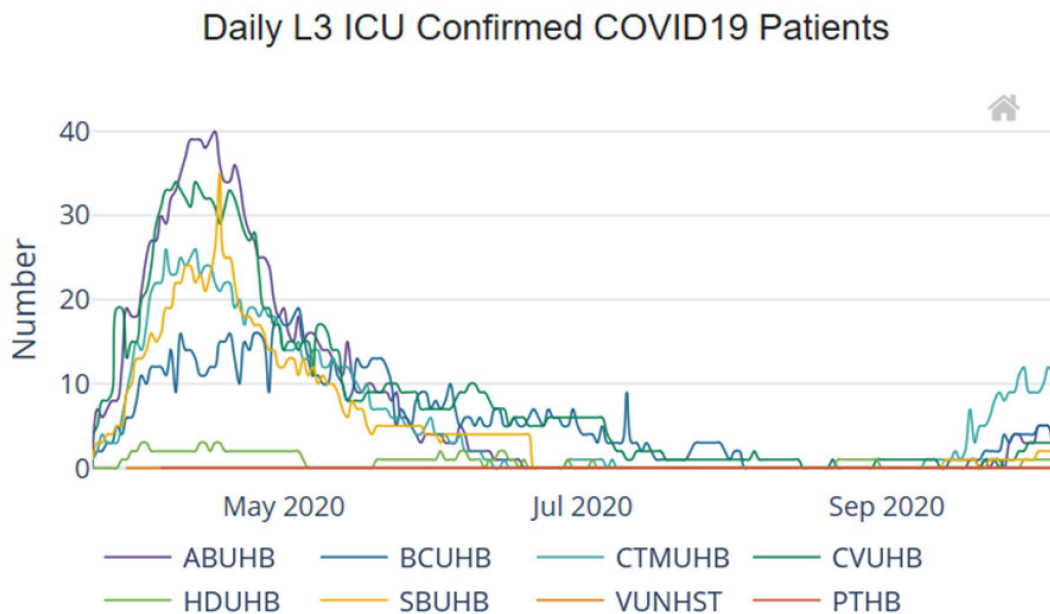


## Hospital admissions and people in ICU

- The table below shows the occupancy of Intensive Care Units (ICU) across Wales and how many COVID-19 positive and suspected patients are in the ICU at this current time. Information has been taken from the Armauni (Welsh Government) dashboard.
- Overall, the Figures below indicate that the numbers of patients admitted to hospital due to (confirmed or suspected) COVID-19 has risen over the past week. However, the number admitted to ICU remains stable.

Health Board	L3 ICU Occupancy %	Covid Suspected Patients	Covid Positive Patients
ABUHB	62.5%	2	4
BCUHB	64.5%	0	4
CTMUHB	61.5%	0	9
CVUHB	53.1%	2	3
HDUHB	56.3%	0	1
SBUHB	65.5%	0	2
<b>Wales</b>	<b>59.5%</b>	<b>4</b>	<b>23</b>

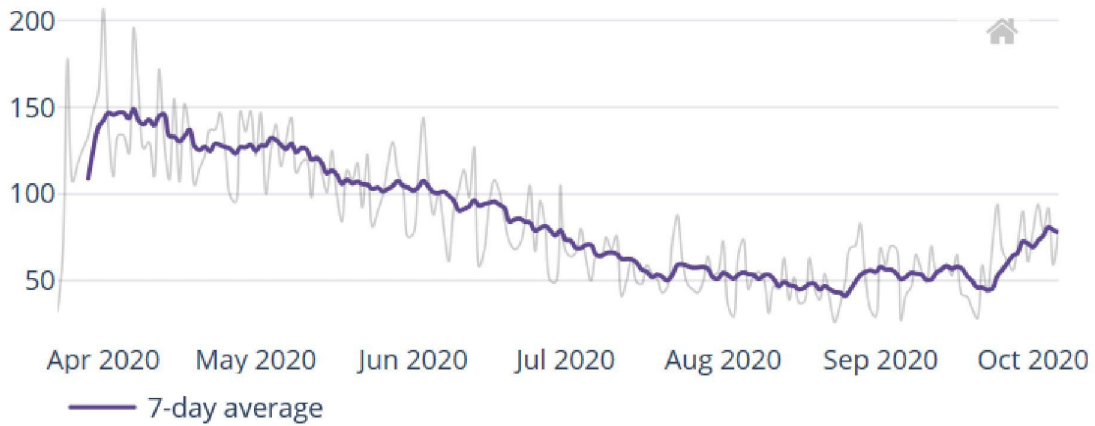
- The Figure below shows the total number of people who have tested Covid-19 positive and are in Intensive Care Units in hospitals across the different health boards in Wales.



- 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

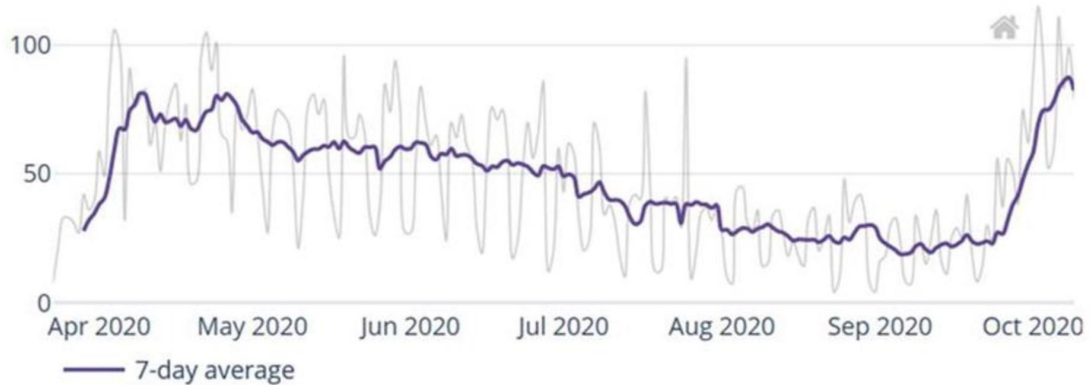
the total number over a rolling 7 day average, whilst the fainter grey lines show the actual figures at that time.

### Daily COV+/SUS Hospital Admissions

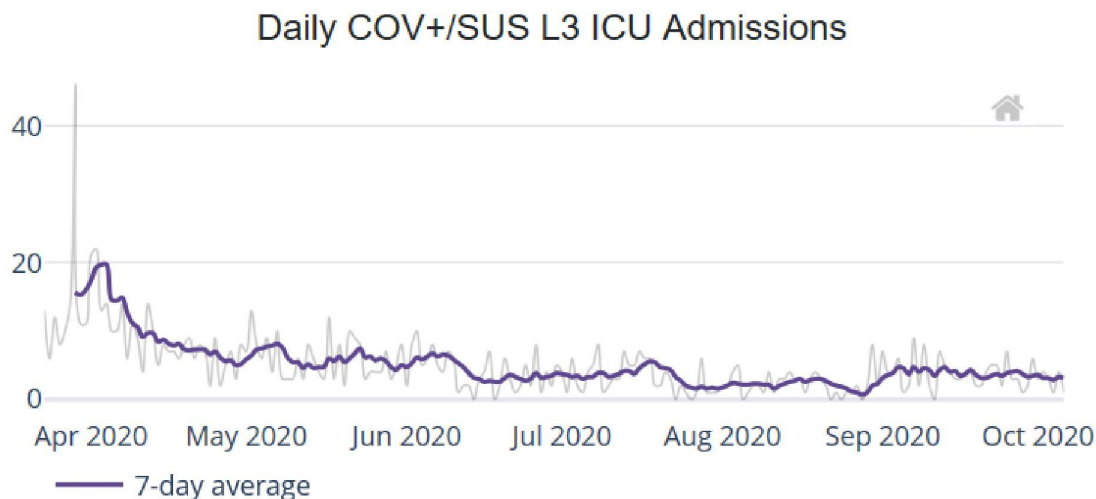


- The Figure below shows the number of hospital discharges of people who are either suspected or confirmed as having Covid-19. The purple line represents the total number over a rolling 7 day average, whilst the fainter grey lines show the actual figures at that time.

### Daily COV+/SUS Hospital Discharges

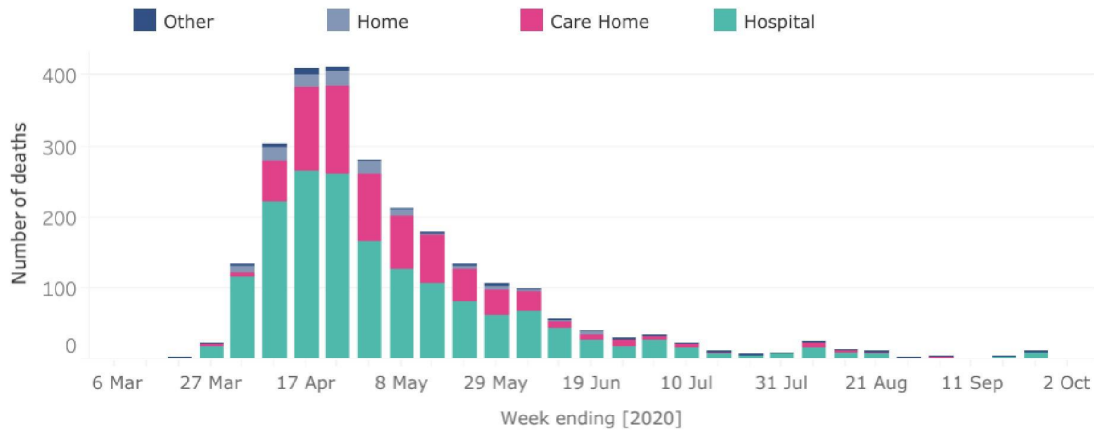


- The Figure below shows patients admitted to the intensive care units and are either suspected or confirmed as having Covid-19. The purple line represents the total number over a rolling 7 day average, whilst the fainter grey lines show the actual figures at that time.



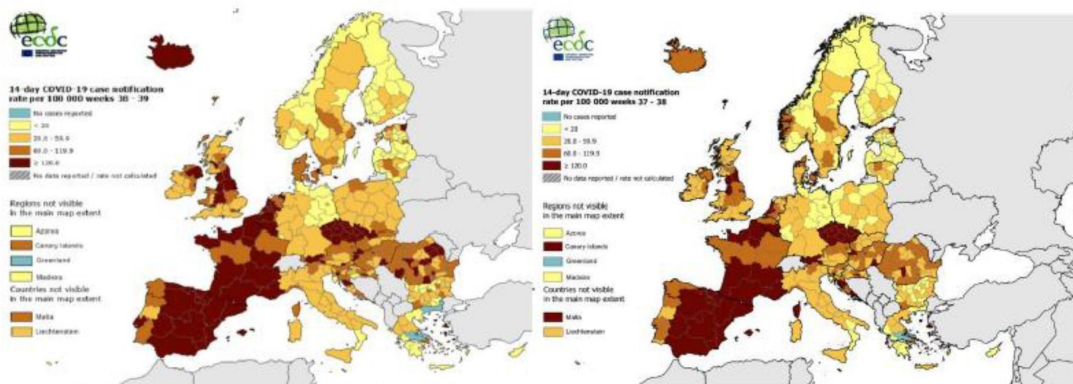
## Deaths

- The weekly number of deaths reported through rapid mortality surveillance has increased in the most recent week, although still at low levels and lower than the peak seen during week ending 12th April (236).
- According to provisional death certificate data provided by ONS, there were 12 COVID-19 deaths in Welsh residents registered with COVID-19 mentioned on the death certificate during week 39 (ending 25 September). This has decreased from a peak of 412 during the week ending 24 April, but has increased from the previous week.
- The Figure below shows the weekly number of deaths registered by place of occurrence in Wales for the week ending 13 March 2020 (Week 11) to week ending 25 September 2020 (Week 39). Source: Public Health Wales public dashboard.



**International update**

- As with last week, the UK is lagging behind France and Spain but following a similar trajectory.
- The Figure below shows how 14-day COVID-19 cases per 100,000 have changed across Europe from week 36 – 38. Data on the picture across Europe, including caveats around data lags and variable testing policies is available here: <https://www.ecdc.europa.eu/en/covid-19-pandemic>

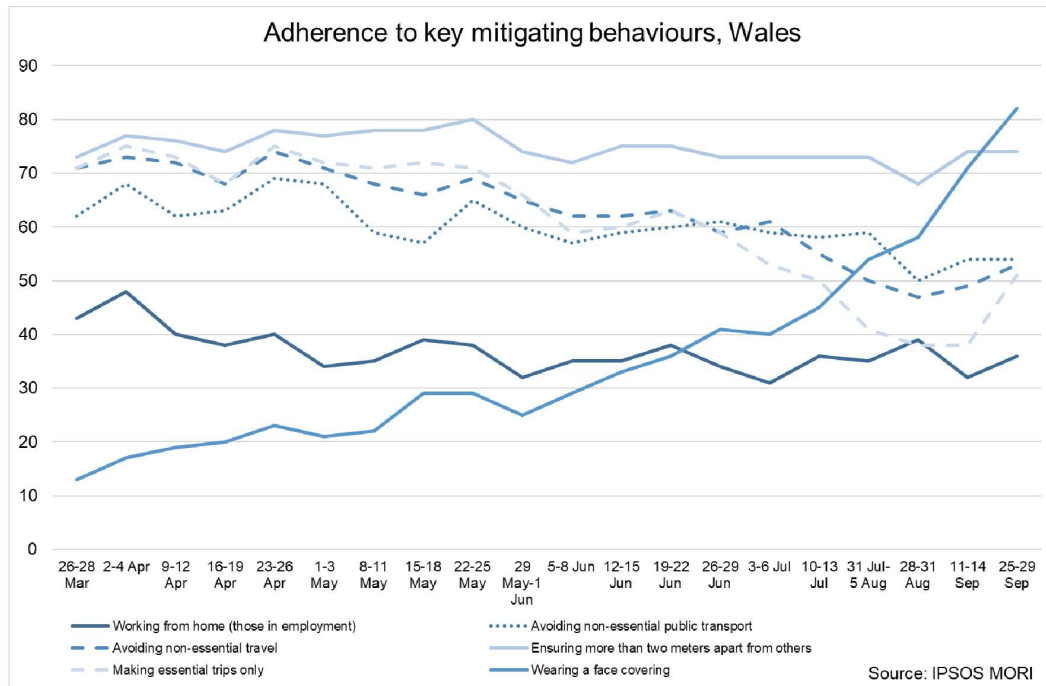


**Adherence to current measures and mobility**

- The most recent [IPSOS MORI data](#) for Wales shows increases in several of the questions relating to adherence to key mitigating behaviours. The percentage who reported using a face covering increased further to 82%, whilst those who said they made essential trips only increased from 38% to 51% - the highest it has been since early July. 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.

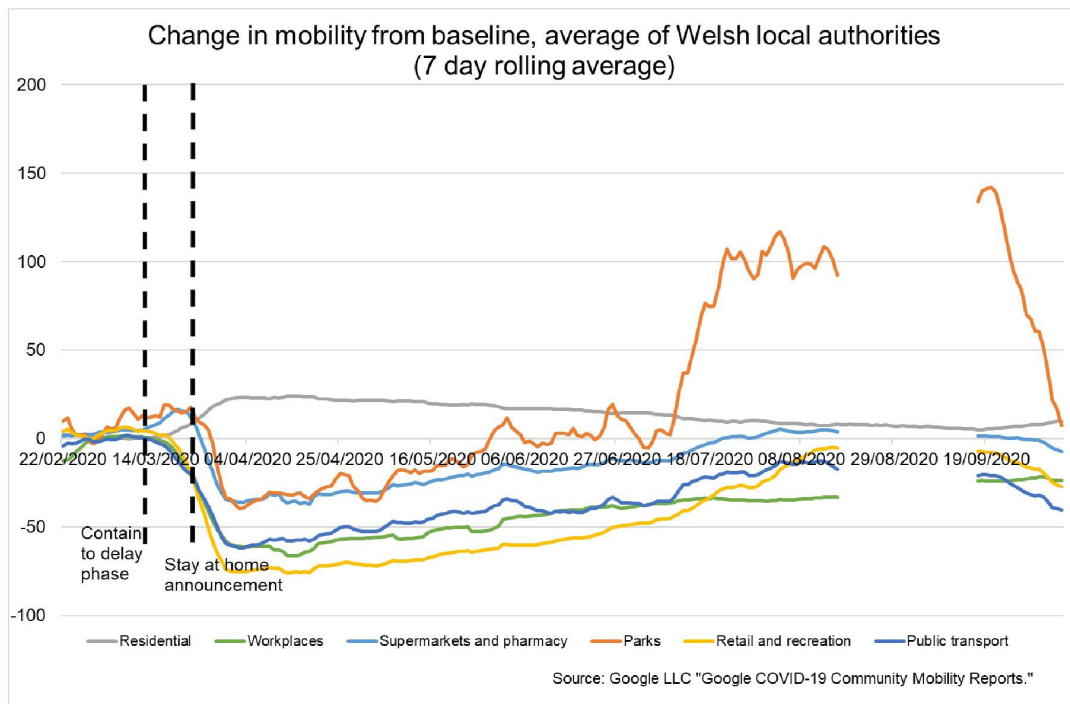


- The figure below represents data collected online by IPSOS MORI as part of a multi-country survey on the Global Advisor platform. Each of the waves has included c.600 respondents in Wales. The sample is broadly representative of the adult population aged 16-74. Data is weighted to reflect the age and 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.



- Mobility data for Wales and the UK show further reductions compared to last week, with much larger falls in Wales. After increases over the summer months, most of the information shows that it is back to levels seen in mid-July.
- In mid-April mobility of [Facebook users](#) in Wales was 50% lower than the baseline, this is 17% lower than the baseline (9% lower last week). This is the lowest since mid-July. 27% of Facebook users in Wales are staying put, up from 25% last week and the highest since mid-July. 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 fallen again in the last week and are now similar to early July. Requests for walking directions and requests for public transport directions have both fallen again in the last week. Requests for public transport directions are similar to late July.
- 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 as well.

- 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.
- Anonymised and aggregated mobile phone data from O2 to the 2<sup>nd</sup> 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). Caerphilly and Blaenau Gwent show trips have increased following lockdown and are only slightly lower/similar to pre-lockdown levels. Other lockdown local authorities<sup>1</sup> covered by the data show trips remain below pre-lockdown levels. Overall in Wales trip levels were down 9 percentage points over the week - larger than the 2 percentage point fall across 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 17<sup>th</sup> – September 10<sup>th</sup> due to the data not meeting quality thresholds.



<sup>1</sup> Data are to the 2<sup>nd</sup> of October, so cover the local lockdowns in Caerphilly (8<sup>th</sup> September 6pm), Rhondda Cynon Taf (17<sup>th</sup> September 6pm), Blaenau Gwent, Bridgend, Merthyr Tydfil and Newport (22<sup>nd</sup> September 6pm), Cardiff and Swansea (27<sup>th</sup> September 6pm), Neath Port Talbot, Torfaen and the Vale of Glamorgan (28<sup>th</sup> September, 6pm), Conwy, Denbighshire, Flintshire and Wrexham (1<sup>st</sup> October, 6pm). As the data cover whole local authorities, the local lockdown in Llanelli (26<sup>th</sup> September 6pm) has not been included in this analysis.

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

- The results for Wales show that an estimated 0.20% of the community population had COVID-19 in the week 25 September – 01 October. This equates to approximately 1 person in every 500, or a total of 6,100 people during this time.
- There is considerable uncertainty around the estimates and credible intervals are provided to indicate the range within which we may be confident the true figure lies.
- Data suggest the positivity rate increased in recent weeks, but may since have levelled off. It is important to stress the uncertainty around these estimates. 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 5762 Welsh patients recruited to COVID-19 urgent public health studies.

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

As at 8<sup>th</sup> October, 2020:

- The proportion of calls to NHS 111 and NHS direct related to possible COVID-19 symptoms have stabilised after an increase during recent weeks.
- GP consultations for Acute Respiratory Infection (ARI) and suspected COVID-19 decreased in week 40 compared to the previous week.
- Ambulance calls possibly related to COVID-19 are currently stable.
- During week 40, incidence increased across all age groups, incidence was highest in those aged under 50.
- Recent cases have included transmission including work places and social networks.
- Confirmed cases in patients who are tested on admission to hospital and patients in ICU have decreased in week 40 compared to the previous week. There has been an increasing trend in in-patients testing positive, particularly in Cwm Taf Morgannwg health board.
- The local authority areas of highest activity have mainly been in South Wales, however there are increasing trends in many other parts of Wales.

- The distribution of cases suggests increasing geographical spread of confirmed cases, with an increasing median and range of case numbers per area also.
- There are an increasing number of incidents reported, mainly in residential care homes, and recent increases in school settings, with cases in staff or students in most local authorities.
- The highest activity is seen in Merthyr Tydfil, Rhondda Cynon Taf and Bridgend with mobile community test sites recently established and as at 8th October, there are local restrictions currently in place in 15 local authority areas and one town (Llanelli).

### 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.

