Technical Advisory Cell

Summary of advice

12 May 2020
Key Points

- The reproduction value (Rt) for Wales is estimated to be between 0.7 and 1.
- There is consensus that the overall reproduction number has increased slightly, when compared to last week.
- UK data on prevalence and incidence is starting to emerge, but consensus will remain uncertain until further community surveys of swabbing and serological data become available.
- Most people in Wales continue to follow the social distancing guidelines.
- There are indications that movement is starting to increase in Wales, based on mobility data. These increases are modest, and do not necessarily mean that compliance with lockdown is weakening.
- The virus lasts far less long on surfaces in open sunlit environments, than in indoor environments.
- The total number of hospital reported confirmed Covid-19 patients in Welsh ICU peaked on April 18 (139) and is now below half of this peak number (58).

Reproduction ratio

- A consensus of $R_t = 0.7-1$ for Wales was agreed.
- It was agreed that the $R_t$ value is similar across the 4 nations of the UK. Whilst it is almost certain to be under 1, it could be close to it.
- It is the consensus view that the overall reproduction number has increased slightly, when compared to last week. This is because the number of cases in the community is decreasing while the number in, or seeded by, care homes or hospitals remains broadly flat. As a result, hospital or care home cases represent a higher proportion of total cases. This means that the rate at which the overall epidemic is shrinking has slowed.

Short-term forecasts

- Short-term indicators estimate that cases, hospital admissions, and deaths are expected to decline over the next three weeks.

Estimate of prevalence and incidence of Covid-19 in UK

- Emerging community swabbing data collected from an ONS pilot between 26th April and 8th May suggests that 136,000 people in England (confidence interval 76,000 to 225,000) would have swabbed positive with SARS-CoV-2 on 8th May.
Consensus for incidence for the UK remains uncertain, with estimates ranging from 10,000 – 40,000 new infections per day. Uncertainty in this range is primarily due to differing assumptions on the proportion of infections that are asymptomatic; as further community surveys of swabbing and serological data become available, this uncertainty will reduce.

**Adherence to current measures**

- From the data available it shows that many are complying with social distancing measures, it is estimated to be around 70% and some information (such as ONS survey data) suggests it could be higher.
- The mobility data shows increases in movement. The Apple mobility data and Google mobility data shows increases in some categories for Wales, in line with the rest of the UK and is consistent with increases in traffic.
- Changes in the mobility data may not mean similar changes in compliance. For example recent opening of some shops may results in more trips/higher mobility or warmer weather may mean people are more likely to be outdoors than indoors – however this needs further work to explore.

**Consensus Paper on Care Homes**

*To be published*

**University Offers of Support**

- TAC has been grateful for the continued engagement of colleagues from Higher Education Institutions across Wales in supporting the response to COVID-19.
- Universities across Wales have been provided support on large scale data linkage, super-computing expertise and technology to undertake complex modelling tasks. Discussions are also ongoing on how the potential capacity and capabilities of universities in Wales can contribute to the national testing plan.

**Research**

- There are currently 1494 Welsh patients recruited to COVID-19 urgent public health studies, an increase of 375 in last 7 days. (Eight total UPH studies open and recruiting in Wales).

**SARS-CoV-2 Persistence in Environment.**

- Evidence that the virus is likely to be stable for long periods of time on indoor surfaces and in air.
• Decay rate on surfaces increases with higher temperature and humidity. There may likely be small benefits in operating buildings at a higher temperature and/or humidity where this doesn’t cause significant thermal discomfort to occupants. Ventilation rates should not be reduced to achieve this.

• The virus is very likely to decay very quickly (a few minutes) in air and on surfaces when exposed to sunlight. This adds to the evidence that outdoor environments are highly likely to be a lower risk for transmission.

**NHS Performance**

Hospital data as reported 12 May:

• The total number of hospital reported confirmed Covid-19 patients in Welsh ICU peaked on April 18 (139) and is now below half of this peak number (58).

• Of the 127 patients in L3 ICU in Wales, 46% are confirmed Covid-19 cases, 11% are suspected cases and 43% are non-Covid patients.

• All L3 ICUs are at less than 50% occupancy.

• The 7-day average daily values for overall case numbers, Covid-related hospital admissions, Covid-related ICU admissions, L3 ICU occupancy, and PHW-reported deaths all indicate the past seven days have improved overall over the previous 7-day period. However, total Covid-related hospital discharges are slightly lower.

• Of the 5189 occupied beds in NHS Wales (56% of total available), 12% are confirmed Covid-19 patients and a further 6% are suspected pending confirmation.