

NI COVID 19 Modelling Group Conference Call – 15 December 2020

Attendees

Ian Young DoH (Chairperson)
Paul McWilliams SIB
Adele Marshall QUB
Stephen Bergin PHA
Janice Bailie PHA
Declan Bradley PHA
Paul Montgomery DoH

Key issues discussed

Update

- Ian provided an update on the latest position in respect of the key indicators of the trajectory of the virus and the impact on the health & social care (HSC) sector. The number of positive cases has risen over the past week which was contrary to the prior expectation that they would fall due to the lagged impact of the previous interventions. The number of tests conducted for the virus is also increasing and is at the previous peak. As a consequence, the 7 day average rate for test positivity is plateauing. Ian highlighted that the impact of testing levels on the observed numbers of positive cases reduced the usefulness of the latter as an indicator of the current trajectory of the virus with the positivity rate superior in certain circumstances.
- Ian referred to the case numbers for the Mid and East Antrim Local Government District (LGD) which were more than 50% higher than for the next highest LGD. In terms of post code areas within the LGD, the highest rates are in BT42 (531.2 7 day per 100k pop) and BT43 (364.7) in the Ballymena area where outbreaks had been linked to a Church and two grammar schools. Paul McWilliams has been asked to look at in more detail to identify other clusters to inform consideration of a targeted short term intervention. Although there was also concern about Causeway Coast and Glens, the position in this LGD had stabilised in recent days.
- There had been a spike in the number of Covid hospital admissions, linked to the increase in activity in advance of the most recent restrictions, before a continuation in the downward trend. The number of hospital inpatients with community acquired Covid had not reduced as expected whilst the number with hospital acquired Covid continued to increase, accounting for around 30% of the total- this is in line with the previous peak position in Wave 1. There was increased mobility recorded in the final week of the most recent restrictions suggesting that their effectiveness had reduced with duration with a further increase in mobility when they were formally released.

- The group agreed that the latest estimate of the R number is between 1.05-1.25 for cases (0.9-1.1 last week), consistent with the estimates produced by Magda Bucholtz (1.09-1.17). The R number based on hospital admissions was agreed as 1.0-1.2 (1.0-1.2 last week).
- Ian presented the results of updated scenario modelling undertaken by Paul McWilliams whilst highlighting that they were not predictions. In light of the lower than expected reduction in the number of hospital inpatients with Covid, the starting point for the analysis had increased from >350 to >400 with consequential impact on the scenario outputs.
- Scenario 1 is based on the R number increasing to 1.4, 1.6 or 1.8 with no subsequent intervention being implemented by the Executive. On the basis that the R number is at the higher end of the range, this could mean that hospital occupancy would be greater than 6,000 by the end of January (2,900 total bed capacity in NI HSC sector) compared with 5,000 in the previous modelling. Even by early January inpatient numbers could rise to over 1,000.
- Scenario 2 is based on a full lockdown (including click and collect services) being implemented at the start of January which reduces the R number to between 0.85 and 0.95 from that time onwards. However, following the R number being 1.8 from 11-31 December, this would still result in the number of Covid inpatients being over 3,000 by the end of January (2,000 previously). It is suggested that delaying intervention until the start of January may be too late to avoid hospitals being overwhelmed.
- Scenario 3 is based on the lockdown being implemented earlier, from 26 December, which would be expected to result in hospital occupancy of over 2,000 by the end of January (1,000 previously). Even if the R number in the pre-Christmas period was lower at 1.6, this may be associated with as many as 1,000 patients with Covid being in hospital in mid-January.
- Ian indicated that the scenarios would be presented to the Executive later this week with the recommendation that an additional significant intervention was required, which should be implemented as soon as possible. In the meantime there was a need for the public to minimise contacts.

AOB

- Janice Bailie informed the group that the results from the Covid Infection Survey continued to show a downward trend for NI. Ian noted that although Scotland was currently reported to have a lower rate of new Covid cases per head of population than NI, the survey suggested that a greater proportion of the population in Scotland had the virus.

- Declan Bradley provided an update on the latest findings from SPI-M with an observed increase in hospital mortality being perhaps due to a greater proportion of older Covid inpatients.
- Adele Marshall summarised the results of additional refit modelling analysis for Wave 2. This found that the second lockdown in the autumn was less effective than the initial lockdown in the spring. It was suggested that this was in part due to the initial lockdown being more extensive. The analysis also suggested that the wearing of face masks had more of an impact than previously thought. There was a discussion of the factors that could have caused the results.