

Modelling the COVID-19 epidemic; the Reproduction Number and other indicators

Current estimate of Rt (hospital admissions): 1.2 – 1.4 (above 1)

Current estimate of Rt (new positive tests): 0.7 – 0.9 (below 1)

Average number of new positive tests per day last 7 days: 1399 (down from 1820)

7 day incidence based on new positive tests: 515 / 100k (down from 671)

14 day incidence based on new positive tests: 1189 / 100k (up from 972)

7 day average of total positive tests (pillar 1 and 2) – 16.8% (down from 22.3%)

Tests per 7 days per 1000 population – 31.0 (unchanged from 31.0)

Number of new positive tests in over 60s in last 7 days – 2051 (up from 1951)

Proportion of total positive tests occurring in over 60s - 18.6% (up from 16.5%)

First COVID +ve hospital admission in last week – 408 (up from 298)

Number of community acquired COVID inpatients – 583 (up from 458)

COVID +ve ICU patients – 55 (up from 45)

Over the last week the number of cases has decreased, although the decline in the over 60s has been less than in other segments of the population. This reflects Rt for cases in the range 0.7 – 0.9, reflecting the impact of restrictions which have been in place since 26th December. Hospital admissions, bed occupancy, ICU occupancy and deaths continue to rise; admissions should begin to fall at the beginning of next week at the latest, with bed occupancy peaking during the last two weeks of January. Rt for hospital admissions is currently 1.2 – 1.4.

As yet the impact of the new COVID variant and the extent to which it is circulating in NI remains uncertain; we believe that % of new variant is likely to be rising but currently comprising less than 50% of cases.

Testing remains at a high level, but has begun to fall over the last week. Test positivity is also falling, reflecting a decrease in community transmission.

The observed number of cases and hospital admissions remain within the range suggested by previous modelling. The Executive has previously determined that its policy is to keep Rt at or below 1.0. Any intervention will need a number of weeks to have maximum impact and therefore to influence the trajectory of the course of the epidemic.