An Roinn Sláinte Department of Health Office of the Chief Medical Officer



Mr. Stephen Donnelly TD, Minister for Health, Department of Health, Miesian Plaza, 50-58 Lower Baggot Street, Dublin 2.

23rd December 2020

Via email to Private Secretary to the Minister for Health

Dear Minister,

I write further to today's meeting of the COVID-19 National Public Health Emergency Team (NPHET).

The NPHET reviewed the latest epidemiological data and the following key points were noted:

- A total of 4,992 cases have been notified in the 7 days to 23rd December, which is a 115% increase on the previous 7 days in which there were 2,323 cases; and a 164% increase on the 7 days to 9th December in which there were 1,889 cases;
- As of 23rd December, the 7- and 14-day incidence rates per 100,000 population have increased to 105 and 153, respectively; these compare to rates of 49 and 88 on the same day last week, and rates of 40 and 80 on 9th December;
- Nationally, the 7-day incidence as a proportion of 14-day incidence is 68%, demonstrating that
 there have been substantially more cases in the last 7 days compared with the preceding 7
 days;
- The 5-day rolling average has more than doubled from 339 on 16th December to 785 today (23rd December) and has close to tripled on the figure for 9th December (286 cases);
- Of cases notified in the past 14 days, 64% have occurred in people under 45 years of age; the median age for cases notified in the same period is 36 years;
- In the last 14 days, 10% of cases notified were aged over 65; incidence rates are now increasing across all age groups;
- We continue to see a high proportion of infections in healthcare workers who account for 12%
 of all reported cases in the last 14 days;
- There has been an increase in the 14-day incidence rate in the country overall, however 20 counties have a 7-day incidence as a percentage of 14-day incidence greater than 50% indicating an increase in cases in the last 7 days compared with the previous 7 days;

- The best estimate of the reproduction number (R) is currently 1.5-1.8. The current daily growth rate of cases is 7-9%. This compares with daily growth rate of 1.5-2% at the last NPHET meeting on 17th December.
- A total of 95,537 tests were undertaken in the last 7 days. The 7-day average test positivity rate has rapidly increased to 5.1% from 2.9% last week on the 16th December;
- Excluding serial testing, the test positivity rate has also rapidly increased over recent days. It was 7.2% over the 7 days to today (23rd December), up from 6.5% in the 7 days to Monday 21st December and 5.2% in the 7 days to Friday 18th December;
- There are currently 251 confirmed COVID-19 cases in hospital this afternoon, compared with 207 on 16th December. There have been 24 newly confirmed cases in hospital in the preceding 24 hours;
- There are currently 25 confirmed cases in critical care, compared with 32 on 16th December.
- To date, there have been 86 deaths notified with a date of death in December. This compares
 with 125 and 154 deaths notified (to date) with a date of death in October and November,
 respectively. Of the 86 deaths so far in December, 28 have been associated with hospital
 outbreaks and 29 have been associated with nursing home outbreaks.

Further relevant information includes:

- There were 9 new clusters notified in acute hospitals with 79 linked cases in week 51. There
 have been 4 new outbreaks notified in the current week to date with 15 linked cases.
- There are currently 58 open clusters associated with 25 acute hospitals. Over 1,000 cases have been linked to these outbreaks with 48% (514) of these cases related to healthcare workers.
 There have been 67 deaths linked to these outbreaks.
- There were 11 new clusters notified in nursing homes/community hospitals with 140 linked cases in week 51; There are 7 new clusters in the current week with 39 associated cases.
- There are currently 45 open clusters associated with nursing homes. More than 1,000 cases have been linked to these outbreaks with 41% of these cases related to healthcare workers.
 There have been 56 deaths linked to these outbreaks.
- There has been an increase in the number of outbreaks associated with schools (although transmission in the school setting has not necessarily been strongly suspected in all instances) with some large outbreaks associated with schools.
- There has been an increase in the number of cases in Irish Travellers in the past 2 weeks with 60 cases notified amongst Irish Travellers in week 51 and 48 cases in week 50, compared with an average of 28 per week in the previous 4 weeks.
- A range of mobility and compliance data suggest that movement and social contact in the population have increased significantly since the introduction of Level 3 measures.
- The influenza like illness rate (ILI rate) has increased in recent weeks and is now 45.0 per 100,000 population (Week 51), representing a significant increase from 30.1/100,000 in week 50 2020.
- As of 23rd December, the 14-day incidence per 100,000 population in Northern Ireland was 387, this is 2.5 times the 14-day incidence in the Republic of Ireland (153 per 100,000 population). The 7-day incidence per 100,000 population in Northern Ireland was 207, just under twice the 7-day incidence in the Republic of Ireland (105 per 100,000 population).

Overview of Current Epidemiological Trends and Disease Modelling

In summary, the epidemiological situation reviewed today is the most serious it has been since last March. The level of infection in the country is increasing very rapidly with the 5-day average per day at 785 and 14-day incidence at 153.2 per 100,000. Of significant concern, disease incidence is rising across all age groups with growth rate estimated to be at least 7-9% per day with a doubling time of 8-10 days or less. It should also be noted however that in just one week the 5-day average case count has doubled from 386 cases per day to 785 cases per day, suggesting the growth rate is accelerating. The growth rate is currently similar to, or greater than, that seen approaching the peak of the second wave. The best estimate of reproduction number is very high at 1.5 –1.8, the highest level since estimates have been produced. The number of confirmed COVID-19 cases in hospital is increasing and while numbers in intensive care and deaths are static at this time these are likely to increase very soon in line with expected lag effects. Ireland is now experiencing a surge of infection, and older and vulnerable adults are a key concern and at high risk of significant morbidity and mortality. The stark epidemiological situation, as set out, represents an immediate and grave threat to our public health priorities which include the protection of vulnerable groups and the continuation of care across all areas of the health and social care system.

The epidemiological data and modelling projections strongly suggest that it will be very difficult to effectively control viral transmission in the coming weeks, showing that the situation is likely to escalate further. The reason is that we are in a fundamentally different position than we were in October. Incidence is growing more rapidly. We had a 5-day average of 300 cases per day on 26 September, and reached 800 cases per day on 13 October, 17 days later. We had a 5-day average of 315 cases per day again on 15 December and reached an average of 785 cases per day on 23 December, 8 days later. The fact that the level of infection is growing faster in December than it was in October is underscored by the fact that current estimates of reproduction number (1.5-1.8) and growth rate (6-9%) are higher than they have been at any point in the pandemic since March. Furthermore, the October surge started with younger adults, with a delayed and attenuated increase in incidence, hospitalisations and deaths in those aged 65 and older. Now, incidence is rising rapidly across all age groups. This leads us to a fundamental concern that there is an imminent and serious challenge not just to public health, but also to the capacity of our healthcare service to provide adequate and timely COVID and non-COVID care.

The current SEIR scenario models, calibrated to 22 December, and assuming the additional public health measures announced on that day result in immediate changes in the level of social contact, show that if R is reduced to 1.4, we should see 1100 cases per day by 4 January 2021 and 1600 cases per day by 18 January 2021. If the measures are more effective in reducing R, to 1.1 or 1.2, we project 940-990 cases by 4 January and 1000-1200 cases per day by 18 January. If the current measures reduce R below 1.0 we would expect case numbers to peak at just over 1000 per day in early January.

The age profile of cases leads us to believe that we will see more severe disease than we did in October and November. If we assume that the age profile of cases remains as at present, relatively evenly distributed across age cohorts, we project between 340 and 380 people in hospital by 4 January 2021 (for R of 1.1 and 1.4 respectively) and between 440 and 580 in hospital by 18 January 2021. This does not account for the possibility that, due to increased intergenerational mixing over Christmas, that we might see a disproportionate increase in incidence in those aged 65 and older, leading to further

hospitalisations and mortality. Furthermore, if action is not taken now to ensure that R remains close to or below 1.0, the numbers in hospital will escalate further in the latter half of January: for a constant R of 1.1, 1.2 and 1.4 respectively we project 450, 560 and 850 people in hospital by 31 January 2021.

Impact on Health and Social Care System

The NPHET gave specific consideration to the potential impact of this current surge of infection on the health care system.

- As set out above, hospitalisations as a result of COVID-19 are already increasing and are
 projected to rise rapidly in the coming weeks. This is happening against a backdrop of an
 already constrained hospital system, with occupancy rates now back to pre-COVID levels and
 close to 100%, and Trolleygar figures similar to those at this time last year, and as we enter a
 period when the hospital system traditionally experiences the highest levels of demand.
- Long term care facilities, especially nursing homes, remain highly vulnerable to this disease.
 While incidence in these facilities had decreased in the latter half of November, cases are now rising in parallel to rising incidence in the community.
- Levels of disease in healthcare workers continue to be persistently high, and similarly to the
 position with long term care facilities, we are now experiencing a further increase in
 incidence in healthcare workers. The resilience of the healthcare system is wholly dependent
 on the availability of health care workers, and the NPHET expressed serious concern that a
 continuation of current trends could lead to potential workforce challenges in the coming
 weeks at a time when healthcare workers are already exhausted.
- All aspects of the testing and tracing system, including general practice, are already
 experiencing pressure and are likely to be severely constrained in a short space of time if
 transmission continues to grow at current rates. In particular, it will not be possible for
 public health teams to effectively identify and manage outbreaks, and in some cases a
 process to prioritise and focus resources on those areas that are most vulnerable to the
 disease has already been activated. This will greatly impact on our overall ability to contain
 further transmission of the disease.

There was a consensus across the NPHET that the health system is in an extremely precarious and fragile position, is at heightened risk of becoming overwhelmed and is facing into difficult decisions in relation to the ongoing provision of care. This comes at a time when activity levels across all services were necessarily reduced significantly over the course of the year and waiting lists have grown. For example, activity levels across primary care therapies were almost 30% lower this year than expected and the numbers waiting for speech and language services alone has increased by more than 35%. While scheduled acute care resumed in June, there has been significant disruption with hospital waiting list figures across inpatient, day and outpatient services all higher than at the start of the year. Our experience with the disease to date demonstrates how difficult it is to protect health care services and health care workers when there is widespread community transmission, and the NPHET is of the view that all available actions must be taken to prevent any further disruptions to health and social care services.

NPHET Advice

The NPHET noted the Government's decision yesterday (22 December) to reintroduce level 5 measures with certain modifications on a phased basis, commencing on the 24 December. Following detailed consideration, the NPHET does not believe that these measures will be sufficient to suppress transmission to the extent required to control the disease and mitigate the level of associated hospitalisations and mortality. As previously advised, this requires an R much lower than one which will only be achieved by widespread population level measures aimed at significantly reducing levels of mobility, congregation and socialisation.

A further significant deterioration in the profile of the disease over the coming weeks will seriously impact on our collective ability to protect public health, particularly in relation to those most vulnerable to the severe outcomes of COVID-19 and to ensure the continued delivery of non-COVID care and education and childcare services into the New Year. The NPHET is of the view that all indicators for the application of Level 5 measures have been met and that there is now too great a risk in waiting to assess the impact of measures announced yesterday, and advises that the full suite of Level 5 measures are introduced with effect from midnight on the night of 26th December for a period of six weeks. The full list of measures is set out in the Appendix.

The NPHET also noted the position in Northern Ireland and current plans to implement comprehensive measures from the 26 December and expressed concern in relation to any unintended cross border movement into the country as a consequence if proposed measures are not implemented.

The NPHET also cautioned that, as is generally the experience with flu, the numbers of cases reported over the holiday period is likely to be an under-representation of the actual position and advises that they should be interpreted with caution.

The NPHET is acutely aware of the potential mental health impacts that can arise as a result of the measures proposed, but it is equally cognisant of the implications for mental health of not taking these decisive measures, in particular the consequent impact on the provision of mental health services.

Separately, for information, the NPHET also received an update on the novel variant of the disease in the UK. Preliminary data suggests that the variant is present in Ireland but further work is ongoing to confirm this. The UK have indicated that the trajectory of disease in the area of England most affected by the new variant demonstrated exponential growth in the last two weeks of November, at a time when substantial restrictive measures were in place (no household visiting, all non-essential retail and hospitality closed). This suggests that, if the variant is contributing to the current escalation in Ireland, that anything other than a combination of measures equivalent to Level 5 plus substantial adherence to, and enforcement of, those measures will be required to regain control of the current situation.

The NPHET today also advised that, given current infection levels and growing constraints on the testing system, the testing protocol for close contacts should change. The current Day 0 and Day 7 tests should be replaced by a single test, five days after the last contact with the confirmed case. This should be implemented as soon as possible and remain in place until at least the 12th January. It is important to note that this does not impact on the requirement for all close contacts to restrict their movements for 14 days from last contact with the confirmed case, irrespective of their test result.

The NPHET, of course, remains available to provide any further advice and recommendations that may be of assistance to you and Government in relation to ongoing decision-making processes in respect of the COVID-19 pandemic.

I would be happy to discuss further, should you wish.

Yours sincerely,

Dr Tony Holohan

Chief Medical Officer

Chair of the COVID-19 National Public Health Emergency Team

cc. Ms Elizabeth Canavan, Department of the Taoiseach and Chair of the Senior Officials Group for COVID-19

Appendix 1: Proposed Measures under Level 5 of the Framework

- No visitors to private homes/gardens
- No social/family gatherings to take place in other settings, either indoors or outdoors
- Up to 6 guests only are permitted at weddings
- No organised indoor gatherings should take place
- · No organised outdoor gatherings should take place
- No matches or sports events are permitted exemption for professional/elite/ senior intercounty/horse-racing behind closed doors
- Individual training only is permitted both indoors and outdoors. No exercise or dance classes
 are permitted.
- Gyms/leisure centres/swimming pools are closed
- Places of worship remain open for private prayer only, with religious services moving online.
 An exemption is provided for funerals, which can proceed with up to 10 mourners permitted
- The vast majority of public venues, shops, businesses and services to close, including:
 - o museums, galleries, libraries and tourism and cultural attractions
 - Restaurants, bars and cafes (including hotel restaurants and bars and wet bars) are open for takeaway food or delivery only.
 - Nightclubs, discos and casinos remain closed.
 - Hotels, guesthouses and B&Bs are open only for those with essential non-social and non-tourist purposes.
 - Only essential retail is permitted to open. All other retail and personal services are closed.
- Work from home unless work is an essential health, social care, for education purposes, or other essential services and cannot be done from home.
- Public transport should be reserved for essential workers and essential purposes only, and should operate at 25% capacity only. (Current provisions will continue to apply to school transport).
- Everyone should stay at home in all circumstances, with the following exemptions:
 - Essential work, medical appointments, vital family reasons, farming
 - Exercise within 5km of home.
- LTRC Facilities visiting: suspended, aside from critical and compassionate circumstances
- Over 70s and medically vulnerable: specific guidance (no change from level 2,3,4)
 - Staying at home as much as possible is recommended.
 - While each person should exercise individual judgement regarding the extent to which they engage with others, it is strongly recommended to limit this to a very small network, for short periods of time, while remaining physically distanced.
 - When taking exercise outdoors, maintain 2 metre distance from others and wash hands on returning home.
 - o Public transport should be avoided.
 - Shopping during designated hours only while wearing a face covering is recommended. Family, friends and neighbours may be able to provide assistance with shopping once they adhere to physical distancing guidelines, alternatively, online services may be considered.
 - o Designated shopping hours and Community Call will need to be stood up

The following should remain open, with appropriate protective measures in place:

- Schools, early learning and childcare services
- Higher and adult education: the vast majority of programmes should be online, with exemptions only for essential on-site activities including practicals, laboratory and clinical placements.
- Outdoor playgrounds, play areas and parks remain open.