



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

20<sup>th</sup> January 2022

Dear Minister,

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

### **Epidemiological update**

- Due to anticipated large volumes of case numbers over the current period, from 22<sup>nd</sup> December 2021, the daily case number reported has been based on positive SARS-CoV-2 results uploaded to the HSE COVID Care Tracker the preceding day. These data are provisional and do not represent notified cases.
- A total of 80,216 confirmed cases have been reported in the 7 days to 19<sup>th</sup> January 2022 (cases notified to midnight 18<sup>th</sup> January 2022), which is a 49% decrease from last week when 157,357 cases were reported in the 7 days to 12<sup>th</sup> January, and a 41% decrease compared to the 7 days to 5<sup>th</sup> January 2022 when there were 136,960 cases reported.
- From Friday 14<sup>th</sup> January 2022, individuals can register a positive antigen test result and upload details of their close contacts to a portal on the HSE website. Data on the number of positive antigen results uploaded to the portal the previous day are reported daily. A total of 25,635 positive antigen results were reported in the five days from 15<sup>th</sup> to 19<sup>th</sup> January, with 5,295 positive results reported on 19<sup>th</sup> January. All antigen test results are self-reported and not subject to validation.
- As of 19<sup>th</sup> January 2022, the 14-day incidence rate (PCR) per 100,000 population is 4,989; this compares with 6,181 a week ago, which was the highest incidence rate during the pandemic so far (12<sup>th</sup> January), and 4,450 at the last NPHEt meeting on 5<sup>th</sup> January 2022. Incidence rates are likely to be underestimates. While incidence remains high, it is rapidly decreasing.
- Nationally, the 7-day incidence per 100,000 population as a proportion of 14-day incidence per 100,000 population is 34%, demonstrating that there have been considerably fewer cases identified through laboratories in the last 7 days, compared with the preceding 7 days.
- The 5-day rolling average of daily cases (PCR) is 8,849 as of 19<sup>th</sup> January, this is a 62% decrease from a peak of 23,432 on 10<sup>th</sup> January, and a 54% decrease from that reported on 5<sup>th</sup> January (19,259).
- The test positivity rate in public health laboratories (49.5%) remains high, but it is rapidly reducing; importantly, test positivity in hospital laboratories (13.4%), which is a biased but more stable sample of the population, is also reducing.
- From 12<sup>th</sup> January to 18<sup>th</sup> January 2022, there have been approximately 196,661 laboratory tests reported in community, private, and acute laboratories, which is down 28% from 272,308 at the last NPHEt meeting (6<sup>th</sup> January). The 7-day test positivity rate in the community has significantly decreased from 60.5% at the last NPHEt meeting to 55.2%.
- The Test and Trace system had been operating at surge capacity until the past weekend, when there was a significant drop in overall demand for testing.

- According to the Contact Management Programme (CMP), from 9<sup>th</sup> January – 16<sup>th</sup> January 2022, the total number of close contacts was 144,007, a decrease of 31% on 208,048 in the previous week. The average number of cases managed per day decreased from 23,544 to 16,214, a decrease of 31% over the same time period.
- For close contacts created the week ending 2<sup>nd</sup> January 2022, PCR Test 1 results were available at the time for 44,169 close contacts; 21,972 (49.7%) of these had a positive result. PCR Test 2 results were available for 3,721 close contacts, 581 (15.6%) of these had a positive result.
- The mean number of close contacts per case (including cases with zero close contacts) for the week ending 16<sup>th</sup> January was 1.9, an increase from 1.8 the previous week (week ending 9<sup>th</sup> January). The mean number of close contacts per case (excluding cases with zero close contacts) for the week ending 16<sup>th</sup> January was 2.0, an increase from 1.8 the previous week.
- There were 896 confirmed COVID-19 cases in hospital this morning, compared with 1,011 last week on 13<sup>th</sup> January, and 941 at the last NPHET meeting on 6<sup>th</sup> January. There have been 120 newly confirmed cases in hospital in the 24 hours preceding this morning. There has been an average of 122 newly confirmed cases in hospital per day over the last 7 days
- As of 18<sup>th</sup> January, 56% of hospitalised cases were categorised as hospitalised for COVID-19, with the remaining 44% categorised as asymptomatic COVID-19 cases and potentially infectious.
- As of 18<sup>th</sup> January 2022, age breakdown of hospitalised cases: 374 (34%) aged 80 and older, 335 (30%) aged 65-79, 176 (16%) aged 50-64, 196 (18%) aged 15-49, and 27 (2%) aged 0-14 years old.
- According to the latest HSE data on hospitalisations and vaccinations, as of 18<sup>th</sup> January, 61% of hospitalised COVID-19 cases were fully vaccinated. Of these, 63% were recorded on COVAX as having received a booster/additional dose
- There are currently 89 confirmed cases in critical care as of this morning, compared with 92 a week ago (13<sup>th</sup> January 2022). There were 7 new admissions to critical care in the 24 hours preceding this morning. Of the 89 cases in critical care this morning, 61 were invasively ventilated.
- There has been a reduction in the absolute number of patients whose primary reason for admission to ICU was COVID-19, from a peak of 126 on 23<sup>rd</sup> November 2021, to 73 as of 18<sup>th</sup> January 2022.
- According to HSE data as of 18<sup>th</sup> January 2022, where vaccination status was known, 49% of COVID-19 cases in ICU were fully vaccinated, of whom 55% were recorded as having received a booster/additional dose.
- As of 18<sup>th</sup> January, 189 patients were in receipt of non-invasive ventilation/Continuous Positive Airway Pressure (CPAP) or High-Flow Oxygen in non-critical care settings, of whom 66 patients were COVID-19 cases.
- There continues to be a significant number of cases of hospital acquired infection (note this is based on data to the week ending 9<sup>th</sup> January 2022). There were 207 hospital acquired COVID-19 infections in the week ending 9<sup>th</sup> January 2022, compared to 137 in the week ending 2<sup>nd</sup> January, and 39 in the week ending 26<sup>th</sup> December.
- There has been a high number of laboratory confirmed COVID-19 cases amongst hospital staff (note this is based on data to the week ending 9<sup>th</sup> January 2022). There were 2,407 laboratory confirmed COVID-19 infections in hospital staff in the week ending 9<sup>th</sup> January 2022, compared to 2,266 in the week ending 2<sup>nd</sup> January, and 971 in the week ending 26<sup>th</sup> December.
- As of 19<sup>th</sup> January 2022, there have been a total of 6,087 COVID-19 related deaths notified in Ireland. This is an increase of 52 notified deaths since the previous weekly update on 12<sup>th</sup> January 2022. To 19<sup>th</sup> January, 66 deaths have been notified which occurred in January to date, 196 in December 2021, 246 in November, and 224 deaths in October.
- As of 18<sup>th</sup> January 2022, S gene target failure (SGTF) data (a proxy for Omicron) indicate that approximately 97% of new cases in Ireland are due to the Omicron variant (based on laboratory specimen date of 16<sup>th</sup> January).

- According to the latest whole genome sequencing data in relation to B.1.1.529 (Omicron), as of 19<sup>th</sup> January, 2,227 BA.1 (Omicron), 4 BA.2 (Omicron), and 1 BA.3 (Omicron) cases had been confirmed in Ireland.
- Sixteen laboratory confirmed influenza cases were notified in week 2 2022 (10<sup>th</sup>-16<sup>th</sup> January 2022). There were 8 laboratory confirmed hospitalised influenza cases notified in week 2. In the 2021/2022 season to week 2 2022, notified laboratory confirmed influenza hospitalised cases have been predominately influenza A (not subtyped)/influenza A(H3), with the remainder influenza B.
- Respiratory Syncytial Virus (RSV) notifications in week 1 2022 (3<sup>rd</sup>-9<sup>th</sup> January): 45 RSV cases (37.8% aged 0-4 years; 26.7% aged ≥65 years) were notified during week 1 2022; 21 of these cases were reported as hospital inpatients (47.6% aged 0-4 years; 28.6% aged ≥65 years). As of week 1 2022, rhinovirus/enterovirus and other respiratory viruses continue to circulate, with coinfections of respiratory viruses reported.
- The SARS-CoV-2 positivity rate from sentinel GP COVID-19 referral specimens tested by NVRL decreased from 61.6% in week 1 2022, to 51.2% in week 2.
- As of 19<sup>th</sup> January 2022, approximately 55% of the population aged 35-44 years, 44% of those aged 25-34 years, and 37% of those aged 18-24 years have received a booster/additional vaccine dose.
- A range of mobility data indicate that mobility across a number of settings increased significantly following the Christmas and New Year period.

Outbreaks for week 2 (9<sup>th</sup>– 15<sup>th</sup> January) are based on those reported up to midnight on 15<sup>th</sup> January 2022.

In Week 2 there were a total of 198 COVID-19 outbreaks notified. Due to the high case numbers, there may be a delay in reporting of outbreaks to the national surveillance system (CIDR) and the linking of cases to outbreaks. In addition, regional Departments of Public Health are currently prioritising Public Health Risk Assessments and outbreak investigations in settings that have the greatest clinical need or would benefit most from public health intervention. For this reason, outbreaks in some settings may be underestimated.

#### **Healthcare setting outbreaks:**

- There were 57 new nursing home and 4 new community hospital/long-stay unit outbreaks reported in week 2. The case range of these outbreaks was 5-47 cases. As of 19<sup>th</sup> January, there were 142 outbreaks in nursing homes and community hospitals reported in weeks 51 2021 to week 2 2022 (midnight 15<sup>th</sup> January 2022). There were 1939 cases aggregately associated with these outbreaks, of which there were disaggregate data available on 413 cases. Of the 413 linked cases, 20 were hospitalised (4.8%) and 9 have died (2.2%). To note, there may be a lag in occurrence/notification of deaths for more recent cases. Availability of disaggregate data will increase as linkage of cases continues on CIDR.
- There were 33 new acute hospital outbreaks reported in week 2, with a range of 0-19 cases.
- There were 70 new outbreaks reported in residential institution settings (44 in centres for disabilities, 5 in direct provision centres, 5 in mental health facilities, 5 in children's/TUSLA residential centres, 3 in centres for persons with addictions, 3 in centres for older people, 2 in homeless facilities and 1 in a prison) in week 2, with a range of 1-33 cases.
- There were 12 new outbreaks in 'other healthcare services' (4 among clients of home care services, 5 in day services for people with disabilities, 2 among clients of mental health facilities and 1 in 'other' healthcare services), with a range of 0-5 cases.

### **Outbreaks associated with school children and childcare facilities:**

- There were 3 new outbreaks associated with schools notified in week 2 (1 in a post-primary school and 2 in a special education school), with a range of 0-6 cases.

### **Additional details are available in relation to outbreaks in vulnerable groups and key populations:**

- There were 15 new outbreaks reported involving members of the Irish Traveller community in week 2, with a range of 0-6 cases.
- There were 2 new outbreaks reported involving members of the Roma community in week 2, with fewer than 5 cases.

The current epidemiological profile of COVID-19 provides a broadly positive outlook. While incidence data may be considered incomplete, a range of data indicate that incidence is high but rapidly reducing. Case counts are now estimated to be decreasing at a rate of 6% per day.

Demand for testing is reducing. While the test positivity rate in public health laboratories (60%) remains high, it is falling rapidly. Importantly, test positivity in hospital laboratories is also reducing, supporting the assessment that overall incidence in the community is declining. Test positivity (PCR) is reducing across all age groups.

While the burden on acute hospital care remains significant, the number of confirmed cases in hospital has decreased from a recent peak of 1063 on 10<sup>th</sup> January 2022, to 896 as of this morning, with the average number of newly confirmed cases in hospital each day also reducing. The estimated growth rate of hospitalised cases is below zero and decreasing. Based on additional analysis, the HSE reports that as of 18<sup>th</sup> January, 56% of cases in hospital were categorised as hospitalised for COVID-19 disease, reduced from 70% on 11<sup>th</sup> January, with the remaining proportion categorised as asymptomatic cases but potentially infectious. As of 18<sup>th</sup> January, 61% of hospitalised cases were fully vaccinated, of whom 63% had received a booster/additional vaccine dose.

The total numbers of confirmed cases in ICU, daily admissions, and cases requiring mechanical ventilation are currently relatively stable. There has been a reduction in the absolute number of patients whose primary reason for admission to ICU was COVID-19, from a peak of 126 on 23<sup>rd</sup> November 2021, to 73 as of 18<sup>th</sup> January 2022. Approximately half of confirmed cases in ICU are unvaccinated. Of those cases in ICU on 18<sup>th</sup> January who were fully vaccinated, just under half had not received a booster or third vaccine dose. The number of COVID-19 patients in receipt of non-invasive ventilation/Continuous Positive Airway Pressure (CPAP) or High-Flow Oxygen outside of ICU has reduced, from a recent peak of 145 in the second week of December 2021, to 66 as of 18<sup>th</sup> January 2022.

While there continues to be a significant number of outbreaks notified in vulnerable settings such as nursing homes, to date, available data including reports from public health teams, indicate that the burden of severe health outcomes appears reduced compared to previous waves of infection. There continues to be a significant number of hospital-acquired infections reported, though the clinical impression is that most cases of hospital-acquired COVID-19 are not severe and many are asymptomatic. Significant impact from COVID-19 on staffing levels has been observed across all areas of the health and social care system in recent weeks but this impact is beginning to decline as levels of infection in the community reduce. COVID-19 mortality has remained relatively stable.

## **Modelling**

The level of infection and force of infection in the population are past a peak and declining rapidly, and the demand for hospital treatment of more severe infection is also starting to decline.

The incidence of infection detected through PCR testing and self-reported antigen testing is an underestimate of the true incidence. We have reasonable estimates of the extent of under-ascertainment, and at peak there were approximately 2-3 additional infections for each infection detected or reported. It is clear now that all markers of incidence are decreasing. This profile of incidence fits with the model scenarios generated at the onset of the Omicron surge.

Omicron very effectively evades immune protection from infection, at the higher end of the range of assumptions used in these models, and as such the number of detected infections has tracked the more pessimistic scenarios in terms of case numbers. However, vaccine protection against severe disease is well maintained, and the successful acceleration of the booster vaccination programme has increased this protection. This, along with Omicron being intrinsically somewhat less likely to progress to severe disease, means that serious adverse outcomes and mortality were much less than expected. This protection was graduated, in that vaccination greatly reduced hospitalisation once infected and further reduced admissions to critical care and mortality.

The number of hospital admissions per 1,000 reported cases has fallen from 15 admissions per 1,000 cases in November 2021 to 7 admissions per 1,000 cases now; prior to vaccination, in January 2020, it was 35-50 admissions per 1,000 cases. Furthermore, throughout the pandemic, approximately 12% of hospital admissions have progressed to require admission to intensive care; in recent weeks this has dropped to 5%. As a result, the number of people in hospital is following the more central scenario (and decreasing as expected within those scenarios) and the number of people admitted to critical care has only increased marginally in association with the surge of Omicron infection.

Force of infection is decreasing rapidly, but it is likely that the rate of decrease will slow, and there may be a period ahead where levels of infection increase again. As case numbers and numbers in hospital decline and the threat recedes, population mobility and social contact will increase, creating additional opportunities for viral transmission, a process which may be accelerated by an increase in social contacts following the relaxation of restrictions. Infections and detected cases may then stabilise or start to increase.

Given our experience of the last few weeks, and the fact that the level of immunity in the population is increasing (due to the ongoing booster vaccination programme and natural infection) it is less likely that this will result in high levels of serious disease or an unsustainable demand on healthcare. It will be important over the coming months that work is undertaken to prepare for changes in incidence of infection and to monitor not just the level of infection but the potential for harm before any specific response or intervention is considered.

## **Managing the Next Phase(s) of the COVID-19 Response**

The public health management of the COVID-19 pandemic has evolved and must continue to evolve in light of changing circumstances and risks. In August 2021, the NPHET provided advice in relation to a transition in the approach to the public health management of COVID-19 in Ireland. This advice set out a path for the removal of the majority of remaining public health measures underpinned by a transition, in broad terms, from a focus on regulation and population wide restrictions to a focus on public health advice, personal judgement and personal protective behaviours. Further advice was provided in September 2021 in relation to a complementary stepwise transition in the approach to the public health management of people with symptoms, cases and close contacts from open

access/mass scale SARS-CoV-2 testing to one more focused on testing on public health or clinical grounds.

While progress was made on advancing this transition in approach, both the increases in Delta infections in October and November and the emergence of the Omicron variant in December resulted in the NPHET advising that the re-imposition of a number of public health measures was necessary. In particular, the significant uncertainty in relation to the potential impact of the Omicron variant was central to NPHET's considerations at that time.

As set out above, Omicron is now responsible for approximately 97% of SARS-CoV-2 infections in Ireland. Fortunately, there is now clear evidence that, in comparison to previous variants, Omicron is associated with a significantly reduced population level of severe disease despite continuing high levels of transmission. As set out above, the overall epidemiological position is improving, and the most recent data indicates that we have now passed a peak in this wave of infection. The NPHET noted that we are in this much improved situation as a result of the population's engagement with the vaccination programme, and the booster programme in particular, and the high levels of adherence to public health measures.

**The NPHET is of the view that the current profile of the disease in Ireland and the available evidence and experience of Omicron internationally now allows for a fundamental change in the management of COVID-19 and a return to the strategy set out in the NPHET advices of the 25<sup>th</sup> August 2021.**

In giving this advice, the NPHET stresses that COVID-19 still poses a risk to public health, with a significant level of infection nationally, high numbers still receiving care in our hospitals and a cohort of the population that remain vulnerable to more severe infection. **It is therefore important that there is a phased approach to the easing of measures while continuing to maintain a strong focus on personal protective behaviours based on individual and sectoral risk assessments over the coming period.** Furthermore, it is important that everyone continues to play their part in limiting transmission so that we can ease pressure on our healthcare system and limit disruption and staff absence across all sectors.

The NPHET is in a position to give this advice because of the uptake of vaccination combined with the relatively reduced virulence of the Omicron variant. **The pandemic is not over and the emergence of new variants with increased levels of transmissibility, immune escape and/or virulence remains a risk both nationally and globally,** particularly in the context of continued high levels of infection and variance in vaccine supply and uptake globally. **The NPHET also noted that those who remain unvaccinated are susceptible to severe illness with Omicron and efforts should continue to encourage everyone to complete their primary and booster programme of vaccination.**

In addition, as seen in other countries with similar experiences with Omicron, the removal of social and economic restrictions will result in increased opportunities for the virus to transmit and may lead to an increase in disease incidence, including in children, many of whom have not yet had the opportunity to be vaccinated. The harm arising from any such increase in incidence will need to be kept under close review. As we moved forward into a new phase of managing the pandemic we must continue to focus on our core priorities of protecting those most vulnerable to the severe impacts of COVID-19, protecting health and social care, education, and childcare services. There will also need to be a continuing focus on Long COVID.

## **NPHET Advice**

As outlined in my letter of 25<sup>th</sup> August 2021 we have relied on a combination and layering of public health measures, including mask wearing, physical distancing, hand and respiratory hygiene, improved ventilation, self-isolation, infection prevention and control, an emphasis on outdoors over indoors, testing and contact tracing, border controls and a range of domestic restrictive measures to suppress transmission. Notwithstanding a transition in the overall approach to the public health management of COVID-19 and the high levels of vaccination achieved across the population, there will continue to be an ongoing need for some public health measures to reduce the risk of transmission. **Therefore, the following must remain critical components of our collective response and ongoing communication in relation to COVID-19 and will need to be retained and reviewed on a periodic basis:**

- **Clear guidance and communication with the public** on the evolving disease profile and a cultural shift towards embedding individual and collective personal behaviours to mitigate against COVID-19 and other respiratory infections;
- A renewed and sustained focus on the importance of rapid **self-isolation** if symptomatic (even if fully vaccinated/boosted) or if diagnosed with COVID-19;
- Continued promotion of **vaccination against COVID-19 in line with evolving national strategy and seasonal influenza vaccination**;
- Continued wearing of masks, practicing of physical distancing and avoidance of crowded environments based on **individual risk assessment**, and adherence to basic hand and respiratory hygiene;
- **Sector specific measures** to ensure a safe environment including in relation to the promotion of rapid self-isolation when symptomatic, appropriate use of face masks, physical distancing, hand and respiratory hygiene, ventilation and signage;
- Continuing engagement with and support for global vaccination and surveillance initiatives;
- In line with evolving strategies, ongoing robust **public health surveillance and response capacities** including testing, contact tracing, surveillance and sequencing capacities for COVID-19;
- The impact of the pandemic on the health system has been significant. It is important that a continued focus on **health service resilience** is maintained, including in particular:
  - ongoing **strengthening of health system capacity** across the spectrum of public health and community and hospital services, to ensure the system is adequately prepared for future surges in activity. This includes critical care and isolation capacities, and the continuation of appropriate support for non-COVID care in a COVID environment.
  - a continued **focus on infection prevention and control measures** in healthcare settings, including appropriate mask wearing and physical distancing requirements based on local risk assessment and advice from IPC teams, given the ongoing requirement to provide care for both COVID and non-COVID patients and the need to protect both patients and staff.

**While the above measures must be maintained, the NPHET is of the view that there is no longer a continuing public health rationale for the majority of the public health measures that are currently in place and therefore advises that the following measures can now be removed (accepting that a period of time will be necessary to make the required legislative changes and give due notice to sectors):**

- Guidance in relation to household visiting
- Early closing time for hospitality and events
- Capacity restrictions for outdoor events
- Capacity restrictions for indoor events. This would also apply to weddings.
- Sectoral protective measures e.g.:
  - formal requirements for physical distancing in general (2m)
  - physical distancing requirements in hospitality (table service, 1m between tables, 6 per table etc.)
  - seated only at indoor events
  - pods of 6 for indoor activities
  - COVID pass requirement across all domestic venues/activities
  - requirement to maintain contact details
- Restrictions on nightclubs
- Public health advice to work from home allowing a return to physical attendance in workplaces on a phased basis appropriate to each sector

In addition, the NPHET, while accepting that there will be broader operational and staffing considerations, reiterated its previous advice that there are no longer any public health reasons for:

- A curtailment of health services such as community day services
- Limiting visiting in health care facilities, including nursing homes, where arrangements should be informed by national IPC guidance and IPC assessments at facility level.

**While advising the removal of the above measures, the NPHET advises, that the following remaining measures should be retained until the 28th February**, at which point all children between the ages of 5 and 11 years will have had the opportunity to complete their primary course of vaccination:

- Requirements for mask wearing in all settings where currently regulated for
- Protective measures in primary and secondary schools
- Current advice for those with symptoms, cases and close contacts as announced by Government on 12th January 2022. These will be reviewed in advance of 28th February.

The NPHET also stressed the uncertainty of the future trajectory of the disease. As noted in the WHO's most recent global rapid risk assessment, conducted on 7<sup>th</sup> January 2022, the global public health risk remains very high. The current global epidemiology of SARS-CoV-2 is characterized by the emergence and rapid spread of the Omicron variant on a global scale, continued decline in the prevalence of the Delta variant, and a very low level of circulation of the Alpha, Beta and Gamma variants. While the Omicron variant is spreading rapidly across the world, the evolution of SARS-CoV-2 is expected to continue and Omicron is unlikely to be the last Variant of Concern (VOC) and the emergence of a new divergent VOC might significantly affect the duration of protection conferred by vaccination or previous SARS-CoV-2 infection. **Therefore, we cannot fully rule out the reintroduction of measures in the future and we must continue to ensure our response is agile and flexible, with an ability to pivot rapidly and respond to any emerging threat.** Testing strategies should remain flexible and rapidly adaptable to changes in the epidemiological situation. Comprehensive surveillance and whole



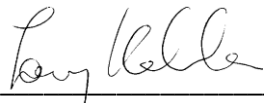
genome sequencing will remain important for early detection of the presence of a new variant, to enable the following of epidemiological trends and guide containment measures. In the medium term, there will also need to be ongoing strengthening of the broader public health response such that rigorous and timely application of any necessary contact tracing and control measures can be applied to rapidly contain and limit spread where necessary in the event of future threats. The Department of Health will engage with the HSE and other relevant experts to advance this work.

While our approach to managing COVID-19 will be underpinned by individual risk assessment and personal judgement, it will be important that there are focused communications and initiatives to inform and empower individuals to assess risks and appropriately re-engage with social activity, return to the workplace, and resume other aspects of their lives.

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. In that regard, the NPHET intends to meet again on 17<sup>th</sup> February to assess the epidemiological impact of the above recommendations.

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

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Tony Holohan', written over a horizontal line.

Dr Tony Holohan  
Chief Medical Officer  
Chair of the COVID-19 National Public Health Emergency Team