



NPHET Advice in Relation to the Ongoing Response to COVID-19

National Public Health Emergency Team

18 February 2021

Introduction

The current Government strategy for managing the response to COVID-19, *Resilience and Recovery - Plan for Living with COVID-19* is scheduled for review in March. This provides an opportunity to review and refresh our strategic approach to managing the next phase of the response, taking account of the key learnings from our experience of the pandemic to date, new parameters such as the emergence of more transmissible variants and the rapidly developing vaccination landscape, new evidence and innovations, and most recent international advice.

Key Points:

1. Vaccines bring great hope and will play a critical role in protecting the population against COVID-19. But it will be some time before they have a significant impact.
2. The epidemiological position remains very fragile, with incidence still at a high level, and significant numbers still in hospital and ICU. The B.1.1.7 variant now accounts for approximately 90% of all cases and is known to be more transmissible and there is a continuing risk relating to other known variants of concern.
3. Both the ECDC and WHO continue to recommend a very cautious approach and advise against the relaxation of restrictions in the near term.
4. Our focus should remain on:
 - Reducing case numbers to a very low level and keeping them low
 - Vaccinating the population as quickly as possible
 - Protecting the most vulnerable to the disease, and priority public services of health and social care, education and childcare
5. A cautious and sustainable approach should be adopted in relation to the easing of measures. Subject to continued improvement to the end of February 2021, there should, however, be scope to facilitate the safe return of in-school education and childcare services but this must be on a cautious and phased basis. It is also critical that non-COVID health and social care services are resumed. All efforts should be made to ensure that these measures are associated with a minimum level of linked mobility, and in particular, it will be essential that all those working from home continue to do so.
6. It is too early to advise on how and when other restrictions should be eased. The situation should be reviewed on an ongoing basis taking account of the emerging epidemiological situation, including the impact of priority services reopening in the context of the more transmissible variant, and available evidence in relation to vaccine deployment, uptake and effectiveness which will enable more detailed modelling.
7. Key elements of the response should be strengthened and improved in the coming weeks, including:
 - Increased public health capacity & an enhanced public health response system
 - Comprehensive support system for self-isolation/restricted movements
 - Enhanced surveillance and modelling capacity & consideration of an expanded role for testing using complementary novel technologies
 - Robust and responsive international travel measures
 - Continuing strategic investment in research and innovation
 - Robust infection prevention and control measures across all sectors, organisations, businesses, and services, including a more explicit focus on ventilation
 - Continued supports for long-term residential care settings and other services
8. The overall response must be sustainable in the long term which will require:
 - A whole of Government response, with Government Departments and Agencies and sectoral organisations taking responsibility, at national, regional and local level, for their relevant sectors
 - Continuing international cooperation
 - Long-term planning for the ongoing management of COVID-19 and preparedness for future pandemics
 - Sustained application of safe personal behaviours

- Consideration of the long-term health effects of COVID-19
9. It is critical that non-Covid services are resumed and/or phased in the immediate term, and there is a need for continuing focus and investment in broader health system resilience and transformation.
 10. The response must be supported by a robust communications strategy.

Learnings to inform continuing response

There has been an enormous amount of learning over the last year and these learnings must inform our approach over the coming months.

- **Need for agility and flexibility:** We have learned a great deal about COVID-19 since its emergence one year ago and we now have significant knowledge and understanding of how to respond to this virus. The nature of the pandemic continues to evolve however, and uncertainty is its hallmark. It is important therefore to recognise that there is much we don't know, and decisions are taken on the basis of the best available knowledge, understanding and evidence. We know from past experience that we cannot predict with certainty the future trajectory of the disease and while we must apply our learnings, we must also continue to ensure our response is agile and flexible.
- **Response should continue to be public health-led, risk-based and evidence informed:** The protection of public health should continue to be the overarching consideration of our approach. Decision-making should continue to be informed by data and evidence, assessment of risk, multi-disciplinary expertise and international guidance and guided by ethical principles.
- **Solidarity is critical:** Solidarity has been the cornerstone of our national response to the pandemic. There has been a continuous high level of cooperation with and support for public health measures on an individual and collective basis. There has also been unprecedented cross society, cross sectoral and cross community cooperation with a multitude of initiatives developed at pace to support the national response. This has underlined the importance of Government, the public, voluntary and private sectors, and the public acting in unison to minimise the spread of the virus as part of a collective societal effort.
- **No one measure/approach is a panacea:** There is no silver bullet in the pandemic response and there is no single intervention that is perfect at preventing the spread of the virus. A combination of interventions will continue to be necessary in the months ahead to maximise risk reduction; the more layers of interventions we have, the more protection we will have. This includes: personal behaviours, population/societal measures, infection prevention and control and targeted protective measures, responsive case finding, isolation and contact/outbreak management, international travel controls and vaccination.
- **The virus affects us all, but it does not affect us all equally:** Our response must continue to take account of this and seek to prioritise, protect and support those most vulnerable at this time, be it from the virus itself, or from the impacts of the response. This includes our older population, those living in congregated settings and those that are medically vulnerable who

have suffered the worst outcomes of the disease and where social restrictions have had a particular isolating impact. The pandemic has also magnified the inequalities experienced by many vulnerable and disadvantaged communities such as the Irish Traveller community, the Roma community, migrants, those who are homeless, those living in Direct Provision and those struggling with addiction. While less affected by the virus itself, the impact of measures to protect society have had an enormous impact on children and young people, especially those that are vulnerable¹. Women have also been disproportionately negatively impacted by the pandemic in a number of complex and inter-related ways. There has been a rise in the crimes of domestic and gender-based violence, the majority of the victims of which are women. 60% of carers, on whom there are particular increased pressures, are women. Over 75% of older persons in long-term residential care aged over 85 are women. The overwhelming majority of healthcare workers (75%) and social and care workers (79%) are women². As we enter the second year of our response to COVID-19 we must listen to those groups most seriously affected by the pandemic. The voices of these people and their advocates are not always easily heard but we must work to ensure we understand how they have been impacted and how our response can continue to be tailored to ensure these groups are both supported and protected from harm. We must continue to do all that we can to ensure an appropriate balance between minimising the harm caused by the virus and that caused by our response.

- **The disease is difficult to control if not aggressively and proactively suppressed:** Our experience over winter 2020/21 has highlighted the difficulty of effectively arresting and reversing the trajectory of the disease and preventing transmission to vulnerable groups once community transmission becomes widespread. Consistent with the learning arising from the pandemic to date, the ECDC highlights that the probability of COVID-19 introduction into a long-term residential care facility depends on the level of COVID-19 circulation in the community³. It also becomes very difficult to protect the health service, education and childcare and ultimately the impacts on the economy and society are worse. At high levels of transmission, testing and contact tracing simply cannot contain the disease, and more blunt population-wide measures become necessary. We have also learned that it is extremely difficult to maintain incidence at moderate levels, experience shows it can accelerate quickly if it is not aggressively and proactively suppressed. The importance of keeping case numbers low and taking early, proactive action if the profile of the disease deteriorates significantly cannot be overstated.
- **There is a better understanding of higher-risk environments:** There is a growing body of evidence on the activities or settings associated with a higher risk of SARS-CoV-2 transmission⁴. In particular, there is evidence in relation to the higher risk associated with indoor environments due to the increased likelihood of crowded spaces, prolonged and intense contact with others, poor ventilation, and noise levels, and the higher risk associated with certain activities including dining, drinking, exercising, singing or shouting. While

¹ National Clinical Review on the Impact of COVID-19 Restrictions on Children and Guidance on Reopening of Schools and the Normalisation of Paediatric Healthcare Services in Ireland, HSE, August 2020

² National Skills Bulletin, October 2020

³ Increase in fatal cases of COVID-19 among long-term care facility residents in the EU/EEA and the UK, ECDC, 19 November 2020

⁴ Evidence summary on activities or settings associated with a higher risk of SARS-CoV-2 transmission, HIQA, 18 November 2020

outdoor activities are safer, the risks are higher when there are large gatherings, limited social distancing, dense congregation, mixing among groups, and communal travelling to activities. There is also a much greater awareness of the role that superspreading events have (events where there are groups of people from different households in close proximity), with some studies estimating that approximately 20% of COVID-19 cases seed 80% of all local transmission.

- **The Five-Level Framework has supported decision-making:** Since September 2020, the Framework of Restrictive Measures contained in the *Plan for Living with COVID-19* has been used to guide decision-making on public health restrictive measures. The Framework has allowed for greater clarity, certainty and consistency in the application of measures and allowed individuals, families, businesses and services to better understand, anticipate and prepare for potential measures. The Framework continues to provide an appropriate mechanism to guide decision-making, but experience over the last number of months has underlined the importance of it continuing to be applied in a flexible manner, adapting measures to address the public health risk at a given time in addition to any specific contextual considerations. It should also be re-emphasised that it is not the intention of the Framework to consider all types of businesses, activities and services and it must be supplemented by more detailed sectoral guidance in relation to measures that apply at each level of the Framework.
- **Importance of a healthy population:** The COVID-19 pandemic has reminded us of the importance of health. At an individual level we have taken measures throughout the year to protect our own health and that of others, while at a societal level we have been reminded of the influence health has on our overall economic and social progress. This renewed focus on health outcomes, the health and wellbeing of the population, the need to address risk factors and on the wider determinants of health should be harnessed and built on.

Challenges

We have faced considerable challenges throughout each phase of this pandemic to date, and the coming period will be no different and will bring new challenges and uncertainties.

- **Adherence to measures:** The experience of the last year has been challenging for everyone. Nevertheless, adherence to public health advice remains high and there are continuing high levels of support for measures aimed at suppressing the disease. However, recent research shows a complex balance between Covid fatigue and resilience is emerging with 59% stating that they are 'tired but will put up with' ongoing measures, and 19% suggesting that 'they cannot put up with' restrictions much longer. This fatigue is felt more acutely among the under 35s. While not an undue concern in Ireland to date, the ECDC has warned⁵ that high ongoing levels of pandemic fatigue, as suggested by recent anti-lockdown protests and civil disturbances in some European cities, could adversely affect continued population acceptance of and compliance with the non-pharmaceutical interventions. There is a further risk that vaccinated cohorts will be less likely to adhere to public health measures.

⁵ SARS-CoV-2 - increased circulation of variants of concern and vaccine rollout in the EU/EEA, 14th update, ECDC, 15 February 2021

- **Variants:** Experience of recent months shows the impact that novel variants can have on the course of the disease, and how quickly that impact can materialise. The B.1.1.7 variant has quickly become the dominant strain in Ireland and in its latest Risk Assessment⁶, ECDC report that several studies show that it is more transmissible than the previously circulating strains of SARS-CoV-2. Contact tracing data from the UK shows that attack rates are between 10-55% higher across most age groups when the case is infected with the B.1.1.7 variant. The ECDC also report that the assessment from the UK is that there is a realistic possibility that this variant is associated with increased risk of hospitalisation and death compared to non-B.1.1.7 cases. The ECDC report that the B.1.351 variant is also associated with increased transmissibility and evidence suggests that there may be some reduced effectiveness for some of the COVID-19 vaccines for this variant. It is certain that the virus will continue to evolve, and further mutations will emerge, what isn't clear is how these variants will impact on transmissibility, severity of infection and on the effectiveness of vaccines. These uncertainties heighten the difficulty in predicting the future trajectory of the disease and underscore the necessity for a reactive and timely local public health response, a strong surveillance system and robust international travel measures.
- **Vaccine supply:** The pace at which vaccines have been developed is unparalleled. As part of its membership of the EU, Ireland now has access to three vaccines that have already been authorised and has access to a further three prospective vaccines. There will inevitably be continuing uncertainty in relation to vaccine supply in the initial months of the year as manufacturing capacity ramps up, with a different challenge likely later in the year as vaccines become more available and a robust and comprehensive logistical operation will be required to manage the supply, storage and distribution of vaccines in a timely manner.
- **Vaccine effectiveness:** Data continues to emerge on a weekly basis in terms of the safety and efficacy of COVID-19 vaccines. While the data gives considerable confidence in relation to effectiveness in reducing severe infections, hospitalisation and mortality, it will take time before there can be any certainty in relation to the impact on transmission and length of immunity.
- **Vaccine Uptake:** As with all aspects of COVID-19 to date, the public response and support for the vaccination programme has been extremely positive. Uptake rates in those that have already been offered the vaccine are reported as high and most recent research undertaken by the Department of Health indicates that 86% of people will definitely or probably take the vaccine. It will be important that this support for vaccination continues even as transmission levels decrease and as pressure on the hospital system abates.
- **Autumn/Winter 2021:** The expectation is that a significant majority of the population will be vaccinated by next Autumn/Winter. Nevertheless, there are real risks that we may face the same challenges in controlling COVID-19 and protecting our health service as we did during this winter for a number of reasons: (1) the currently unknown impact of vaccines on transmission and the impact that variants may have remains uncertain, (2) opportunities for transmission increase during winter months when people are closer together indoors in poorly ventilated spaces, (3) if the same level of social distancing measures are not in place, other respiratory infections will be in greater circulation, potentially placing a double

⁶ Ibid.

pressure on the health service, and (4) growing levels of fatigue with public health measures and consequent lower levels of adherence.

International Guidance

Most recent international guidance from the ECDC and WHO urges caution in relation to the ongoing management of COVID-19 and calls for a continuation of the measures that have been deployed over the last year until incidence levels have been reduced to the lowest levels possible, minimising the opportunities for new variants to emerge, and vaccination has reached a critical mass and has been shown to work. In particular, they highlight the risks associated with new variants.

In its Risk Assessment of 12 February 2021⁷ the ECDC warns that the epidemiological situation remains of serious concern across the EU/EEA. It notes that there has been an overall decline in incidence over recent weeks as a result of public health restrictive measures, but concludes that the current risk associated with further spread of variants of concern is high-very high for the overall population and very high for vulnerable individuals.

For countries such as Ireland, where new variants of concern “are the dominant variant in circulation, stringent implementation of non-pharmaceutical interventions (NPIs) is necessary to reduce transmission and safeguard the functioning of the healthcare systems. Higher transmissibility implies that the effectiveness of several individual NPIs (e.g. physical distancing or the use of face masks) may be reduced and that more intensive layering of NPIs will be needed to achieve similar results”.

The ECDC warns that unless NPIs are continued and strengthened, there could be rapid increases in incidence rates, severe infection and mortality given the increased transmissibility of new variants. It calls for:

- Immediate, strong and decisive public health interventions to control transmission and safeguard healthcare capacity
- The proactive strengthening and maintaining of layered NPIs in the coming months in order to reduce SARS-CoV-2 incidence to the lowest levels possible, thereby also minimising the opportunities for new variants to emerge
- Strong surveillance, testing and detection systems
- Non-essential travel should be avoided as part of general physical distancing measures in the community.

The WHO has echoed this advice and warned that the “fundamental aspects of the public health and social measures of active case finding, cluster investigation, isolation and clinical care of cases, quarantine which is supportive of all contacts; this is what breaks chains of transmission” adding that these are the measures which countries will continue to rely on this year⁸. The WHO has also stressed that current public health measures are leading to a reduction in case numbers even with new variants in circulation showing that “if we keep going with the same proven public health measures we can prevent infections and save lives.”⁹

⁷ SARS-CoV-2 - increased circulation of variants of concern and vaccine rollout in the EU/EEA, 14th update, ECDC, 15 February 2021a

⁸ WHO Press Conference, 11 January 2021 and 29 January 2021

⁹ WHO Press Conference, 1 February 2021

On 11 February 2021, WHO Regional Director for Europe, Hans Kluge¹⁰, warned against a “false sense of security” in Europe as cases remained too high and countries remain vulnerable. He cautioned that there is “a thin line between the hope of a vaccine and a false sense of security”, noting that “Vaccines are essential, but as of now, they are not sufficient to control the pandemic,” He warned against “rash decisions” in the easing of restrictions to ensure hard earned gains are not lost and called for decisions to be based on epidemiological data and health system capacity rather than observations of relative progress.

Managing the Next Phase of the COVID-19 Response

There is an understandable level of hope in relation to the potential of vaccines and the impetus that they can bring to a return of “normal” life. Vaccines will of course play a critical role in protecting the population against COVID-19 and will, hopefully, in time be our primary line of defence. However, it will take time before we have a sufficient level of the population vaccinated, and even then, it is not possible to know at this stage what level of protection vaccination will give.

While we have just cause to be hopeful that things will improve over the course of the year, it is simply too early to predict what the future trajectory of the disease will be given all the uncertainties and unknowns in relation to variants and vaccine effectiveness and uptake levels. It is vital that as a population we don’t drop our guard and we ensure that our overall approach continues to be one that is cautious and sustainable over the immediate, medium and longer term.

The most important and effective contribution that we can all make to preventing transmission of the virus remains the adoption and practice of the basic individual behaviours that protect ourselves and each other. These behaviours will continue to be a core feature of our response for some time to come, including social distancing, wearing a face mask, hand hygiene, sneeze and cough etiquette, isolating and contacting GP if symptoms develop, minimising the number of close contacts, and avoidance of crowds and poorly ventilated indoor spaces.

The NPHET’s advice to Government to inform the next phase of the response is centred on the following four aspects:

1. The response should be guided by clear and well communicated national objectives:

The response throughout 2021 should be guided by the following common overarching objectives:

- Reduce case numbers to a very low level and keep them low
- Complete vaccination of all those indicated for and accepting of the vaccine as quickly as possible
- Continue to protect the most vulnerable to the disease, and priority public services of health and social care, education and childcare

It is through the achievement of these objectives, that we have the greatest potential of mitigating the impact of COVID-19 on society and the economy.

2. The approach in the immediate term must continue to be cautious

¹⁰ Statement from WHO Regional Director, Hans Kluge, 11 February 2021

As a country, we have once again succeeded in significantly reducing infection levels through the widespread commitment and adherence to the public health measures over recent weeks. However, the epidemiological situation remains very fragile; we are still experiencing high levels of infection across the country and there remains a considerable risk that a further wave of infection will take place if public health restrictions start being lifted before case numbers are brought to much lower levels and before vaccine rollout is well advanced. This risk is heightened given the dominance of the more transmissible B.1.1.7 variant and the risk in relation to other variants of concern.

Furthermore, hospital and ICU occupancy levels also remain high and past experience shows that they will fall at a slower rate than infections resulting in prolonged pressure on the acute hospital system over the coming period. In addition, the age profile of hospitalisations and for cases admitted to critical care has been very different to that associated with mortality (47% of those hospitalised and 69% of those in ICU have been under 70, while only 13% of deaths have been in those under 70), and, as such, it can be anticipated that vaccination will not have as significant an impact on hospitalisations initially as it will on mortality as it will take time for younger age cohorts to be vaccinated.

The NPHET advises that the approach over the coming months must be one of extreme caution. It is critical that we do not risk the progress we have made over recent weeks, which has come at huge sacrifice to everyone, and that the focus remains on regaining and maintaining control over the disease and preventing a further wave of infection later in the year. It will be essential that the following is achieved before any significant easing of measures is contemplated:

- (1) disease prevalence is brought to much lower levels that can be managed and controlled by public health,
- (2) hospital and critical care occupancy are reduced to low levels to protect the health service and allow for the safe resumption of non-covid care,
- (3) the most vulnerable are protected through vaccination,
- (4) when these conditions have been met, any easing should be slow and gradual with sufficient time between phases to assess impact and subject to rapid response if the epidemiological situation was to deteriorate.

The NPHET, therefore, advises that current restrictions should be extended. Subject to continued improvement in the profile of the disease to the end of February, there should, however, be scope to facilitate the safe return of in-school education and childcare services but this must be on a cautious and phased basis. It is also critical that non-COVID health and social care services are resumed as quickly as possible, subject to national risk assessments. We continue to have an unacceptably high level of disease in the community. It is therefore imperative that we continue to suppress the disease over the coming period and this will require all other restrictions remaining in place while these services recommence.

It is essential that the return of these core public services isn't interpreted as a signal of wider reopening and that other forms of interaction or mobility are now acceptable or appropriate. All efforts should be made to ensure that the return to in-school education and childcare is associated with a minimum level of linked mobility and the avoidance of inter-household mixing, and that all those working from home continue to do so. There must also continue to be consistent and clear messaging from all sectors in relation to the necessity for continued adherence to public health measures.

The NPHET further notes that it is too early to advise on how and when other restrictions should be eased given current uncertainties. The situation will be subject to ongoing review taking account of the evolving epidemiological situation and available evidence in relation to vaccine deployment, uptake and effectiveness. This will allow a fuller assessment of the status of the disease, including the impact of priority services reopening in the context of the more transmissible variant, and it is envisaged there will be considerably more data in relation to vaccines which will enable more detailed modelling. In parallel, consideration will be given to which measures can be eased safely when it is appropriate to do so, taking account of emerging international and national evidence and experience and with a specific focus on supporting mental health and wellbeing. As previously advised, any easing of measures should be slow and gradual with sufficient time between phases to assess impact and subject to rapid response if the epidemiological situation was to deteriorate.

The challenge of balancing protective health measures and normal living has been particularly important in the context of visitations to long-term residential care settings (LTRC). LTRC visiting guidance has remained under ongoing review throughout the pandemic. In light of the advanced stage of rollout of the COVID-19 vaccine in LTRCs for both residents and staff, a process will be progressed for considering the scope and application of LTRC visiting restrictions in the context of the Framework of Restrictive Measures having regard to international and national evidence, the rollout of the COVID-19 vaccine and the level of disease in the community.

The NPHET notes that continuing with a cautious approach is consistent with most recent public opinion research which indicates that the vast majority of the population are supportive of measures to protect the population, with 54% reporting that the current Government response is appropriate and 36% saying it is insufficient. 45% believe we are trying to return to normal at about the right pace, with 34% reporting that it is too quick and only 20% reporting it is too slow. It should be noted that these findings may be influenced by views in relation to travel measures.

3. Key elements of the response must be strengthened and improved now to allow for an easing of measures in the medium term

When infection levels are high, suppression can only be achieved through stringent population wide restrictive public health measures. But when numbers are lower, it should be possible to continue disease suppression and contain infection levels using a combination of preventative and containment measures. It is critical that action is taken to ensure that all these interventions are fit for purpose, to support current suppression efforts and to enable effective containment when population wide measures are eased. Vaccines are of course a key element of our overall response but the following will also be required:

Public health capacity: Public health professionals have been to the forefront of managing the response to the pandemic, playing a fundamental role in containing and controlling the disease, and will be critical in the roll-out of the vaccination programme. The pandemic has highlighted deficits in workforce capacity, IT infrastructure and overall service delivery, and it is clear that public health must be reformed and strengthened such that the skills and expertise which are unique to public health physicians can be leveraged to ensure maximum return for the Irish health service and ultimately benefit and improve the health of the population as a whole. **Investment in, and resourcing of, public health and the establishment of a strengthened and reformed consultant-led future public health model is a priority.** Provision has been made in Budget 2021 to double the

public health workforce and recruitment must now be accelerated to ensure the availability of sufficiently resourced multi-disciplinary teams at a national and regional level.

Public health response: The identification, isolation, investigation and management of cases, close contacts and outbreaks will continue to be a fundamental element of our national public health strategy for containing and slowing the spread of COVID-19. While significant progress has already been made in developing a robust and responsive testing and contact tracing service, with considerable capacity now in place, further enhancements are necessary to ensure we have the capability to rapidly, proactively and aggressively contain outbreaks of infection. In addition to increasing public health workforce capacity, this will require a strengthening of aspects of the response including:

- an aggressive testing strategy with a low threshold for intervention,
- consideration of alternative referral pathways,
- active testing and monitoring of close contacts,
- rollout of retrospective contact tracing to identify sources of transmission,
- real-time and integrated data and intelligence,
- continuous improvements in turnaround times, and
- a renewed emphasis on and shift towards a regionally based and organised response.

Comprehensive support system for self-isolation/restriction of movements: While testing and contact tracing are essential enablers of our public health response, it is the process of self-isolation and restriction of movements that breaks chains of transmission. There are already a range of supports available for those that are required to self-isolate or restrict movements including information and advice, income supports, practical supports and a range of tailored interventions for more vulnerable groups. As part of efforts to enhance our public health response, a multi-agency process should be put in place to review and enhance our support system for self-isolation and restricted movements. This should include:

- A comprehensive review and refresh of information and advice materials on HSE and Gov.ie websites and social media to provide a one-stop-shop for all relevant information, including an increased focus on the package of supports that are available, a continued focus on targeted information for certain groups (young people, vulnerable groups, migrant populations) and increased use of web based applications, search engine optimisation, and decision making aids to provide customised information and to help direct individuals to the relevant advice and supports.
- Consideration of an expanded role for the Contact Management Programme and Community Call structures in connecting people with relevant supports and engaging with them throughout the period of isolation/restricted movement.
- Engagement with employer and employee representative organisations to consider mechanisms/approaches to ensure employees are supported, empowered and obliged to take time off work, with a specific focus on younger age cohorts.
- Consideration of the role for greater monitoring and enforcement of public health advice.
- Expanded use of alternative accommodation for those who cannot effectively self-isolate or restrict their movements at home.

Surveillance and Modelling Capacity: Robust surveillance is essential for controlling the spread of COVID-19 and informing local, regional and national responses. Existing surveillance systems should be augmented to ensure a comprehensive and multi-pronged surveillance strategy. This includes:

- Increasing whole-genome sequencing capacity to enable the comprehensive monitoring of variants of concern and to support outbreak management.
- Increasing capacity for sero-prevalence studies to monitor population level prevalence, including through the establishment of a dedicated unit in HPSC.
- Investment in complementary surveillance tools, including the development of a national wastewater surveillance programme.
- Investment in and integration of IT systems and data to facilitate analysis and intelligence led public health action at a local and national level. This should include the identification and procurement of a new integrated IT outbreak management system.
- Progressing the previous NPHET recommendation to mainstream an infectious diseases biostatistics and modelling function within the HPSC.
- Enhanced and integrated ICT systems to support IPC communication across community and acute services, enhance surveillance outbreak management and to provide timely information on healthcare acquired infections.

Complementary Testing Technologies: Significant RT-PCR testing capacity has been established over the course of the last year and it will continue to be the primary test for detecting infections. However, the last year has also seen the development of a range of alternative testing technologies which have the potential to play an important complementary role in our overall response. The HSE has already validated use of rapid antigen detection tests for specific indications in the acute hospital setting and outbreak response in the community, supported by appropriate operational and clinical governance arrangements. These tests have been made available for use by the acute hospital system and plans for deployment as part of outbreak response in the community are currently being progressed by the HSE. Independent field validation of tests by the HSE group is ongoing across a range of other settings.

Consideration is also being given to the use of rapid tests in asymptomatic community populations. Over 2,500 rapid tests are in development globally with a strong focus on easy sampling and self-administration, increased accuracy, and low cost such that in the future more testing may be performed in companies, communities and by individuals. Ideally a widely distributed but coordinated testing regime should emerge, which is fully aligned with the public health surveillance and response processes and systems in the HSE. As vaccination levels increase and disease levels decrease, infectiousness (i.e. transmission) and infection (i.e. disease) will diverge requiring a continued focus on making widespread surveillance testing (e.g. for low symptom clusters, variants, travel importation etc.). It is therefore important to consider how best to establish community based rapid test research studies in a variety of settings and partnerships to understand the logistics, impacts (particularly behavioural) and outcomes such that we are ready for rapid, agile and effective deployment of these new technologies.

Travel Measures: Government has put in place a series of more stringent measures in the face of the threat posed by new variants. All non-essential travel continues to be advised against, and arrivals into Ireland are required to complete a passenger locator form, have to present a negative / 'not detected' result from a pre-departure COVID-19 RT-PCR test taken within 72 hours prior to arrival in Ireland, and undertake mandatory home quarantine. More stringent restrictions have been placed on travellers arriving from certain countries and arrangements are being put in place to establish a system of hotel quarantine. Restrictions on travel will need to be kept under constant review to ensure travel does not become a weak link in our response as domestic transmission is brought under control.

Research and innovation: Research and innovation have been crucial in informing and shaping Ireland's public health and policy response to COVID-19. Research agencies from across multiple Government departments re-allocated and prioritised existing funds, delivering 'rapid-response' funding calls with remarkable speed and agility and with a highly coordinated and solution-focused approach. An update on ongoing and planned COVID-related research activities and infrastructural initiatives was provided to the NPHET in February 2021¹¹. As we move into the second year of the pandemic, it will be important to consolidate the gains made and ensure a national, structured, coordinated research response aligned with overall response priorities. This will require the efforts of a broad array of actors across government, its agencies, the research community and industry working in a coordinated manner¹².

Protective/control measures: There is a firm responsibility on all businesses, organisations, service providers and employers to ensure that robust infection prevention and control measures are in place and public health guidance and advice is adhered to at all times by staff and the public. Each sector must ensure updated sectoral guidance is available and widely distributed to support the safe reopening of sectors. Relevant authorities and regulatory bodies must be prepared to ensure measures advised and agreed upon are applied, monitored and enforced.

The role of the Health and Safety Authority in both the *Work Safely Protocol* and sectoral inspections across society, with support from HSE Public Health, has had a consistently positive impact from early in the pandemic response and will continue to play an important role over the coming period. There have also been significant efforts across all sectors to put in place appropriate control measures in line with the *Work Safely Protocol*. Nevertheless, public health teams continue to report persistent issues, especially in workplaces, which are contributing to the number and scale of workplace outbreaks illustrating the requirement for strengthened measures, in particular as more premises and workplaces reopen as restrictive measures are eased. Areas that are and should continue to be a focus of continuing attention include:

- Routine and correct wearing of masks in shared work areas and also during breaks, in locker and toilet areas and if travelling together to work.
- Better controls to ensure employees are not attending the workplace when they have symptoms of COVID-19, greater emphasis on ensuring staff are aware of and can access financial supports.
- Improved levels of cleaning, especially shared equipment, common touch points etc.
- More visible leadership including the appointment of COVID-19 leads, and the continued review of precautions as disease levels change.
- A refreshed communications campaign in relation to workplaces, targeting employers and employees.

Supports for Vulnerable Settings: A range of public health measures, including community based infection prevention and control supports, COVID-19 Response Teams, supply of PPE, serial testing and enhanced availability of learning and development resources have played a key role in supporting vulnerable settings, such as nursing homes, disability services and home care. These supports must continue for the foreseeable future, while all service providers build their own resilience, enhance clinical governance and meet their legal obligations.

¹¹ COVID-19-Related Research: An Update, Dr Siobhán O'Sullivan, 11 February 2021

¹² Future Considerations for the National Research Response to COVID-19 paper prepared by the Research Subgroup of the COVID-19 Expert Advisory Group, June 2020

Ventilation: Poor ventilation in crowded indoor spaces is associated with increased risk of SARS-CoV-2 transmission. The HPSC published updated guidance on ventilation in January 2021¹³ and an expert group, with multisectoral expertise on ventilation, has been established to provide scientific advice on ventilation and to examine what strategies, measures and guidance can be put in place to enhance ventilation in different settings and environments.

4. The overall response must be sustainable in the long term

This pandemic has been characterised as a marathon and not a sprint. This requires sustainable responses that are capable of being maintained in the medium to long term while remaining flexible to adapt to the evolving status of the disease. This has a number of implications for our overall approach, structures, processes, and communications:

Whole of Government response: COVID-19 affects every aspect of our lives and interventions will continue to be necessary across all sectors of our economy and society. The NPHET should continue to provide public health guidance, support and expert advice for the overall national response to COVID-19, while Government Departments, Agencies and sectoral organisations are responsible at national, regional and local levels, for their relevant sectors. This includes the continuing development and application of sector specific plans for different levels of risk, the provision of necessary guidance and the proactive application of control measures, along with robust monitoring, inspection and enforcement arrangements. As we enter a second year of the pandemic, it is an opportune time for NPHET to consider its role as part of this wider cross-Government response and, in parallel, reflect on how engagements and communications with stakeholders should be normalised, so as to evolve from a crisis to a normal course of business mode.

International cooperation: COVID-19 remains a global challenge, and global coordinated solutions are required. As the nature of the pandemic further evolves and as both vaccines become available and new variants emerge, the importance of international cooperation is even clearer. As a small nation, our success in securing millions of vaccine doses is a testament to the continued importance of EU cooperation. As part of both the European Union and the Common Travel Area, it will be critical that we continue to seek and encourage cooperation and alignment of strategies with the EU and the UK. More broadly, global cooperation to facilitate the fair allocation of vaccines across the world will be the most effective way to drive down the virus's capacity to replicate and evolve and will be a key determinant of how successfully and how quickly we can reduce the impact of this virus in the long term. As stated by Ursula von der Leyen, President of the European Commission, "No one and no one country will be safe until the pandemic is under control throughout the world: none of us will be safe until everyone is safe"¹⁴. This has been echoed by WHO Regional Director for Europe, Hans Kluge¹⁵, who has called for an equitable distribution of vaccines including to developing countries both as a "moral imperative" and to mitigate risks, "the longer the virus lingers, the greater the risk of dangerous mutations". Given Ireland's longstanding humanitarian tradition there is the opportunity for Ireland to play a leadership role in emphasising the importance of multilateral cooperation in ensuring equitable access to vaccines.

Long Term trajectory of COVID-19 and future pandemics: The long-term future epidemiology of this virus is unknown. Eliminating the virus or reaching herd immunity from vaccination alone is unlikely

¹³ Guidance on non-healthcare building ventilation during COVID-19, HPSC, updated January 2021

¹⁴ A global pandemic requires a world effort to end it – none of us will be safe until everyone is safe, Dr Tedros and Dr von der Leyen, 30 September 2020

¹⁵ Statement from WHO Regional Director Hans Kluge, 11 February 2021

to be possible; it would require very high coverage in all adult age groups, not alone in Ireland but globally, and for the vaccine to be highly effective against transmission. The impact of variants is also unknown. This means that the virus is likely to continue to be in circulation in future years. The severity of disease that it will cause and the requirements for ongoing vaccination will become known in time. As a country, and especially as a health service, there will need to be robust long-term planning for the ongoing management of this virus. More generally, there is a very real threat of future pandemics and it will be essential that lessons are learned from this pandemic and a process is put in place in the near term to ensure future preparedness. This includes ensuring sustainable public laboratory capacity, increased evidence-based research capacity and investing in increased capacity in key specialities including public health, occupational health, infectious diseases, microbiology, infection prevention and control, and virology.

Sustaining safe personal behaviours: Ongoing efforts will be required to ensure the public is aware of the need to sustain safe personal behaviours as vaccines are rolled out and as case numbers fall. Consideration should be given to the role which an inclusive and reflective national dialogue can play in facilitating engagement on our response to the pandemic, how safe behaviours can be supported and the values and ethics which underpin our response.

Addressing long term health effects of COVID-19: Increasing evidence is emerging of the long-term health effects of COVID-19 and it will be important that appropriate care pathways are established for managing patients with Long COVID. A HSE Clinical Subgroup has been established to provide recommendations in this regard. The HSE has also engaged with a group of people who are suffering post-acute COVID-19 symptoms and is continually exploring appropriate supports as part of the overall health service response to COVID-19.

The pandemic is also putting a significant strain on individual and societal mental health and wellbeing. We do not yet fully understand the impact of COVID-19 on mental health, the extent of subsequent supports that may be required and how this will affect longer term demand for services. According to the most recent Amarach poll, Irish people are more bored, frustrated and lonely now than at any point during the COVID-19 pandemic. Levels of happiness are at the lowest point yet, while intolerance has reached a high point. The CSO Social Impact of COVID-19 Survey in November indicates that people's life satisfaction was lower, and that people felt more downhearted or depressed, in November than in April. Since the beginning of the COVID-19 pandemic, in keeping with WHO guidance, significant psychosocial supports have been made available to the population, for emotional, psychological and social needs arising as a result of the pandemic. 'Normal' life is likely still someway off and it will be critical that there continues to be a strong focus on the non-physical healthcare impacts of the pandemic and the continuing provision of psychosocial supports.

Health System Resilience and Transformation

While our healthcare system managed to withstand the significant demands made of it during the recent period, the high levels of disease required a significant ramp up in surge critical care capacity, redeployment of staff and caused serious and extensive disruption to non-covid services across the breadth of the health and social care system, the impact of which will be felt for some time. It has also had an enormous impact on health care workers, where fatigue and burn-out continue to be very significant concerns.

The pandemic has highlighted existing fragilities across the health and social care system in relation to capacity, infrastructure, staffing frameworks, clinical governance and models of care – all

presenting major additional barriers to ensuring adequate care during a pandemic. In particular, it has highlighted the deficiencies in our public health service, which have been detailed early in the paper. The development of a robust and comprehensive public health service, across all four domains of public health, will be an absolute pre-requisite for overall health service resilience and transformation. However, the pandemic also saw significant and rapid innovations across the health system. There is now an opportunity to harness these positive developments and address long standing deficiencies across the system as part of broader health service transformation efforts¹⁶.

Resumption of non-covid care: It is critical that services are resumed and/or phased up and efforts are made to minimise the impact of the reduced provision of non-covid services over the past months. Work will need to be undertaken to ensure the public feels safe using health and social care services following significant outbreaks in healthcare facilities during the third wave. Covid and non-covid care will be run in parallel for some time with resultant impacts on capacity and ways of working. This presents continued challenges in the face of increasing waiting lists across hospital and community services, including the reduction or cessation of supportive services such as respite and day care, as a result of the pandemic. There is also a need to fully resume home support services as quickly as possible in a safe way and to permanently maximise the delivery of this service to reduce reliance on care in congregated settings. As well as the impact of increased waiting times for care, there may be consequent impacts of reported reductions in numbers of people presenting or people presenting late with serious conditions. Data indicates that, in 2020:

- Patient contacts with GPs fell by up to 70% early in the pandemic, recovering as 2020 continued.
- Community therapy provision fell significantly, due to capacity constraints arising from Covid and the necessary redeployment of staff to support the Covid response – over the year there were nearly 30% fewer physiotherapy sessions provided than originally planned, more than 40% fewer speech and language therapy consultations, and reductions in the provision of psychology and occupational therapy services. There has also been widespread disruption to respite and day care services.
- Overall, mental health services are operating at 80-90% of pre-Covid levels, and there has been an increase in the acuity of cases presenting.
- The hospital inpatient/daycase waiting list was 9% higher at the end of 2020 than the beginning, the outpatient waiting list 10% higher, and the waiting list for GI scopes was 46% higher with some recovery towards the end of the year.
- The number of patients receiving chemotherapy in mid-2020 was at 85% of 2019 activity.

While data on the provision of non-covid care in early 2021 is limited as yet, we know that:

- GP out of hours services have experienced a significant increase in consultations in January
- More than 400 nurses were redeployed from existing clinical services to covid-related acute hospital services and unscheduled care, with consequent impact on scheduled care
- Critical care units have been operating at high levels of surge for a prolonged period, and very close to the limits of clinically manageable risk
- GP e-referrals to rapid access clinics for cancer diagnosis for weeks 2-5 of this year are at approximately 93% of 2020 activity

¹⁶ The impact of Covid-19 pandemic and the societal restrictions on health and wellbeing on service capacity and delivery, HSE, February 2021

- Radiation oncology services in public hospitals are currently operating at approximately 85% of 2019 activity levels
- A total of 12 organ transplants (from 3 deceased and 1 living donor) have taken place in 2021 up to end January, compared with 27 in the same time period in 2020.

Health Service Infrastructure, Capacity & Reform: Our infrastructure, and in many cases the way we deliver care, including staffing frameworks and skill mix, are not fit for purpose as we continue to live with COVID-19 and as we prepare for the possibility of future pandemics. Many of our healthcare facilities across acute hospital and long-term residential care are old and consist of multi-bed areas with shared facilities and limited isolation capacity making it much more challenging to prevent and manage outbreaks of COVID-19. The previous exercise on the issue of the large multibed areas in the context of the CPE public health emergency has been very useful in terms of new build space but the core issue of lower quality legacy infrastructure is substantially the same as it was in 2018. Building on the HSE IPC standards required in all new builds and refurbishment in community and acute care settings, investment will be necessary to replace and refurbish current facilities, and in the case of long term residential care, support a move towards less congregated settings. The pandemic also highlighted deficiencies in service and workforce capacity across many areas of the health service, across both public and private sectors. While additional resources have been put in place over the last year, there is a need for continuing investment. Evidenced based approaches to staffing and skill mix such as the Framework for Safe Nurse Staffing and Skill Mix currently being implemented across the system need to continue and there needs to be a strong focus on integrated workforce planning into the future.

The current configuration of provider type in respect of nursing home services also needs consideration, with planning towards a higher proportion of HSE delivered services required to manage overarching risk, as well as consideration of the planning and other regulatory framework to manage the type, size and location of new nursing home builds.

The pandemic response saw many positive changes in the delivery of care, reformed clinical governance models, improved working relationships and in interagency integration and cooperation. In particular, the pandemic forced a community orientated response and demonstrated the high level of care which can be delivered outside the hospital setting. Virtual healthcare became the norm for many, allowing the continued delivery of as much care as possible. Telehealth, virtual consultations and other service innovations supported the continued delivery of general practice services and community therapies, while remote technologies have also been used in provision of maternity and trauma care and in paediatric care. The health system has also responded innovatively by reconfiguring or relocating services in some instances. Sustaining and further developing models of care (e.g. rehab, reablement, intermediate care) in the community and building permanent multi-disciplinary community support teams is required to continue to shift care out of congregated settings, such as nursing homes and remaining disability congregated settings, and into people's homes and community.

Significant additional funding for the health system has been provided in 2021 which will support embedding of these initiatives and the delivery of sustainable reforms alongside increasing capacity. Funding has been provided to drive strategic reform across a range of service areas; to embed new models of care and changes to practice; and to drive the development of new and alternative pathways of care to support increased community provision. A dedicated fund is also in place to enable a significant increase in permanent baseline critical care capacity in accordance with the

Critical Care Strategic Plan. The progress of reform and capacity enhancement is, however, inextricably linked to the levels of transmission of COVID in the community.

Health and social care workers must continue to be supported: Workers across the health and social care system have been at the forefront of the response throughout the pandemic and have made enormous efforts and sacrifices over the past year. Across all areas, the risk of staff burnout is a core consideration as we look forward to increased service provision and reforms in how we deliver care. We must have a continuing focus on staff retention and the provision of additional workforce capacity, expand the safe staffing framework to the community and take all necessary measures to ensure our health and social care workers are protected when undertaking their duties. There is a strategic approach to future workforce planning that has commenced however the immediate focus to support and protect staff points to a number of key areas. These include access to appropriate and continuing education such as IPC, occupational health and psychosocial supports through existing HSE programmes, and under the *HSE Psychosocial Response to the COVID 19 Pandemic*. Workforce considerations in relation to supporting the COVID-19 response, including the vaccination programme, need to ensure the protection of non-covid care services in so far as possible.

Enhance IPC capacity and supports: Congregated health care settings, such as a nursing homes, hospices and hospitals, are by their nature, ideal settings for the spread of infectious diseases. Managing healthcare associated infection (HCAI) is therefore critical but very challenging, and the experience over the past year has not only identified what worked well but also highlighted the current gaps and weaknesses in the control of HCAs, not only in Ireland but across health care systems internationally. A review of the learnings to date from COVID-19 in Ireland has been undertaken and has identified a range of areas of focus to continue to improve infection prevention and control across the health system. This includes:

- Continue to strengthen and develop an integrated governance structure to oversee IPC and the control of HCAs/outbreaks system wide.
- Enhance IPC capacity and support systems at a local and national level, including workforce, ICT and surveillance systems and laboratory services.
- Appropriate integrated clinical governance models at local service provider, regional and national levels which encompass IPC requirements and oversight
- Ensure a strategic reserve and secure supply line of critical IPC supplies.
- Sustain and accelerate changes in the way care is delivered including greater provision of care in the community and in less congregated settings, greater separation of scheduled and unscheduled care, and provision of surge capacity.
- New build healthcare facilities that meet current standards and refurbishment of existing areas that are likely to continue in use until new build become available.
- In relation to long term residential care services there should be a move towards household or own door accommodation on a campus and away from mini-hospital style construction
- Develop robust contingency planning for large staff absences to ensure good IPC practice can be sustained.
- Develop and increase occupational health services and develop greater integration of the work of IPC and occupational health.
- Ensure IPC guidelines are applied in a timely, consistent, proportionate and compassionate manner to support system wide service delivery balancing public health requirements with service user wellbeing.

- Build knowledge, skill and resilience in healthcare workers at all levels from undergraduate education and empower service users and their advocates.
- Publication of clear and timely information on HCAI.
- Review of IPC standards, regulation and licensing in the context of learning from the pandemic while a programme of clinically-led IPC research and development is also required.

Regulatory frameworks: Key learning, including from the Nursing Homes Expert Panel, has identified that a new and enhanced regulatory model for health and social care longer term care services is required, including an enhanced oversight and enforcement role and powers for the regulator and greater service provider obligations, including reporting of key information. Interim measures should be developed this year including additional powers for the regulator and enhanced IPC and governance obligations, with longer-term reform of the regulatory model advanced next year. There is a need to expand the scope of adult safeguarding and protection teams and national patient advocacy services to nursing homes to increase protections to the most vulnerable and ensure service providers are obligated to cooperate with and support such services.

COVID-19 Communications Strategy

Clear and consistent communications have been a core focus of the pandemic response from the beginning and will continue to be central to the ongoing response.

Communication strategy

Communication should be focused on two areas

- containment of the virus: a collective effort to aggressively chase down the virus (safe behaviours, symptoms, isolate, test, contacts, outbreaks)
- the rollout of COVID vaccines

Articulating our collective task

Our collective task is to contain every incidence of this virus as we work to vaccinate everyone in the country who can and wants to be vaccinated

Communication Principles

1. Open and transparent communication led by public health experts
2. Clear and consistent communication to empower the public to live with COVID while awaiting vaccination
3. Cross Government collaboration reinforcing the public health advice and the vaccine rollout
4. Ongoing understanding of public sentiment and behaviours

Communication Objectives

- Continuing to communicate clearly and consistently on the facts of the disease and the 'why' of public health advice
- Drive uptake of the COVID-19 vaccine in eligible populations and understanding of COVID vaccines among the general public.

Tone of voice

We will adopt and maintain a specific tone in our vocabulary e.g. Virus: chase, aggressive, contain, control, responsibility, consequences, and Vaccines: evidence led, expert, clinical, which establishes a new chapter beginning on March 5 which builds on what we have learnt through 2020.

Key areas of focus

- Vaccine
Communication on the vaccine roll-out will continue its information-rich, expert-led leadership, employing a tone of urgent competence. The vaccine is framed not as a silver bullet, but rather a key part of our armoury to defeat the virus and plot a steady return to normalcy. There are three communication priorities:
 - science-led advocacy of the vaccine as a proven instrument of public health which delivers immediate personal benefits to those vaccinated, and a wider health benefits to loved ones and the community
 - transparent, accountable roll-out of the vaccine based on agreed sequencing
 - addressing *mis-information and dis-information* - using the opportunity to point the public towards trusted sources of information which helps citizens make informed choices
- Self-isolation and containment
A renewed focus on educating people on how to self-isolate / restrict movement successfully by bringing emphasis to the action that is required, the responsibility that each citizen has, and the consequences of inaction
- Superspreader events
Using examples from case studies, demonstrating the risk associated with super-spreader events (e.g. funerals, weddings etc.), at-home socialising, and unnecessary attendance at work premises which can easily lead to large numbers of cases and bad outcomes for attendees and others.
- Young Adults
As restrictions ease, disease incidence typically rises among young adults first. This is to be expected, as this is the cohort most likely to be moving about through work, sport, college and socialising. Communication to this cohort will focus in inspiring and empowering them live safely within the public health guidelines, and, when their time comes encourage vaccine uptake