DÁIL ÉIREANN

AN COMHCHOISTE UM SHLÁINTE

JOINT COMMITTEE ON HEALTH

Dé Céadaoin, 15 Meán Fómhair 2021

Wednesday, 15 September 2021

Tháinig an Comhchoiste le chéile ag 9.30 a.m.

The Joint Committee met at 9.30 a.m.

Comhaltaí a bhí i láthair/Members present:

Teachtaí Dála/Deputies	Seanadóirí/Senators
Colm Burke,	Frances Black,
Cathal Crowe,	Martin Conway,
David Cullinane,	Annie Hoey.
Neasa Hourigan,	
Gino Kenny,	
John Lahart,	
Róisín Shortall.	

Teachta/Deputy Bernard J. Durkan sa Chathaoir/in the Chair.

Business of Joint Committee

Vice Chairman: As the Chair is unavoidably detained this morning, I am chairing the meeting. Apologies have been received from Senator Seán Kyne.

Update on Covid-19: Discussion

Vice Chairman: I welcome members of the National Public Health Emergency Team, NPHET, who will provide us with an update on Covid-19, examine the increased levels of Covid-19 in the community and the capacity of the hospital system and intensive care units to cope with this increased demand and provide an update on the further easing of Covid-19 restrictions.

I also welcome representatives of the National Immunisation Advisory Committee, NIAC. They will provide an update on the roll-out of the Covid-19 vaccination programme, and an update on the need for vaccine booster shots and upcoming vaccination plans for the winter.

From NPHET, I welcome Dr. Tony Holohan, Chief Medical Officer, Dr. Ronan Glynn, deputy chief medical officer, and Professor Philip Nolan, president, Maynooth University, member and chair of the Irish Epidemiological Modelling Advisory Group, IEMAG, and from the National Immunisation Advisory Committee, NIAC, I welcome Professor Karina Butler, chair, and Dr. Kevin Connolly, special adviser.

Before we hear our witnesses' opening statements, I need to point out to them that there is uncertainty that parliamentary privilege will apply to their evidence from a location outside of the parliamentary precincts of Leinster House. If, therefore, they are directed by me to cease giving evidence on a particular matter, they must respect that direction.

Dr. Tony Holohan: I thank the committee for the invitation to update it on our Covid-19 response. I am joined today by the deputy chief medical officer, Dr. Ronan Glynn, and Professor Philip Nolan, the chair of our modelling group. I will provide an update on the current epidemiological situation, the impact that our vaccination programme is having on the risk profile of the disease, and recent developments regarding further easing of public health restrictions, as the committee requested. I also have a short slide set with me today and I can take members through that if it is helpful to better describe the current epidemiological situation and related matters.

The last 18 months has seen a considerable burden placed on individuals, communities, and society as a whole. We wish to thank the public for their solidarity to date and their continued efforts to help stop the spread of Covid-19. We also wish to extend our sympathies to those who have lost loved ones to Covid-19 despite our collective best efforts as a society. The epidemiological situation in Ireland at present indicates high incidence with an uncertain trajectory. While incidence in those aged 19 to 24 years and 13 to 18 years has fallen in recent weeks, we have noted an increase in testing rates and confirmed cases in children aged five to 12 years. This trend, and in particular the impact of the return to school and the opening of the third level sector, will continue to be monitored closely by us over the coming weeks.

The total number of confirmed cases of Covid-19 in hospital has begun to reduce and the total number of confirmed cases in intensive care units, ICU, has stabilised recently. There

continues to be low mortality relative to the number of Covid-19 cases. While the majority of infections are occurring largely in the young, unvaccinated population, the current force of infection is resulting in a significant number of infections in older, vaccinated people. At the same time, the number of outbreaks notified in settings with vulnerable populations, such as nursing homes, has increased in recent weeks and this is being closely monitored by the HSE, in the first instance, and also by us in NPHET.

Ireland's Covid-19 vaccination programme continues to make significant progress. As of yesterday, 14 September, 88% of those aged 16 years and over are now fully vaccinated, with 90% having received at least one dose. Vaccine uptake and completion has been very high in all age groups, ranging from 81% completion in those aged 16 to 49 years, through to 95% completion in those aged 50 to 69 years, to an almost universal vaccination, in those aged 70 years and over. However, vaccination has been offered to younger people relatively recently, and many younger cohorts have yet to receive their second dose. Those aged 16 to 29 years, given their high levels of social contact and partial vaccination, have still the potential to sustain a large wave of infection until such time as this cohort achieves very high levels of immunity through vaccination. Fortunately, uptake in younger cohorts is high.

Covid-19 vaccines are providing very effective protection from severe illness and have fundamentally changed the risk profile of this disease. This will facilitate a transition in our approach to managing the pandemic over the medium term, entailing a shift from a focus on regulation and population-wide restrictions to one that is appropriately based on public health advice which will facilitate the exercise of personal judgment and personal protective behaviours. However, notwithstanding the great benefits that vaccines have brought, it is likely that the Delta variant will continue to circulate extensively globally and in this country in the coming months, particularly among individuals who have not yet been vaccinated or those who have not been fully protected through vaccination.

In the context of this highly transmissible variant, it is unlikely that vaccination alone, even at the high levels of vaccine coverage that we are achieving compared with many other countries, will bring the effective reproduction number below 1. This means that through autumn and winter, possibly in the face of high levels of infection, we will remain dependent upon high public understanding and buy-in to the basic public health measures that we have emphasised all the way through this pandemic in order to minimise opportunities for transmission of the virus. As a result, here will be an ongoing requirement for: clear guidance and communication for the public on the evolving disease profile and the strategies they can take to mitigate those risks; a focus on the vital importance of rapid self-isolation for those who have symptoms of respiratory viral infections; a partnership approach between employers and employees to ensure that the importance of self-isolating when symptomatic is understood, communicated as well as facilitated; sector-specific measures to ensure safe environments, including formal requirements for mask wearing in certain settings such as healthcare, indoor retail environments, and on public transport; and, importantly, robust public health surveillance and response capacities, including testing, contact tracing, surveillance and sequencing capacities for Covid-19.

Throughout the pandemic, focus has remained on protecting those most vulnerable to the severe impacts of Covid-19 and on protecting health and social care, education, and childcare services. These continue to be and must be prioritised. The continued burden of Covid-19 and the significant backlog of non-Covid care, due to both the demand for Covid care in the early part of this year and the recent ransomware attack suffered by the HSE, means that our health and social care system and, in particular, our hospital system, remain in a challenging position.

Should Covid-19 admissions begin to increase once again, this will place additional pressure on the hospital system and will have a significant impact on the delivery of non-Covid care.

We cannot predict with certainty the future trajectory of the disease and, consequently, we cannot fully rule out the possibility that the reintroduction of any given measure to enable us to respond to the disease and what challenges its transmission might pose for us. We must continue to ensure our response is agile and flexible, with an ability to pivot rapidly and respond to any emerging threat that might arise.

Professor Karina Butler: I thank the committee for the invitation to attend. The roll-out of the Covid-19 and seasonal influenza vaccine programmes is managed by the HSE. I will update the committee on the need for the Covid-19 vaccine boosters and NIAC's seasonal influenza vaccine recommendation. NIAC brings together a broad range of experts to formulate its advice. Its members regularly participate in meetings of the World Health Organization and European advisory bodies on immunisation. NIAC has sent comprehensive recommendations to the Chief Medical Officer on issues regarding the Covid-19 vaccination programme relating to priority groups for vaccination, vaccine safety, pregnancy, children, adolescents and, most recently, booster vaccinations.

The most effective way to prevent Covid-19 related hospitalisation, severe illness and death is to ensure that all eligible people are fully vaccinated. They are strongly encouraged and should be facilitated to complete the vaccination course. An additional Covid-19 vaccine dose may be required because of an inadequate protective response to the first course, waning immunity or the emergence of resistant variants. Additional doses are often collectively referred to as boosters. However, distinction should be made between the need for an additional dose where the scheduled course is inadequate, to which we refer as an extended primary course, and the need to reinforce a waning immune response, which is a booster dose. An additional dose or doses of the original or a modified vaccine may also be required to protect against a resistant variant. Those with severe immunocompromise, for example, after organ transplantation or receiving immunosuppressive treatments, may not have adequate protection following a primary vaccine course. For them, an additional primary dose increases the likelihood of achieving protection.

Residents of long-term care facilities and many older people living in the community have suffered severe disruption to their quality of life, with negative impact on their psychological and social well-being during the pandemic. This group has a poorer response to the primary vaccine course and more rapidly waning immunity because of their age and underlying medical conditions. In order to optimise their protection, NIAC has recommended that an additional vaccine dose should be given to those aged 12 years and older with immunocompromise associated with a suboptimal response to vaccines, those aged 80 and older and those aged 65 and older living in long-term care facilities.

NIAC has recommended that the Covid-19 and seasonal influenza vaccines may be given at the same time or separated by any interval. This will allow the uptake of both vaccines to be optimised. This year, an adjuvanted quadrivalent influenza vaccine is recommended for those aged 65 years and older as it provides better protection for this age group.

NIAC continues to examine evidence regarding the need for booster Covid vaccines for other age groups. These include those at increased risk of severe Covid disease, other older persons and healthcare workers because of their pivotal role in providing essential health services. Consideration for boosters takes into account whether the additional doses are safe,

whether they are needed and whether they can provide benefit. Influencing factors include community levels of circulating SARS-CoV-2 and the impact of the high vaccination rate in Ireland, with more than 90% of adults fully vaccinated. This high uptake is a testament to the public confidence in the programme and credit to all involved in the development and roll-out of the vaccine programme.

NIAC is conscious of the global demands on vaccine supplies and recognises that facilitating vaccination on a global level is important on a humanitarian and global equity basis and essential to limit the continuing threat of Covid-19 in Ireland. NIAC is cognisant of the WHO position and advice on global vaccination and our duty to address inequities. Until global control is achieved, all countries remain at risk and return to normality will be compromised. Vaccines are a global public good for the benefit of all. NIAC is mindful that low and middle income countries have insufficient doses to protect those most at risk. Less than 2% of people there have received a first dose of vaccine and it is estimated that many will not receive a vaccine until late 2023.

Ending the pandemic requires global co-operation. Failure to mitigate high community transmission of SARS-CoV-2 in any country can facilitate emergence of resistant variants and prolong the global threat. NIAC welcomes Ireland's participation in the COVAX facility, which supports low and middle income countries in vaccine access. NIAC encourages the Government to continue with, and expand its commitment to, the global co-ordinated effort based on the principle of solidarity to foster equitable access to Covid vaccines.

In upholding the principles of moral equality, minimising harm and fairness, as set out in the national allocation framework for equitable access to Covid vaccines, NIAC seeks to protect those most at risk from severe Covid while recognising that access to life-saving vaccines for those most at risk should not depend on country of origin or residency. As stated by the European Group on Ethics in Science and New Technologies, "It is more important than ever in this difficult time to uphold a form of solidarity that is inclusive of everyone, which recognises that respect is due to everyone, and not exclusive to those that live in our own town, region, or country". NIAC acknowledges the significant support of our voluntary members and the collaboration with, and by, all involved in the vaccination programme in pursuing a common goal of reducing deaths and severe illness from Covid. Through maintaining confidence in a high-quality vaccination programme, we can maximise vaccine uptake and reap societal benefits. I thank the committee for its attention.

Vice Chairman: I thank Professor Butler and I will now open the meeting to the floor. We already received notice from three speakers, namely, Senator Martin Conway and Deputies David Cullinane and John Lahart. We will begin with Senator Conway who has ten minutes. I ask all members to observe the time limit and stick to the subject under discussion.

Senator Martin Conway: Like everyone else in the country I want to start by sincerely thanking Dr. Holohan, Professor Butler, Dr Glynn and their teams for the outstanding work they have done on behalf of our country and our people. We are eternally grateful for their efforts and the leadership they have shown over the past 18 months.

I was a little bit concerned about Dr. Holohan's statement on outbreaks in nursing homes. Nursing homes are where the most vulnerable in our society live. I ask him to elaborate a little bit on these outbreaks. Are there specific reasons for them, outside of the standard reasons we would expect such as community transmission? Is there anything unusual about them? Is it possibly down to some staff not being vaccinated? It is very concerning and the fact Dr. Holo-

han has noted it and is monitoring it very carefully is a concern. I ask Dr. Holohan to share with us a little more information on the outbreaks in nursing homes.

Dr. Tony Holohan: We have some specific data on nursing homes. We are keeping a close eye. In recent times, we have experienced a number of outbreaks in nursing homes. The first explanation for this is what we call the force of infection; there is just so much infection out there in the population, although it has reduced somewhat in recent weeks. We do not have 100% vaccination, although we do have very high levels of vaccination, and we do not have a vaccine that is 100% effective. We will always have some people who will be vulnerable if they encounter another individual and pick up the infection. This is exactly what has happened in our nursing homes. It is also what has happened in these age groups in the community. We have seen a rise in the incidence in the corresponding age groups in the community. This leads to several things. Perhaps Professor Butler will wish to speak on one of these, which is the decision to accept the advice of NIAC on boosting vaccination for people who are residents in nursing home facilities and who are over the age of 65. There is also the continual importance of maintaining high levels of compliance with infection prevention and control. This continues to be every bit as important now as it was at the beginning of the pandemic. We do everything we can in our nursing home communities for the patients and staff to maintain high levels of infection prevention and control.

The Senator partly answered his own question in his remarks on staff. We have high levels of vaccination among staff. We believe there has been a challenge in some nursing homes in maintaining high levels, particularly perhaps among those who work in nursing homes but who come from agencies. Maintaining a focus on ensuring we do not deploy staff who are not adequately vaccinated, if it can be avoided, is at the core of what the HSE is trying to do in terms of its management of nursing homes.

There are several points we would make in general terms and I will ask Dr. Glynn to share some of the specific data. We have much less of this than we had for corresponding level of infection at previous times in the epidemic. This is good news in terms of the level of protection. For those people who pick up this infection in the nursing home communities, in terms of the impact of that infection, we did not always have very high levels of hospitalisation as compared with, perhaps, other parts of the population, but the effect in terms of mortality was a very different experience. Although we have had some mortality in these communities, it is at a much lower level than we would have experienced at previous points in the pandemic when we did not have the benefit of vaccination protecting the people who reside in them.

Senator Martin Conway: Does Dr. Holohan have any specific figures in terms of the number of people within the nursing home environment who have caught the disease? In terms of mortality, are there any specific figures available on the number of people we sadly lost?

Dr. Tony Holohan: We do have that. We will share it with Senator Conway. I will ask Dr. Glynn to outline it.

Dr. Ronan Glynn: We have data from 27 June to 11 September, inclusive. Over that period, there were seven outbreaks in community hospital or long-stay units and 51 in nursing homes. That is 58 outbreaks in total. Across those 58 outbreaks there were 896 cases recorded and 31 of the people involved were hospitalised, which was 3.5%. Unfortunately, 31 passed away giving a mortality rate of 3.5%. Last week there were four new nursing home outbreaks reported involving 24 confirmed cases.

Senator Martin Conway: In terms of the booster programme Dr. Glynn spoke about, perhaps Professor Butler might go into a bit more detail on the plan to roll out the booster jabs to long-term care facilities and nursing homes.

Professor Karina Butler: I am happy to talk about that. In terms of the booster programme, the reason that we have recommended the booster shot for those living in nursing homes and for those over 80 years of age is because we know they have particular vulnerability. First, their initial response is not as good overall. Some people within the cohort will have very good responses. If we take those groups as a whole, however, they will not respond as well as younger age groups so their primary response is not as good. The second point has been supported by data, initially from Israel but now also by data that has come out this week from Public Health England, which shows that their immunity wanes more quickly over time. That was the reason for recommending booster shots.

One of the points I would like to emphasise and to which Dr. Holohan referred is that although we see a creep up in the amount of infections, the impact has been very different in the vaccinated population versus the unvaccinated. For the elderly who are fully vaccinated - most of them are - when they get infection, most of them have a milder disease than they would have had last January. In terms of the actual plans for the implementation of those recommendations, that falls into the remit of the HSE. I think those plans are being made at the moment but I cannot speak to that.

Senator Martin Conway: I will make another reflection from my own perspective. As restrictions ease and we move back into some element of normality, people are possibly going to drop their guard in terms of the public health advice on mask-wearing, handwashing and so on. Does NPHET have any plans for some form of winter information campaign to keep up the people's awareness of the fact that, in addition to vaccination, the public health advice is being maintained?

Dr. Tony Holohan: Yes, we do. The reason is exactly as Senator Conway says, namely, to maintain as high a level of compliance as we can with all the basic and important public health measures which, as I outlined in the opening statement, we are going to have to continue to keep up. It was in our most recent advice. We have always emphasised the importance of clear public communications but perhaps we must take a new approach to communications that will emphasise the areas in respect of which we need to keep up a high level of compliance as we move forward with the easing of measures. For example, on the question of people with mild and other respiratory symptoms, in previous times we might have soldiered on when we had illnesses. We must accept now that we are probably putting other people at risk by doing that. It is important when people have symptoms that at the earliest stage possible they stay away from school, work, the pub or inviting people over to their house until about 48 hours after their symptoms have resolved. We are going to have to change our cultural behaviour in that regard. All of that will be underpinned by clear and consistent messaging. Any of us who has a leadership responsibility, not just we in NPHET but everybody who is involved in communicating and messaging to the public, must reinforce this message as much as possible.

Going right back to the beginning of the pandemic, before we had a testing capacity or vaccines on the horizon, the behaviour of the person who is symptomatic and who is likely to be transmitting - even though we know there is a risk of people who do not have symptoms also transmitting - is important. If each individual who has symptoms is behaving responsibly and staying away from the kinds of settings I mentioned, if we keep up a high level of compliance with mask wearing and social distancing in circumstances where that matters and if people are

particularly aware of the risk of transmission in indoor environments, those things, combined with the exceptionally high and almost unprecedentedly high levels of vaccination that we now have in this country compared with almost any other country in the world, will be necessary to keep the level of infection suppressed.

When we look at the 16 to 30 years age group in which we have a level of vaccination - it is now in the low 80s - the reality is that as they come together in the kinds of environments in which such young people come together, there will be an increased risk of transmission and we will have outbreaks and infection. We will continue to see that as the virus becomes a part of our-----

Senator Martin Conway: My final question for Dr. Holohan-----

Vice Chairman: Senator Conway's time is up. I intend to stick strictly to the time allocated.

Senator Martin Conway: I just wanted to ask briefly-----

Vice Chairman: There will be a second opportunity to contribute. I will call Senator Conway again but I will not negotiate the time limits. The next speaker, Deputy Cullinane, also has ten minutes.

Deputy David Cullinane: I welcome the witnesses. I thank them for all the work they have done in the past 18 months, which has been nothing short of phenomenal. Well done to the CMO and his team and Professor Butler and her team on all their work.

I will start with the final paragraph of Dr. Holohan's opening statement which grabbed some headlines and merits some clarification. We all accept that there is no certainty about where this disease is now or may be in the coming weeks and months. I wish to ask about the statement that we cannot fully rule out the possibility that the reintroduction of measures may be required into the future. For the purposes of clarity, is it Dr. Holohan's view that we are still on track in the first instance for the ending of restrictions on 22 October? When Dr. Holohan referred to the reintroduction of measures, I assume that could be a range of measures and not necessarily the type of lockdowns that we have seen in the past. Some clarity on that might be useful.

Dr. Tony Holohan: Deputy Cullinane is correct in his assumptions. What I am saying is that we can never rule anything out, but we do not think we are going to be in a situation where some of the significant restrictions that had to be imposed on the Irish population are likely to be necessary on the basis of anything we see in front of us right now. In broad terms, we are optimistic about the trajectory of the disease at this point in time. The likelihood is that over the course of the coming weeks the important criteria that we set out in our last advice to the Government and need to be satisfied before we think we are able to move on, if I could put it in those general terms, will be met and that the range of measures that are still in place will be eased. We think we are a short number of weeks away from that and we do not see anything at this point in time emerging in the international scene, globally, by way of concern about a new variant. We cannot forget the potential of other forms of viruses to create pandemics. In particular having had the experience of the past 18 months, I am simply saying we cannot rules things out in terms of a response, but that is not the same as saying that we expect-----

Deputy David Cullinane: If I could just come back in, can I take it from Dr. Holohan's response that in his view we are still on track for the 22 October date for the ending of restrictions?

Dr. Tony Holohan: It is my view that we are still on track within a short number of weeks to reach the criteria that we have set out.

Deputy David Cullinane: Okay. I will return to the presentation Dr. Holohan gave to members of the committee some months ago when the Delta variant first arrived? As he will recall, there were a number of projections. The scenarios were "optimistic", "central 1", "central 2" and "pessimistic". I am looking at the optimistic scenario, which was 81,000 cases. Central scenario 1 was 187,000 cases and central scenario 2 was 408,000 cases. The pessimistic scenario was 681,000 cases between July, August and September. What category are we likely to fall into?

Dr. Tony Holohan: I might ask Professor Nolan to come in on this one.

Professor Philip Nolan: We have had 100,000 cases between 20 June and yesterday so we are tracking just slightly ahead of the optimistic scenario, which is very good news. Our more optimistic assumptions about the Delta variant and about social mixing are therefore underpinned. We have updated those models. To reinforce what the Chief Medical Officer said, if we take the most optimistic scenario we are currently looking at, which is not unreasonable, we are just past the peak of infection and case numbers should decline from here on in. That may be happening given the data we have now.

There are important assumptions in those models that children are somewhat less likely to get this disease and less likely to transmit it. Very importantly, we also are assuming that we all adhere to those very basic measures the Chief Medical Officer has outlined, that is, self-isolation if symptomatic and so on. Modelling at the moment suggests two things, however. We appear to be following an optimistic track but if we relax on those basic measures or if children are a greater driver of infection than we anticipate, then there is the potential for an additional wave of disease, particularly-----

Deputy David Cullinane: I thank Professor Nolan for that. I will follow on from that point because it segues into my next question on test and trace. There has been some public commentary with regard to children, especially in schools. In his opening statement, the CMO said that "we have noted an increase in testing rates and confirmed cases in children aged five to 12 years". There was also some public commentary and, I believe, a leaked document from NPHET that looked at the possibility of relaxing the rule of self-isolation for children who are asymptomatic. My understanding is that as of today, approximately 12,000 children are self-isolating and there are approximately 1,200 new cases a day. Would those figures be correct for starters?

Dr. Tony Holohan: Yes, in broad terms.

Deputy David Cullinane: The chief clinical director of the HSE has said several times and I agree with him, and Dr. Holohan said himself in his overall remarks that as the harm associated with Covid-19 has significantly reduced, we must look at the benefits of what we are doing in terms of self-isolation requirements versus the costs that might have on children. Obviously, we have to keep children safe, which is our main priority first and foremost. Does Dr. Holohan anticipate that we will see a change in direction or a change in advice from NPHET with regard to that self-isolation rule for children?

Second, am I right in saying that throughout the pandemic, 29 children were admitted to ICU who were suspected Covid cases but only one quarter of those tested positive? Are those

figures also correct?

Dr. Tony Holohan: We are coming to some of those questions. We have a NPHET meeting scheduled for tomorrow. My hope and expectation is that within a very short period, which I do not want to put a date on specifically but within a short period, we believe we will have had enough time to monitor the impact of the resumption of the school year on potential transmission.

As the Deputy rightly said, we have seen a significant increase in testing. That level of increase in testing has outstripped the increase in incidence so in other words, the positivity has dropped. What we have seen is that increase in incidence, particularly in the five to 12-year-olds, is explained by the huge volume of additional testing that has now been done in that age group. It is not a true underlying change in the incidence of the disease in those age groups, which is a very important observation. We want to maintain that observation for a sufficient time, which we think is not much longer, to allow us to say that we are in a position to change to a different form of management of the disease, not just in respect of schoolchildren but in respect of testing and contact tracing for the whole of society. We do not believe it is necessary-----

Deputy David Cullinane: We can expect some change then.

Dr. Tony Holohan: -----that we will get to that point to test every single case of mild illness to inform our ongoing management of the disease.

Deputy David Cullinane: I thank Dr. Holohan for that. I have one question for Professor Butler but for clarity, we can expect or anticipate some change in terms of the self-isolation criteria for children and maybe for others as well who are asymptomatic.

Dr. Tony Holohan: We want to change those arrangements. As I said, we need to be sure that we have allowed sufficient time to observe the resumption of the school year, which is only two weeks in the case of primary schools. We are not that far away from being able to have that certainty, if it is there. We remain hopeful that we will be in a position to change that in the near term, not just for schoolchildren but in terms in testing, contact tracing and the wider public health management for society as a whole.

Deputy David Cullinane: I thank Dr. Holohan very much. I hope that in the next weeks and months, perhaps when Dr. Holohan next appears before the committee, members will be able to talk to him about wider healthcare issues and non-Covid healthcare issues. That will be important.

I have one final question for Professor Butler. I understand the need to make sure those in nursing homes, those aged over 80 and certain categories of people who are immunocompromised get a booster jab or what Professor Butler called an extended primary dose. Is it the case or is it possible that other people beyond those groups, for example, patients with blood cancers or other types of patients who are immunocompromised, may also get a booster jab? Is this the start? In time, will we see others getting a booster jab as well? In terms of the first categories that have been signed off on, how many people will get a booster jab? How many people are we talking about and what is the timeframe? When do we expect to get them their booster jabs and have that completed?

Professor Karina Butler: Those numbers are available and the HSE would have them. I do not have them to hand today. I do not remember and I would not want to give the Deputy

misinformation.

The Deputy's first question is very important. In fact, that was the first category of people for whom we recommended boosters. Those with immunocompromising conditions or who are undergoing treatments that compromise that ability to respond to their primary course will get booster doses. That would include, for example, patients with haematological malignancies who are in that recent phase. That is outlined and will be done in parallel with the groups that we prioritised in the beginning for vaccination. That is already in place.

Deputy David Cullinane: I thank Professor Butler and all the witnesses for their work over the past 18 months.

Vice Chairman: Can Professor Butler supply the details requested by Deputy Cullinane in writing?

Dr. Tony Holohan: We have that data. We can write separately if time does not allow us to provide them now.

Vice Chairman: We are out of time, unfortunately. We will have to take a written reply.

Deputy John Lahart: I thank our witnesses again. It is good to see Dr. Holohan. It is the first time we have seen him for a while. I hope he had some kind of break or respite over the summer. I have ten minutes so my questions will be reasonably short. It always appears rude when we insist that the responses are reasonably short but we do not do so out of rudeness.

NPHET will be disbanded in approximately one month because, apparently, the emergency is over. What is Dr. Holohan's response to that?

Dr. Tony Holohan: Our response is that every form of our handling of the pandemic has to evolve in relation to the threat. This includes economic and social restrictions, our testing regime, our public health response and the way we as officials perform in whatever role we might play. That includes every single one of us, whether it is front-line healthcare professionals, people involved in the role that NPHET carries out or people at a political level making decisions based on the advice. Each one of us will be changing our response because of the fortunate position in which we find ourselves, with high levels of vaccination and, hopefully, increasing confidence about the level of control we are achieving with regard to the disease. We need to find a way of moving on and incorporating our response to what will become an endemic disease into our public health management of the entire set of risks that might pertain to the population over the course of the winter. That is a perfectly natural evolution in response to any emergency.

Deputy John Lahart: What is the difference between an endemic disease and a pandemic?

Dr. Tony Holohan: It is a technical term. "Pandemic" means essentially that something has reached an epidemic in more than two regions of the WHO, which is divided into five regions at a world level. "Endemic" means something is there and is going to stay and be a continuing feature of transmission.

Deputy John Lahart: Okay.

Dr. Tony Holohan: "Epidemic" is a word that means it has got out of control at a point in time. Most of the common infections with which the Deputy will be familiar would be regarded as being endemic, whether we are talking about measles, tuberculosis, TB, or whatever it might

be.

Deputy John Lahart: Can Dr. Holohan give us a rough ballpark figure of the incidence of influenza at the end of 2020 and start of 2021 in comparison with other years?

Dr. Tony Holohan: I will put words rather than numbers on it because the numbers are extremely small. The practices we had in place last winter to restrict the transmission of Covid-19 practically obliterated influenza in the northern hemisphere. That was our experience in this country. Each winter, we track the rate through our sentinel GPs, of whom there are 60 around the country, of influenza-like illnesses, which have a constellation of symptoms consistent with the flu. We saw a rise in that that was almost exclusively Covid. We detected almost no flu over the course of last winter.

Deputy John Lahart: What influenza scenario does NPHET anticipate for 2021 into 2022?

Dr. Tony Holohan: We are prepared for a situation whereby we might see an increase in influenza. The conditions in the population, now that it is vaccinated and protected against Covid, are more conducive to the transmission of flu. In terms of immunity, there might be reasons to theorise that we may be more vulnerable than we otherwise would be to transmission of flu. We have examined the experience of the southern hemisphere, as we always do, during its winter, which was our summer just ended. We are gaining some reassurance from that. We will have a major response to flu in prevention terms, not least of which will be our flu vaccination programme, which we hope to be in a position to commence in the coming weeks, as usual. We are-----

Deputy John Lahart: I am sorry for cutting across Dr. Holohan. Regarding the points he raised in his opening statement about personal judgment and personal protective behaviours, I found myself being much more conscious again about handwashing and so on over the past week or two, coinciding with the general return to work. They are the actions that protected us but someone mentioned their being relaxed a little. Dr. Holohan might comment on some of the measures that we can take in that regard.

Could Dr. Holohan give us a tour through the most severe manifestation of long Covid to date? How long does NPHET believe long Covid will last for people? What are the symptoms associated with it and the regularity of those? What time span for long Covid has been seen to date and what are the most chronic symptoms and prognoses in respect of same, particularly among those without underlying conditions?

Dr. Tony Holohan: I might ask Dr. Glynn to answer those two questions.

Dr. Ronan Glynn: On the first part, the good thing about how we approach the flu and other viruses this winter is that many of the measures we take to protect ourselves against Covid are synergistic and will also protect us from those other respiratory illnesses. One of the main issues that we are concerned with and that we will emphasise over the coming months is that of hand hygiene, which the Deputy mentioned. The key issue is something that the Chief Medical Officer referenced already, in that we must have a low index of suspicion for ourselves when we are symptomatic and that we remove ourselves from activities or environments where there are other people if we have any suspicion that we might have the beginnings of a cold or flu. That will be the single strongest action that we can take over this autumn and winter.

Reference has also been made to the need for a national communications campaign over the coming months. While that will be a key part of what we do, what will also be important is that

each sector, organisation, club, retail outlet and so on continues to support its staff in isolating when necessary, has hand sanitiser present when necessary and ensures that its environment is well ventilated. All of the basic measures that we have emphasised over the past year will remain important through this winter. Hopefully, they will form part of a cultural shift that will protect us all from these kinds of illness in the years to come.

Dr. Tony Holohan: If it is okay with the Deputy and in the interests of time, since there is a great deal in his question on long Covid, we will commit to giving the committee a detailed briefing on our current understanding of long Covid and the answers to the questions he asked.

Professor Karina Butler: An important point regarding long Covid is that some interesting work has shown that, for those who have breakthrough infections post vaccination, they are much less susceptible to being affected by long Covid-type symptoms. The issue with long Covid is that there are a number of different syndromes that are gathered together under it. It covers people who have been very sick in ICU, who have a prolonged rehabilitation time that is very defined. It can take time to recover from the effects on their multi-organ systems, including their kidneys. There is another group of people who have had quite mild symptoms but who do not return to full health for a time. It can take some weeks or months. Their health status can mainly be characterised by fatigue, brain fog and those kinds of difficult-to-quantify symptoms. Speaking as a paediatrician, the good news is that the risk of that kind of syndrome in children seems to be much lower and, for those who have it, it seems to last for eight to 12 weeks. Some studies have been done on this matter in Italy and Germany and the data coming out from those have been reassuring.

Deputy John Lahart: I look forward to the formal paper Dr. Holohan mentioned. I was interested in the paper from NIAC and the Royal College of Physicians of Ireland, RCPI, regarding the length of immunity. I have a further question on it. Professor Butler has already summarised the paper. Like many people, I received my second vaccine dose in June, so six months for me will be around December. Clearly, NIAC and the RCPI are constantly getting a great deal of data, some of it contradictory. Those data are interesting to read. The Israeli data were particularly interesting. We are only getting a synopsis of it. Is there anything that the paper left out?

My final question is for Dr. Holohan. What can the State do to assist our front-line healthcare workers? We hear various stories of them being in a state of exhaustion.

Professor Karina Butler: I am happy to speak about the duration of immunity. The Deputy asked whether we had left out anything. If I gave the committee something today, I would probably have left something out by tomorrow because the data are evolving quickly. The answer is "Yes".

There are conflicting data. What we know is that antibody levels can decline over time, but we do not know how important which antibody level is in terms of protection from infection and whether the decline means everything in terms of protection. Our immune system consists not just of those antibodies but also our cellular immune system. The data coming out show that the immunity induced in the cellular immune system is much more long lived than that measured through antibodies. The whole story is not out yet by any means.

Deputy John Lahart: Yes. I can see that.

Professor Karina Butler: What we know is that antibody declines are a little more rapid in

the elderly and people who did not respond well to-----

Vice Chairman: I am sorry to cut Professor Butler short, but we have to move to the second round. There is more to come. If we are lucky, we might even have a third round.

On the second round, each contribution will consist of seven minutes. The list of speakers is Deputies Shortall, Hourigan and Gino Kenny, in that order.

Deputy Róisín Shortall: I welcome the two teams to the meeting and thank them for their ongoing work.

I have some questions for both teams, start with three quick ones for Dr. Holohan. There is a great deal of confusion about what level of vaccination is required to achieve herd immunity. We have a large young population, many of whom, and certainly the under-12s, will not be getting the vaccine for some time. The teenaged cohort is only being vaccinated now. At what point would Dr. Holohan say that herd immunity will be achieved in the overall population? What percentage is required?

My second question is on antigen testing. Given the high level of vaccination and the requirement to get back to work and other activities, does Dr. Holohan see a role at this point for antigen testing as a screening tool?

My third question is on public health messaging. Why is it that the issue of ventilation always seems to be an afterthought? Reference has been made to reminding people about hand washing, but we do not seem to be talking about ventilation to the same extent. Is that aspect not as important, if not more important?

Dr. Tony Holohan: I thank the Deputy. Others may contributute regarding what I am going to say, but we do not have a percentage for herd immunity. That is for the simple reason that the level of transmission of this virus and its responsiveness to the vaccines means that we will not get a high enough percentage in that context to control the disease on its own. We will need other measures. Even if we achieve high rates of vaccination, the vaccines are not perfect, far from it, in their ability to prevent transmission of the virus. It is not possible for us to talk in terms of achieving herd immunity to this virus in the same way that we do with a disease such as measles. If we achieve a level of 95% in that case, we know that the chances, in effect, of an unvaccinated person in the remaining 5% running into someone with measles will be very low. In the context of this disease, however, we do not think that herd immunity is a concept that we should be talking about. Our message in this case is that the further we can go and the higher we can get regarding the percentage of people vaccinated, the better we will be. Equally, every individual vaccinated means better protection for him or her from the severe effects of this disease. That is our basic message.

Deputy Róisín Shortall: Is there a target regarding the percentage of the population to be reached?

Dr. Tony Holohan: In the last round of the advice we gave, which was accepted, we identified five criteria that it would be important to satisfy before we could move on, if you like, in respect of our collective response to the vaccination programme. By moving on, I do not just mean in the context of social and economic restrictions, but also in the evolution of our public health management and so on. One criterion we identified, and which was accepted, was that the target for the vaccination rate should be 90% of the population of people over the age of 16. That was the target which was set. I already observed that we have reached a rate above 88%,

which is really good news. If there are still people out there, especially in the group aged 16 to 30, or in a position to influence individuals in that group, and I am sure there are, we need them to keep pushing on as much as possible. The HSE has done a good job, but we must keep going.

Turning to the specifics concerning antigen testing, a significant review of its role in screening, conducted by HIQA, will be considered by NPHET tomorrow. We of course see a role for antigen testing and we have always done so. We are specific, however, regarding the circumstances in which we think the role of antigen testing has an evidence base to support its use. We do not think that role exists now for its use as a screening test in asymptomatic situations.

I will let Dr. Glynn address the issue of wider public health messaging. If I am not mistaken, he mentioned ventilation during his initial remarks.

Dr. Ronan Glynn: Ventilation, as I said, is a key aspect in this regard. As a word, it perhaps tends to get left aside. However, when we have talked about elements of our response to the virus, such as having open windows in settings, the use of carbon dioxide monitors and people from different households travelling together in cars at different stages of the pandemic, the importance of ventilation and of there being a safer environment outside rather than inside has been a core part of our public health messaging. It will increase in importance again now as we move into the autumn and winter months. People will be inside more than outside during that time and the importance of ventilation in that context will increase.

Deputy Róisín Shortall: I thank Dr. Glynn. I reiterate that there seems to have been a complete lack of emphasis placed on the importance of ventilation. We have not been taking the advice of the expert groups in this regard.

I have some questions for Professor Butler. The first concerns the issue of staff in nursing homes. My understanding is that patient-facing staff in the HSE are required to be vaccinated. Should we be seeking to have a similar requirement in the nursing home sector? I refer to a requirement for all patient-facing staff in those settings to be vaccinated.

Moving on to the issue of antibody testing, does Professor Butler see a role for such testing to assess waning immunity to the virus in certain categories of people?

Professor Karina Butler: Regarding antibody testing, it sounds like a really nice thing to do theoretically. The problem is that we do not know which specific antibody is the most important. It is probably not the anti-spike antibody with which people might be more familiar. It might instead be the antibody against the binding domain. In addition, however, we do not know what threshold signifies that people will be protected as against not being protected.

Deputy Róisín Shortall: Okay.

Professor Karina Butler: Some excellent work on this subject is being conducted by University College Dublin, UCD, and St. Vincent's University Hospital. It seeks to correlate the level of antibodies with the activity in respect of neutralising the virus. We are considering doing it on a sentinel basis, but the results of the work are not ready for deployment yet.

Deputy Róisín Shortall: Turning to the issue of staff in nursing homes, should there be a requirement for patient-facing staff to be vaccinated?

Professor Karina Butler: It is important for everybody eligible to be vaccinated. Where there is hesitancy in this context, it is important that we do all we can to understand the reasons

for such hesitancy and then deal with it. Regarding requirements, it is the HSE that decides such things for its staff. In general, however, mandatory vaccination has never been a good thing and it should be a measure of last resort.

Deputy Róisín Shortall: That is fine, but-----

Professor Karina Butler: We are trying to do everything to encourage all staff to get vaccinated.

Deputy Róisín Shortall: That is fine. In the context of nursing homes, though, where 80% of the facilities are privately owned-----

Vice Chairman: We are out of time. I will allow a quick answer.

Deputy Róisín Shortall: Is anybody overseeing that area now? It would surely make sense to require staff working in nursing homes to be vaccinated.

Professor Karina Butler: We would hope that all staff in nursing homes are vaccinated. All the required protective measures must be in place as well. Equally, all the residents must be protected and their protection must be optimised. I absolutely encourage everybody to get vaccinated and we are happy to help in whatever way we can in that regard.

Deputy Róisín Shortall: I thank Professor Butler.

Vice Chairman: We will move on. I call Deputy Hourigan. She has seven minutes. We are on time so far, but we did not gain any time either.

Deputy Neasa Hourigan: I will do my best. I welcome the witnesses and thank them for their work in the past year. We were talking about nursing homes and some up-to-date figures were provided earlier in that regard. Do we have similar up-to-date figures for outbreaks of the virus in schools?

Dr. Tony Holohan: We will try to get that data for the Deputy, if she will bear with us. We do have it.

Deputy Neasa Hourigan: That is great. Moving on, some weeks ago the WHO issued a statement concerning the lack of uptake of vaccinations across parts of Europe. That was in the context of an 11% increase in the number of deaths in the region, with a projection of around 230,000 deaths occurring by December. Do the witnesses think that travel within the EU is now a significant risk factor in respect of suppressing the virus here, even given our high rate of vaccination?

Dr. Tony Holohan: Generally, it will be the case that travelling to other countries as a population, even for those of us who are vaccinated, will lead to opportunities for transmission. Hopefully, we will make progress here in driving down the level of infection further. It may well be the case that we will be enabled to travel to countries with higher levels of incidence of the virus and, if so, the basic public health messages that we will now be emphasising for the entire population will be relevant to people travelling internationally. Travelling to other countries does not mean that people can go on holidays from all the protections they maintain at home. When abroad, people must keep up their hand hygiene, continue to react to symptoms in keeping with the basic public health messages in that regard and maintain the basic practices of keeping out of indoor environments that they think might be risky, etc. All those personal protective behaviours that we think of as being important here at home will also be important

when people are travelling.

Deputy Neasa Hourigan: That is fine. Moving on, I am confused about the regulation of booster vaccinations. Dr. Holohan has spoken about this issue previously. My understanding is that the administration of booster shots is not fully authorised yet. Will Dr. Holohan explain how we are progressing in the context of that scenario?

Dr. Tony Holohan: Our understanding is that the European Medicines Agency, EMA, is exploring the authorisation of booster vaccinations. We expect to see some developments in this regard in the near term. I do not have a specific date, but the EMA is examining this issue.

Deputy Neasa Hourigan: In the meantime, however, we are moving ahead with rolling out booster jabs.

Dr. Tony Holohan: We are. The recommendation already adopted and which the HSE is preparing to implement in respect of people who are immunocompromised and in need of an additional dose of a vaccine, as opposed to a booster shot, is that all these aspects will be part of the advice, guidance and informed consent procedures that the HSE has put in train. However, we expect to hear an update from the EMA concerning developments in this context in the near term.

Deputy Neasa Hourigan: Is it accurate to say that we would not move ahead with a full regime of booster shots for the general population until that process has played out?

Dr. Tony Holohan: Several things must be in place before the HSE will be able to begin the vaccination process recommended by NIAC. The HSE is now making preparations. It is hypothetical to say that we will be in a position whereby we will be vaccinating without that authorisation being in place. That may well not be the case but if it is the case, we have addressed that in the advice we have given the Minister.

Deputy Neasa Hourigan: We have seen a huge amount of testing over the past week, in no small part due to NPHET's hard work and the hard work of everybody on the front line. We will probably move to a different regime soon as the infection rate drops. Will Dr. Holohan outline what that might look like? For example, what will surveillance testing mean for a school where there may be an outbreak?

Dr. Tony Holohan: An outbreak is different because an outbreak will be responded to on its own merits. Deputy Lahart asked what we would like to see in place. The lessons we need to learn as a country from how we best do our public health management is to do our utmost to prevent transmission of this infection. That is the best way we can protect the under pressure healthcare staff and allow them to do the job they are primarily there for, which is not to care for people who are sick as a consequence of this preventable infection. In that context, we need to be responsive in picking up outbreaks at a very early stage-----

Deputy Neasa Hourigan: Fair enough, but if we are doing national surveillance testing, how many tests are we looking at per day or per week?

Dr. Tony Holohan: Surveillance will take a number of different forms. It will include testing of our wastewater system, which has the ability to pick up low levels of infection in the population. It will include what is called our GP central surveillance system, which is a standing arrangement that exists for flu every winter, with 60 practices around the country that report their rates of influenza-like illness, ILI, and do some additional testing. That is our early-

warning system.

We think it might also be important for us to look at the possibility of doing some early access to testing for people in specific environments such as third level because of the nature of this infection. Almost every wave we have experienced has initiated in that age group. We think maybe some other forms of surveillance are needed, particularly of people who are attending emergency departments or are admitted to ICU, as well as a wider testing arrangement to support our clinical services, in other words, to help clinicians to determine, when it is necessary for them to do so, whether they are dealing with a case of influenza, Covid-19, respiratory syncytial virus, RSV, or something else. It will be the sum total of all those kinds of requirements that will generate our need for ongoing PCR testing. It will have a very different purpose and perhaps a different scale from the testing that we have been doing up to now.

Deputy Neasa Hourigan: That is very interesting. If the current numbers for schools are provided, I will conclude.

Dr. Tony Holohan: I will bring in Dr. Glynn.

Dr. Ronan Glynn: Last week, in the week to Saturday night, there were 40 new outbreaks reported in schools, with 191 linked cases. Of those outbreaks, 34 were in primary schools, three were in post-primary schools and three were in special education.

Deputy Gino Kenny: I thank NIAC and NPHET for all their work in the past 18 months. It has been a trying time for everybody in the country. In regard to Dr. Holohan's statement in relation to the future trajectory of this disease, we all know Covid-19 is evolving and unpredictable. At what point in the trajectory of the disease, if it goes on an upward spiral, will measures be reintroduced? What point do we need to reach in terms of the numbers of people in ICU or being hospitalised due to this disease?

Dr. Tony Holohan: Our hopes and expectations are that we will not find ourselves in that position. We are going to express cautious optimism that that will remain the situation. The scenarios that might arise and could give rise to those requirements will be potentially related to new variants and the emergence of challenges that, at the moment, we do not see any signs of in the international sphere. What we have seen over the course of the past couple of months is the emergence of this highly transmissible Delta variant, which appears to have suppressed the spread of many of the other variants that had so-called vaccine escape potential, in other words, variants that vaccines were not as effective against. Even though there was some impact with the Delta variant in terms of effectiveness of vaccines, it was not as great as perhaps with some of the other variants which were identified as variants of concern. We have seen a suppression of those, because Delta has essentially taken over transmission in the world. On the basis of our experience of Delta, and how we think things are going in this country, we think things at this point in time are going better than they are going in perhaps the four regions of the neighbouring country of the UK and it gives us a basis for expressing some cautious optimism that we will not need to go back the road in terms of some of these kinds of restrictions. The two things that are going to influence that are the very high levels of vaccination that we have achieved, and maintaining that and, second, the extent to which the public keeps up compliance with the basic and simple - you could say bog standard - guidance that we have given in regard to social distancing, mask wearing, avoiding indoors and the importance of being aware of the circumstances in which transmission is likely to arise, and that is where the ventilation question comes in. There was an extensive component in our last letter of advice dealing specifically with the question of ventilation - in the letter to the Minister-----

Deputy Gino Kenny: If measures were reintroduced, what would those measures be? Obviously it is a hypothetical situation, but if that happened-----

Dr. Tony Holohan: It is hypothetical. If the Deputy could have posed that question to me two years ago, before this all began, I never would have had, in my answer to any hypothetical question two years ago, the kinds of things that we found ourselves recommending to Government, to be closing retail, to be closing international travel, to be closing schools and universities and so on. I never would have envisaged that even though I would have known that these things were theoretically possible. If the Deputy had asked me this question two years ago as a hypothetical question as he is asking me now, it would not have featured in any way in my answer and yet all of these things have become part of his reality, my reality and everybody else's reality for the past 18 months. It is too hypothetical a question for me to address I am afraid.

Deputy Gino Kenny: Okay. My second question relates to the opening of schools and to children between the age of five and 12. This question is to Professor Butler. As we know, this disease has killed millions of people across the planet, and largely children of that age group have come through unscathed, in terms of death. It has obviously disrupted everybody's lives across the planet. Schools in this country have opened in the past two weeks. How satisfied is Professor Butler about the protection of unvaccinated children in that age group? Has she confidence in regard to the measures which the Government has taken thus far?

Professor Karina Butler: From the point of view of NIAC and of vaccination, at the moment there is no authorised vaccine for children in that age group. Studies are ongoing which are looking at what dose might be necessary and, indeed, whether it is needed for children. From NIAC's perspective, we have no recommendations in terms of vaccination for children. From the general public health perspective, I am sure Dr. Glynn or Dr. Holohan might want to speak to that. On what has been done in our schools, the school systems have really taken on board the need to keep that environment a safe one for children. To a certain extent, we are very fortunate. This infection has been different from many other infections in that when children acquire infection - it still remains the case, even with the Delta variant - it is for the majority of them a mild infection and, in fact, that may contribute to their overall immunity ongoing. From NIAC's perspective, there is no recommendation regarding vaccination for children at this time.

Deputy Gino Kenny: I will ask Professor Butler what is probably a very obvious question. Why is it the case that children have come through largely unscathed by this terrible disease?

Professor Karina Butler: That is a very interesting question to ask. It may be to do with their immune system and its ability either to tolerate this virus and not get the kind of hyper-inflammatory system that we have seen in some of the adults later on. It is a key question to be answered generally, but one of the things that we see very often with a coronavirus is that children get it and have very mild illnesses and then, as adults, are not troubled by it later on.

Deputy Gino Kenny: Okay. I think I have run out of time. I thank the witnesses.

Vice Chairman: We will move on to the next round of speakers who have seven minutes. I will take Deputy Colm Burke, Senator Annie Hoey and Deputy Cathal Crowe, in that order.

Deputy Colm Burke: I thank Professor Butler and Dr. Holohan and their committees for all of the work they have done over the past 18 months. It has been a difficult time for everyone.

A letter was sent to the Minister on 25 August setting out the likelihood of the number of people contracting the virus over the next number of months. It set out peaks. I wonder about

the increase in numbers. Over the past week or so all universities have returned. Approximately 220,000 students are moving from home or work back into third level. In respect of the peak, do we expect this will be a contributory factor? At what stage do we think this will start to play out? How do we work towards trying to reduce the number of people contracting the virus over the next three to four weeks? A large number of people are moving within a very short timescale.

Dr. Tony Holohan: If it is okay with Deputy Burke, I will ask Professor Nolan to address that question.

Professor Philip Nolan: Incidence in those aged 19 to 24 years has effectively collapsed as vaccinations have become effective. We have gone from 100 cases per 100,000 people per day in early August in that age group to below 40 cases. There has been a 60% reduction in the incidence in the university going cohort. That is allied with mitigation measures that universities have put in place around reducing crowding, mask wearing in the vast majority of indoor settings and the installation of CO2 monitors to ensure adequate ventilation. We have modelled scenarios where things might go wrong. Based on what we have seen over the last period of time, we would not expect a significant wave of disease as that group of students returns to third level. The situation will have to be monitored.

To broaden the discussion, last year when we opened schools the demand for testing tripled and the incidence went up about 50%. In the past two weeks as we have opened schools again from a higher base demand for testing has tripled. We are now testing close to 1% of the primary school going age cohort every day. That is good and prudent. It means that if there is any resurgence or surge in disease in that age cohort we will see that. The threefold increase in testing is again translating into about a 50% increase in detection. There may have been infections that were out there during the summer. In other words, we may now be detecting cases the equivalents of which, with lower testing during the summer, we were not detecting in July and August.

I want to make a final point on mitigation measures in third level and schools. There is a great deal of discussion about the balance between ventilation, mask wearing, hand hygiene and so on. It is really important to state that even though people may say they think aerosol transmission is more important than other modes of transition and, therefore, ventilation is as or more important, we simply do not have the evidence to back that up. We know that the virus is transmitted by some mix of direct contact, short range droplet and aerosol transmission where we are close to each other and literally spraying those droplets at each other, long range aerosol transmission and surfaces. Even though we know surfaces probably do not matter much, we simply do not know the balance between the others. Our public health doctors tell us it is usually close contact.

It is very important that in the public health messaging we get the balance right. Hand and respiratory hygiene, physical distancing and mask wearing and ventilation remain important, but there is no way of knowing which of those is more important so we need to-----

Deputy Colm Burke: On the modelling, does Professor Nolan think the dates for the peak have changed? Does he think that the worst possible scenario is not likely to happen, given the information he outlined on the third level sector? On the number of people aged between 16 and 29 years who have received one vaccine, do we have any idea of the total number who have received both doses?

Professor Philip Nolan: I will answer the question on modelling very briefly. Dr. Glynn might answer the question on vaccination. We model a range of scenarios, in order to be prudent, from what we call conservative or optimistic out to pessimistic. In advising Government recently, we had evidence that we were more likely to track the optimistic scenarios. The basis for that optimism is the very high levels of vaccination and the fact that, if we look at the population in general, even though we are getting back towards normal, people are still being very prudent in terms of their observation of the basic measures, such as handwashing, hygiene and ventilation. On that basis, it is plausible that we are past the peak of infection in this population. The most optimistic scenario shows the peak having happened in the past week of August and first week of September and case numbers starting to decline from there. That seems to be what is happening at present.

Deputy Colm Burke: I have a final question on nursing homes. There have been outbreaks in nursing homes. There is talk about doing further vaccination of residents in nursing homes. Can we include staff in nursing homes in that vaccination programme? There have been outbreaks which have had a detrimental effect.

Dr. Tony Holohan: I might ask Professor Butler to address that question, if that is okay, in the context of the NIAC advice.

Professor Karina Butler: There has not been the evidence to support the need for a third dose of a vaccine in staff who have already been vaccinated. The emphasis in that situation has to be to ensure that all staff are vaccinated and facilitated in whatever way possible to become vaccinated. In studies that have been done, the antibody levels in staff are very different from those in nursing home residents.

The other consideration is that we have to be mindful that the vaccines are a scarce resource and that, in using them, there are three things that we have to be happy about, namely, that a third dose is safe, that it is actually needed and that it will achieve what we set out to do. In terms of healthcare workers, that is a group that we are keeping under consideration because of their particular role. As yet, the evidence has not supported a need for a third dose in that group for those who are already vaccinated.

Deputy Colm Burke: We focused on front-line staff - nurses, care assistants, etc. - in nursing homes. The other cohort are those who deliver services to nursing homes. Have we focused on making sure that they had been vaccinated as well?

Vice Chairman: I thank the Deputy. We are way over time. Can we have a written or quick reply?

Dr. Tony Holohan: We-----

Vice Chairman: We can get a written reply.

Senator Annie Hoey: I hope everyone can hear me.

Vice Chairman: Yes.

Senator Annie Hoey: I have questions on three areas. My first question will circle back to children and the idea of mask mandates. As has been said, there will not be a recommendation around vaccination for children. It was inevitable that there would be an enormous number of children being tested and in and out of school. Dr. Butler said that infection can build immu-

nity. How can we marry those things? I have heard commentary to the effect that if children get Covid, it is not as serious and the evidence would imply that it could, perhaps, boost their immunity. How do we marry the two? We have children who are being sent home and who cannot go to school. The restrictions are quite hefty in school settings. Obviously, school settings have more than just children in them; there are teachers, special needs assistants, clerical staff, janitors and so on. We are being contacted by lots of parents whose children are just not in school. How do we tie those two together? How do we speak to parents about this because there is a great deal of concern out there? I ask Professor Butler to provide a little clarity on that.

Professor Karina Butler: First, I would not want anybody to misinterpret what I was saying. Am I saying that it is a good thing for children to get this infection, akin to the chicken pox parties that people talked about? No, I am definitely not saying that. The onus on us is to protect our children from this infection because while most children, thankfully, have a mild illness and do not suffer consequences, there is the potential for significant illness and for the post-Covid inflammatory syndrome that some children experience. When we talked about it earlier, one of the Deputies referred to the numbers and the fact that, thankfully, there were as few as 30 children in ICUs related to Covid since the beginning of the pandemic and only eight of them were PCR-positive at the time, with acute infection. The others were there related to the inflammatory syndrome. Covid is not something that one wants to expose one's children to. The whole point is to reduce the force of infection in the community and having those people around the children vaccinated and protected so that children do not acquire infection.

Senator Annie Hoey: I thank Professor Butler for that. I wanted to give her an opportunity to expand-----

Professor Karina Butler: I appreciate that because I would not want to be misinterpreted.

Senator Annie Hoey: Yes, I could see how this could grow and get quite wild. I thank Professor Butler for that.

On ventilation in schools, there has been a delay in providing ventilation equipment because of a fault in the units. Is there any concern that this will have a knock-on impact? The article I read suggested that the equipment will all be in by next week. Is there any concern around that ventilation equipment or are we just hoping that everything will work out?

There has been much talk about the ethics around second, third and booster doses of vaccines when many developing countries are still waiting desperately for vaccines. Professor Butler has said that we must make sure that booster shots are safe and actually needed. Has there been any conversation about booster shots for particular vaccine types? I have friends in Iceland, for example, who got the Janssen vaccine initially and who have already been given a booster vaccine. Is there any conversation around the different types of vaccine people received and the booster or is that just too complicated?

Professor Karina Butler: All of the issues the Senator brings up are under consideration. What we know is that the use of heterologous vaccines, that is, using a different vaccine for a second or even third dose, actually produces a good immune response. There is some emerging data to show that if a person is given an RNA vaccine in the beginning and is then given a viral vector vaccine like the Janssen vaccine, that can also produce a good response. It does seem that we are gathering enough data to say that from an immune response point of view, if vaccines are mixed in that way people can get a good immune boost. Then it comes down to working out the best way and that data is coming out now. There should be more data available

within the next week from studies that are going on in the UK, but for now we are happy to use an RNA vaccine to boost those whom we have said will need a booster, irrespective of whether they have had a viral vector or RNA vaccine.

Senator Annie Hoey: Thanks. I have no more questions.

Vice Chairman: Thank you Senator. We will now move on to the next round, starting with Senator Black. If we have time, we will have a third round as well.

Senator Frances Black: Thank you. I hope everyone can hear me. I will start by thanking the witnesses for the phenomenal work they have all been doing for the past year and a half. I can only imagine how difficult it must have been at some points in the course of the pandemic. My first question relates to something Senator Hoey mentioned. In their submission the witnesses reference additional or booster doses of Covid-19 vaccines as a way of protecting people against resistant variants, especially those who are severely immunocompromised. How do we reconcile the need for boosters with the limited global supplies of vaccines? Do the witnesses think that without global co-operation we are prolonging this threat?

Dr. Tony Holohan: Professor Butler might want to comment on this but our role is to provide advice and guidance to the Irish Government, through our Minister, around decisions that get taken in the best interests of the Irish population. Obviously that is the role that we carry out and we take seriously and so on. On the point the Senator is making in terms of the global situation, of course we understand the nature of infectious diseases in a global context. Until we achieve global control of this disease there is still going to be a risk to every part of the globe, and that remains the case, including the emergence of variants. In particular, we are concerned about some of the progress that has not been made in some wealthier countries, where vaccination uptake has not been as good as it has been here. It is a bit like a person half-completing a course of antibiotics, which increases the risk of the emergence of resistance. The issue of a half-vaccinated population presents a particular challenge because it is not going to suppress infection and is going to continue to offer an opportunity to, and perhaps select out, those viral strains that have a competitive advantage in terms of vaccine escape. We are concerned about all of those kinds of issues but our role and responsibility, in the context of all of that, is to give advice and guidance on how we maximise protection of the Irish population.

Senator Frances Black: Are there any plans for NPHET to scale back on our response capacity, including testing, in light of the success the vaccination programme?

Dr. Tony Holohan: In a word, "yes". We think we are not far away from a point whereby all of the criteria we set out in the advice we provided to the Government, which is accepted as the basis upon which we might consider moving to another phase in terms of our management of the pandemic, are met. That was the basis, ultimately, on which we advised Government and the Government then identified a series of dates for easing of certain restrictions. For example, next Monday some of the measures relating to the workplace will kick in and a final date of 22 October has been identified. We think we are not far away from the point of achieving those criteria which, on the one hand will look at our vaccination uptake rate. We have a target of 90% for the over 16s which we are very close to at this point, which is almost unprecedented in comparison to many other countries. We also look at the features of the disease and its behaviour, having the disease doing what we want it to do and we see a lot of encouraging trends at the moment in terms of the downward incidence in some of the age groups. We want to see that continue and will monitor the impact of the return to school and some of the other measures that were eased in the early part of September before we will be in a position to advise in relation to

the criteria moving on. However, we are optimistic that we are close to that point.

At that point, we will change utterly the environment in which we consider testing. Heretofore we were testing every single case and were advising every single individual who had symptoms to contact a GP to arrange a test. We provided walk-in testing facilities and online facilities for people to book tests and so on. We will have to evolve our management of the pandemic because of our success in achieving all of these indicators to one whereby we test to support clinical decision making, that is, to support doctors in clinical situations who need to determine whether a sick patient is sick because of influenza or because of Covid-19 because that could influence the management of that patient and also for monitoring purposes or what we call surveillance. That will be based on our primary care surveillance system, the surveillance of things like waste water and maybe some other forms of surveillance in the third level sector, as mentioned previously, and in those environments where we have particularly sick and vulnerable people. It is a different form of testing and for a very different purpose. Our contact tracing arrangements and the wider parts of our public health management are evolving to reflect a situation where we now have a population which we have to regard as being as protected as it can be through vaccination and the huge effort that has been made to get as many people vaccinated as possible. It is still our hope and expectation that the small remaining numbers of people who remain to be vaccinated will come forward for vaccination. Looking at the entire population, even though we have done as well we have, between 1 million and 1.5 million people are not vaccinated, either because they are children or people who have not come forward for vaccination. There is still time. There is still capacity to deliver vaccines on the part of the HSE. If there are individuals out there or people who have influence over individuals who are not yet vaccinated, getting vaccinated is still the most important thing that an individual can do.

Senator Frances Black: I thank Dr. Holohan. I have one final question. As a committee, we heard from a group of medical experts about the importance of vitamin D. As mentioned by Deputy Shortall, we also met with a group on the issue of ventilation. Are these issues that NPHET might consider highlighting in its public messaging campaign? I am delighted to hear that there will be another public messaging communications campaign. Dr. Holohan has already commented on ventilation, but I would welcome his thoughts on vitamin D and its importance going forward.

Dr. Tony Holohan: I will ask Dr. Glynn to address that question.

Dr. Ronan Glynn: Ventilation will certainly be a key component of the messaging through the autumn and winter. On vitamin D, leaving aside Covid and the different views in regard to Covid and vitamin D, what I can say for certain is that a significant proportion of our adult population in this country are vitamin D deficient. Even if Covid had never come along, we should be encouraging people to get adequate levels of vitamin D, particularly as we move into autumn and winter. That should be a component of our public health messaging more generally, and regardless of Covid, over the coming months.

Senator Frances Black: I thank the witnesses.

Vice Chairman: I will ask the following questions on behalf of Deputy Seán Crowe. Does NPHET believe that now is the right time to wind up self-referral testing centres given that over 21,000 people applied for testing in one day - Monday last - which is the highest one-day number since the pandemic started? I will try to get responses to as many of the Deputies' questions as I can. If there is insufficient time to get answers to all of them today, I ask that the witnesses respond to them in writing to the committee.

Dr. Tony Holohan: As already stated, a significant component of the testing we are seeing at the moment is driven by the very sharp increase in testing of schoolchildren, which we have seen at previous stages in the pandemic. In response to the question, today is not the day but we think we are not far away from the point at which those criteria have been met, whereby we are thinking of changing the regime of testing along the lines I have previously described - in the interests of time, I will not describe it again - and also changing the purpose of it. We are in the happy situation that we have such high levels of vaccination, and of all of the other criteria being satisfied that enable us to have the confidence to say that we change our public health management. That is not the same - it is important to point this out - as promising that this disease, which will be with us, will not continue to cause a challenge for individuals who pick it up and will end up having severe infection and being admitted to hospital and ICU. We will see some mortality. That will be a continuing feature of our management of the disease, as well as outbreaks in some settings, particularly where those settings involved the gathering of large numbers of unvaccinated people. Vaccination still is the message, in spite of the very high levels we have already achieved.

Vice Chairman: Does NPHET believe the increase in people going for testing is connected to schools reopening? What age profile are we seeing being tested and testing positive?

Dr. Tony Holohan: I will ask Professor Nolan to cover that question. It is the 5 to 12 years age group in which principally we have seen a very significant change.

Professor Philip Nolan: Principally, the testing of children under four has trebled, with almost no increase in cases detected. The testing in children aged 5 to 12 has trebled, with, as I said, about a 50% increase in cases detected. That may simply be increased ascertainment. In other words, it is not an increase in incidence, but that more cases are being found because of the high level of testing. We will see that in the next couple of weeks. The demand for testing is declining in almost all other age groups. In those age groups, it is being driven by people developing symptoms and coming forward for testing, whereas in the younger age group, it is being driven by concern about contacts and those asymptomatic contacts coming forward for testing. This phenomenon is usually transient. Not only is there consideration about how policy might change in the coming weeks, but human behaviour will change in the coming weeks as people become less concerned about the impact of schools opening. That is what we saw before.

Vice Chairman: Is NPHET still encouraging people experiencing symptoms to go for testing? When does it expect a shift in testing, as recommended, to medical professionals only?

Dr. Tony Holohan: In a sense, it is the same answer. When we think the criteria are satisfied - as I said, we are not very far away from that point - we will not continue to emphasise the importance of all individuals with symptoms being tested. It will be more about individuals who, on clinical grounds, a doctor believes it is important to understand what the nature of their symptoms is caused by. We expect that to be a far smaller volume of testing for clinical purposes, with the test essentially being ordered by a doctor as opposed to an individual. We are not at the point yet where we think that change can be made, but we think we are close to it.

Vice Chairman: While we are seeing high positive cases among people who are vaccinated, it is important to maintain confidence, especially if a third jab is required. What specific new challenges has the Delta variant presented?

Professor Philip Nolan: There is a very simple answer to that question, which is that if the entire population was vaccinated we would still see some cases and all of those cases would be

in vaccinated people. At very high levels of vaccination, it is not surprising to find that about half of the cases are in vaccinated people. What that tells us is that we are only seeing the tip of an infection iceberg, that for every infection you see in a vaccinated person the vaccines are preventing seven, eight or nine infections in other people. The unfortunate thing about that statistic is what you are not seeing is the infections that have been prevented in the vaccinated people, but you are seeing the modest number of breakthrough infections in the vaccinated people and in a similar number of infections in unvaccinated people. Further, when you look at the numbers admitted to intensive care or, sadly, the numbers dying, they remain quite radically different. The significance of an infection in a highly vaccinated population is different because that infection is significantly less likely to progress to severe disease and very much less likely to result in a death, particularly in the healthier and younger part of the vaccinated population. In no way should that statistic erode confidence in the vaccination programme. We should constantly be reminding ourselves of the huge numbers of infections that vaccination is preventing and the huge numbers of hospitalisations and deaths that vaccination is preventing in those people who are vaccinated.

Vice Chairman: There are two remaining questions to be asked on behalf of Deputy Seán Crowe. We had difficulties securing enough flu vaccines last year. What steps are being taken to avoid that happening again this year? In NPHET's view, how do the daily case numbers stack up against the modelling?

Dr. Tony Holohan: On the second question, I will ask Professor Nolan to comment. On the first question, the HSE is in the process of putting in place arrangements to commence the flu campaign. The HSE will be in a position to provide a direct answer on that question around procurement.

Professor Philip Nolan: As mentioned in previous evidence, from our June models optimistic to central scenarios projected between 80,000 and 120,000 cases. We have had 100,000 cases so we are just slightly worse than optimistic against the June models. In regard to the late August models, essentially, we are tracking slightly better than the optimistic scenario.

Vice Chairman: The following questions are from Senator Seán Kyne. First, what phase of Covid is the CMO keeping an eye on or monitoring on a worldwide basis with regard to its impact on the population? The second question is for Professor Butler. What programme of vaccination is planned against the winter flu and is it likely to be an issue worldwide this year?

Dr. Tony Holohan: On the first question, we monitor every aspect that we think is relevant and will continue to do so over the course of the winter. There are one or two slides that show how we compare to both the neighbouring regions of the UK and the rest of Europe in terms of our current incidence. That might be able to illustrate where we stand in relative terms. I know time will not allow us to go through the slide deck fully but we can make it available to members of the committee. With some of the slides it is a case of a picture being worth a thousand words. It is much easier to show and demonstrate how we are doing and what we are keeping a track of as compared with other countries by showing the committee some of those graphs, if we have time for that.

Vice Chairman: Is it possible to get further copies of some of those graphs or transmit them to members for that purpose?

Dr. Tony Holohan: We can share them now if you wish.

Professor Karina Butler: I can answer the question about the seasonal influenza campaign while the slides are being put up. That has been scheduled to roll out with the recommendations for the usual groups to be vaccinated. The modifications this year are that the Covid-19 vaccine can be given at the same visit as the seasonal flu vaccine, or separated from it by any interval, and the only other modification to the programme is that an adjuvanted influenza vaccine is being recommended for those 65 years and older because it is shown to have increased protective effect in those age groups. The seasonal flu vaccine plan is to start and the good thing is that hopefully combining the vaccines - not combining them together but administering them on the same day - might optimise the roll-out of the vaccines together, for example, in nursing home facilities with the booster shots.

Vice Chairman: I have a couple of questions also. From the witnesses' observations, how is the population's natural immunity building up and resisting the virus? Is it in accordance with expectations or is it short of that?

Dr. Tony Holohan: I will again defer to Professor Butler's expertise as an infectious disease expert on that question.

Professor Karina Butler: The answer to that is in the decline in numbers of hospitalisations and in severe illness and death. That is the far end of the wedge but it shows that the vaccine programme is working and that people are developing protection against severe illness and death, which was the target of the vaccination programme. Public Health England did antibody testing throughout the population and data just released within the last week show that about 90% of the population there have some level of antibodies, either from natural infection or from vaccination. With our very high vaccination rates we can assume that, at least in our adult population, we are reaching levels of immunity and protection against severe illness and death as was hoped for.

Vice Chairman: My second question relates to front-line workers. Unfortunately, many front-line workers paid the ultimate price for being on the front line and we extend our sympathies to them and their families. A number of front-line workers have also reacted to the vaccines. All vaccines have a potential for reaction, some greater or lesser than others. How do we deal with a situation whereby a front-line worker has had one dose of the vaccine and is warned not to have another by medical practitioners and experts? How is that being dealt with? What do such people do? Do they continue on or do they exit from the front line? What is the advice? Can we be sure that they are not in any way penalised for being in that category of people who react to the vaccine?

Professor Karina Butler: One of the good things about this programme is that we have more than one type of vaccine. Fortunately, reactions seem to be type-specific. For example, people will be familiar with the RNA vaccines and the allergic reactions to them. If they have had reactions to such vaccines, they can have a different type of vaccine. Similarly, with the AstraZeneca vaccine, if someone has had an adverse outcome related to that then it is possible to get an RNA vaccine to complete the vaccination. There is a much larger group who have thought they have had an allergic reaction and while we have not been directly involved with this issue, I am certainly familiar with it. The HSE has done an amazing job. It set up special clinics for those who thought they had an allergic reaction with supervision, if it was still deemed appropriate for them to get that reaction, to enable them to become vaccinated. A lot of work had been done by the allergy group, together with NIAC and others, to get good information for those who think they might be allergic to vaccines and to overcome it. A number of steps have been taken. There are always some people who will not respond to vaccines and for

those people, the onus is on us to continue to drive the force of infection down in the community and to continue our public health measures to protect them.

Vice Chairman: We are coming into the last ten minutes or so and we still have a few speakers. We will be short of time but we will try to accommodate everyone. I call Deputy Cathal Crowe.

Deputy Cathal Crowe: I thank NPHET for coming before the committee this morning. I also thank the witnesses for all the work both NPHET and NIAC have done over the past 18 months and continue to do. We are in a pretty good place relative to where we were at the start of this year and in springtime. I have a number of questions. My first question, for Professor Butler, is about vaccines that are outside the big three that the EMA has approved, such as the likes of Sinopharm, which a lot of people who lived in Asia and the Middle East have been vaccinated with. Is there any word coming from the European Medicines Agency, or from NIAC here in Ireland, on accepting the bona fides of Sinopharm and determining that those who have been vaccinated in Dubai, Qatar and other places, who have now come back to Ireland, are vaccinated and that that vaccine is deemed to be safe, with the same bona fides as Pfizer, Janssen etc., and would qualify for digital Covid certification?

Professor Karina Butler: We will be guided by both the Health Products Regulatory Authority, HPRA, and the EMA review in terms of the vaccines that are considered appropriate within the area. At the moment, the vaccines that are recognised as regards ensuring that someone is fully vaccinated are those that are licensed by the EMA, the Food and Drug Administration, FDA, in the US and the UK's Medicines and Healthcare products Regulatory Agency, MHRA. That is where we will get our guidance. There are other vaccines under rolling review in the EMA including, for example, the Sputnik vaccine and we will be guided and take advice from there.

Deputy Cathal Crowe: I have two questions I wish to put to Dr. Glynn. The first relates to school buses. NPHET advice and Government policy is that school buses can carry 50% capacity. Yet, all forms of public transport are now gone back up to 100% capacity. I travelled to the Dáil this morning on Irish Rail and there were a lot of people travelling on the train. That is good to see but it is hugely frustrating and largely inoperable in rural areas to have only half capacity on school buses. I wonder where that thinking came from and when NPHET would expect to review it.

Dr. Ronan Glynn: We would not have given specific advice in regard to the return to full capacity on public transport, and that was a Government decision. Obviously, all of these things remain under ongoing review and, clearly, again, as part of our ongoing look at data specifically around the return to education over this number of weeks, we are considering all of these issues. Again, as per the CMO's comments earlier, we would hope to see a transition across a range of measures, albeit ensuring that the basic preventative measures remain in place through the autumn and winter.

Deputy Cathal Crowe: I take it this can work quite well in Dublin, where a teenager can hop on their local Dublin Bus service and make their way to school and home again in the afternoon. It is quite different in a rural county like Clare, however, where the local school bus might be bringing children on a 10 km or 12 km journey each day. Many of them are in the same bubble when they go to the school environment, so it is proving inoperable. I hope that it will remain under urgent review because we have had two chaotic weeks of the school year so far.

My final question to Dr. Glynn relates to international travel. We have had a pretty good six or seven weeks of international travel, I would say, and I say that as someone who is watching this through the aviation lens and the international travel lens. From a public health point of view, has it been as successful as I consider it to be, or can more be done?

Has NPHET spoken with any of its counterparts? I know it often speaks with colleagues across Europe but has it spoken with people in North America? It concerns me that there are still very significant restrictions in terms of Irish people travelling to the United States. I wonder has NPHET any dialogue open with counterparts in the United States in that regard.

Dr. Tony Holohan: I will come in on that point. We have not had a specific discussion on that. I take it the Deputy is implying the idea that we would advocate that Irish people would be exempted from the restrictions that the United States has in place in terms of its own travel arrangements. No, we have not done that. What we continue to do is to co-operate in line with all of the European agreements in regard to travel. In broad terms, travel has gone well in this country. When I say that, I am talking about the provisions that were put in place specifically to try to mitigate and manage down, as much as we reasonably could, the level of importation of the virus. We had mandatory hotel quarantine arrangements in place and, as the Deputy is aware, we provide ongoing advice to the Minister based on an ongoing assessment. That now relies on the European Centre for Disease Prevention and Control assessment around threats coming from other European countries, as well as what we call annex one countries, or countries that we regard as having low enough incidence for us to consider them as being equivalent, or we could look at it in those terms, in order to make those assessments as to which of those countries should be the subject of mandatory hotel quarantine or any other provisions in regard to international travel. We think our reliance on that as a measure will decrease over time, which should be good news because, in broad terms, much of the world is now experiencing the same. Whatever about the level of incidence, that incidence is being driven by the same variant that we are currently dealing with, and that has had an effect in terms of the nature and the relative import of different regimes in different countries at a different point.

We are always going to have to be mindful, as we travel individually, of what we can then do to both assess the risks that we subject ourselves to or are going to be exposed to, and how we can best then try to prevent those. The airlines have done a great job in terms of trying to ensure that the process of travel - in other words, transmission while people are travelling - is minimised as much as possible and then, beyond that, it is for the individual to make the assessments in terms of social, business or other engagements they have, in the same way they should do if they were at home.

In broad terms, Europe is experiencing a significant challenge in terms of the level of infection that it is experiencing. We experienced it in western Europe maybe ahead of other parts of the rest of Europe but we think that, heretofore, those arrangements that we had in place to try to minimise the importation of the disease had an important role to play and will continue to heighten and maintain high levels of understanding on the part of the public around the risks that arise to them as they travel internationally in regard to this disease.

Deputy Cathal Crowe: I thank Dr. Holohan. I apologise but I was directing all of the questions to Dr. Glynn because, due to the way Microsoft Teams works, I could not see Dr. Holohan on screen and I thought he had stepped out. I can now see the three witnesses on my screen. I again thank them for updating us on what is going on.

Vice Chairman: The Deputy is out of time. I call Senator Conway, who will be followed

by Deputy Lahart.

Senator Martin Conway: I thank the Vice Chairman for facilitating me. I am concerned about the high levels of disease in Northern Ireland. Has NPHET been monitoring the situation in Northern Ireland from the perspective of the Border counties and has it particular concerns about our Border counties? Does Dr. Holohan envisage there is a greater threat of regional lockdown in the Border counties because of the high levels of infection in Northern Ireland?

Dr. Tony Holohan: I would say "No" to the last question in regard to regional lockdowns. On its own merits, that is not in our planning at this point in time. In a more general sense, obviously, we share the concerns that the Northern Ireland authorities themselves have about the very high levels of infection. As things stand, and members will see this in some of the graphs we have circulated, we have incidence in the last seven days in Northern Ireland of 535 per 100,000 as compared to 190 here, so it is heading for threefold the level of infections we have had here, and they have been persistently higher than us, going right back to the middle of June. The experience we have had in Ireland of this so-called fourth wave is a much lower level of incidence right the way through than in every other part of the three countries that make up Great Britain and Northern Ireland, but particularly Northern Ireland, and they continue to experience the high impact of that in terms of hospitalisations.

We have a regular arrangement where my colleague, Michael McBride, and his team and I now sit down every fortnight to review the disease and to look in particular at some of these Border issues. There is no doubt that, at least in part, the persistent high incidence we have seen in the counties of Monaghan, Donegal in particular, Cavan and, from time to time, some of the other Border counties like Louth, particularly over the last two to three months, is much closer to the incidence that Northern Ireland is experiencing than the experience of the rest of the Republic of Ireland. That has been a particular challenge for people who live in those Border counties.

That is not to say that all of that can be explained by the infection, if I can put it in these terms, spilling over the Border. There is a lot of mobility between certain parts of some of those counties and Northern Ireland. It may also be the case that similar social circumstances that lead to spread and transmission in Northern Ireland apply in some of those counties as well, so it will be a mix of those kinds of reasons. There is no question but that the Border counties of Donegal, Monaghan and Cavan have experienced a very significant challenge, with high levels of infection that reflects much more what has been happening in Northern Ireland than what has been happening in the rest of the Republic, where our disease experience has been much better than any part of the UK.

Senator Martin Conway: I thank Dr. Holohan.

Vice Chairman: Thank you. I call Deputy John Lahart to ask his question.

Deputy John Lahart: It is not a question but a comment, so the witnesses will be delighted to hear they can relax after their long session. We are very grateful. The first Covid case in Ireland arrived on 29 February last year, and it seems like eons ago. It was a very significant turning point. I feel a little emotional thinking about it and I cannot imagine how Dr. Holohan and his team felt. It seems now that, without being complacent or taking anything remotely for granted, but in a guarded way, that we are in a phase of emergence and are coming out of the emergency. While I do not want to be so bold as to speak for the committee, I know I do speak for the committee and for many Irish people. We discovered in that time that through NPHET,

NIAC, the HSE and the other statutory agencies, volunteers, the Defence Forces, gardaí, nurses, teachers, retail staff, emergency staff and all of those associated with every phase of this, and who continue to be associated with every phase of this, that Ireland had a resilient, independent and, most importantly, scientifically grounded team that stood its ground when it needed to stand its ground, and yielded when the evidence suggested that yielding was appropriate. I want to thank Dr. Holohan personally and all of those who work for him on behalf of the constituents I represent, and particularly those who endured seen and no doubt unseen sacrifices during that time, for the amount of hours that they invested in this whole endeavour on behalf of the State, as they continue to do and will continue to do. I thank them for their fortitude, their resilience, their consistency and their dedication to the task. Irish people will know that if, God forbid, we entered an emergency phase again, we have exactly the right personnel to guide us through; that there is no need to fear and that we know so much. The country owes the witnesses an incalculable debt, for which we are grateful. We have never met them personally and I look forward to that opportunity, perhaps in a social context which is now allowed, to express our thanks on a one-to-one basis. It has always been on a screen. I thank the witnesses, on behalf of the people I represent. Our debt to them is incalculable. I ask them to keep up their good work. I hope they get a chance to recharge their batteries from time to time. I imagine they and their teams are exhausted, but they carry the best wishes of all Irish people.

Vice Chairman: As Chair today and on behalf of the Chairman, I fully and strongly endorse the remarks of Deputy Lahart. The role the witnesses had to play was very often a lonely path to which they stuck despite criticisms and adverse "expert" opinion, of which there was much. As Deputy Lahart said, the witnesses continued to stick to their ground in the public interest and the interest of the health of the nation. They did extremely well. That was a lonely road at times. I was part of the Covid committee. We met with many of the witnesses during that period and we listened to the comments. We also have to recognise the people who were supportive, helped the witnesses and stood by them in difficult times. We also have to remember the frontline people who lost their lives and those who continue to risk their lives and well-being in the course of their work. There were many of them. We have gone over the number of casualties in the country of whom there are more than 5,000 already. There were those who were cynical in the beginning and said this was only a flu and would pass over. Well, that was not true. Of course. To each and all of the witnesses, both here and outside, we have to thank them for their sacrifices and dedication. As Deputy Lahart said, we hope they have an opportunity to take time out and recover from it.

That concludes the business for this morning. The meeting now stands adjourned until Wednesday, 22 September, at 9.30 a.m.

The joint committee adjourned at 11.33 a.m. until 9.30 a.m. on Wednesday, 22 September 2021.