DÁIL ÉIREANN

COISTE SPEISIALTA UM FHREAGRA AR COVID-19

SPECIAL COMMITTEE ON COVID-19 RESPONSE

Déardaoin, 11 Meitheamh 2020

Thursday, 11 June 2020

Tháinig an Coiste le chéile ag 9.30 a.m.

The Committee met at 9.30 a.m.

Comhaltaí a bhí i láthair / Members present:

Teachtaí Dála / Deputies	
Mick Barry,*	
Colm Brophy,	
Colm Burke,	
Mary Butler,	
Jennifer Carroll MacNeill,	
Matt Carthy,	
Michael Collins,	
Stephen Donnelly,	
John McGuinness,	
Fergus O'Dowd,	
Darren O'Rourke,*	
Matt Shanahan,	
Róisín Shortall,	
Duncan Smith.	

* In éagmais / In the absence of Deputies Bríd Smith and Pearse Doherty.

Teachta / Deputy Michael McNamara sa Chathaoir / in the Chair.

World Health Organization: Public Health Advice

Chairman: We are joined this morning by Dr. David Nabarro, World Health Organization Covid-19 special envoy, by video link from Geneva.

I advise the witness that by virtue of section 17(2)(*l*) of the Defamation Act 2009, witnesses are protected by absolute privilege in respect of their evidence to this committee. If they are directed by the committee to cease giving evidence in relation to a particular matter and continue to do so, they are entitled thereafter only to a qualified privilege in respect of their evidence. They are directed that only evidence connected with the subject matter of these proceedings is to be given and they are asked to respect the parliamentary practice to the effect that, where possible, they should not criticise or make charges against any person or entity by name or in such a way as to make him, her or it identifiable.

Members are reminded of the provisions in Standing Order 186 that the committee should refrain from inquiring into the merits of a policy or policies of the Government or a Minister of the Government or the merits of the objectives of such policies. We expect witnesses to answer questions asked by the committee clearly and with candour. Nevertheless, witnesses should expect to be treated fairly and with respect and consideration at all times. If they have an issue in that regard or feel that they are not being treated fairly, I ask them to bring that to the attention of the committee immediately.

Dr. Nabarro will make some short introductory remarks and I will then ask Members to raise their issues with him. I ask Dr. Nabarro to limit his introductory remarks to five minutes if possible, to allow sufficient time for questions as we have 90 minutes rather than the usual two hours.

Dr. David Nabarro: I am delighted to join the committee today. I have followed closely what has been happening in Ireland with regard to Covid-19. To have this moment of interaction with legislators to discuss the response to this issue is a total privilege.

The situation regarding the virus internationally is disturbing. The number of cases being reported continues to increase in an exponential way. We know that these case numbers are an underestimate because testing is not widely available in poor countries. I am saying to people that, by and large, the Covid-19 pandemic is actually in its early stages. I believe we are going to continue to see this virus as a threat to all of humanity for the foreseeable future. I also say that more and more we are seeing this as a disease that has particularly bad implications for poor people in poor countries. I am watching very carefully what is happening in south Asia. Covid outbreaks within dense, urban communities, for example in Mumbai, Ahmedabad, Delhi, Kolkata and Chennai in India, and in Pakistan, Bangladesh and other countries in the region, seem to be particularly intense and hard to control despite strenuous efforts by the governments in applying lockdown. We had hoped the virus would not cause such severe difficulties in Africa but the trouble is that we do not fully know because data on the numbers of cases, sickness and fatalities are a bit patchy. Despite really strenuous efforts by the Government in South Africa the disease is taking root in Western Cape and will probably move to other urban areas. It is also a challenge in Nigeria, Algeria, Mali, Egypt and more. Within the Middle East it is challenging particularly in foreign worker dormitories and other places where poor people are gathered together and kept in conditions that are very intense, with limited opportunity for ventilation and in very tightly packed living quarters. It is the same in the slums and favelas of Latin America. In summary, this is a global challenge and it is advancing. The difficulties

that poor countries are facing in getting on top of it are very much a reflection of their weaker health systems. In western Europe, the United States of America and Canada, the two parts of the world with a particular responsibility, we are seeing welcome signs that nations are getting on top of Covid-19 and are beginning to work out how to move forward living with the virus as a continuous threat. There are still areas of particular concern such as in residential care for older people and the situations in prisons.

It seems that in certain kinds of industrial processes, particularly the processing of meat and fish, the conditions for transfer of the virus are particularly serious. In dealing with what is a global issue and at the same time focusing on the particular challenges faced by Ireland and western Europe, it is my view that we have seen a shift from a situation where we were dealing collectively with an acute outbreak to a situation where the virus is now a constant presence and threat with which we will all have to learn to live. We are doing so. Ireland has done really well in that regard. I look forward to focusing with the committee on the issues now and moving forward.

Deputy Mary Butler: I thank Dr. Nabarro for taking the time to address the committee. It is very much appreciated. As of last night, 1,695 people had lost their lives in Ireland as a result of the Covid pandemic. Some 62% of deaths here to date have occurred in nursing home and residential care settings. Is that a high percentage compared with other countries?

Dr. David Nabarro: Internationally, the figure for fatalities in residential care for older people is approximately 25%. To break it down country by country, in Switzerland that figure is 53%, in Sweden it is 49% and in Scotland it is 46%. Ireland is certainly at the upper end of the spectrum in that regard. I do not have the figure for Spain in front of me. The figure in Ireland is quite high but it is not unexpected. If the Deputy so wishes, I will comment on my understanding of how Ireland has addressed this issue.

Deputy Mary Butler: How often should we test in nursing homes as we prepare for a possible resurgence of the virus? It has borne down hardest on our older generation, with 92% of all deaths among those aged over 65. Should we have continuous testing in nursing home settings?

Dr. David Nabarro: Protecting people in residential care, particularly older people, is proving to be a significant challenge for the reasons set out by the Deputy. They are at particular risk. It is often difficult to maintain physical distancing and other requirements in the conditions under which they are being cared for. They need care that is up close and very personal. It is a significant challenge for the staff working in these places. It is my view and that of the World Health Organization, WHO, that a key part of this is to ensure the staff know their status with regard to Covid. That means virus testing quite frequently, perhaps at weekly intervals or even more often if there is a concern. At the same time, we must recognise that staff working in residential care are often not the best paid of people and that this area was not necessarily front and centre of Government policy. I hope that those responsible for providing care in the public or private sector are looking at a package of measures including not just testing, but also the physical conditions inside the home and the way in which dialogue takes place between staff and management such that if staff are feeling unwell and suspect they may have Covid, there is no penalisation for taking time off. That necessitates a significant amount of trust between managers and staff, as well as regular dialogue. Taking a comprehensive approach, to include frequent testing and paying real attention to what is happening inside these facilities, will help to reduce the risk and maintain the health of the residents.

Deputy Mary Butler: Can Covid-19 be passed from a mother to her newborn child through breastfeeding? Concerns in that regard have been raised with me, in particular in respect of whether a new mother who is asymptomatic should continue breastfeeding her baby.

Dr. David Nabarro: There will be many answers to several of the questions to which I will have to say either I do not know or, quite often also, we do not know, referring to the broader public health community that is based in WHO and through its networks. I personally do not know just how often Covid could be transmitted in breastmilk. I have seen reports that suggest it is possible. I want to really make the following point, which is emphasised very strongly by the World Health Organization, that we must do all we can to promote breastfeeding of infants when they are born. We must not use the fear of the possibility of somebody not knowing whether they have Covid as an excuse to perhaps encourage early cessation of breastfeeding or the non-starting of breastfeeding. I really want to encourage continued breastfeeding wherever possible. There is still a lack of understanding on just how important transmission through breastmilk is for this particular virus. If I have more information I will come back to the committee. My colleague here, who is helping me, has also said to me that there is still real uncertainty about how much Covid might get into breastmilk. It is a big research question. l request that there is a good attention to breast hygiene in the normal way just in case there is a possibility of transmission as a result of having contact with the virus on the breast.

Chairman: I call the next speaker, Deputy Matt Carthy, from Sinn Féin. He has a reduced time of eight minutes.

Deputy Matt Carthy: I thank Dr. Nabarro for his contribution here this morning and for joining us. Reference was made to nursing homes and Dr. Nabarro mentioned the fact that quite a number of states have a high percentage of fatalities that occurred within nursing homes and the figures ranged from the early 20% to the situation in Ireland. Has he ascertained anything specific that those states with a lower incidence or recurrence of Covid-19 within nursing homes have done that perhaps other counties should emulate, and perhaps things that they should not emulate?

Dr. David Nabarro: I will start by commenting on the numbers. Some countries were really not very comprehensive in their counting of the deaths in residential care or nursing homes, to use the Deputy's term. For example, they only counted deaths if the patient had actually been transferred from the nursing home to a hospital and then were tested in the hospital. Other countries were very careful saying they would count a death in a nursing home of somebody who tests positive for Covid if they can conclude that actually the Covid contributed to the death. Other countries have said they will count all deaths in nursing homes where there is Covid found even if they are not sure whether the Covid contributed to the death. That is what I call a wide circle of inclusion. Ireland has probably got the widest circle of inclusion of all the countries that I have studied, which may be one of the reasons there is a relatively high rate of deaths in nursing homes associated with Covid in Ireland compared with some other countries.

As far as I can tell from the analysis that I have done, Ireland moved pretty quickly on a number of issues particularly trying to get personal protective equipment, PPE, in its various forms, to the staff in nursing homes and restricting visitation in nursing homes, recognising that visitors were a primary way of bringing in the virus. Ireland, possibly, might have been one of the faster countries to introduce this. At the moment I am not thinking that there is something that Ireland has not done. I just think that one, we have got a very honest counting of numbers and two, as with every country, this has been quite a struggle but it seems that Ireland did pretty well.

Deputy Matt Carthy: Dr. Nabarro mentioned the situation regarding some workplace settings and referenced meat and fish packing plants and plants of that nature. Is there any advice that he would give to governments with regard to meat factories or plants that would help address the issues that seem to come from such settings? I ask as there is evidence that suggests clusters within the communities located close to the factories have also shown a high prevalence.

Dr. David Nabarro: I thank the Deputy. If we look at meat plants throughout the world, particularly industrialised meat plants where there is an abattoir at one end and the packs ready for the supermarket come out the other end, there do seem to be features of these settings that make Covid transmission particularly likely. The people who work there are often poor and may not necessarily have good access to healthcare. In Ireland this is less of a problem but in other countries it really is a big issue. Inside the plants people are quite densely together, the ambient temperature is low, it is noisy and they have to shout at each other to be heard and they have to get close. For some time, there were delays in getting necessary protective equipment to them. Where they change out of their work clothes into their home clothes may be a very condensed area and there may be close contact. Often they live in quite packed accommodation, especially if they are migrant workers, and they may share transport to and from work. I suggest that anybody working in meat and fish production look very carefully at all aspects of the production system from an infection control point of view and try to make sure that every action possible is taken. If this means there will have to be an increase in the price of meat then so be it because most consumers will understand if they have to pay a bit more for their joint of meat if it means that workers are kept healthy.

Deputy Matt Carthy: There is an ongoing debate in this country and I do not know whether Dr. Nabarro is aware of it. To contextualise it, in essence our strategy is to suppress the virus and some have argued that because we are part of an island nation it is possible for countries such as ours, New Zealand, Greece and other island nations to eliminate the virus. Does Dr. Nabarro think a strategy of suppressing the virus, as we are currently employing, is sufficient? Does he think the approach leaves vulnerabilities and would these be addressed by a more comprehensive elimination strategy?

Dr. David Nabarro: I did to see a report in *The Irish Times* yesterday explaining what this was about and I note there is a letter that has been signed by 1,000 scientists. I want to be fairly precise on this one. Yes, ideally nations will try to completely suppress the virus but the reality is there is a lot of virus in the world and nations have to be able to connect with others for business as well as for tourism as well as for family connections. It is just not going to be possible to completely insulate Ireland, even if we look at the whole island of Ireland, South and North, without really putting huge constraints on the movement of people and, therefore, on the economy. My point of view is that a responsible way to go about this is to do everything possible to get as low a level of infection as is achievable, in particular by making sure that throughout the country at local level there is the capacity to detect people very quickly if they have Covid and then to isolate them, find their contacts and isolate them, and, particularly if an outbreak does build up and there is a cluster, to bring in people and in a sympathetic and dignified way suppress that cluster and make sure infection control is put in place. This will be the pattern of every country in future. To go for complete eradication is certainly desirable but it is really also possibly not feasible in the current circumstances, especially as the island of Ireland consists of one whole nation and part of another nation. There are all sorts of factors that will restrict the degree to which we can create a hard border-----

Deputy Matt Carthy: I have one more question in my limited time, if I may. We are coming out of lockdown and easing restrictions, as Dr. Nabarro will have noticed. There are fears, particularly with regard to whether, if there were ever a need to reignite the control or lockdown measures, the same level of public support or buy-in to this type of scenario would be there. What are the particular warning signs that Dr. Nabarro believes we should be looking out for with regard to evaluating the success of the easing of restrictions?

Dr. David Nabarro: I know I have to be brief. I would find it really surprising if Ireland has to go into a complete national lockdown again. There might be local areas where, perhaps, clusters emerge and where movement restrictions will have to be imposed for a short period. The pattern of the future will be picking up outbreaks fast and dealing with them very quickly because of a high level of local organisation. I personally believe that total lockdown is highly unlikely.

Deputy Colm Burke: I thank Dr. Nabarro for his presentation. I want to ask him a question about hospitals in light of his experience and of how they will operate going forward. Many of the normal procedures that are carried out in hospitals are resuming. Should every person who is admitted to hospital be tested for Covid-19 and, in particular, should every person be tested for Covid-19 within the hospital setting before he or she goes for a medical procedure or operation?

Dr. David Nabarro: A decision on something like this has to be made by the national Government. What I will do is tell the Deputy what I would be thinking about if I was in this situation. The reality is that we are still uncertain as to how many people with Covid are without symptoms. We are also seeing people who are able to transmit the virus before they have those symptoms. My approach, particularly in healthcare settings, would be quite liberal with regard to testing for staff and patients - whether they are inpatients or outpatients - because I would not wish for there to be an opportunity for the disease to start spreading in hospitals. I also want to do everything possible to encourage the creation of facilities that can deal with non-Covid care. It is important to make sure that Covid does not get into those if possible.

Deputy Colm Burke: Approximately 31% of those who have been infected with Covid-19 in Ireland are healthcare personnel. Where do we stand in comparison with other countries on that? Has any other country identified why the rate of infection among healthcare personnel is higher or lower? Is there something we are not doing here or are we not working hard enough with staff on that issue?

Dr. David Nabarro: Quite a high number of the people reported to have Covid are involved in providing healthcare and so this area needs continued investigation. We are seeing that there are multiple reasons that healthcare professionals get exposed and become ill. These are not always to do with the fact that they are picking it up where they work; they may actually be picking it up in the community. Let us look at the healthcare situation. Obviously, protective equipment has got to be available. My understanding is that Ireland, like many other countries, had difficulty at the beginning with ensuring adequate supplies. According to my information, these have been dealt with pretty comprehensively and in a satisfactory way.

The second point is that we must also try to make certain that within the hospital facility, every action possible can be taken to reduce the risk, due to the physical layout of the place, of Covid spreading. In countries where hospital buildings are quite old, have been purpose built and are not ideal for dealing with infection control, this can be a challenge. I have seen, from many countries around the world, that it just gets tough. My last point is that I understand the

Government is looking extremely hard at ways to try to reduce, to as low a point as possible, the risk to healthcare professionals and I commend it for that.

Deputy Colm Burke: There is a report out in the UK this morning which shows that 78% of those who contracted Covid and 62% of deaths in UK hospitals relate to people who were overweight and obese. Is that replicated in other countries or is it something that pertains to the UK only? What percentage of deaths in the UK relate to people who had underlying conditions?

Dr. David Nabarro: I do not have the absolute figures on that immediately, but we will be getting them. I want to say the following: most deaths, as we have just discussed, are in older people. Often, there are also deaths involving people who have got diabetes or hypertension. If you are male, you have got a higher risk. If you are obese, the risk seems to be much higher. If we bring it all together, an old person who has diabetes, who is obese and who is a man, has a super-high risk. This is a global phenomenon; it is not just restricted to Ireland.

Deputy Duncan Smith: I have three questions. If Dr. Nabarro could answer them in the time available, I would appreciate it. Is there any emerging analysis to say there could be a seasonal element to Covid-19 and that we could see strong re-emergence of it in the winter? Dr. Nabarro seems to be a strong advocate for the use of face coverings being necessary on public transport and in shops. Can he point to any examples of countries that he would describe as being the best in class for their face coverings policies? Where are we in the context of a vaccine and the timelines relating thereto?

Dr. David Nabarro: I think there will be seasonality with this because I am absolutely certain that people will get more sick in colder weather, but we want to be clear that this is not like flu. It looks as though the virus is stable and capable of being transmitted in hot weather as well as in cold weather, and it is a threat, therefore, in the warm seasons. It is a coronavirus and not flu. Part of the issue has been to help people to start thinking in terms of a different kind of mindset compared with a flu pandemic. "Continuous threat" is the language I keep using.

Face coverings really are necessary because people may well be able to transmit the virus before they develop symptoms of the disease. They may not know they are sick and, therefore, they may not know to self-isolate. The use of face coverings is important in situations where individuals are likely to be exposed to a lot of illness. This is drivers on public transport, cleaners in situations where, for example, they are dealing deal with communal facilities such as toilets, security guards, and till workers in supermarkets. In all these situations, the folk there are exposed to a lot so they should be dealing with people using face protection just in case the individual they are dealing with has actually got the virus. Spain seems to be developing a good policy on this, and I am impressed that there has been quite a high uptake. Of course, all the countries in east Asia are familiar with this after SARS in 2003. There are going to be questions about the extent to which you can rely on voluntary compliance or whether you need to make it mandatory. The Deputy did not ask me about that, but I think we need to try to push from saying people should do to people really must do, not just for their own sake but for the sake of the people who look after them. More and more I am getting worried about those who provide services being exposed to the virus by those who do not quite realise how risky they are.

I want to be absolutely certain that any vaccines available for Covid are fully tested through the full regime of the different clinical trials that are necessary for vaccines to make sure they are 100% safe. Of course, if there are individuals with side effects, it will be up to governments to decide what degree of side effects they are prepared to tolerate. We have got quite a widespread anti-vaccine movement going on in the world at the moment which means that measles,

a disease for which we have a really good vaccine, is suddenly returning as a public health threat. So the safety part is super-important. Second, it is going to be necessary to demonstrate to the public that the vaccines really work. There are concerns that coronavirus will be difficult to develop an effective vaccine against. I am saying 18 months - going through all the clinical trials and get through the necessary approval stage - and possibly a year or even two years before everybody in the world can be vaccinated. I want to ensure everyone gets a vaccine, not only those in countries that are able to pay for it. Therefore, it may be between two and a half years to three years or even three and a half years before everyone who needs it has access to an effective vaccine.

Deputy Róisín Shortall: I have three questions. For the first I would like to go back to the issue of face coverings. It has been suggested here that cloth face coverings are not especially effective. "They aren't fantastic" is the way they have been described. What is Dr. Nabarro's advice on the quality of mask that is required? What is the optimum quality, bearing in mind limitations on the availability of hospital-quality masks and other issues? What is Dr. Nabarro's view on cloth masks and home-made masks?

My second question relates to social distancing. There is considerable pressure in this country at the moment from the business community to reduce the distance from 2 m to 1 m. If we were to move to a situation of 1 m, are there other issues that would be required to be put in place? Specifically, would we need to ensure the wearing of masks was mandatory to go down to a 1 m distance?

My third question relates to New Zealand. I think we all look at New Zealand enviously. Dr. Nabarro has already addressed this to some extent. If we were to be stricter about the transmission of the virus from people coming into the country, for whatever reason, what is best practice in terms of isolation, quarantining and testing at ports and airports?

Dr. David Nabarro: As I answer questions I have the WHO guidance in the back of my mind, but I am always trying to interpret it, hopefully, within the context of Ireland as a country. That means I have to make assumptions. I have to be brief as well, so please forgive me if at times I appear not quite to tune in with the underlying purpose of the questions.

Right at the centre - I think Deputy Shortall got this in the way she asked the question - I want to emphasise that it is not the case that one single measure will keep the people of Ireland safe. It is about having a comprehensive strategy that seeks to reduce the risk of transmission while at the same time ensuring that if outbreaks do build up, they are nipped in the bud really fast. Moreover, we must ensure special protection for the communities seen to be at particular risk. Now, face protections are a part of that comprehensive strategy. There are two sides to it. One is protecting people from being infected, like healthcare workers or people in other highly exposed situations. Sophisticated filtration masks, such as the N95 or FFP masks, stick over the mouth and the wearer looks like he has a funny beak on his face. They are very useful but they should be preserved. That is why there has been a move to advocate the use of cloth masks, including perhaps homemade cloth masks for people who want to try to be responsible citizens and protect others. The WHO has come out with guidance suggesting a three-layered mask that is quite complicated. Others are saying that all we need is multiple layers of ordinary cotton, but perhaps five or six layers rather than one or two layers. Others again are saying that it does not really matter once people have enough protection so that they are reducing the risk. My view is somewhere in the middle. I think there is a role for multiple layers. I do not think they need to be made of special cloth. What is really important is not so much how the mask is made but how it is worn, ensuring there are no gaps and absolutely ensuring that wearers do

not believe a mask is working if it is worn under the nose - that is really unhelpful. Right at the centre of this is the point that people must not imagine that simply because they are wearing a mask they are at low risk or they are protecting other people. Masks must be part of a comprehensive strategy that includes physical distancing.

With physical distancing, it is a question of risk. If a person is 1 m in front of another person who is coughing, the first person has perhaps a certain risk of being infected that is a bit less than if he or she was really close to the coughing person. If a person is 2 m away from the coughing person then the risk is further reduced. Based on various data we usually say that a person has a 60% reduction at 1 m and something like a 90% or 95% reduction at 2 m. Various people are using different risk figures. In any situation there is balance of risk. On the one hand, one wants to make sure that the necessary parts of the economy can be kept going while on the other hand, one wants to try to reduce the risk. All this is done within context. If there is a lot virus around, then the physical distancing becomes really important. If there is not much virus around, then it becomes less so. I am basically saying please be at least 1 m apart, and if you can be 2 m apart then that is a really good thing to do. Remember, there are certain actions like singing which seem to be associated with even greater transmission so people should be especially careful.

Chairman: Thank you. I call Deputy Barry, who I presume is substituting for his Solidarity-People Before Profit colleague.

Deputy Mick Barry: Good morning Dr. Nabarro. I want to ask about face masks and coverings. Dr. Nabarro said earlier that he is more and more worried about people who provide services. This morning in Ireland the leader of one of the transport workers' unions said that face masks and coverings should be made compulsory for commuters. Is that a reasonable position to hold?

Dr. David Nabarro: The way the Deputy has asked the question helps me. Yes, I think that is a reasonable position to hold because of what I have seen with regard to mortality risks for bus drivers and concerns around people who work as attendants in stations, especially when they are underground or enclosed. It is a reasonable position to hold. I am not going to say anything more than that. I hope that is okay.

Deputy Mick Barry: Dr. Nabarro mentioned that he has seen evidence around the world of the risks to transport workers and mortality. Could he give us a bit of information and data on that?

Dr. David Nabarro: I would refer the Deputy to the UK study, particularly looking at those working on buses, suggesting that there does seem to be a surprisingly high mortality among bus drivers. Second, I have seen other reports, but I have not got numbers on them, of transport staff, particularly in bus or on station platforms in other countries. I would need to send the Deputy that in writing.

Deputy Mick Barry: I think Dr. Nabarro said earlier that one of the countries that he works with directly or is directly responsible for is Canada. Is that correct?

Dr. David Nabarro: Yes, Canada is part of my area of coverage.

Deputy Mick Barry: I understand that in Alberta masks are distributed free of charge by the state. I also understand that is the practice in a number of other places, including Belgium, Turkey and the state of Utah in the US. Has that had a positive impact in Alberta, Canada?

Could Dr. Nabarro comment on that?

Dr. David Nabarro: Certainly, the experience I have seen is that people are more likely to wear masks if they are made available to them free of charge. Where I am living, which is just across the border from Switzerland, in France, there is not only distribution by the local mayor but also quite a lot of clear advice on when and how the masks should be worn, and I am seeing a gradual pick-up in wearing. It is not something that can be done immediately. People do not immediately shift to doing it, especially if it is not compulsory. It is a kind of gradual process, as people get used to doing it. Not everybody enjoys wearing a mask. They feel it interferes with communication or they may feel claustrophobic. We need to be tolerant of the reality that this is quite a new practice, but I am seeing a pick-up, especially where I have seen masks distributed free of charge.

Deputy Mick Barry: Finally, Mr. George Gao, the director-general of the Chinese Center for Disease Control and Prevention told the *Science* journal, "The big mistake in the U.S. and Europe ... is that people aren't wearing masks." Would Dr. Nabarro comment on that statement?

Dr. David Nabarro: We should be very careful. I do not find it easy to ever look at what countries have done and ascribe difficulty to one issue. It is often a combination of issues that make it difficult to get on top of Covid, and because there is no single playbook, just accumulated experience that is being built up over time which is now quite good. We have to be careful. I personally have said that I believe that the use of face protection is a part of emerging from lockdowns and other stringent controls to being able to live with the virus.

Chairman: I have in front of me a document, "Advice on the use of masks in the context of COVID-19: interim guidance", published by the World Health Organization on 5 June 2020, which is only six days ago. It is divided in two - there is advice for healthcare workers, both those dealing with Covid-19 patients and those not dealing with them; and, there is advice for decision-makers on the use of masks for the general public. It states:

> Many countries have recommended the use of fabric masks/face coverings for the general public. At the present time, the widespread use of masks by healthy people in the community setting is not yet supported by high quality or direct scientific evidence and there are potential benefits and harms to consider.

Those benefits and harms are set out thereafter. Has there been a change in that WHO advice? Does Dr. Nabarro disagree with it? How does he reconcile it with his personal view on face coverings?

Dr. David Nabarro: To be straight and totally candid, that particular guidance is not as clear as I would ideally wish. The reason is that this is an area where there is a massive degree of disagreement. From reading the news, there is even disagreement in Ireland about this matter. One group of people says the science is not very strong and that if people are wearing masks widely it will lead to a false sense, a sense of complacency that makes them make the wrong choices. There also some anxiety that people will get fed up of wearing masks and do it improperly, as I described earlier. On the other side there are people, and I belong to this camp, who feel that this is a proper part of an overall strategy and that it is the right thing to do, especially when people have to be closed up such as on a commuter train or a factory floor. People will become responsible about mask wearing and will do it in a way that is good, though it may take them a bit of time. I feel that way because I was working in south-east Asia in 2003 and 2004 after the SARS outbreak and I saw the role face protection had there. I have now slightly

put myself on one side of this even-handed guidance from the WHO.

Chairman: The WHO official guidance is more equivocal than Dr. Nabarro's own view.

Dr. David Nabarro: Yes. As an envoy of the WHO, I am not a member of its staff. I am someone who interprets WHO guidance for different actors who ask me questions and I accompany people while they are making decisions in order to help them. I have been quite clear in successive interviews and in private discussions that I think the wearing of face masks is an important part of a comprehensive strategy, especially when emerging out of lockdown, as Ireland is currently. It is quite delicate and one wants to be sure one is doing everything possible to prevent new spikes. I was asked earlier what I would look for and that is increases in the numbers of cases. We need to try to do everything possible to stop that happening and have everyone on side with it. I hope that is clear and I hope I have been helpful to the committee in showing where I sit in relation to the organisation.

Chairman: Dr. Nabarro has been helpful. I have one last question regarding commuters. Dr. Nabarro said it was reasonable for commuters to wear masks or face coverings. Does he think it is also reasonable for staff such as bus drivers, attendants etc., to wear a mask for their own protection or would he go further?

Dr. David Nabarro: One of my particular concerns is that the people who seem to be most at risk of getting this disease in western Europe and the US are those who are providing services to others, including security guards, cleaners and people driving vehicles, particularly multi-passenger vehicles. I have always felt these are the people who often have less opportunity to negotiate particular aspects of their working and living conditions because they are often poorly paid and may come from ethnic minorities that may have additional challenges. That is why I was really pleased, for example, in Geneva, when the decision was made to ask all drivers to wear good-fitting face masks for their own protection. I was pleased when I heard talk in the UK that it was going to become mandatory for people to wear masks on London transport and indeed on other urban transport networks, only because I am more concerned about protecting those whose jobs put them into some kind of regular exposure, as I do get very concerned about the inequities around this disease.

Deputy Matt Shanahan: I thank Dr. Nabarro for his contribution. As someone who is member of an independent grouping and called for the use of face masks many weeks ago, I support his stand. It is to be hoped that what he is saying today may have repercussions for national policy.

Could I ask a more medical question? There is some suggestion that the elderly in this country would have done a lot better if we had been fortifying diets with vitamin D and zinc. Has Dr. Nabarro any comments on that?

Dr. David Nabarro: I thank the Deputy. I saw those suggestions, not just from Ireland but from other countries, that vitamin D would be helpful. I just have to answer I do not know. I know that there is a lot of work under way, but I could not give the Deputy a precise recommendation to answer that question. Sorry.

Deputy Matt Shanahan: As Dr. Nabarro says, Ireland is following a similar trajectory to other countries. In terms of the influenza season, which will probably kick in any time from October on, has Dr. Nabarro any thoughts about whether humidity increases the risk of aerosolisation or the pathogen remaining aerosolised for longer and whether that increases the risk

of transmission?

In terms of the profiling of people who are affected by Covid-19, if we get a resurgence of disease, ideally, we do not want to close down. There are significant sectors of the population, children, for instance, and probably fit adults aged between 20 and 40 years of age, who, while not unaffected, do not have other underlying illnesses and will largely bounce back quickly from Covid. Is it possible to profile the population and, let us say, look at segmented cocooning or otherwise so that the economy does not have to close?

Dr. David Nabarro: I thank the Deputy. I will make a general statement on the second point. I really hope that it will not be necessary for the whole economy of Ireland to close again as a result of Covid. Everything I am reading suggests that by building up local level public health capacity, it looks as though Ireland is putting good protection and defence in place. That is what getting ahead of the virus means. I am not too keen on cocooning sections of the population because I am in the 70-plus age group. I do not want to be cocooned. I have just met my fifth grandchild, born a couple of days ago, and I very much want to see him. If we are going to do population profiling, could we please do our absolute best to avoid any kind of shut-up of any particular group of people?

I agree with the Deputy that children appear - please do not take this as a statement of policy or fact - not to have a central role in the transmission of the virus. However, it is also clear from recent data from South Korea that the school can be an epicentre where virus transmission can build up. We need to be quite careful to distinguish between what happens in the school as a meeting point and the role played by children.

I believe that in humid, cold contexts the droplets that carry the Covid virus tend to linger longer and travel a little bit further in the air than in hot, dry environments. I agree, therefore, that there will be some potentiation of transmission during the winter. It will be additionally complicated because flu is there at the same time and differentiating will be difficult. I repeat what I said before. I do not think this is seasonal.

We checked with others on the vitamin D and zinc issue and, as I thought, this is work in progress.

Deputy Michael Collins: I thank Dr. Nabarro for joining us this morning. I have four questions. What is the WHO stance on social distancing at the moment? Should we be maintaining the 2 m distancing in Ireland or is 1 m sufficient? In Dr. Nabarro's view, are people who have had Covid-19 now immune to the virus in future? What is the most recent view of clinical trials on the safety of hydroxychloroquine? Does the WHO anticipate that home testing kits for Covid might be available for each household this autumn?

Dr. David Nabarro: Those are tough ones. I checked with Dr. Michael Ryan, an Irishman who is the head of the WHO health emergencies programme, this morning because I knew I would be asked to express an absolute position on 2 m versus 1 m. Dr. Ryan reminded me that these are fundamentally statements of risk. First, the context of how much virus is around must be taken into context. Second, the location of the person needs to be considered. Is it closed or open? We believe this virus is much more easily transmitted in closed locations. Third, it is really important to recognise there is certainly still a risk of getting Covid if somebody is 1 m away from someone coughing in front of them, but that risk is 70% less than if the two people are really close. At 2 m the risk is down to about 85% less or even 90% less. Each time 1 m is added the risk is reduced.

In the end choices need to be made. How much risk of continued Covid infection is one prepared to tolerate? That is a position taken by the national government and it will be taken on the basis of multiple factors. We all know that maintaining the 2 m has economic and social costs. I am not prepared to say it is absolutely 1 m or 2 m, but I am prepared to say that there is a considerable reduction risk with 1 m and a much greater reduction risk with 2 m.

The Deputy asked if someone who has had Covid is immune from getting it again. We do not know. I wish I could answer the question "Yes" or "No". I have family members who have had Covid. I wish I could tell them they do not need to take precautions because they will not be infected again, but I am afraid we just do not know yet.

The Deputy asked about hydroxychloroquine. The clinical trials are under way. I think the Deputy will know that the WHO trial on hydroxychloroquine was stopped for a period after a publication in *The Lancet* and another one in *The Union Journal of Medicine*, stating that hydroxychloroquine increased the risk. Then after a review of these two papers, it was decided the trial should go ahead. We do not have the answer on the efficacy of hydroxychloroquine either in prevention or in treatment of Covid.

The Deputy asked if home testing kits will be available. There is absolutely no doubt that in the coming weeks and months, there will be far greater availability of serology tests that tell whether people have antibodies against this virus and that will enable people to know whether they have had the disease. It will not tell them whether they are immune. We anticipate much wider availability. We do not know what the cost will be. So far only a small number of the kit manufacturers have had their kit tested to ensure they are reliable. I do not think we are anywhere near having home testing for the virus, which would be the most useful one to have. If there was one thing I would love to appear as if a miracle, it would be a reliable home testing kit for virus that could just be done by taking a swab, putting it on some kind of stick and looking at the result. That is not anywhere near production yet, as far as I know.

Chairman: I thank Dr. Nabarro and Deputy Collins. I call now Deputy John McGuinness.

Deputy John McGuinness: Why is it that many of these viruses originate in China? The reactions to the Covid-19 virus of Japan and Taiwan, which are quite close to China, had a very successful outcome in controlling it. They are almost back to normal business now. Masks were applied there too. People were mandated to have masks on public transport. They reacted in a different way. Where is the science behind the notion of lockdown? Where is the proven analysis that the type of lockdown that was applied here in Ireland actually works, related to Farr's law, where the bell graph comes into clear sight?

I would also like to ask about public transport and flights, particularly in the context of Ireland. How can we reopen safely the transport network, on which we rely so heavily for tourism?

Dr. David Nabarro: I thank the Deputy for his questions.

Most of the new viruses that emerge come from animals. The H5N1 bird flu virus that I worked on in 2005 seemed to emerge from the area around the Mekong River, which is China plus other countries in what used to be called the Indochina region but I would refer to now as the Mekong area.

The H1N1 virus that caused the last influenza pandemic seemed to originate in Mexico, not in China. I would not want to say therefore that this originates 100% from the area referred

to by the Deputy. We think HIV originated from simian populations in Africa. Some have emerged in China but not all. We believe that anywhere humans and animals are in close juxtaposition, the virus can jump. We think the Ebola outbreak in west Africa came via a bat in a part of the interior of Guinea. All of the time we are looking at interactions between animals and humans.

The countries that were really successful in east Asia at the beginning had a dress rehearsal, which was the SARS outbreak in 2003. They learned one basic reality about dealing with these coronaviruses, which is that one has to stop the transmission immediately one sees the first cases. This does not necessarily require a whole lockdown, but there must be a focus on the area where the virus is present. One must make certain that one interrupts transmission by isolating people and finding their contacts and isolating them. This is a basic rule in dealing with infectious diseases. As the Deputy mentioned, Taiwan was successful.

Japan was rocky and tricky at the beginning. It was not an enormous success straight away. They did and have got it right. South Korea is the same. They still have resurgent cases from importation. They know they cannot keep their borders shut and hermetically sealed. They have to maintain their defences. It is about being rapid and robust at the very beginning. Due to the exponential spread of these viruses, if one delays for one, two, three, four or even five weeks before one takes it seriously, one has a massive problem and one ends up with virus in multiple locations. That is why certain countries that have been slow to act have much bigger challenges. The Deputy is right to point to the fact that it is rapid action that really matters. When we put countries in lockdown, particularly when there is a lot of virus, it holds the virus in place, whereas the actual process of getting rid of the virus is all about interrupting transmission through case detection, testing and then isolation, with special attention to high-risk areas. I do not see lockdown as a control measure. It buys time while we put the other pieces in place, as has been done in Ireland and as it is planning going forward.

As to how flights will re-open, I think there will be analysis by countries of destination places, asking: is their risk profile the same as ours, are they taking the same basic strategy as us and have they got their level of disease down in the way that we have, so that the incidence is at the same sort of level? If it is a "Yes", then we create an open corridor and do the quarantine in there. Obviously, if they have a lot more disease, then we are going to be rather careful of people coming from their countries and we might have some kind of quarantine. If, by chance, we have a lot more disease than they have, then they might ask us to go into quarantine. I do not think the blanket two weeks quarantine is going to stick in any part of Europe. I think it will be much more on a negotiated basis between countries, with very careful discussions between public health experts on either side to try to check they have equivalent risk profiles.

Deputy Fergus O'Dowd: I have several questions and the first has two parts. One of the problems with masks is that when we go to buy them, we do not know what quality they are, and there is no CE mark or quality assurance mark that I can find that will give certainty about the mask someone wants to purchase. I make that point in the context that the WHO is now saying that those over 60 must have medical grade masks, which is a huge change in approach given the age cohort it was talking about before was the over-70s. Is there a new and emerging risk for people over 60? If they are required to wear these masks for all social interaction or for shopping - I know they do not wear them at home or in the open - it will be a huge burden, particularly on low income people, to get the masks and to wear them. I assume a person would need hundreds over a year.

My second question is in regard to deaths in nursing homes. I am glad Dr. Nabarro is the ex-

pert. As I understand it from an article in *The Guardian*, there were no deaths in nursing homes in Hong Kong. It appears the way they dealt with it was that if a person was Covid-positive, they went from a nursing home into an acute hospital or into medium-term isolation. In order to prevent this awful, evil virus coming back and attacking and killing people in our nursing homes, is there a need for best practice to emanate from the WHO to make sure we change the way we deal with people who are positive, and that we do not keep them in nursing homes if it is better that they go to an acute hospital or a different type of isolation?

In Ireland, more than 60% of our nursing homes do not conform to all the regulations. While I accept and acknowledge that the virus can strike anywhere at any time, international best practice should be that whatever the standards are in any country for nursing homes, those nursing homes should meet 100% of those regulations to save lives.

Dr. David Nabarro: The second question is tough. This is a national policy issue. I want to again talk to the committee from my personal and professional perspective. I think it is very important there is best practice in nursing homes and that everything possible is done to ensure there is really strong infection control for the residents. This is necessary for the sake of relatives, it is necessary for the sake of the staff and I personally think it is the sign of a good society that we treat everybody, whether they are old or young, with the same respect when it comes to life. I agree there is a need for universal application of best practice wherever possible. We must also recognise that good infection control in nursing homes is not easy, as I said earlier, because of some aspects of how they are.

There needs to be clear good practice. I do not necessarily think that this means taking people to hospital the moment they have Covid-19, but it means putting those people into proper facilities for isolation. If they are not isolated then everybody else gets Covid-19. We have so much evidence now that dormitory wards in nursing homes very quickly become places where just about everyone gets infected. As soon as somebody has Covid-19, and we need to test quite often, then he or she should certainly be isolated. Whether one takes the person to a hospital is a local decision.

The World Health Organization has come out with guidance on the quality of masks, and I have one here. They are filtering facepiece, FFP, masks and are quite different from the fabric masks. It is said that this quality of mask should be used by older people. There is a cost to these, and I agree that this must be taken into account. On the issue of face protections using fabric, ideally there should be some kind of statement on what they are to be made of, in terms of the numbers of layers of cloth or even better having some kind of Kitemark. I agree with the Deputy O'Dowd on that also. I find myself agreeing with all the points raised by the Deputy.

Deputy Darren O'Rourke: I thank Dr. Nabarro for his contribution and for his comments on face coverings and masks. He will be aware that there is a significant debate on this in Ireland.

There is also a significant debate around social distancing with the 2 m versus the 1 m discussion. Am I right in saying that if a decision was taken to move from 2 m to 1 m it would increase the importance of compulsory face masks, and face masks in enclosed spaces, as part of the cumulative playbook? Does Dr. Nabarro believe that temperature checks and antibody tests have a role in that cumulative playbook, and especially at our ports and airports?

Dr. David Nabarro: I will start by addressing when people are most likely to transmit Covid-19. The answer is in the day or so before they develop their symptoms. This is one of the

reasons this is a hard virus to deal with. SARS tended to be symptomatic at transmission but Covid-19 seems to be a bit more pre-symptomatic transmission. The committee might know there is quite a bit of debate about people who never have symptoms but who can transmit the virus. If that is the reality, that people just before they are seen to get the disease are still potentially quite infectious, then I totally agree with the Deputy that the comprehensive package is important.

On Deputy McGuinness's point, yes, face masks have been a super important part of the comprehensive package in east Asia. Deputy O'Rourke called it the "cumulative playbook". I like that legislators are recognising it is not one or the other, it is all of the different pieces together. We cannot pick out any single approach that makes all the difference. Face protection does seem to be a part of it.

On the 1 m versus 2 m issue, I will say it again but I will try a slightly different way. Essentially, if people want to be really sure about not getting infected by somebody with Covid-19, then they should stay a long way away from the person, possibly 3 m or 4 m. When a person is coughing one does not know whether a droplet will fly across in the air, which we call aerosolization, and one may just happen to have the bad luck to get it. I have a very close friend who believes she caught her Covid-19 in a supermarket in Brighton where there was aerosolized transmission. To be super sure, then people need to be quite a long way away. The closer one is to the person who has Covid-19 the more likely one is to get infected. Our current advice is that at 2 m, one is between 85% and 95% likely to be protected but there is still an outside chance that one may contract the virus. At 1 m, the protection drops to between 70% and 80%. Of course, the likelihood of contracting the virus increases if it is a closed environment. One of the things we have found is that karaoke bars are particularly problematic because people there are in close proximity and, in addition, they sing and shout. We have found that when people sing and shout, particularly very loudly, such as when belting out a song, they are able to transmit much more easily. It is all a question of risk and it very much depends on how people behave.

Deputy Darren O'Rourke: I thank Dr. Nabarro for his response. I wish to raise the issue of fair and equitable access to Covid-19 technologies, vaccines and treatments. I note the WHO Covid-19 technology access pool. I ask Dr. Nabarro to speak to that initiative, the response of governments to it, the response the WHO has had from the Irish Government and the sort of response it would like from it.

Dr. David Nabarro: There is no point in having new technologies for something like Covid unless they are available to everybody, regardless of wealth, race and nationality. To have a situation whereby only people from rich countries or with a lot of cash in their pocket can get access to things that will save their lives or prevent them from being exposed to a dangerous disease is wrong and unethical. I am very pleased that the Irish Government has been unequivocal in that regard. Its position has been the right one. The proposal for a technology access pool was originally made by Costa Rica and found its way into a resolution of the World Health Assembly on 19 May. It was not pushed out by any country. What matters more than what is in the resolution is what countries do. I am still concerned that, apparently, some rich countries are buying up and making advance purchases of vaccines, as well as buying up many treatments that may be effective, for their people and friends. I seriously encourage every country to go for equity of access everywhere. Ireland must continue to be in the lead on this issue, as it has been on many others.

The Deputy asked about antibody tests. They are only useful for finding out who has the disease. They are not useful in dealing with who might have the disease at a particular point in

time. Unfortunately, temperature checks are only picking up on people one, two or three days after they have become infectious.

Deputy Darren O'Rourke: To follow up on the technology access pool, I ask Dr. Nabarro to provide a sense of how its work is developing, the practical implications it will have in terms of the products, technologies and vaccines that are developed for Covid-19 and the implications for patents and the availability of those products for citizens across the globe.

Dr. David Nabarro: The way in which it will work will depend entirely on whether governments are prepared to buy into it and work with it in practice. As members are aware, in other issues where there have been patents on medicines or particular devices, it has been necessary for the holder of the patent to cede their rights and make the product available in a wider way. There are certain provisions in World Trade Organization, WTO, legislation for what is called emergency licensing of patented goods that can be applied. Fundamentally, that only works with the consent of the patent-holding companies and the nations within which they exist. For me, looking at the current situation as a bit of an outside observer because it is between the member states rather than being dealt with by the secretariat, I am seeing strong support from many governments for broader access and for not having intellectual property issues stand in the way of access. However, some major nations are still not fully participating. In light of Ireland's role on the international stage in particular, I encourage it to take responsibility for advancing this issue as fully as possible in the various political environments. I am thinking particularly of Ireland's permanent representative in New York working with other permanent representatives, but perhaps there can also be a debate with the UN Secretary General. I believe that is the only venue where these kinds of issues can be dealt with. We can deal with them in the World Health Assembly, but in the end the focus must be on the UN machinery. When we were dealing with access to AIDS medicines, it was there that the work was actually done. I would like to encourage the same in this instance.

Chairman: I call Deputy Donnelly.

Deputy Stephen Donnelly: As Deputy Foley is not coming in for us, can I take the two slots?

Chairman: No. The Deputy and his colleagues have been given five minutes each, as opposed to 16 minutes between four speakers, so it is the same.

Deputy Stephen Donnelly: Can I take Deputy Foley's time as she is not coming in?

Chairman: No. The Deputy and his colleagues have been given three five-minute slots, as opposed to four four-minute slots.

Deputy Stephen Donnelly: I beg the Chairman's pardon and thank him.

I thank Dr. Nabarro for his time. This has been an enlightening session. I would like to ask three questions, the first of which relates to the gender impact of Covid-19. We know it has been much more fatal for men as 38% of deaths globally have been women. However, the rate in Ireland is 57% so we have a massive additional fatality rate for women. Can he provide an insight into why that has happened? Are there structural changes we can make to combat this issue?

The second issue is border controls. Dr. Nabarro referenced the letter signed by 1,000 scientists who made a very strong case for increased border controls. There are other groups in

this country, for example in hospitality, business and other areas, who are very understandably looking for looser border controls. What would Dr. Nabarro advise the Irish Government to do for the next three months? Would he advise mandatory rapid testing in airports, mandatory self-isolation or a relaxing of the self-isolation rules? Would he pick a small number of countries and have an air bridge with them? Obviously, as an island nation, getting the border controls right is very important.

Finally, there has been a discussion this morning about the fatality rate in Ireland versus other countries. Dr. Nabarro quite rightly said that Ireland has done a lot of things right. It moved quickly on a lot of issues. When one considers our Covid fatality rate, one sees that although we have fared considerably better than some countries like the UK, France and Italy, we have fared significantly worse than many other European countries like Germany, Austria, Finland, Greece and Portugal. Given that we appear to have done a lot of things right, as we plan for a second wave that we hope will not come what can we learn from the European countries that seem to have fared significantly better than we have?

Dr. David Nabarro: Thanks very much, indeed. I have noticed that Ireland has rather a different distribution of mortality between women and men compared with other countries. I do not know the reason for this, but I know it is the subject of quite deep and careful investigations. The sorts of issues to be looked at include whether there were underlying conditions, or whether there was any difference between men and women in access to healthcare. I do not want to speculate. I think that would be wrong because I just do not know. I hope that care is taken to make sure women and men are getting the same attention when they are ill. We have found in other conditions, like myocardial infarction, that for some reason in some countries women present for care later than men do and that leads to worse outcomes. We have also found, as an aside and I hope I am not taking up too much time, that although Covid is more fatal for men the actual containment measures tend to be much worse for women and they suffer more. Therefore, the whole gender issues regarding Covid need to be looked at with great care.

If I were advising the Government of Ireland, I would suggest that when it is deciding about air travel it should look for the equalisation of risk. I would set up air bridges with countries where I felt the Covid prevalence in the community was about the same, the incidence figures of new cases were about the same and the capacity to deal with outbreaks was compatible in the two countries. Then I would set up the air bridge and keep it reviewed at regular intervals. It is not appropriate to have a single blanket recommendation for everybody, at least not at this time, but I do understand the debate. Some people will say we have to get it to zero and keep it at zero, which means having really tight border controls. There will be others who say we should hang on a bit, that we have a country that is dependent on international connections and that perhaps we have to tolerate a slightly different level of risk. I would work really hard not to make the decision because that is what politicians such as the committee members are elected to do. I would offer advice, and I would say they just have to balance these things against each other. With regard to creating a type of curtain around Ireland and saying sorry that is it and that people can only come in if they stick around for two weeks - either in self-isolation or in quarantine and that is the only way they can come in - I just want to say there are going to be major disadvantages with that type of approach. Rapid testing at the airport is not really on. We do not have a rapid test that can be done. Having polymerise chain reaction, PCR, testing at the airport might work and that is something that might be done. It would require considerable investment.

Chairman: I thank Dr. Nabarro.

Dr. David Nabarro: On the high fatality rate, I just want to stress that Ireland is counting more than other countries and that is the reason I think it is higher.

Deputy Jennifer Carroll MacNeill: I thank Dr. Nabarro for being with us today. I have several health questions. It is clear that having an underlying condition, such as a heart condition or a respiratory condition, may exacerbate one's experience of the virus if it is contracted. If it is to be the case that we are going to have to live with coronavirus for some time I am concerned about what underlying conditions may increase the chance of a person contracting the disease in the first instance. For example, the National Council for the Blind of Ireland has observed that people who are blind or otherwise visually impaired cannot socially distance in the same way as others, or cannot be expected to physically distance all of the time. I am also concerned about people with neurological conditions, including dementia and others, which make it difficult to remember and process information in the same way. Obviously, this is complex and evolving public health information.

I appreciate this is the earliest point in a complex virus but do we have any sense or perception yet of what the long-term implications of the virus might be on an individual who has had it and recovered?

Dr. David Nabarro: I thank the Deputy for both questions. People who are blind or disabled and need personal care, people who have dementia, people who are mentally ill and people who are, frankly, claustrophobic will all be at greater risk of contracting the virus. I do not know myself of any physical conditions that would make people more likely to be infected as opposed to physical conditions that make them more likely to suffer more seriously. I need a bit of notice on that one.

I see an increasing number of reports of people who have had Covid and have either had a really long and difficult recovery or have not yet recovered. These include people I know so it has become quite personal from me. One of the things is a very long period of being extremely tired so people just cannot walk to the shops or cannot concentrate on their work. One colleague, a professor, had it two months ago as far as I can remember. I remember being with him on a Zoom seminar when he said he was feeling rotten. I told him I thought he had the Covid and that he had better go and isolate. It turned out he had and he is still finding it hard. He is encountering many others who tell him that it is difficult. We need to hold on to this. For an awful lot of people this is not a trivial illness from which they recover and there is a long post-viral period. I have a number of friends and colleagues who are physically fit and do a lot of exercise. When they have had Covid, there is a quite a long period in which they remain short of breath on exertion and some of them perceive that they may have long-term lung damage. So keep a look out for that. As members will have heard, there are people who, because of the effect Covid on blood vessels, get clots in their bloodstream, which then can give them a stroke or even a heart attack.

I want to stress that I think we are just at the beginning of understanding both the overall pathology of this in terms of the kind of illnesses it can cause and also the long-term sequelae of this. I would ask all employers and family members to be very patient if somebody has had Covid and is clearly still struggling. That is not because they are in any way malingering, that may well be because this is what this disease seems to do to some. It makes them unwell and unable to function fully for quite a long time. I am so grateful to the Deputy for asking that question.

Deputy Jennifer Carroll MacNeill: I asked that question because that is what I am concerned about. A person could have the illusion of recovery as a result of being discharged from

hospital or appearing to be better, but he or she could be significantly unwell for quite a period, with implications both within his or her family and for his or her employer. That is what I trying to understand exactly. I only have a short period but I am terribly interested in-----

Dr. David Nabarro: The Deputy is right. It might not have been captured yet.

Deputy Jennifer Carroll MacNeill: Dr. Nabarro has been studying the global progress of the pandemic. It is clear that population distribution has had a major impact in terms of how different countries have experienced it. Will Dr. Nabarro give us some thoughts on the role of population distribution or on why some countries have experienced the pandemic so differently to others, not just based on how they have reacted?

Dr. David Nabarro: The Deputy is absolutely right that it is because of the different age structures of populations. Again, poor countries seem to be having, in some cases, quite different illness profiles from Covid. I have heard reports - still anecdotal - of great increases in cardiovascular disease, heart attack rates and other such things. I still think there is a real need not to imagine that poor countries are getting off lightly. I do not think they are.

Chairman: I have a number of questions. Dr. Nabarro fairly pointed out a difference of emphasis between his view and the WHO guidance on masks. He stated that it is particularly important for service providers and transport workers to be protected. Is it more important that they wear masks or that the general public wear masks, or is that a false dichotomy?

Dr. David Nabarro: I was thinking of that when that question was asked before. If I am a bus driver, my real risk comes from other people in my bus, particularly if it is crowded, being close to where I am driving and coughing close to me. We know that face protection is quite useful for preventing somebody who has got illness from passing it to others. If people are not responsible and staying at home when they are ill or if they are just in the process of becoming ill with Covid, then it is a decent thing to do to wear a mask to protect the person who is serving you. That is my fundamental point on this. I want to go on saying that again and again because I do not think it is fully understood. I was saying to a colleague the other day that if they are going to open restaurants in France and have people indoors, then the diners ought to be wearing masks to protect the waiters. My friend said, "No way, that will never happen". I said that from a logical point of view of being responsible, it is the people who serve us who we need to protect. I do not think it is a moot point. It is about respect for those who serve us and who often have no choice but to do that work because they are poor and they have suffered huge income losses due to lockdowns and so on. So it is part of being, I think, really responsible.

Chairman: I have one other question. I do not wish to point out differences between Dr. Nabarro's personal view and the WHO guidance, but there is guidance entitled Considerations for public health and social measures in the workplace in the context of Covid-19 that the WHO published on 10 May last. This guidance states that there should be physical distancing of "at least 1 metre apart for work stations and common spaces" and: "where congregation or queuing of employees or visitors/clients might occur." Dr. Nabarro has said that 2 m is safer and 4 m is safer again. Why does the WHO say at least 1 m rather than saying at least 2 m or 4 m or that there should be no congregations indoors?

Dr. David Nabarro: In all the advice that comes from an organisation such as the WHO, it has to offer the best information, on which others can then make decisions. It should be remembered that the WHO is not an enforcement agency. In this case it has worked really hard to recognise that for the majority of people in our world, particularly in poor places, the thought of

living with 2 m distancing is just completely out of the question. If the agency had that as part of its guidance, it would be accused of being completely out of touch and would be ridiculed. That is my understanding.

There is one other thing I discussed this morning with Dr. Mike Ryan which he thought I ought to get across. He reminded me that there is a huge difference between spending, say, four or five hours with somebody who has Covid, while he or she is coughing and before he or she manages to get home and self-isolate, and spending five minutes with somebody who has Covid. One is so much more likely to get infected if there is a long period of exposure. Dr. Ryan and I would therefore like to share with Deputies the following. If there is to be a reduction in the distance to 1 m, it should be borne in mind that if there is a prolonged exposure at such shorter distances, it greatly increases the risk. There is therefore a need to look once again at the likes of workplaces and to say that in a place of work where people spend more time together, then a slightly greater distance makes sense.

I hope that is clear and that the Chairman does not mind me trying to put the matter into a little more context. In practice, over time, it will not be authorities that will tell us how close we will be able to be to one another, it will be us ourselves who will have to make the choices in our workplaces, social lives and families. I think Deputies will have heard whenever I have been speaking or doing media work that I try all the time to help people have whatever information I have in order that they are enabled to make their own judgments, because in the end how we deal with this threat will be up to all of us.

Chairman: I know Dr. Nabarro is under time pressure. Does he have time to answer two brief questions, one from me and one from my colleague, Deputy Brophy? If so, great, but if not, I understand.

Dr. David Nabarro: I left a little buffer just in case this would happen. I stress that it is my absolute privilege to go on. I am putting my next engagement back by just ten minutes.

Chairman: I thank Dr. Nabarro. Is cancer screening a very dangerous procedure for healthcare providers to engage in such that would justify the suspension of all cancer screening activity for months on end in a country such as Ireland, where PPE is available?

Dr. David Nabarro: One of the things I have noticed is that the reaction of healthcare providers at the beginning, when they start to deal with Covid, has been quite absolutist and quite a lot of procedures which might be called routine, though I would not say screening for cancer is routine, have been suspended. In some places even maternity support services, such as antenatal care, have been suspended. I am not talking about Ireland; I am talking more generally. Then, over time, as the professionals have got their routines sorted out, changed their patterns of flow in the hospital, got adequate PPE, managed to get their shift times right and dealt with any possible accidental infection that might occur among those who provide support services, such as porters and cleaners, it has become possible for them to adapt and readjust. I think more and more of this will happen. Therefore, while there might have been in some settings a cessation of screening procedures and even treatment procedures for people with chronic diseases that require ongoing attention, after, say, a month or two, things have settled down and new systems have been developed. I therefore expect that in places where cancer screening has been stopped, there will over time - it will be quite quick - be a sorting out, just as in schools. There is a lot of questioning about what to do about schools and a lot of uncertainty. I would expect that, gradually and as we get into this, the procedures will be established and things will get better. Anyway, we will be informed by more science. In answer to the question, I do not want

to be absolute. I want to say it will come good, it will just take a little bit of time.

Deputy Colm Brophy: My thanks to Dr. Nabarro for giving extra time to us to ask this question. I want to ask a specific question on travel. It follows up on an answer Dr. Nabarro gave earlier. Many people are contacting me about the idea of air bridges, whereby the European Union is trying to open up a common travel area. They are really concerned, worried and, to be honest, confused. They ask whether this idea is commercially driven. They ask why the European Union or the WHO seem to be saying that it is right to bring people from all over Europe together during the holiday season of July and August and then have those people disperse to all the European countries they have come from, even if there is a low rate of infection at present. Is this really a safe decision? Is it being driven primarily by countries which have had very bad Covid-19 outbreaks but which now want to re-stimulate their economies through tourism for economic reasons? Is it actually safe for Irish people to travel to Spain and Italy this summer? Is it safe for them to have a holiday for a week or two and then come back to their home country? If we take out quarantining and introduce air bridges, is that really safe? Is it an economic decision?

Dr. David Nabarro: I want to add a third dimension to it. There are also people who might well be wanting to travel for personal reasons. They may have decided that this is important for their well-being, and I would not want to judge that. Of course, what the Deputy is saying has a lot of truth to it. The situation in Spain, as a result of Covid, the lockdown and so on along, with the country's dependence on tourism, is particularly bad for poor people. There is, inevitably, both personal and political pressure to reopen the tourism industry., as I am sure there is in Ireland. There must be people all over the country who are really struggling because the expected tourism income is just not coming in. So, yes, there will be economic pressures for opening up all round. I am trying very hard not to say that that is wrong, because I appreciate it and I am hearing from so many people about how much pain there is. In the end, the Deputies, as legislators, and the authorities in the Government have to weigh up people's personal wishes, the economic issues and the health threats.

I heard Deputy Brophy say one thing and I want to pick up on it. He asked whether it was all right to bring people together from all over Europe, expose them to risk and have them disperse again. If it was like that, I would be super-worried. The only rational basis for establishing air bridges is after a very careful and independent assessment of the risk in the different locations and trying to make absolutely certain that it is done fairly. For example, let us say country X is setting up air bridges with three or four countries in Europe, countries A, B, C, D and E. It would be absolutely essential to ensure that the risk level in countries A, B, C, D and E as well as in country X was absolutely compatible. It would be totally wrong if, suddenly, it turned out that there had been a mistake, perhaps caused by what the Deputy described as economic pressure. It is also necessary to keep this under examination all the time because things can change. That is it on that one.

Chairman: In response to my last question, Dr. Nabarro said that he expects to see schools and education facilities opening quickly. Does he expect that the 2 m distancing will be maintained in schools? Does he expect that will be respected? Will it be the norm throughout Europe and the developed world?

Dr. David Nabarro: That would mean looking into the future. Most importantly, when it comes to schools, we need to be doing everything for the adults who congregate at the school place, whether they are teachers, parents or anybody else, because that is where the major potential for spreading the disease lies. Second, it is necessary to try to ensure the best possible

educational experience for children. I am one of those people who has been distressed by the number of months that children of all ages have lost in their education. As to whether it will be 2 m or 1 m in school, I understand that between the children the approach is one of bubbles which is very promising and I expect that to remain the case. I suspect that for the teachers and parents the rule in schools will be the same as the rule everywhere else. If there is a decision to try to move from 2 m to 1 m for any reason, then I am sure that will take place in the schools as well.

I would encourage everybody, and this is my last word, to stick with the basic principle that it is a comprehensive package of interventions that we have to use to keep the threat low. If there is going to be a decision to get it down to zero, then that comprehensive package must be super-strong and maintained for a long time. It will also include action at borders, because that is the only way one can keep it at zero. If there is going to be a willingness to tolerate that there will be some cases appearing but they will be dealt with very quickly at local level by well-organised local authorities, co-ordinated with others, then that will become the norm. There will be odd cases but they will be managed very fast. I would like really to ensure that whatever standards are adopted are adopted wholeheartedly across the country, and if there is a need for adaptation because of local flare-ups, that everybody understands why that is happening, using the kind of indicators that I know the Government is looking at.

I thank the committee for this chance to talk. I hope this was some help.

Chairman: Thank you very much for your time, Dr. Nabarro, and for the extra time. Congratulations on the recent birth of your grandson and I hope you get to meet him soon.

Dr. David Nabarro: Many thanks. I wish to express my real appreciation for the people of Ireland. I rate very highly what they have done. The way they do it is full of humanity. They follow the science and are trying to be good European and global citizens. It was fabulous to have the chance to spend so long with committee members today and I wish them all well. Keep safe.

Chairman: Before we adjourn, I thank the Oireachtas staff, in particular the technical staff, for setting up this link, and the secretariat, in particular Mr. Malone, for all the work in this regard.

The committee adjourned at 11.15 a.m. until 11 a.m. on Tuesday, 16 June 2020.