HOUSE OF COMMONS

Health and Social Care Committee

Oral evidence: Omicron variant update, HC 990

Thursday 16 December 2021

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Watch the meeting

Members present: Jeremy Hunt (Chair); Lucy Allan; Dr Luke Evans; Barbara Keeley; Sarah Owen; Dean Russell; Laura Trott.

Science and Technology Committee: Greg Clark (Chair).

Questions 1 to 46

Witnesses

I: Professor Chris Whitty, Chief Medical Officer for England; Dr Thomas Waite, Interim Deputy Chief Medical Officer for England; and Dr Susan Hopkins, Chief Medical Adviser for the UK Health Security Agency.

Examination of witnesses

Witnesses: Professor Whitty, Dr Waite and Dr Hopkins.

Q1 **Chair:** Welcome to a special session of the House of Commons Health and Social Care Select Committee. With us this morning we have Professor Chris Whitty, the chief medical officer; Dr Thomas Waite, interim deputy chief medical officer for England; and Dr Susan Hopkins, chief medical adviser for the UK Health Security Agency. We are also pleased to welcome Greg Clark, Chair of the Science and Technology Select Committee, who is joining us as a guess panellist. Thank you all very much for joining us at a very busy period.

Professor Whitty, I want to give you a chance to elaborate on what you said yesterday. You said that we should prioritise social events that matter and deprioritise more trivial ones. In practical terms, could you explain what you meant when it comes to people thinking, for example, about their Christmas plans?

Professor Whitty: Thank you, Chair. I hope what I said was reasonably clear, but I will try to phrase it slightly differently and see if that helps.

Everybody can see that this is moving very fast and is highly transmissible. The rates are going to continue to go up. It is a period of the year when lots of people have things that really matter to them family-wise, as well as in other bits of their life. My point was—and I hope I can reiterate it—that people want to protect the time that is most important to them. That therefore means, in practice, that it is sensible for people to cut down on work or other interactions with people, including potentially social ones, which are less important to them so that they reduce their chances of catching Covid, and indeed reduce their chances of passing it on.

I would not want to say to people that they should do a particular thing or that they should do this or that. This is about saying to people, "Look, this is a period to prioritise." To be clear, it was a message that the Prime Minister also gave last night.

Q2 **Chair:** To be a bit more specific, Dr Nikki Kanani yesterday advised people not to go to football matches if it was to watch football. Do you agree with that?

Professor Whitty: What she was actually saying was that, if someone went to a stadium, please make it an opportunity to have a booster. That is a message we really seriously want to get out.

Obviously, we want to get back to a situation where we are on a more normal track, and the route to that lies through the booster programme. What she was saying is that we are opening up stadia over this weekend for boosting. Her positive message, as someone very heavily embedded in the boosting programme, was to please take your opportunity to get boosted, and if that means going to a stadium that should be the priority.

Q3 **Chair:** You are not advising people not to go to football matches. Correct?

Professor Whitty: What I am advising people to do is to prioritise. If the most important thing to them in the next 10 days is to go to a football match, that is the priority for them. That is really the point I was trying to make. Prioritise the things that really matter to you. If you wish to do those things and do not wish to end up self-isolating or unwell at a time you really do not want to be, you will probably want to do fewer other things.

Q4 **Chair:** If you were planning in the next week to go to four or five social functions, your advice would be to try not to go to perhaps the two or three that matter least to you.

Professor Whitty: Basically, what I am saying is that anybody who has something that really matters to them should concentrate on that thing and then build out from there, rather than just accepting every invitation and going to every bit of work in person. This very much applies also to work situations. Certainly, our team are way down in terms of the numbers coming in, and that is quite right, as with most other teams that I know. That is very sensible. Government guidance is to work from home if you can. That absolutely remains the guidance now.

Q5 **Chair:** To be more specific on something that is going on a lot at the moment, which are Christmas parties and office Christmas parties, I think what you are saying is that if you are one of those people for whom that kind of party is not essential, as compared to spending time with your family for example, it would be a good thing not to go.

Professor Whitty: What I am trying to avoid, and you are trying to make me do it, is making other people's choices for them. I want to say clearly that I think people should prioritise what really matters to them, and then cut down on the things that do not. For some people it may be that what really matters to them is going to the office party. Fine, but it should be for people to make those choices.

Q6 **Chair:** That is very clear and helpful. Thank you for that.

I want to move on to more questions about Omicron itself, and what we know and don't know. One of the things you talked about that we do not yet really have hard data on is the extent to which the vaccines will stop you getting seriously ill. So far, as I understand it, the studies seem to show quite a lot of vaccine escape after two doses, but much less after a third, booster, dose. Do those figures relate to antibody deterioration and T cell deterioration, or is it just antibodies?

Professor Whitty: There are two lines of evidence. There is the lab side of things and the clinical side of things. I know you know this, Chair, but I am laying it out for people watching. For both of those, there are three things we are interested in: the ability of the vaccine to stop people getting infected; the ability of the vaccine to stop people getting severe disease and ending up in hospital; and the ability of the vaccine to stop

people dying. In general, they get more and more effective as you go up that line.

What we have at the moment on the lab side is quite a lot of different labs looking at the antibody data, which is half of the immune system, as you imply. That certainly suggests that antibody response is much less effective against this variant than it was against Delta, Alpha and the original Wuhan strain.

That is likely to translate into reduced ability to reduce the infection, and that is indeed what we are seeing. The clinical studies are showing that lots of people are getting reinfected with Omicron who previously had been vaccinated or had a combination of vaccines and natural infection. It definitely is likely to bypass some of the ability to reduce infection.

What we do not have are very good T cell studies. They take longer to do, for one thing, from the lab side. What we do not have are clinical studies, from South Africa, the UK or indeed anywhere else, that say to us with confidence what the levels of protection of one dose, two doses and a booster dose are on hospitalisation and deaths.

Most people think, and on the positive side we all think, that there will be some preserved immunity, particularly on the non-antibody side—the T cell and the other side—and therefore it is likely that someone who has had one or two vaccines already will have some protection and, with a booster, considerably more protection against hospitalisation and death, even though the protection against infection is less good.

The final point I want to make on boosters is that it looks as if they restore some of the ability to reduce infection, probably quite a lot of it actually, at least for a period of time, so there are multiple reasons to get the booster. It will reduce your risk of severity. It will probably reduce the risk of mortality. It almost certainly will reduce your risk of transmitting and getting symptomatic disease. We really want to push the point that boosters are absolutely critical to this.

Q7 **Chair:** When do you think we will get good data on hospitalisation rates and risk of severe illness and death?

Professor Whitty: I think we will get some reasonable data from South Africa before we do from the UK, but that will be for two doses because they do not yet have a booster programme in the way we have. They will probably go first on the clinical side, but there is good data coming here. I will ask Dr Hopkins to talk about that, because UKHSA and specifically Dr Hopkins herself are leading on this.

In terms of the booster, obviously it will take longer because as of two weeks ago almost nobody was boosted. Now we have really good levels in the older population, but we have not yet got all the way down to the group that is actually being infected by Omicron. Susan, do you want to add to what I have said?

Dr Hopkins: We have a series of studies that we planned and have the analysis ready to run. What we know is that we need about 250 individuals in hospital before we can make a severity assessment compared with Delta, and also a vaccine effectiveness assessment. We start running that assessment when we start having enough cases who have been admitted to hospital to do it. Then we run it daily until we have enough power to determine that the results are effective, to allow us to make assessments to release.

Q8 **Chair:** How many Omicron patients do we have in hospital as of today, or yesterday?

Dr Hopkins: The release numbers that we released yesterday are 15. However, we are constantly working on data linkage to improve that. We will release new numbers this afternoon.

Professor Whitty: The real number will be much bigger than that. That is simply the number who are proven, just to be clear.

Dr Hopkins: Exactly.

Q9 **Chair:** Understood, but to give us all as members of the public an idea of timescales, are you expecting to have some reliable data before Christmas, in a week's time, or will it be January before we really know the answer to that question?

Dr Hopkins: I think the earliest that we will have reliable data is the week between Christmas and new year, and probably early January.

Q10 **Chair:** Thank you. Let me move on to another question, if I may, Professor Whitty. It is about transmissibility. There has been a lot of discussion about the doubling rate being two days or even less than two days. Mathematically, that would mean that within two or three weeks the entire population would be infected. Is that what you expect to happen, or would you expect the doubling rate to slow down as the infection progresses?

Professor Whitty: I think the doubling rate will slow down for two reasons. The first is that people are taking sensible precautions; it is very clear that they are taking sensible precautions and that itself will help to slow down the doubling rate.

The points we were making about prioritising the interactions that matter the most to you and the Government's advice on working for home are all designed to help slow this down, particularly at the beginning, to buy us time to get through the boosting. At a certain point, the number of people who have already been infected and have immunity, either from the boosting or from Omicron itself, will mean that the group of people it can then infect is getting smaller. That will also slow it down. At a certain point, it reaches a peak.

What we will see with this, and I think we are seeing it in South Africa, is that the upswing will be incredibly fast, even if people are taking more cautious actions, as they are. That will help to slow it down, but it is still going to be very fast. It will probably therefore peak quite fast. My anticipation is that it may then come down faster than previous peaks, but I would not want to say that for sure. I am just saying that it is a possibility. In terms of where we are going over the next couple of weeks, I think the rate of increase will be fairly impressive.

Q11 **Chair:** Let's talk about that peak for a moment. The London School of Hygiene and Tropical Medicine, which advises SAGE, says it expects that over the winter months 20 million to 30 million Brits will be infected with Omicron. It will peak at around 600,000 infections a day around the end of January, with hospitalisations between 3,000 and 7,000 a day. Is that your central expectation as well?

Professor Whitty: I have to admit that I am extremely cautious of forward projections on exponential models. This is not a criticism of the model, to be clear. The problem is that even a very small change in the inputs you put in leads to a very big difference in what you get out at the other end.

There are some critical things we do not know. We obviously do not know at what level it is finally going to peak. We do not know that yet. We do not yet know what the effects are in terms of hospitalisations of two doses of vaccine, of prior infection and of a booster dose. There is still debate about whether it could be a slightly milder version; I do not think it is to the point of actual triviality. All of these are really important. I am very careful. All the way through the whole pandemic, I have resisted putting into the public domain forward projection numbers, except over a very short time period when I think they are more reliable, simply because I do not think they are reliable, and you cannot put enough caveats on them.

Q12 **Chair:** Let's look at the numbers we know. We know that yesterday was the highest ever daily reported level of infections. You said you thought we might end up, because of the time lag to hospitalisations and deaths, with a record number of hospitalisations at a daily rate as well. We do not know, but we could do that.

The general view is that the NHS starts to really struggle if it has to cope with more than 4,000 in a day. I think the previous peak in January was 4,500. Do we have to confront the realistic possibility, even likelihood, that that 4,500 previous maximum will be exceeded?

Professor Whitty: There are several different bits to that. Of course, we are talking about huge uncertainties. I do not want this to be seen as me saying this will happen. I am just saying that there is a range of possibilities.

Certainly, with just over 4,500 people admitted at the absolute peak—4,583 to be exact—it is possible that, because this is going to be very

concentrated over a short period of time, even if it is milder, you could end up with a higher number than that going into hospital on a single day. That is entirely possible. It may be less than that, but I am just saying that that is certainly possible. The whole point about this is that it will be really concentrated in a very short period of time, very possibly.

There are two caveats to that, however. One of the things that matters to the NHS is how long people stay. If, for example, people stay in hospital for a shorter period because they are protected by prior vaccination, it means that the total number could still be lower even if the peak number per day was going up and was higher. The total peak number of in-patients was just under 40,000, at 39,254 to be exact. You could have a higher daily rate but a lower in-patient rate if there was shorter hospitalisation. Obviously, it could go the other way as well. The other thing is that the number going into ICU could also be quite a bit lower if, in addition to protecting against hospitalisation, vaccines provide additional protection against really severe disease.

What we should not assume is that, if we got the same number going in the front door, that necessarily translates into the same numbers in hospital in an ICU at some point in the new year.

Q13 **Chair:** We had a previous peak in January. What we did then was to control it by locking down the country. That brought the number down. Have you advised the Government that we need to be doing more now than we are currently doing to reduce the spread of Omicron?

Professor Whitty: I am going to give a formal answer, and then I will try to give a slightly more helpful one. My formal one is that the only formal advice is what comes from SAGE on the science side, and that is published. It is very important that we do not start saying, "This is what we said to Ministers on this, that or the other day." There will be a public inquiry and they will go through those. Other than that, the convention is—obviously, as a distinguished previous Secretary of State you would have expected the same—that advice to Ministers is absolutely confidential.

What the Government have said, and I think what we have all said, is that to make really tough economic and social decisions there are some key bits of information that we do not yet have, and there is a very wide range of possibilities as to where this could go—some of which are, as you imply, very difficult indeed for the NHS, and some of which are much less so.

We are getting new information the whole time. This is being reviewed by the Government the whole time, but they have a clear plan of action. Ministers have set out a clear plan of action that has two strands, one of which is around working from home, plan B things—all the things to try to slow things down at the initial stage of the upswing. The other, critically, is the booster programme. Obviously, if the facts change and it

becomes clearer that things are heading the wrong way, Ministers will always make constant reviews over time.

Q14 **Chair:** What I really want to understand is this. I appreciate that you cannot tell us about every detailed conversation that you have with the Prime Minister. In terms of setting expectations, at the moment theatre performances, Christmas parties and football matches are all going ahead, but if things continue to take a turn for the worse we need to be prepared for that to change. Is that what you are saying?

Professor Whitty: I think that, if it looked as if the vaccines were less effective than we were expecting, that would, for example, be a material change to how Ministers viewed the risks going forward.

Can I add one risk, which is going to happen irrespective? Because of the steepness of this, even if it ends up in a situation where boosters hold it to a large degree for a lot of people—there will still be a lot of people in the NHS; this is not an NHS point, however—a lot of people will simultaneously fall ill, be unwell and isolating or caring for others at the same time across the whole economy. I think we need to take that side of things quite seriously.

Chair: Thank you.

Q15 **Lucy Allan:** Professor Whitty, you have been very clear that Covid will be with us for a long time, if not forever. In the event of more variants of concern, is it your view that we will have to continue to live with reduced social contact—in your words, de-prioritisation—for years to come?

Professor Whitty: I will try to spin the way I see this over a long time period, meaning a five-year frame. I think you have just asked a really critical question. If I project forward, I anticipate that in a number of years, possibly 18 months, possibly slightly less or possibly slightly more, we will have polyvalent vaccines that will cover a much wider range. We will probably have several antivirals—we already have two reasonable ones—and a variety of other countermeasures that mean that the great majority, probably almost all, of the heavy lifting when we get a new variant, unless it is extremely different, can be met by medical means, because the vaccines will have wider coverage and the antivirals will pick up some of the remaining slack.

We have come from a place where we had absolutely nothing, so everything had to be done by social distancing and all the destructive things that went with that right at the beginning. Where we are at the moment is in a kind of transition period. A very large amount of it can be done by this, which is why the boosters are so absolutely essential, but we are not quite in the rather safer haven that I expect we will have in a couple of years' time. I do not see us having to do this repeatedly every few months. I see it as something where we are in a transition.

How we are responding to this variant is very different from how we would have responded in a pre-vaccine era. That is an example of how things are going to change. That change will continue.

Q16 **Lucy Allan:** Potentially, that transition period could last several years. Is that what you are saying?

Professor Whitty: No. I think what will happen is that the risks will gradually decrease over time. It is incremental; it is not a sudden thing. I think each six months will be better than the last six months. As to how fast that will be, it is always dangerous to predict science.

What has been impressive about this from a scientific point of view is that my expectations have been surprised on the upside all the way through on the science thing so far. We have had faster vaccines, faster clinical trials and faster new drugs than I would have predicted at the beginning of the epidemic—and, in fact, than I did predict at the beginning of the epidemic. My job is to try to give a cautious, central view. It could be slower than that, although actually there is a possibility that it could be faster than that, but I see a future that is much less risky than it is at the moment. As I say, it is less risky now than it was six months or a year ago.

Q17 **Lucy Allan:** You foresee a situation where we will be learning to live with Covid as we do with, say, flu, and that is the longer-term plan. Is that right?

Professor Whitty: Yes, and that is how we have dealt with every single major infectious disease. Historically, one of the things where medical science has been most effective is that, every time it has been faced with a major infectious threat, we have found a countermeasure. The last really big pandemic, a very different one, was HIV. The approach that we took to that was obviously completely different, but we now have medical countermeasures to it.

As to the future, in the long run, science will de-risk this. It is not going to go away as a problem. It will always be a problem. Some years it will be a big problem. The way I would see it with Covid at the moment is that it is rather like a hairpin bend that has been put in our way. We were cruising along at a reasonable speed. We now have to slow right down. We have to go round it. We have to get ourselves back on track with the boosters, and then we can accelerate out again. What we hope is that that will get less and less needed as the medical countermeasures mount up.

Lucy Allan: Thank you.

Q18 **Barbara Keeley:** I want to ask some questions about pressures on social care, given the link to NHS capacity. I have some points for context first. Amanda Pritchard and Stephen Powis wrote to NHS leaders to encourage discharge from hospital by avoiding the need for social care support through personal health budgets and hotel beds.

Reports of hotels being turned into temporary care facilities in Devon have horrified patient groups. Nadra Ahmed from the National Care Association said that hotels are not configured to deliver care, and questioned the safety and wellbeing of residents if they needed urgent medical assistance. Do you think that people can be cared for safely in hotels, and is this a proportionate measure to take in the context?

Professor Whitty: I want to start by saying that I am not responsible for the operational side, and I do not want to try to start making up NHS policy on the hoof.

Inevitably, what you have is a situation where, as with all emergencies, you are doing the least bad thing you can do, which is still going to be far from perfect. Many of the decisions we have had to take in the health service and the social care system have been things we would never want to do under ordinary circumstances, but they are less bad than the alternative. If the alternative is a situation where people are stuck in hospitals exposed to all the risk of that, and where the hospitals as a result have people who could be medically discharged and there are people queued up in ambulances outside with life-saveable but life-threatening conditions, that is clearly even worse than any of the alternatives. None of us would see this as a perfect solution. It is a situation you only want to have for a period.

Of course, there are some people who can be cared for in a hotel setting, and it is simply a matter of just waiting for them to have a placement. For some people that is absolutely fine. The job of clinicians will be to try to make sure, as best they can, that the people who are least at risk are the ones who end up going into hotels or similar kinds of things, and that the ones who are more at risk stay in hospital until such time as they have a placement they can move to.

This is a matter of the perfect being an enemy of the good. We have to accept that this is a very difficult period. It was always going to be difficult. Omicron has made it even more difficult. We are going to end up with some compromises that are not things we would normally wish to do.

Q19 **Barbara Keeley:** It is quite important that we talk about this. There is a danger of repeating past mistakes. I remember in evidence that you gave to us last year, Professor Whitty, you said, "It is clear that every country that has a care sector has not handled this well. The UK is one country that has not handled it well in terms of the issues in social care."

We said at that point in the inquiry that there were a lot of things that we had learnt and that we could do a lot better. You said, "I do not think any of us would look back on what has happened in social care and say the ideal advice was given." How do you think the mistakes of last year's discharge policy can be avoided this time around? Who is advising Ministers on the care sector and safe discharge? Their advice was not very good last year.

Professor Whitty: I would like to sharply draw a distinction when it comes to the discharge policy, which actually was a bit more complicated than it is sometimes portrayed and was not what I was talking about. I think the discharge policy was, in many situations, a safe policy, but I am happy to come back to that. In a sense, that is an old debate. I think we are looking to a new set of threats.

Q20 **Barbara Keeley:** It is just not repeating the mistakes that were made before.

Professor Whitty: I want to be clear: I completely agree. There were several mistakes that we made. I will give a couple of examples, which I think we are not doing now.

The first mistake we made is that I do not think we were fast enough on cutting down on people working between care settings, rather than staying in a particular one. That was absolutely essential. We did not spot the effects of people not having adequate sick pay, which was an obvious point. It is one of those things that is obvious when you see it, but we had not seen how much that was driving things.

There were several others that are things we will need to come back to. We have not, in my view, repeated those mistakes this time around. We have learnt a lot from previous events.

The most difficult decision at the moment for Omicron is how we balance needs to allow families and very close friends to see people in care—I am talking particularly about elderly care—against the need to reduce the risk of this incredibly infectious infection getting in, in particular before we have got everyone boosted and their immune system responding. That is a really difficult trade-off.

What we do not want is a situation where, over the Christmas period, people are left completely alone, but nor do we want outbreaks we can avoid. We are trying to navigate a route between those two very clear needs. That is probably the most difficult decision at this point in time.

Q21 **Barbara Keeley:** I have a further question that affects capacity. I do not know how aware you are of the workforce crisis in social care, but using personal health budgets, as has been suggested, as part of discharge relies on there being staff to be employed as personal assistants and available to take on that care.

The current situation has been described as the biggest recruitment crisis in social care that anyone can remember. Not only is that the case, but care providers are reporting that Government funding allocated for the recruitment crisis is not making its way past local authorities to them. Take any temperature on that and it is very difficult.

Do you think that the very limited capacity and workforce issues in social care will significantly limit how many patients can move out of hospital beds into the community? Do we need to think about what measures can

be taken to deal with that, if it is the case? It seems to me this week that that is the case.

Professor Whitty: I need to be very careful. My job is to answer questions that only a doctor can answer. This does not strike me as one that is a doctor's question really, but I will give an answer as best I can because it is very important for the management of the situation.

There is a very serious issue with recruitment in social care. I think that is widely accepted. The difficulties of the social care system are of long standing over many years. It goes back over several Administrations, so it is not a here and now problem. It has been a long-term issue. There have been several recent serious attempts, including indeed under your distinguished Chair, to look at what we can do to improve the situation in social care. I do not think I am the right person to give a view on that. I acknowledge that the question you are asking is a very sensible question. I am just saying that I am not the right person to answer it.

Barbara Keeley: Thank you.

Q22 **Dean Russell:** Professor Whitty, you will know that there has been quite a debate this week about the introduction of the plan B measures. Many people, myself included, voted them through based on data, insights and predictions given by yourself and other colleagues.

I wonder if I could ask you a few questions now on some of that data, and some of the questions I have heard since that time, one of which is whether you could share the percentage of positive cases against the number of tests being reported and, whether moving forward, we will begin to see those trends more publicly.

Professor Whitty: On positive tests versus tests reported, I am going to turn to Dr Hopkins because that is a UKHSA issue.

Dr Hopkins: We report NHS Test and Trace statistics on a regular basis and the number of tests reported positive from each of the channels. There is the home testing channel, versus on-site testing, versus adult social care, and we look at lateral flow. We can see that there is a very big variation in those. Walk-in testing usually has the highest test positivity because those people are symptomatic, for example. Adult social care has very low positivity because what we are doing there is regularly and repeatedly testing people who are well to avoid infections coming in.

That data is produced on a weekly basis and forms part of the traditional NHS Test and Trace statistics. We report the number of tests performed on a daily basis on the coronavirus dashboard, and the number of positive individuals.

Q23 **Dean Russell:** One of the comments that I have heard is that, as we are now testing right down to children aged five, for example, the chances of having a higher rate of infection is going to go up because the sample

data is higher. Is that a fair thing to say, or is that skewing the data?

Dr Hopkins: First, we release in our weekly reports age testing rates and also positivity rates in children of all age groups. We have always tested young children who have had symptomatic disease. The only change in the advice that has come out this week is that daily testing, if you are a contact, will go down to children as young as five to reduce transmission in schools.

Q24 **Dean Russell:** Perhaps I could come back to you, Professor Whitty. One of the other comments I have heard is that people are concerned that we are prioritising Covid over other things, especially with the Omicron variant—over cancer and other serious issues. What would you say to that?

Professor Whitty: That is sometimes said by people who have no understanding of health at all, but I do not think it is said by anyone who is serious, if I am honest. When they say it, it is usually because they want to make a political point.

The reality is, and if you ask any doctor working in any part of the system they will say this, that what is threatening our ability to do cancer and to do all these things is the fact that so much of the NHS effort, and so many of the beds, are having to be put over to Covid—that we are having to work in a less efficient way because Covid is there. Finding a way to manage Covid that minimises the impact on everything else is absolutely central to what we are trying to do.

In a sense, I completely agree that there are multiple other things in addition to Covid. If we do not crack Covid at the point when we have big waves, as we have now, we will do huge damage elsewhere. The idea that the lockdowns cause problems with things like cancer is a complete inversion of reality. If we had not had the lockdowns, the whole system would have been in deep, deep trouble and the impact on things like heart attacks and strokes, and all the other things people must still come forward for when they have them, would have been even worse than it was. I want, through all of you, to make it absolutely clear that that is an inversion of reality.

Q25 **Dean Russell:** That is an excellent answer; thank you. I have a very last question. One of the concerns I have had coming through is about Omicron and the impacts on children. Do we have any more evidence now about what impact there could be that is different from, say, the Delta variant?

Professor Whitty: That is a really important question. Very initially, some of the South African data implied that there might be a slight increase in the number of children getting it, compared to previous waves. It is still nothing like many of the other infections that are primarily infections of children.

As the data have gone on in South Africa and, for what it is worth, in our early experience in the UK, we are not seeing that develop. At the moment, my view is that it is too early to be sure, but I do not think there is anything to say that we should change our advice about the relative risks for children. The total number of people infected with this over a short period is going to go up. A lot of children will get it, but only a very small number, hopefully, will get into trouble as a result, because it is not a trivial disease. I think we would still stick to the view that it is much milder in children than in older adults.

Dean Russell: Thank you.

Q26 **Sarah Owen:** Professor Whitty, I have two topics for questions. One of them is pregnant women and the other is new variants. I will get started straightaway.

In August, only 22.2% of pregnant women were vaccinated, yet one in six of the most critically ill patients are unvaccinated pregnant women. What should the Government be doing to increase take-up, and was it a mistake to not include pregnant women in priority vaccination groups sooner?

Professor Whitty: On the first of those, I completely agree with the point you are making. The uptake of vaccination in pregnant women is depressingly low, and, as you say, significant numbers of women have come to serious harm as a result. Almost all the women who are in hospital or in ICU with this have not been vaccinated. Vaccination really protects pregnant women, and pregnancy is a period of vulnerability.

I think we should have made that point even clearer earlier on. This is not a Government point; it is a medical profession point. Of course, obstetricians and people like me have said it. I have said it several times publicly. The chief scientist here in the Department, Lucy Chappell, who is an obstetrician herself, has said it. We have all tried to say it very strongly.

There are a lot of myths around this, and that is the thing we really need to take on. We need to say, "Look, it is not true that there are increased risks with this vaccine. What is true is that Covid and pregnancy is a dangerous combination." We absolutely should be encouraging everybody who is pregnant to get vaccinated because that helps protect them, and that is in the long run in the interests of their baby and their future. I absolutely agree that it is a serious problem, and everybody should be doing everything they can to increase that.

In terms of the change of emphasis, I think the JCVI are looking at this. I hope that they will give an answer on it pretty soon.

Q27 **Sarah Owen:** Thank you, Professor Whitty. I think it is probably quite shocking, given the statistics and what you have just said about the importance of pregnant women getting vaccinated, that the JCVI has not prioritised pregnant women sooner.

I want to break down the 22% a little bit further. It is shockingly low, and it is even lower when you look at the statistics on ethnicity, for black, Asian and minority-ethnic pregnant women. Are there any plans to prioritise an education programme for healthcare practitioners as well as for pregnant women? What is going to be done to increase that low vaccination rate for pregnant women as a whole? Do you know if there are any plans in the pipeline for it?

Professor Whitty: There is a really quite strong communications push. Acknowledging that it is not my area of expertise, I have seen a lot of activity on this. In a sense, there are two things intercepting. There is a really strong communications push to make sure that we are much more focused on making sure that we get overall messages on vaccination through to people from every community in the UK, including ethnic-minority communities. That is essential and we need to keep pushing on that. It is getting better overall, but it is nowhere near as good as it should be.

Within that, there is a separate thing on pregnancy in ethnic minority groups. I know that individual practitioners, as well as particular places where there are high concentrations of ethnic-minority groups, are doing everything they can to get the message home that vaccination in pregnancy is really important for the safety of mum and, therefore, for the long-term benefits for baby as well.

Q28 **Sarah Owen:** Thank you. With the spread of Omicron, do you think pregnant women should be better supported to work from home, or stay at home, and be financially supported if they cannot work from home?

Professor Whitty: I am going to revert to a point I made earlier. That is not really a medical question that I feel I have a particular expertise on, except the general point that I would want pregnant women of course absolutely to be supported medically very strongly. The most important thing, reverting to your first point, is the vaccination.

Q29 **Sarah Owen:** Thank you. I will move on to new variants. Is it time to move from focusing on just our national vaccine statistics and more towards a global vaccination rate regarding the spread, and slowing the spread, of new variants?

Professor Whitty: I very strongly believe, and I am very confident that everybody—both my fellow panellists and all of you on the Committee—believes that we should be maximising the number of vaccines available in low and middle-income countries. It is a humanitarian need. It is a need as fellow global citizens. Actually, it is enlightened self-interest as well because this is a problem for everybody wherever there is an issue. There is absolutely nothing to be lost and everything to be gained.

Let me put a "but" on that. The biggest "but" is that in Africa and the resource-poor parts of Asia, where I had the privilege to work for much of my early career, there are good vaccination systems for vaccinating children under five, but there is not a system designed for vaccinating

older adults, who are the biggest priority everywhere in the world. We cannot just say, "Here's a crate of vaccines. Off you go." We also have to look at the delivery system. We need to see this as a whole system problem and not just as a product problem, but I basically agree with the thrust of what you are saying. I do not think that is controversial, incidentally. I think everybody would agree with that.

Q30 **Dr Evans:** I have a couple of context-setting questions, if that is all right. Dr Hopkins, what is the current R value?

Dr Hopkins: The overall R value that was reported on the dashboard last week is between 1.0 and 1.2. However, it should be noted that there are two current variants circulating. One is Delta, which remains relatively stable in number, and the other is Omicron, which is increasing very rapidly. With a doubling time of every two days, the R value for Omicron is estimated to be much higher. There are very broad-brush estimates of between three and five at the moment.

Q31 **Dr Evans:** With regard to that, what is the absolute risk to those who are vaccinated and unvaccinated of the Delta variant?

Dr Hopkins: What do you mean by vaccinated and unvaccinated?

Q32 **Dr Evans:** What is the risk of mortality for those who have Delta and have had two vaccines and for those who have had none?

Dr Hopkins: For the vaccinated, in Delta, vaccine effectiveness reduces the risk of death by 95%. The absolute risk varies by age. If you are over the age of 70, it is extremely high. If you are under the age of 40, it is extremely low, at less than one in 10,000. The risk varies with age, and vaccine is the key to reducing that risk.

Q33 **Dr Evans:** It is very important to get vaccinated. Do we know the relative risk yet of Omicron with regards to vaccinated and unvaccinated people?

Dr Hopkins: Not for severity or mortality. As explained, we need to have a number of cases to be able to do that. We know that the vaccine effectiveness to reduce symptomatic disease is lower for Omicron than it is for Delta. After two doses of Pfizer, for example, more than eight weeks later your vaccine effectiveness for symptomatic disease in the community is about 40%. Once you have boosters that goes up to about 75% for Omicron.

Q34 **Dr Evans:** It is really helpful to get the context, and why the boosters are so important.

Professor Whitty, at the start you talked about the very first pandemic and when we heard about it, and the whole plan was population risk reduction. Washing your hands is easy to implement and has a big reduction. Mask wearing is the next level. Do you have a strategy on each of those implementations regarding how much risk it reduces? Do we know that handwashing reduces by, say, 10% and mask wearing by

5%?

Professor Whitty: No. The problem is that there are lots of numbers bandied about, but what you really have is different combinations of things you can do, each one of which interacts differently with the others. If you take it in isolation, you would never randomise one group to have a face mask, another group to have handwashing and another group to open the windows. What you are going to say in reality is, "Do the whole lot." They all build on one another and different ones affect different bits of the risk. The handwashing is about things you might pick up by touching, because someone has coughed on a table or something, whereas opening the windows is particularly important for anything that is aerosol, for example.

What we would all say is that all of those are moderate impact things incrementally, but if you put them all together it is much larger. You must do all of them because they help to protect you against different elements of the risk that are surrounding you—the droplet, the aerosol or the fomite on the table.

Q35 **Dr Evans:** You have beaten me to it, Professor Whitty, because that is where I was going. I know it is for Ministers and the Prime Minister to decide what to do, but how is the data presented over which combination you put in place? For example, we could have chosen to have the rule of six return. We could have gone into tiers again. We could have closed clubs or pubs. How is it decided which constellation comes together?

Professor Whitty: I am going to simplify what is obviously an extremely complicated and difficult process for Ministers. The first layer is, what are the things that we can do that have no obvious downsides, socially or economically? Saying to someone, "Wash your hands, put on a face mask and open the windows when you can," has absolutely no downsides. Why would you not say it? The first question is, can we get through this just with those?

Then there are some things that have a bit more impact, socially and economically. The Government have to take a view on that because they have to balance things. The next level up is clearly things like advising working from home, as the Government have done. It is not in law but it is in guidance; things like, "You must wear a face mask," rather than, "We would really like you to."

You then go up a ladder of intervention. Each step of the ladder adds some protection, but as you go up the ladder the impact on society or the economy gets greater. The difficult decision for Ministers is how far up the ladder they should decide to go at any point in time. That, very much, is the way I would conceptualise it.

Q36 **Dr Evans:** That is very helpful. Now we have the context of why the vaccines are so important. We have the way in which you can deal with it for the general population.

One of the biggest problems facing us in the future is the fact that about 10% of the population are currently not vaccinated. The current first vaccine rate is about 22,000 over a seven-day average. We have a problem in society. How do we deal with the 10% or 5%, whatever it turns out to be, of people who will not get vaccinated, given all the context you have given to all the other questions, and that now we know about the importance of the vaccine? For those 5% to 10%, medically, what is your response on how we could deal with that? What are the options you would present in front of Government?

Professor Whitty: It is a critical question. There is a very small but very noisy number of people who basically, due to weird conspiracy theories and all sorts, are just simply never going to get vaccinated. Except when they work in places where there are lots of vulnerable people, the view of the Government is, "Fine, we just have to accept that." Of the 10%, a very large proportion just have not got round to it. They are really the people you are addressing your question to, in a sense.

I think there are basically four things people want to know and that we have to do, and make sure are culturally relevant as well. That does not just mean ethnically cultural; I mean making sure every bit of society feels that we are talking directly to them in a way that they feel comfortable with and trusting of.

The first thing is that they want to know that the disease is a big enough threat that it is actually worth doing anything at all. That is a really critical thing. Secondly, they want to know that the vaccines actually work. On both of those, we have incredibly good evidence. We know that it is a big threat and we know that the vaccines work.

The third thing is that they want to know that the side effects are proportionate to the benefit the vaccine is giving them. We have to keep on going at that one because there are huge numbers of myths out there. The people who believe them are not anti-vaxxers. The anti-vaxxers start them, but the people who believe them have just read something on the internet, they are worried, and they need serious information put to them.

The final thing is that we need to make it convenient. Convenience makes a very big difference. I found it very striking when I was last on the wards that an awful lot of the people I spoke to who had not had vaccines, and who, unsurprisingly, were disproportionately there, said, "I hadn't got round to it yet." There were a few you would meet who just believed all sorts of nonsense, but for the great majority it was, "I hadn't got round to it yet."

It is a combination of making sure that their fears are correctly, politely and scientifically addressed, and making it as convenient for them as possible. My hope is that the huge boosting campaign that is going on at the moment also gives people who have not had their first or second vaccine an opportunity to come back and say, "Look, the threat has gone

up again and now is a really good time to get my first or second vaccine," and obviously for everybody else to get a booster.

Q37 **Dr Evans:** That is really helpful. My final question is to Dr Waite. One of the things the CMOs have agreed is to suspend the 15-minute wait post Pfizer for boosters. Are there any other things that you are looking at that may well help with throughput, given how important we have just heard it is to get boosters and given that convenience seems to be the main thing? What are the Government looking at doing practically from your position that may well make a difference to making the booster programme as successful as possible?

Dr Waite: You have touched on one of the key things, which is that by suspending the 15-minute wait you can get an awful lot more patients through any given clinic. That applies not just to the very large vaccine centres. I have had the privilege of working in quite a few community pharmacies during the booster campaign. It makes a real difference there because there are only a limited number of places where people can sit to wait. That is a great big plus.

I am not on the operational side of the vaccine programme, or planning it, but there are two key things from that I want to draw attention to. The first is opening extra, very large, booster centres. I know that Wembley will be open this weekend. I think the Chelsea stadium will also be open. Those will help to get the numbers up, and to get throughput.

The next thing, which is quite important for the points that Professor Whitty was just making, is the much smaller and more convenient centres, the places that people trust. During the primary campaign, I was lucky to work with a GP in west London who had opened a vaccine centre in a community centre as part of the mosque. Going to places that people trust, seeing people who are community leaders and being part of the planning of the vaccine programme for their community will not only help to increase the number of slots available but increase the ability for people to get to a vaccine centre that feels relevant to them.

Chair: Thank you.

Q38 **Laura Trott:** Professor Whitty, I want to go into a bit more detail, from the Chair's questions at the outset, about the link between case numbers and hospitalisation. Obviously, with the vaccines we hope that we have broken to a very large extent the link between cases and hospitalisations. Can you take us through where we think we are in terms of the percentage of hospitalisations that we expect from Omicron and how that differs from Delta?

Professor Whitty: The very short version is that we do not yet know, unfortunately. I am going to make an assumption, which I think is safe now, that naturally Omicron is not more dangerous than Delta. It may be slightly milder, or it may be the same; we do not know. This is before vaccination. Let's assume it is roughly the same.

If we compare where we were, let's say, with the last big wave—not the Delta wave we have just had, but the one before that—the infection hospitalisation rate for people 65 or over for that wave, prior to the vaccination programme, was about 22%: 22% of older people who got infected would end up in hospital. After two doses in the big vaccination programme, accepting the last point that some people did not get vaccinated, but overall, that drops to 6%; 6% of over-65s who were infected ended up in hospital. It was much lower in younger people. To be clear, I am just talking about older people here.

The question with Omicron is, first, is it intrinsically milder? I do not think there is clear evidence that says it is, actually, at this point in time. There are, correctly, reports that there are lower hospitalisations in South Africa than the last wave, but I am not sure that guarantees it is milder. It may be—we do not know—but that is one possible question.

The second question is, after you have had two doses of vaccine, and then three doses, with the booster, by what percentage does it reduce its severity compared to what it would have been, and is that as good as Delta? It is unlikely that it will be better than Delta because it is less well matched. Is it as good as Delta for severe disease despite not being so good for infection, or is there some reduction in that severity? That is the key question for what is going to happen for the health service as a whole over the next period. It is critical that we wait for those data before we jump into saying, "This is what is going to happen."

The worst that would happen, in my view, would be where we were back in the Alpha wave earlier this year. The top end of expectations would probably be for two vaccines to be where we are and the 6% for Delta, but it is possible that with a boost we are better off with Omicron than we are with two vaccines with Delta for severe disease. I do not think that is likely for infection, but it is possible. We honestly do not know. The range of possibilities is really quite wide. That is why it is very difficult to make definitive views about where the NHS is going to end up in the next four weeks.

Q39 **Laura Trott:** Unless we have a significant change in the hospitalisation rate, with the type of numbers that we are talking about for Omicron infections we are looking at some very serious hospital admissions. Is that fair to say?

Professor Whitty: Yes. Of the things we know about, most of them so far have not fallen our way. This has lots of antibody changes. We have lost at least one of the drugs. We know that it is less effective on infection, but we do not know some critical things like severity. We do not yet know for sure. We know it is not trivial, but beyond that we do not know. We do not know the effects of boosted vaccines. If they all fall our way, the numbers will be less concerning. If they do not all fall our way, and so far we have not been lucky in Covid, and planning on that basis, the numbers in hospital over a short period could be very high indeed potentially.

The big issue is that they are all going to come in a very concentrated time. This goes back to the Chair's original set of questions. The same number spread over three months might be much easier for the NHS to handle than the numbers we might see over a very short period of time. That is really a very big issue.

I am afraid, if I can add an additional point that I think people just have to realise, this will also be happening at a time when a very significant number of staff are going to be off ill, isolating or caring. You are going to have both a reduction in supply and an increase in demand in the health service over a very short time period. That really is the reason why we are all taking this extremely seriously.

Q40 **Laura Trott:** In terms of hospital-acquired infections, which we know have been significant throughout the process of this disease, what more can we do on that front? It seems to be even more infectious than previous waves we have seen.

Professor Whitty: Yes. We have a problem on infection control. We have learned a lot, and I think infection control is much better than it was because we have learned as we have gone through. Unfortunately, two things will go against us. This is more infectious than previous ones. It seems to have an extraordinary intrinsic ability to infect. That is going to make it harder. One of the mainstays of our approach was vaccination. Booster vaccination will reduce transmission but it is probably not going to take it right down to where it would have been with booster vaccination against Delta.

We will do everything we can within the health service, but I think we cannot claim that we will get away scot-free on this. Even with really good, rigorous approaches, there will be hospital outbreaks and other health and social care outbreaks. We will do everything we can to minimise them, but I do not want to set people up to fail by saying, "No, we won't have any." We will have some, unfortunately, because of those two factors.

Laura Trott: Thank you, Professor Whitty.

Q41 **Greg Clark:** Professor Whitty, if we reflect back on the last 20 months, we have taken different approaches, understandably, to try to suppress the spread of the virus. We have had very significant lockdowns. We have had regional tiers. We have had detailed, specific restrictions.

In the last 10 days, the Prime Minister has urged people to get boosted and we see queues round the block. You have said, and you have repeated it today, that people should prioritise their social contacts. We know that they are already doing that. People are withdrawing from some events. Are we in a phase in which broad advice, rather than detailed, as you put it, "You should do this or should not do that," restrictions on people, is the right way to be thinking about this now?

Professor Whitty: It is where we are now, but if we were in a situation where, for example, it looked as if the boosters were not going to be as effective against severe disease and transmission, and we were facing the kind of situation we were talking about in the last exchange, Ministers are clearly going to have to consider what else needs to be done.

I go back to the very standard public health concept of the ladder of intervention: the further up you go, the more damage you are going to do in other areas. Ministers fully have to balance those, which is very much their prerogative, and obviously that of Parliament. Balancing those, the bigger the threat, the further up you probably have to go.

Ministers have made decisions based on what we know at the moment. If the information that comes in is reassuring, it will tend towards one direction. If the information the comes in is distinctly not reassuring, it will tend to another. That is very much the way the Prime Minister and Ministers are looking at it.

Q42 **Greg Clark:** Let's consider the optimistic side: that we get through Omicron perhaps quicker than we might have thought, the spike happens and we come down it quickly. What would trigger the exit from the current set of restrictions and the advice that you and others are giving?

Professor Whitty: I think we have seen before, most recently in summer this year, a very clear de-escalation of advice even though, at that stage, there was still some residual risk. We accepted that and we talked through the logic of that. Some people criticised it, but that was the decision of Ministers and there was perfectly sensible scientific logic that made it a reasonable thing to do. There were alternative paths, but they chose that one.

Ministers are always in the position that they can go up and down as the facts change. That is very much the approach Ministers have sensibly taken as we have gone on. I am really cautious, to go back to the stem of your question, about making policy on the basis that everything might go right. In my view, that is not a sensible basis on which to make decisions. I think you should make decisions based on a range of possibilities, rather than just assuming that everything is going to fall our way from here on in. We should always be cautious about that.

Q43 **Greg Clark:** Indeed, and that is not the implication of my question. It is to consider the scenario, which, hopefully, at some point will happen, in which we can de-escalate. What is likely to trigger that? Is it a fall in the prevalence rates, a fall in infections? Is it reaching a certain level of boosters in the population? Is it knowledge based on evidence of the severity of Omicron? What is likely to trigger such a reconsideration?

Professor Whitty: There are multiple exit points, and they depend on what happens next. It is a very sensible and good question. It could be, with absolutely every bit of news that came in from here on, that we

discover that with boosters, double vaccination and a milder variant, we can de-escalate quite quickly and it will not cause a big threat.

An alternative scenario is that there could be a very sharp wave, but the wave decreases quite quickly afterwards, so there could be significant problems but for a relatively time-bound period. There could, at the other end, be an exit but a longer exit, where it is not until you have an Omicron-specific vaccine, which, based on what the manufacturers say, will be between four and five months, and that would be the exit strategy.

There are so many unknowns at the moment in saying which of the exit strategies it will be. I am very confident, as you have implied, that there will be an exit strategy, but when it will be, and how quickly we will reach it, depends on a lot of factors that we currently do not know. Fundamentally, that is where we are at this point in time.

Q44 **Greg Clark:** Will you have the agility to de-escalate if the results of the various factors that you mentioned go in the right direction? Will you be able to intervene and stand down your advice to minimise social contacts, for example, and to advise that the plan B restrictions should be stood down before the time when they expire at the end of January? Are you set up to do that?

Professor Whitty: I think you know this, but I want to be clear for the record. To be really clear, those kinds of decisions are for Ministers, not for me. I will give the scientific advice. SAGE gives scientific advice formally, with the Government chief scientific adviser. We give data and Ministers take decisions.

In terms of my own advice, in a sense, I have put more stringent advice to the general public because of Omicron. We had less stringent advice before Omicron arrived. The public want us to keep them safe. At the same time, they want us not to over-egg it at a point when it looks as if things are getting back to a more normal situation. Of course, people will turn up the dial and turn down the dial as necessary. Of course, there are people in Government, rightly, who are arguing for the very strong economic implications of doing anything more than we need to. It is always about balance. All the way through this, it is about balance in the advice in both directions.

Q45 **Greg Clark:** You are giving advice directly to the public. I do not necessarily criticise that. People are interested in your views and respect your experience and judgment on this. You have advised people to prioritise their social contacts.

That is advice that you are giving directly. Generally, in the past, you have made the point to my Committee that you advise on the medical aspects and then Ministers have to weigh in the balance the consequences for society and for the economy, and come up with recommendations that bring the medical advice and the further

consequences together.

If you are giving advice direct to the public, that process is not taking place, is it? Therefore, how do you ensure that it is not one-sided advice? To go back to my point, are you prepared to have the agility to adjust your advice that is out there if, as we hope eventually, it will be appropriate to do so?

Professor Whitty: I am extremely clear on what I think the role of an independent adviser is and what I consider is the very paramount role of Ministers. From the very beginning, with the very first chief medical officer in the 1850s, chief medical officers have always given advice to the general public, but Ministers rightly reserve to themselves anything to do with the law and anything to do with balancing against the economy.

This is advice that I think any chief medical officer would have given. I do not think that any Minister feels that I am treading on their toes on this one. This is my job. I also consider that questions about things like further measures are very much for Ministers. It is about drawing a line between the two. The expectation is that the chief medical officer and medical advisers will talk, as doctors, independently and give advice as long as they do not stray into the job that is specifically for Ministers.

Greg Clark: Thank you, Professor Whitty.

Q46 **Chair:** There is one very final question from me, Professor Whitty, about the advice that you have been giving over the last day and the issue of compliance with it. Isn't the fundamental problem that people feel personally feel safer now if they have had two or three jabs, but the NHS is potentially more at risk because of the nature of Omicron and the fact that we have 4 million or so unvaccinated? How do you persuade people who have had three jabs to be more cautious?

Professor Whitty: I started the whole pandemic with very high confidence in the British public's ability to perceive risk and make really sensible collective judgments. That has only strengthened over time. My experience all the way through has been that people take these things very seriously, and what people do demonstrates that, as indeed does indeed polling. People accept that if they have had three doses, with the booster, they are at lower risk, but they will still take sensible precautions. I am very confident in people's ability to say, "Look, for the benefit of everyone around me and for the older people I come into contact with, I am going to be more cautious over a period because these numbers are clearly going up very, very fast."

In answer, in a sense, to both of your questions, it would be very odd to reduce that advice at a time when the numbers are spiralling up. The time to start considering whether to reduce is when the numbers are starting, reasonably consistently, to come down. People look at the data and think, "Look, I want to reduce the risk for everyone around me, for my family and for myself. I'm just going to take sensible and proportionate precautions at this point in time."

Chair: Thank you. Professor Whitty, Dr Hopkins and Dr Waite, you have been very generous with your time. We appreciate you coming this morning. We wish you all a safe and happy Christmas. Thank you very much indeed.