Health and Social Care Committee

Oral evidence: Coronavirus: lessons learned follow-up, HC 908

Monday 4 March 2024

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Watch the meeting

Members present: Steve Brine (Chair); Paul Blomfield; Chris Green; Mrs Paulette Hamilton; Rachael Maskell; James Morris.

Science, Innovation and Technology Committee member also present: Greg Clark.

Questions 1612 – 1657

Witnesses

I: Professor Sir John Bell, Regius Professor of Medicine, Oxford University.

II: Professor Dame Jenny Harries, Chief Executive, UK Health Security Agency.

Written evidence from witnesses:

– [Add names of witnesses and hyperlink to submissions]

Examination of witness

Witness: Professor Sir John Bell.

Q1612 **Chair:** Good afternoon. This is the Health and Social Care Select Committee. We are having one of our one-off topical sessions this afternoon, following up on our previous work that we did jointly with the Science, Innovation and Technology Select Committee on *Coronavirus: lessons learned to date*. As well as the Health and Social Care Select Committee members who are sitting around the table, we also have the right hon. Greg Clark MP, who chairs said Committee. Welcome, Greg, and thank you for coming along. I should say that Greg's Committee is currently holding its own inquiry into Covid-19 and emerging diseases, which is quite a broader scope than this one-off session. We have our first guest with us for only about 35 minutes; then we are going to hear from Jenny Harries from the UK Health Security Agency.

Without further ado, I will introduce Professor Sir John Bell, who is Regius Professor of Medicine at Oxford University. It is very nice to see you, sir. Thank you for coming back. We published that report with the Science and Technology Committee, *Coronavirus: lessons learned to date*, in September 2021. We did a joint update session on it with both Committees together, and we last heard from you in November 2022. How time flies when you're having fun.

We have not heard formally from you since on this Committee, but you probably follow the proceedings of the Covid inquiry, as do we all. We catch glimpses on the news and in written reports, and some people even watch the live sessions. What have you learned from listening to the Covid inquiry so far that you didn't know already? I should also just say that this is no time for modesty.

Professor Sir John Bell: To be honest, from my impressions, I have been a bit disappointed by the inquiry as it has gone so far. I had hoped that it would lead us to a position where we understood what we did right and wrong in the last pandemic, but also what we could do to deal with the future challenges of infectious disease pandemics, and we have not really got there. To me, it looks more like a make-work programme for the legal profession, frankly, because I don't think that we have got into any of the real, serious detail of the science that underpins it.

There has been a lot of discussion about process. One of the implicit outcomes was that, if we have another pandemic, it might be good to have a different team in No. 10. I am not sure how that is helpful or germane.

Chair: We already do have a different team in No. 10.

Professor Sir John Bell: Exactly; it is very unlikely that Boris is going to pop up again for the next pandemic. Look, it is what it is. If I may say so, the report that your Committee did with Greg's Committee was a pretty good piece of work. As you know, I was pretty close to this all the way through and it pretty much replicated my views. We started badly and

got better. In the end, we managed to work our way out with some pretty good science and interventions. That was really the punchline of how it all played out, and I don't think that I would rewrite any of that. It is absolutely the way that it happened, and your work on that was really helpful.

Q1613 **Chair:** That is very kind of you to say. This session is about reflection. People say things in the immediate aftermath of a crisis. Many things were said, and most people stand by them, rightly so, but, as time goes on, you reflect and you have time to think about things. You see them in the context of other things that have happened since. Looking back now, in early March 2024, how do you reflect on our understanding of Covid-19 and of the pandemic and how we handled it?

Professor Sir John Bell: You are right. My judgment on this has shifted a bit. One of the things that you become very aware of is that we were confronting a crisis where no one had any substantial experience of how to deal with this. It is very easy to be critical about lots of people, but the truth is that we did not really know how to deal with this when we entered it and we had to learn as we went along.

We did pretty badly at the beginning. The system was largely unprepared for that particular type of pandemic event. I do like to remind people, because it is very relevant for the future, that this was—I will not call it mild, because a lot of people died—a relatively easy pandemic to manage. The case fatality rates were relatively low. It happened to be a pathogen for which you could make a vaccine relatively easily, as we did. It was possible to get on top of it in a number of ways.

It is very sobering to think of what a really severe pandemic would do to this country. The team at Airfinity, who were some of the best people in collecting data during the pandemic, have run the model and have said that, if the original virus that popped up in Wuhan had not been Wuhan, but had been omicron—just another member of the same family, which was more infectious but would be meeting an immunologically naive global population—the mortality would have been five times what we had.

I can tell you that, if the mortality had been five times what we had, the whole system would have collapsed. It seems to me that that is what I would call a very close call. If you had a pathogen that killed a lot of young people—teenagers and children—that would have caused all kinds of trouble. If you had a pathogen such as the severe, highly pathogenic flus that kill 30% to 50% of the people who get them, that would have been a problem.

In a sense, we have had an opportunity to learn from our experience with Covid-19, but what is crucial now is that we lock in those learnings, so that if we did get one of these other really bad events, we would be much better positioned to deal with them.

Q1614 **Chair:** When you last spoke to us, you said, "The UK needs to be pretty

proud of its ability to track variants at scale using genomic sequencing". However, you said, "The big issue is not what happens in the UK but what happens globally…It is not hooked up very well; there is not a very coherent way of tracking variants as they emerge globally. There are some databases, but they are not ideal for this".

If I may just then link you to what is a controversial subject that Members of Parliament get lots of correspondence on, there have been debates here in the House around the pandemic preparedness treaty and the work that is going on at the WHO at the moment. What are your reflections on where the global economy is in respect to pandemic preparedness and tracking?

Professor Sir John Bell: One of the things that happened, which is understandable but not helpful, is that we got to the end of the pandemic at, let us say, the end of 2022 or whenever, and we had lots of other crises brewing. We had the war in the Ukraine that popped up. We had inflation, the energy crisis, and all that stuff. This is not a UK thing but a global thing. People said, "Look, we've done Covid. We have had enough of Covid. Let's go off and do something else."

The pace at which the world retreated from trying to deal with, manage and think about infectious pathogens was eye-watering. It really disappeared. The global surveillance strategies are a good example. There have been 15 ideas that have not hung together. It is not a single plan. I am sceptical about whether the WHO plan and the treaty are going to work. I cannot see how that treaty is going to get a global system organised.

We are thinking quite hard with the team in Oxford about how you get a really coherent system, which will pick off variants of a wide range of pathogens, so that you don't have to have teams of bioinformaticians working on what is going on, but it just pops up and you can do that in an automated way.

The question then is how quickly you can scale sequencing of pathogens globally. The UK was an exception, as were South Africa and a bit of Australia. Most places didn't do much sequencing. We have to get the world much more prepared to be doing that at some scale, so that we know what is passing through the system. It is not in a good place.

Q1615 **Chair:** You say that you are worried about how people have backed off, just because of the "enough already" mindset, which is understandable, but potentially dangerous. What could we, as a Committee of the House of Commons, say to British Ministers about the leadership role they could take in trying to encourage a bit of "some more, please", instead of "enough already"?

Professor Sir John Bell: There is potentially a system out there that you could build quite quickly. Interestingly, there are really only two sequencing platforms at the moment that could be used for pathogen sequencing at scale. One is Illumina, which is a very good platform run by a big American company. The other one is the Oxford Nanopore

platform, which is run by a UK company, which is probably ideal. You may have seen them, but they look like a pencil case, and you can get point of care testing and genomic sequencing.

The UK could reach out and, possibly through the Foreign, Commonwealth and Development Office, get to the wider UK Commonwealth community and get people to start working together a bit more effectively on generating sequences, but crucially, putting those sequences in some kind of single, cloud-based database that is validated and available for use. The biggest single obstacle is that people don't want to share data. We are not sharing data about people. We are sharing data about bugs, and it doesn't seem to me to make a lot of sense not to share data about bugs, particularly when they could come back and bite us all.

The UK could provide real leadership in these areas to get that in a much better place globally. Even if we just took the Commonwealth and got everybody working together, that would be a pretty good signal detection system, widespread around the world, with lots of capabilities, in high, low and middle-income countries. There is a way to do this if we wanted to.

Chair: Those are great thoughts.

Q1616 **Greg Clark:** Thank you, Sir John, for what you said about our joint Committee's report and for your leadership during the pandemic. You were not just an expert commentator but an active participant in the response, and we are grateful for that. Would I be right in thinking that it is your view that a further pandemic is going to happen at some point?

Professor Sir John Bell: I would bet the house on it. It is definitely going to happen, so everybody should just get used to that. The real question is what the likelihood is of that happening in the short term. It will definitely happen in the medium or long term, for sure. As you know, there are many things pushing humans together with a wide range of other species. We are doing a lot of things that are very high risk. Climate change is not going to help with that, because insects are moving all over.

Some of the better estimates suggest that there is a 20% or 30% chance of having another pandemic in the next 15 to 20 years. That is a big number. Whether it is a really profound pandemic or one that is not so bad, we will have to wait and see, but it seems inconceivable to me that we will not have another big event.

Q1617 **Greg Clark:** You pointed out that even the Covid pandemic could have been worse.

Professor Sir John Bell: It could have been much worse. Case fatality rates of 1% or less for respiratory viral infections are, for people who have lost loved ones, a disaster, but, to be clear, from a societal point of view, that is not so bad.

Q1618 **Greg Clark:** The reason for our joint Committee report and inquiry was

that we thought that you needed to learn and apply the lessons immediately, because the threat continues to be there. The public inquiry that is taking place seems unlikely to make any conclusions and recommendations for many months at least. Would you agree with me that it would be wrong if the Government and their agencies were to say, "We need to wait for the results of this inquiry," because that would be exposing us to risk?

Professor Sir John Bell: I agree completely. We need to do stuff now. We have to also work with the global community to do more global things, but we have to get ourselves sorted out as well. Let's wait and see, because they have years of deliberations to go, but, at the moment, I haven't seen any insights as to how we prepare ourselves better for the next event. That may be coming in some future iteration, which would be great, but it would be foolish to wait for that.

Q1619 **Greg Clark:** One aspect of that is the vaccine production and manufacture, to which the vaccine taskforce made a very big contribution. You were associated with that. The Science, Innovation and Technology Committee has taken evidence from Kate Bingham, Clive Dix and Ian McCubbin, who are luminaries of that approach. Their evidence to this House is that the lessons have not been adequately learned from the success of that process, in particular the links with industry and manufacturing. In many cases, we have retreated from that. What is your perspective?

Professor Sir John Bell: People need to understand that, to have a really successful vaccine programme that could pivot and get to very different places, given that we don't know what pathogen is going to come over the hill, you do need to be able to move quickly. You need different vaccine platforms. You need onshore manufacturing for all of those, which is hot and ready to go. You need clinical trial capacity, so that you can test and evaluate them at scale. You need a regulator that is ready to go. We got to most of those things in the pandemic, but now, post-pandemic, a lot of them have disappeared or certainly contracted.

If you take manufacturing, for example, I was pretty worried very early on that we were not going to have onshore manufacturing for the vaccines that we needed. In the end, people stepped up. Oxford Biomedica did some great stuff. Cobra did some great stuff. We managed to get stuff to happen. It happened that our homegrown vaccine was relatively easy to make, and we had some good manufacturers that could do it, but that won't necessarily apply to all the successful vaccines. We need to have industrial capacity in vaccine manufacturing at scale.

As you know, we were, as were you, behind the VMIC concept, which we thought was a pretty good idea.

Greg Clark: The Vaccine Manufacturing and Innovation Centre.

Professor Sir John Bell: That is right. The idea there was to make sure that you could make small amounts of vaccine at good manufacturing practice—GMP—quality, so that we could test them in phase II studies

and early phase studies and so that, if you had candidates, you could get them out there very quickly.

UKRI had not quite managed to build the thing by the time the pandemic started, and so, in the end, it got built out as a much bigger facility, which is understandable. It got bought by Catalent and is now, as I understand it, in mothballs, so we are now no further ahead than we were in 2017, when you and I had that idea. That is a really terrible mistake. I don't know how it has happened, but we have ended up without the capacity to do these small-scale GMP manufacturing kits.

Q1620 **Greg Clark:** Who is responsible for getting that right? Is it the Department of Health and Social Care or some other Department?

Professor Sir John Bell: That was built out through the industrial strategy challenge fund. The funding came through the Department for Business, Energy and Industrial Strategy which you led at the time, Greg, but it had a lot of input from lots of other people. It was not just us who had this idea. Industry thought that it was a good idea. Academia thought that it was a good idea. Even the Department of Health thought that it was a good idea, even though it didn't put any money in.

We have a corporate responsibility for making sure that the bits that you need to respond properly are in place, are running, are operating and are warm, so that they are always on and you can pivot to these things. What we learned most of all is that if you start from the beginning and you have to turn stuff on, it takes too long. If you were having a pandemic that was killing lots of small children, for example, or was killing 40% of the people it infected, you would not want to be standing there, but we would be, I am afraid, if we had to start again.

Chair: That is a very acute expression, that it should be "always on". That it is not worries me greatly.

Q1621 **Rachael Maskell:** Thank you ever so much for coming in again. I have read your comments about the Moderna deal and your concerns about that. Could you set out what those concerns are and why you think that putting all your eggs in one basket will have a negative impact on the flexibilities that you have talked about to pivot to various pathogens as and when they arise?

Professor Sir John Bell: To be honest, we did really well with vaccines in this pandemic. We had two types of vaccines. We had the viral vectors and the mRNA vaccines, and they worked remarkably well at taking the edge off the severe end of the disease. You will remember, because certainly Greg and I talked about it, that it was always our intention to stop people dying face down in intensive care units, which was horrible, and we did that. By the spring of 2021, we had fixed that problem with the vaccines, which was great.

The truth is that there is a lot about the vaccines that we still don't know, but as time goes on we are getting a better sense. They don't really stop transmission of the virus. They are not very durable. The mRNA vaccine's

durability is five or six months. These are not great vaccines, so we need good vaccines for that and other respiratory pathogens. Everybody said, "We fixed that," and we have walked away.

The Moderna deal is an interesting deal. I chair its advisory group, so I am quite close to it. It is a great company and it has done a good job, but that is not the answer. You can't go, "Tick, we have now done vaccines"—oh, my goodness me, you can't.

What is interesting is that the pandemic has spurred a renewed interest in developing new platforms for vaccines that could be fantastically powerful, but they don't seem to have any traction in the UK. For example, there is some beautiful work coming out of Pam Bjorkman's lab at Caltech. If you put a mosaic of a whole range of coronaviruses on a single nanoparticle, antibodies can cross-link to two types of coronaviruses or different variants of the coronavirus. That makes the antibodies that you generate not directed at the highly variable bits of the virus but at the conserved bits of spike, so that the chances of being able to get a response that protects you against not just Covid-19 but also all the other sarbecoviruses are quite high.

Who is doing that in the UK? I don't get it. There really isn't much going on, even though—guess what—the SpyCatcher platform, which is what they are all using, came out of Oxford, from Mark Howarth and others. These are all examples of us perhaps losing the plot a bit on where we could get to.

Q1622 **Rachael Maskell:** In many of our inquiries, we have looked at the regulatory framework. The flexibility has really enabled the work to come forward to get a vaccine into people's arms quickly. What has happened since and what has to happen to ensure that we have that future preparedness in the regulatory framework?

Professor Sir John Bell: The regulator did a great job. There is no question that the MHRA was a stunningly good regulator, but, as you also know, because they moved the EMA to Europe, the regulators lost quite a lot of resource. They have shrunk their capacity. One of the things that I am very worried about is that we are now subcritical in terms of the number of people with bums on seats in the regulator.

I have made this point before. If you have an innovation cycle where you discover stuff, you develop it, you translate it, you regulate it and you put it into people, if you then break that chain at any point, you might as well not have the chain at all. There is a risk that, by not funding the MHRA properly, we are going to break the chain. I know that they are trying very hard to reform the way in which they do things and to be agile and effective, but you need resource for a regulator to work in this modern world, and we need to look quite hard at whether we are giving them enough resource to keep them in the right place.

Q1623 **Rachael Maskell:** Finally, I would like to ask about skills. A lot of high-level skill was invested within the programme, which brought us to being

able to bring the results that we did. There has been a lot of loss of skill, and it is let go. What needs to happen? How prepared do the Government need to be? How much skill do they need to retain? How do they scale up, should the capability be required?

Professor Sir John Bell: This gets back to my "always on" point, which is that if you say, when you have an event, "It is time to train some people up," you have missed the boat. Forget it. You have to have a cohort of people who know what they are doing and who can move really quickly and flexibly, get stuff manufactured, get stuff approved by regulators and test out new platforms. Those people have to be in play.

In my view, that is what the science base is for. That is not just the academic science base but the commercial science base as well. We need to encourage companies to do things here, so that we have all of their skills and capacities onshore. One thing that we saw for sure during the pandemic is that when times get tough, the borders go up and it is not that easy to shift stuff. Supply chains go south. You cannot move manufactured stuff back and forth. We were lucky, because we had most things here, but that was more luck than careful preparation. "Always on" is exactly the right expression.

Q1624 **Chair:** I just feel the need to slightly clarify something that you said, John, about the vaccines and transmission. Vaccines are not meant to prevent transmission. When you came to us in 2022, you said that the durability of the vaccines was impressive, to the point where you were not entirely sure that boosters were required, so you are not questioning the efficacy of it.

Professor Sir John Bell: Let me explain this. Again, this is a good example of how we haven't really sat down to think about vaccines' correlates of immune protection. The vaccines stop that really horrible pneumonia. There are several bits to the Covid syndrome. The worst bit was that inflammatory pneumonia that sent people into intensive care units with very low oxygen saturations. They needed to be ventilated and a lot of them died, mostly elderly people over the age of 50. After the vaccines that we started with, two doses, that is done. We have not seen that reappear, in any setting.

What we have not dealt with is the fact that, if you are standing in the Tube in January and somebody coughs on you, the chances are that you are going to get something that is a flu-like illness or a head cold, the sort of thing that keeps you off work for three days. It is a classic respiratory virus, a bit like flu. The vaccines are not very good at stopping that, and there is an interesting question about whether we could get vaccines that were better at that.

Chair: I understand. Thanks for the clarification. People listen very carefully here and I don't want to set any hares running that don't need to run.

Q1625 **Paul Blomfield:** I am conscious of your time, so I want to focus just on one issue, which is the clinical research environment post-Covid. I was

not on the Committee when you last gave evidence, but you described it then as "much worse than it has ever been in my memory". It is an issue that we keep coming back to in many of our inquiries on different topics. How do you assess it now? Have there been any improvements?

Professor Sir John Bell: There are several aspects that remain at a critical point. One is that the clinical trial environment is still not good, and there are some reasons for that. The NHS is flat out trying to get the waiting lists down and all the rest of it. Nevertheless, our numbers of commercial clinical trials have been really poor. Lord O'Shaughnessy wrote a nice report, which people are trying to implement. Let us see where we get to, but that would help. The truth is that the UK has never been very good at commercial clinical trials, and yet we should be the best place in the world for them, so that needs a proper look at again.

Why would we not want our citizens to be the first to get access to brand-new medicines paid for by companies, not by the NHS? There are so many advantages to that. I would say that that environment still needs quite a lot of work, frankly. There are signs that it may be getting better, but it needs a big push to get it in the right place.

The second big domain, which is, again, a really critical piece—and this gets back to the point about workforce—is that we are having a really hard time giving young clinicians the idea that it might be good having a career in clinical science, running clinical trials, testing and evaluating new medicines and devices, and doing the kinds of things that the UK has always had this fantastic reputation for. The UK has always been viewed as perhaps the home of great clinical science. These days, you cannot get young people to fill the jobs. They don't want to put their hands up. It is really bad.

The system in the NHS has not encouraged them to take an academic line. If you are a medical student and you have an opportunity to go off and do some research for a year, you get no credit for that when you are looking for jobs and as your career progresses. We should be promoting that. We should say, "Why don't you do that? If you do that, you get a tick, which means that you will get to a better place to do your postgraduate training."

That is a really serious problem. The MRC is worried about it. The Academy of Medical Sciences is worried about it. It is a really serious problem, because if we lose our talent base, we will be in real trouble.

Paul Blomfield: Can I push you on both of those?

Professor Sir John Bell: Yes, of course you can.

Q1626 **Paul Blomfield:** It is a good point in terms of giving credit for research in medical training. Are there other things that we could do to make the clinical research environment more encouraging?

Professor Sir John Bell: Making it easy for kids to do clinical research training alongside their conventional clinical training, which is the point that I just made, is quite important.

The other thing is that, in my view, we don't use the power of the NHS for clinical trials or clinical research. We have some great, high-powered, top-end institutions: Cambridge, Oxford, UCL and Imperial. There is a list of half a dozen that are world-class globally. If you rely just on those for training people and giving them exposure, or doing clinical trials, you are not going to have any impact.

Where the recovery trial in Covid was so successful is that they forgot about the big academic guys, because they didn't recruit any patients, or very few. They went to the big district general hospitals where most people get seen in the NHS and enlisted people there. They got the staff enthused and got people engaged. They put people's names on papers who never thought they would ever be on a paper, but because they contributed it helped a lot. It seems to me that we have now lost that again, and yet it is so important.

When we talk about levelling up, that is a key bit of levelling up. Why should the folks in Bolton not have the opportunity of being involved in clinical trials in the same way that they do in Oxford? It should be the same deal. We could then train people in all of those places. We could really develop a much better cohort of people to do it. If you asked me whether I could wave a wand, the wand that I would wave is to make it more systematic across the whole country.

Q1627 **Paul Blomfield:** That is a really positive and quite exciting point to make. We have heard so many times about problems in terms of commercial clinical trials. If you were waving the wand, what is the silver bullet or at least the top priority there?

Professor Sir John Bell: One of the real problems is that we are really slow at getting clinical trials approved. The problem there is one of governance, in that if you come here with a brand-new drug, you want to treat people with asthma or ulcerative colitis—you choose the disease—and you want to do a multicentre study of 20 or 30 hospitals around the country, each hospital has to sign off a governance approval. Rather than saying, "Let us have one hospital look at this carefully, and then, if it says 'tick', everybody else is in and they don't have to go through it," we have left it with every single institution. If they change a few words in the patient information sheet, it has to go back out to everybody again, so it is designed to go unbelievably slowly.

There are many examples of commercial trials where we get around to recruiting the first patient into the trial about the time that the trial stops, which is really not good enough, frankly. It is a disgrace, if you want to know my opinion. We have to do better than that. There really is no need for it. It is just overregulation. It is unhelpful.

Q1628 **Chair:** In closing, we have talked about top-end stuff—the surveillance, the research, the science, the testing, the vaccines and all of that stuff—but it was said that we were in a very bad place as a country to receive a respiratory virus like this, because we have poor health. We are too big. We are overweight.

We are also doing a major prevention inquiry, as you know. I just wondered if you would give us two minutes of your thoughts on what we as a Committee should recommend around that agenda.

Professor Sir John Bell: I have a big suggestion: invite me back. I can give you three hours on that subject.

Chair: I can guarantee you that we will invite you back.

Professor Sir John Bell: I will give you two minutes, just as a starter for ten. What is really clear now is that, for about 80% of the time that we have a disease—heart disease, diabetes, cancers and many of those things—we are completely asymptomatic. We are brewing very bad trouble, because we are living in a miasma of bad risk factors, such as obesity, high blood pressure, high blood lipids and a whole host of things that are going to cause trouble over time.

We are really bad at thinking about how we can diagnose and prevent disease earlier. If you do that, you flatten all that late-stage morbidity. The problems of the healthcare system turn out not to be some rare type of cancer where people have a drug but there are only 100 cases in the country. That is terrific. That is great. The truth is that the problems are obesity, diabetes, cardiovascular disease, asthma and mental health, and guess what? We are no good at any of them. We don't have services for obesity. We don't have services for mental health. We don't have services for prevention. It is a mess. That applies not only to the research agenda, which has not been targeting those things, but also to the clinical agenda.

That is a domain where there needs to be some really serious thought about how we create a structure that will enable prevention, early diagnosis, and a different type of healthcare from what we currently offer.

Chair: We are doing our best. Professor John Bell, I wish that you would say what you think when you come before us—it would be so refreshing—but, as ever, you have held back completely. I joke. It was nice to see you. Thank you very much for your time. We will let you go and we will seamlessly slide our second guest into your seat.

Examination of witness

Witness: Professor Dame Jenny Harries.

Q1629 **Chair:** That was Professor John Bell, who is a Regius Professor at Oxford, and replacing him is Professor Dame Jenny Harries. It is very nice to see you, Jenny. Jenny is the Chief Executive of the UK Health Security Agency and is a very familiar face from the pandemic news conferences. She is still here. She is a survivor and a familiar face to this Committee and to Greg Clark, who is guesting with us today. Jenny, as you know, Greg is the Chair of the Science and Tech Committee, who you saw last week. You cannot get away from us. We work together.

As you will remember, our Committees held a joint inquiry looking at Covid and the lessons learned. A lot of the things that we put in our report back then are well known, and Professor Bell talked to some of them. The Covid inquiry trundles on, and you heard what Professor Bell said there at the start. How do you think the Covid inquiry is going at the moment in terms of helping you do your job?

Professor Dame Jenny Harries: I am sure that you are familiar, Chair, with the fact that I am a senior civil servant, so it is probably not my place to comment precisely on the Covid inquiry.

Q1630 **Chair:** Is it helping you do your job?

Professor Dame Jenny Harries: On one hand, it is a huge amount of work, and that has both positives and negatives. It takes considerable amounts of time for every senior individual in my organisation, in a very big way. On the positive side, it allows you to revisit and keep challenging yourself, and, on some of the points that Sir John was mentioning, to make sure that we are progressing those things. I would really welcome the opportunity to put perhaps a more positive position on some of the points that were just made. Would that be all right to do now?

Chair: Please do.

Professor Dame Jenny Harries: I am sure that you will ask me on many of them, but, on pandemic preparedness and all the work that we do, there are things that we do quite well or have improved. There are things that we still don't do quite well and need to improve. In the middle, there are things that some people know are happening and other people don't, and sometimes we get reports that things are not happening.

If I just use the previous example about clinical trials, which are not my responsibility but sit very much in the Department of Health, there was a huge move to reset the clinical trials agenda, for all the reasons that Sir John gave, which I fully support. There was a report back from the Department of Health on the O'Shaughnessy review.

He mentioned that, in terms of turnaround for commercial trials, all are now being done within the 60-day trial approval time. On average, we are recruiting more than double the number of patients into commercial studies than we were pre-pandemic. There is a new decentralised model of clinical trials, so that picks up the Bolton issue. The goal for 80% of all open studies to deliver to time and target by June 2023 was met.

I want to put a slightly different angle on some of these. I chaired a meeting last week with the UK Pandemic Sciences Network, which was really helpful, because it allows all of us to put in what we know is happening and what we don't know is happening, and to get a wider picture.

I could have given an entirely different narrative on genomics use, for example. You asked questions about how that is working internationally. There is an international pandemic surveillance network, supported by

WHO and set up in Berlin. I don't think that we have anybody there at the moment, but when it was setting up, the UK Health Security Agency supported that. I have co-chaired the leadership group for that.

UKHSA has a programme called the new variant assessment platform, which allows us to support other countries. We work in nine countries, with seven regional teams, supporting the development of genomics for those countries. Whereas it is to support the country to grow its capabilities, it has added benefits, because it allows us all to share data routinely. There are a whole host of areas that are happening, but one of the issues is that not everybody knows that they are happening, which is an important point for the Committee to understand.

Q1631 **Chair:** That is one important point that you know is happening, but if I go back to some of the recommendations from our joint report, we talked about our pandemic planning, some of which went on when I was at the Department. I put that on the record, as I have before. It was very inflexibly based on a flu model, which failed to learn the lessons from SARS, MERS and Ebola. This meant that our planning, as we said in our report, performed less well than other countries when it was needed most. We talked about trying to manage the spread of Covid through the population rather than trying to stop it altogether. We talked about groupthink. We talked about the social care sector not being adequately represented on SAGE. We talked about stopping community testing very early in the pandemic. We talked about the successes of the vaccine programme.

You know how I worry, Jenny. Following on from Greg Clark's questions to Professor Sir John Bell there, it is perfectly possible that the Covid inquiry will go on into next year, never mind for another few months, which will, therefore, span the next Government of whatever colour. From what I have heard today, we don't have time for this bureaucratic train to trundle its way through the British state while travelling around the United Kingdom on its tour to Cardiff and Edinburgh, examining the personalities, who said what to whom and when, and who sent which text message to whom.

That is why I worry. John Bell said that you can bet your house on it that there will be another pandemic, and it could be before this inquiry reports. As the Select Committee that scrutinises your work, give us the reassurance that you are not waiting for Godot, but are on the case with preparedness planning for the next pandemic.

Professor Dame Jenny Harries: I will. The inquiry is not anticipated to end until at least 2026. That is quite a daunting prospect, if you are sitting in my position, because of the number of modules that are scheduled through as we go forward. That is common knowledge. I don't think that I am saying anything out of turn. Exactly for the reasons that you gave, I want to take the learning from the pandemic and, as the first module reports fairly soon, we will take that. To a degree, we are waiting to finesse the work that we are doing and to check that we have thought

through all of those things, but that is not what we are waiting for to get on.

There were some very obvious points of learning from what we have done already. We could see, as we were responding to the pandemic, that there are opportunities to proceed. I will skim through a few of them, and you might want to home in on some.

Chair: Give us three.

Professor Dame Jenny Harries: I will give you three. On systematic preparedness about detection and surveillance, the Joint Biosecurity Centre was established during the pandemic. That now forms our data analytics and surveillance group. It is a priority group in a new area of development. We have fabulous people, led by Stephen Reilly, who led the REACT study when it started off. We are majoring on that, and I will flag two things that we are doing.

One is the systematic analysis of data, so we have gone back through and looked at what we think are priority pathogens, where all our data comes from and how we report that. We are working through a steady programme of, first, trying to digitally link that. As Sir John was saying, nobody is processing this data. It trips off and triggers, so that, in due course, there will be a much more automated system and a wider dataset.

Importantly, the Government have put in train work on a new biosecurity strategy, which is published. We are leading work that is still in its pilot phase of trying to understand whether we can develop a quite ambitious one health biosecurity surveillance network. That is looking right across Government, at every Department. If I said something like avian flu or swine flu, you would say, "Do we have all of those data links systematically coming in together?" It is our responsibility at the moment to try to see if that is a possibility for the future, and we are leading that piece of work. There are a number of others as well.

That is surveillance, and there is good work on that. What would I go to next? On diagnostics, you will be aware that, during the pandemic, PHE—Public Health England—did a very rapid turnaround on coronavirus tests, but that was built on scientific work that had been in train with WHO before. They had been participating with WHO on developing a pan-corona assay that you could then tweak when the coronavirus came.

In Porton, we have funding of £3.6 million from CEPI to support the onward development of pan-coronavirus assays. This is about getting ready ahead of time, so that we are at the nearest possible place to having a diagnostic test. If you don't have a test, you cannot find out who has the virus. That work is ongoing and fits in with the development of investments during the pandemic in a vaccine development and evaluation centre at Porton Down.

Linking that then to vaccine development, Sir John mentioned the Moderna partnership, but I would just like to quash one of the narratives.

Just because there is a partnership with Moderna—and it is a very significant one, which we can come back to—I don't think that that automatically means that no other vaccine platforms are under consideration. I would totally agree with Sir John that we need all sorts of vaccine platforms. We don't yet know what the long-term benefits are. My sense is that mRNA, for all the reasons that he gave, is a really good one to have ready to hand to go for a new pandemic, but, for longer-term control, you may want to use a different platform.

Q1632 **Chair:** Is that because mRNA is, using my layman's terms, very flexible and very pliable, and you can tweak it to do what you need it to do to latch on to the virus?

Professor Dame Jenny Harries: Yes. For example, when we had the new swine flu variant, which I was talking to the Science Committee about in November, I did have some sleepless nights. I don't think that that filtered out into the wider public, but that could have been the start of the next coronavirus pandemic. We did a run-through of how we could do our test scale-up, and then, if the Moderna factory was up and running—which it is not at the moment, but should be within the next 18 months to two years—whether we would be able to process that through. One of the challenges there is about the 100-day mission and to say, "What can we do?"

Q1633 **Chair:** This is the G7 piece of work.

Professor Dame Jenny Harries: It is. It is an ambition. It won't work for absolutely everything, but the idea is to get from a pathogen to test treatments and vaccines within 100 days, and we think that we could. There are all sorts of ifs and buts around that, but it starts to put things in a completely different picture. If you can do that, and you have early warning from somewhere else, because your surveillance is different and you have developed a different testing capacity—for example, you have automatically tweaked your lateral flow test because you have developed your assay earlier—you have, all of a sudden, a different control scenario, whereby you may have early LFDs. At Porton Down, we are still continuing to test all of the lateral flows coming through with new variants, but you would have early assays and LFDs going out, so you wouldn't need all of the infrastructure for average community testing. You would definitely need it for monitoring variants and developments, and you would have a new vaccine quickly.

That is one positive end of the spectrum. I am positioning it that way because the conversation earlier was quite negative, and the reality is probably sitting somewhere in the middle.

Q1634 **James Morris:** I wanted to bring us down to the impact of the pandemic on social care. The original report from this Committee said, "The experience of the sector during Covid is one of intense stress, with some decisions made which caused the experience of residents and their carers to be more difficult and which, sadly, are likely to have resulted in more deaths than was inevitable". As the Chair said, and as we have discussed,

it is possible that a pandemic could hit us next week. Would the social care system be in a better position than it was in 2020?

Professor Dame Jenny Harries: The answer is yes, and I will come on to why, but it is an area that I feel very strongly about. It has historically been dissociated from healthcare, and is one area that I have put on record in my personal responses to the public inquiry where there is a lot of opportunity going forward. We will never remove the fact that these are the frailest and most vulnerable individuals in society. That is why they are being cared for, and we have to bear that in mind when we are looking at outcomes.

There are a couple of areas that I would particularly flag. One is that there is a lack of research on what I might call the balance point. In fact, I tried to enable some of this in the middle of the pandemic when I was chairing the social care SAGE subgroup. As you rightly pointed out, something that may seem more obvious in terms of infectious disease control for the general population is very challenging when you have individuals who are responsible for their own health and what they choose, and people caring for them, with any of their actions also impacting the care and outcomes for other groups, so we are into quite an ethical minefield. In fact, we consulted with ethical colleagues in the middle of the pandemic.

We tried to put in place a piece of research to look at the balance of risk between something such as an individual not receiving a visitor, which is really significant for somebody, particularly if they are suffering from dementia, and the risk of infectious disease itself. For a number of reasons we couldn't do it during the pandemic because it relies, eventually, on somebody making a value choice, and it is difficult.

Q1635 **James Morris:** There were quite a few people in the care sector during the beginning of the pandemic who were warning the Government or the authorities about what may happen. Do you feel as though their voice is being more listened to? Do you have processes in place to listen to the concerns of the social care sector in a way that was different from what happened at the beginning of the pandemic?

Professor Dame Jenny Harries: I am not sure to whom you are referring. That is quite a general statement.

Q1636 **James Morris:** I was aware that the National Care Association and other bodies were issuing concerns at the beginning of the pandemic about the impact on the social care sector, what may need to be done, and the fact that it was very fragmented. How can we be confident that we have moved beyond that?

Professor Dame Jenny Harries: The system that we have and the way that the care system is set up is clearly for Ministers and Government to decide, and I don't think that I can comment on that. What I can comment on is what we have done to try to improve the context in which we are working.

One of the really successful pieces of work, which has a very practical implication now, was the VIVALDI study. When it was clear that there were a high number of deaths in care homes very early on, a small study was put in, which we refer to as the Easter 6. It was done over the Easter bank holiday to try to get some signals about what the risks were and how we could manage them.

That then moved on to the VIVALDI study, where we worked with Professor Laura Shallcross from UCL, who has led some fantastic work. There were three phases of that VIVALDI study. In fact, she used to come to the SAGE care subgroup and we used to pick up the findings. We would check how robust they were. You don't want to take research before it is conclusive, but where it was very clear that there was a signal, for example in terms of care home staff moving between settings and the risk of infection transfer, we would then take that and feed it directly into discussions with the Care Minister in order to manage the risk. That was hugely successful.

It was a key problem at the start of the pandemic. Because it is a fragmented system and not a national system, there was no single national data source. In terms of getting routine data and understanding routine surveillance, we get outbreak information and have a lot of knowledge about care homes, but it was not done on a normal surveillance basis. VIVALDI stopped at the end of April 2023. We have put in a pilot programme, which UKHSA is funding, and are working with Professor Shallcross. It is on a voluntary basis for care homes, but there is a lot of interest in establishing a routine surveillance system for care homes. We are aiming to get somewhere between 500 and 1,500 care homes feeding in. That should be enough for us, as long as they are representative. There seems to be generalised interest across the care sector.

Q1637 **James Morris:** In the nightmare scenario that a pandemic was to emerge very quickly, would you be confident that you would be in a position to advise Ministers that we have better data surveillance about what may or may not be going on in the care home sector, and also that we would have better protocols about how we are going to deal with the impact of a pandemic on the social care sector? Would you be able to say that?

Professor Dame Jenny Harries: We have progressed. There is still work to do. What I have just described is new, but it is starting to answer your questions. Part of that work is about training in care homes. If you train and work with individuals, can you improve outcomes? That would also be able to inform any new infectious disease outbreak.

Q1638 **Chris Green:** On the Science, Innovation and Technology Select Committee last week, you were asked a question about the data around excess deaths. You were quite cautious about supporting the release of that data, but you said that you would look into it. Have you looked into it?

Professor Dame Jenny Harries: I am reaching for my piece of paper. I now understand that the question related to a letter that has gone to my own organisation. It went to Professor Reilly, which was why I had not seen it at that point, and to the Secretary of State. I know that a formal response will come back to that.

There were a couple of key points about that. One was about the data that had been shared, and there was a suggestion that the UKHSA had shared mortality datasets with pharmaceutical companies. As far as we can see—and we will do a formal search—we don't routinely share with any of the pharmaceutical agencies record-level mortality datasets that include vaccination dates, doses and/or comorbidities, which was the main point of the question.

We have received a freedom of information request on that information, and we are trying to understand what we can and cannot release. We have released anonymised aggregate data to manufacturers. This is for their own vaccines to support their obligation to report to MHRA as part of the routine safety surveillance, but these data are commercially sensitive.

The other thing is that the conversation started about excess all-cause mortality, which is based on aggregated data, and it only signals. I want to flag the realities of this, because, to report an excess, you have to have a baseline as well. For something like flu, where we would normally report an excess mortality rate, we know that flu goes in seasonal patterns. We know what the baseline is, and then you can give an assessment. For Covid, that has not been established in the same way, so it is important that people understand that as well.

Since Covid-19 vaccines were introduced, UKHSA has worked with MHRA, the Office for National Statistics and other academic groups on vaccine safety. Those are led by MHRA, hence my comment back to you, Chair, for the Science Committee. An important point is that there are very large datasets on things like open safety, where vaccine mortality has been looked at, and it has shown protective effects for when it is restricted to non-Covid mortality. If you are looking at people who have not had Covid but have had a vaccine, there is no increased risk, so this is stepping right away from some of those risks.

If you just look generally, at countries that have had higher vaccine uptake, they have lower excess all-cause mortality. That is quite generalist. The key point here is that we have looked. We don't routinely share. There is a commercial sensitivity element around this, and we will answer that question very soon in full.

Chris Green: I appreciate that answer. I also appreciate the concerns that there are over sharing patient data and that, with significant sets of data, it is quite easy to find patterns on it that don't mean anything or can be interpreted in a wrong way.

Professor Dame Jenny Harries: Exactly, yes.

Q1639 **Chris Green:** One of the concerns I had during Covid, particularly before the second lockdown, was around impact assessments. We had gone through one lockdown for a long period of time. It had an impact on the economy, wider healthcare access and children's education. When I visit schools in the constituency now and I ask whether there has been any impact or what the impact of Covid or the lockdowns was, teachers still tell me there is a really significant observable impact on children's educational performance and the way they interact with other children and wider society.

You were talking before about surveillance. We have been discussing the probability, in the not-too-distant future, of a further pandemic, which could be significantly more severe. What commitment have you made to making sure that more data is more available to appropriately skilled people so we can have that proper national debate during the course of a pandemic, which we did not really have during Covid-19?

Professor Dame Jenny Harries: This goes into a much wider consideration than just UKHSA. For example, the data on school attendance or impacts on schools does not sit with me; it sits with the Department for Education. We could multiply that. The economic impact sits in other Departments. This came up in the public inquiry, but we all recognise that the breadth of impact on the country is why this is not just an infectious disease issue. All of my colleagues would recognise that as well.

For schools in particular, clearly, education is really important. That was recognised all the way through. I am a generalist public health physician. I recognise the importance of that from working as a jobbing director of public health. Your question, though, is about how we actually do that.

As Sir John flagged earlier, he has noted that we could have a really difficult pandemic. Let us suppose we have a pathogen that targeted children. That would create a very different set of circumstances for understanding whether it was safe for children to attend school and where the balance of risk was. As the CMO has often said—I will paraphrase him incorrectly, I am sure—none of the decisions is a good one. It is about going for the least-worst one.

Q1640 **Chris Green:** That is why it is so important to scrutinise the idea that Covid did not have much of an impact on children and the question of whether schools should have been closed down. That is one thing. I get the sense that people would have preferred for schools to have been more opened up. Yes, if the pathogen had targeted children, you would have societal support for that kind of isolation and preventing that transmission. It is just about the commitment to a slightly more open approach.

Professor Dame Jenny Harries: Everybody recognises that education is really important for children, and nobody wants to close schools unless it is important. Schools were generally the last to close and the first to open. All the UK CMOs put out a statement recognising what the risks were and trying to support that.

It is very easy to look at this with hindsight. This is one of the problems with the pandemic. Everybody looks backwards and says, "Now we are at this point, but we could have done *x, y* or *z*." When you are in the middle of a pandemic—this will happen with the next one; I totally agree with Sir John that we will have one—you are trying to characterise the pathogen and its impact at the time.

We have a number of strands of work. We are looking at where the evidence gaps are. We are working with all the pandemic science institutes. For example, Liverpool did some really good work. We have what we call twin-hatter academics, so they are half with us. They have honorary contracts with UKHSA and they work in academia. Iain Buchan, who works in Liverpool, is chairing a group right across the academic sciences to look at things like the testing programme and which pieces of evidence we did not have. That includes non-pharmaceutical interventions.

Q1641 **Chair:** I hear you. What you are saying is that hindsight is a wonderful thing and that everybody has 20:20 vision in hindsight. Another word for hindsight is experience. I just wonder whether you feel that we are, as a society, through the inquiry or through anything else, getting to the nub of that trade-off.

Yes, sure, we were in the middle of a novel coronavirus and did not know what we were dealing with. In the early days, we had to take the action that we did. This House supported that, by and large. There were impacts to that and we are now seeing them big time in the school system and everywhere else. Are those coronavirus lessons being learned and examined in terms of the trade-off between action and non-action?

Professor Dame Jenny Harries: There are two parts to that. Is the trade-off being recognised? That is the case. I will come back to some of the work that is ongoing.

Secondly, where do the decisions for that sit? This picks up a point that was made in the public inquiry. This is a whole-Government decision-making process because there needs to be a balance of intervention. It is important that there is equivalent evidence from all areas, whether that is economic, education or infectious diseases, that comes together. If I put my director of public health hat on, I absolutely understand the impact in a social sense on communities. That is where I started my working life. I need other Departments to come in with their data as well to balance that.

On a more positive note, Lucy Chappell, who is the Chief Scientific Adviser in the Department of Health and Social Care, and UKHSA are developing health protection research units, funded by the National Institute for Health and Care Research. Whether it is a particular pathogen evidence gap or a wider area, there is now a cross-Government funding research framework.

That might start by saying, "We know nothing about this pathogen group, and yet we have flagged it as a highly likely risk going forward. We need

to understand more." We might need to develop tests and focus on that. Equally, they can be used to focus studies on some of the social balancing risks with academic colleagues.

Chair: That is interesting. Now for something completely different, as they say. Paulette Hamilton will be asking about something else.

Q1642 **Mrs Hamilton:** Good afternoon, Dame Jenny. Let me start by saying I was not in the House when this all kicked off. In communities, we saw at first hand the hell that was going on out there. We tried to feed into the process, but we were not listened to. That is the premise that I am coming from.

Professor Bell highlighted that we did particularly badly at the beginning. By the time we had started to look at the numbers, large numbers of ethnic minority communities, in proportion to other communities, seemed to die. We lost their trust. At a local level, I know we lost their trust very early on. When the vaccine was produced, when this great work was being done and we got to the point where we were doing some good work, we had already lost the trust of large numbers of our communities. They had seen lots of deaths and they just didn't believe a word we were saying.

At the moment, in my humble opinion, because I cannot profess this with any facts, we seem to be seeing larger numbers of deaths in the African, Caribbean, Asian and other communities among people who did not take the vaccine.

I want to ask you this. Is any work being done to check or identify the long-term outcomes for communities that did not take the vaccine? That includes the indigenous community. What is happening to those groups that did not take vaccine 1, 2, 3 or 4? There might even have been a fifth round; I cannot remember. There are many people who did not even take one vaccine.

Professor Jenny, there is a big gap developing here. I am not sure what work has been done. People are dying. Some of it is weakening from coronavirus and then they have passed away, but it is not being identified.

Professor Dame Jenny Harries: There is quite a lot in that question.

Mrs Hamilton: There is. I am sorry about that.

Professor Dame Jenny Harries: I probably won't be able to answer all of it all at once. On local communities, often there will be communities that are much better understood by their local authorities and particularly by their directors of public health.

That is one of the key points here. If I was back with my DPH hat on in Norwich in Norfolk, for example, I would know my local communities very well. At this point, I would have a very good idea of where children were not confident to go back to school or the particular hotspots in my county where vaccination rates were low. At national level, we do a geographical

assessment of vaccination rates. Clearly, the Covid vaccine is one that has been universally available. In many ways, it is quite unusual. It was prioritised for clinical need. It was available for everybody.

In many ways, I recognise what you are saying. I have just been dealing with measles. I might come back to that.

Mrs Hamilton: Yes, that is my second question. This is leading towards measles.

Professor Dame Jenny Harries: Maybe I can put the two together, then. One of the parts of sadness from the pandemic is that we have had a very good vaccine development system with a good rollout and we still have people who are not confident to have a vaccine. The people in those communities often have the highest rates of underlying health conditions and the highest inequalities. If that inequality continues to differentiate and grow, we will see a continuing divide.

Q1643 **Mrs Hamilton:** If you give people the facts, that helps them make an informed choice. Has any work been done to say to this group, "This is what is happening, this is why it has been happening and we believe that other choices will lead to different conclusions"?

Professor Dame Jenny Harries: Yes. NHSE mostly delivers the vaccines on the ground. We do the advice and evaluation. We do the scientific bit behind it. We do much of the assessment of the assays and things. NHSE delivers this on the ground.

NSHE published a new vaccination strategy in November or December, which highlighted the learning that some communities cannot be reached by traditional methods. You cannot just put the thing out. People are not confident. That strategy recognises the fact that the messaging has to be from somebody trusted by those individuals. That is acknowledged. The new vaccine strategy is designed to do that.

I was up in the West Midlands last month. I was at The Florrie in Liverpool on Thursday afternoon. They have been doing some really interesting work with a whole host of people, including Liverpool Council, NHS England North West and DHSC, particularly in a project on health equity. I went to a community group, and I am hearing exactly the same thing in Birmingham and London.

Small communities need—this is quite difficult when delivering national programmes—long-term individual connectivity with people they trust. It is no good just going in and saying, "There is a measles outbreak. Grab this vaccine." For some people who just haven't quite got around to it, that is great. We have just launched a new campaign today designed to support people, looking through the eyes of children. For those people who just haven't got around to it, it might just remind them that these are serious childhood diseases.

Q1644 **Mrs Hamilton:** I understand that, Dame Jenny. I really do. I am going to go back to my original question. Is there a piece of work being done with

a sample cohort that did not take the vaccine to see what is happening in those groups between the ages, say, of 50 and 75?

Professor Dame Jenny Harries: There is loads of work. That is what I was saying. The work that I attended in Liverpool was—

Q1645 **Mrs Hamilton:** This is not just about taking the vaccine, though. It is about what is happening to that cohort of persons who perhaps did not take the vaccine. You cannot engage them, but could you use GPs, primary care and others to do some health surveillance of what is happening to a sample group of people who perhaps did not take the vaccine? I am just asking whether anything is being done.

Professor Dame Jenny Harries: We would not do that. We are the health protection agency. GPs will have individual personal records about their health.

Q1646 **Mrs Hamilton:** We are not doing it. That is all I need to know.

Professor Dame Jenny Harries: I am not saying that. I suspect there are some research programmes that we are not involved with. We can predict what is going to happen with Covid because many of them will have Covid infections and will have serious outcomes from that. We can predict before we even do the piece of work that it is going to be negative, which is probably why I was focusing my response very much on the approach to try to support people to understand the risks from that.

Q1647 **Mrs Hamilton:** With the measles vaccine, long before we had Covid, we have seen the take-up rate for MMR going down—it is not an ethnic minority thing—across the board. This was happening prior to Covid.

Does the reduction in funding around primary care, where they are not getting that support that I got when my children were younger, have anything to do with the fact that the take-up rate has started to reduce? The reason I ask that—I always do this; I try to build it up—is that there is this new narrative around helping communities to support themselves and to increase the take-up rate.

I have a problem with that. Directors of public health's ring-fenced public health funds are in a bit of a critical state at the moment. They are not getting the financial support to do any of this work. People are asking them to do things that, in my humble opinion, they are able to do, but they need more staff, more resources, more money. It is not being given to them at the moment. I am very concerned about primary care and the support.

If we are talking about early prevention and intervention, primary care is key to some of this. At the moment, the words are being bandied about out here, but how are we truly, from national downwards and from local upwards, working with our communities to make them more confident to go out there and take these vaccines?

Professor Dame Jenny Harries: I will have a go at some of those. Primary care is clearly really important. We know from our research that,

despite that drop-off, most young families—more than 90% still—are confident in the vaccine programme's ability to deliver for new children. What seems to happen is that they will pick up the vaccine pretty well. There is reasonably high uptake when we start at eight, 12 or 16 weeks or what-have-you, and then it tails off. That is not unusual for vaccines, in the sense that people need to be prompted to come back in.

There are two or three potential issues. The directors of public health don't deliver the vaccine itself. They do what I am doing here at the national level for their local communities. They are doing a fabulous job. I was with the DPHs in Liverpool and Greater Manchester last week. They are doing really well.

We are all sitting and scratching our heads, which is why I was there, as to why this rate is dropping by about 0.1% per quarter. There are two or three main issues. First, there is not necessarily a particular issue with access, but convenient access is important. We were talking about pharmacy. Pharmacies played a really strong part in the Covid programme, but in most places that is not available for childhood vaccinations. NHSE is working to see whether it can improve the data linkage to make that another point of access, which would be really easy for communities.

Secondly, lots of people just don't think these are important diseases. They are not used to seeing them, including some of the clinicians. They think, "Measles doesn't exist any more; that one got solved." Of course, the rates are starting to rise. We will have, and have had, serious complications from those infections. There is something about raising awareness of the reality of these childhood infections as well.

There is also definitely a point about trust here. There is a passionate GP who is getting really good uptake in an area with a high number of residents from the orthodox Jewish community, the Haredi Jewish community. There is excellent take-up, but it was about having a direct trusted linkage with that community and answering the questions that they wanted to ask.

I go back to my earlier point about the potential link to longer-term funding. As a senior civil servant, I am probably not going to stray too much into that point, but the continuity of the connection with individual communities, which is where the director of public health comes in, is critical. It is very clear from the messaging that communities don't want you to turn up one day and say, "Here—have this vaccine. It is on your doorstep now." It has to be a longer-term relationship. To a degree, that has been lost.

Chair: We had probably better move on, if that is okay.

Mrs Hamilton: Yes, I was going to ask a question to tie it all up, but you can move on.

Chair: You can bring that in because it perfectly links to our next

question from Rachael Maskell around directors of public health as we return to pandemic preparedness.

Q1648 **Rachael Maskell:** I am conscious that you have been in the hot seat for nearly an hour, so I have a couple of quick questions. We have talked about the international and the national, but clearly the local also played a really important part. Certainly, from working with my local director of public health I understood that, if DPHs had more freedoms to drive the local response, they would have been able to protect health and life to a greater extent.

Where does the balance sit? How can DPHs be more involved in providing for their local communities and working with other actors and infrastructure to get a strong local response in the future?

Professor Dame Jenny Harries: You will know from what I have just said that I have been a director of public health in both England and Wales so I am very familiar with that. Although it may not always seem that way, I always start my national thinking by putting my director of public health hat on, because that grounds you in the reality of whether something will work for a family in a local community.

We cannot do the national job without directors of public health. They cannot do theirs without the UK Health Security Agency because we have the specialist expertise. We provide huge amounts of stuff to them. Take vaccine campaigns, for example. They don't have to do any of that work, in the sense that we are providing it. Where it works well—we try to do this with them; I link up with them and I have many of them on speed dial—is where we get the boundaries right. It is easier to do when things are slightly slower-moving than it was at the start of the pandemic.

Immediately after the pandemic, we kicked off a piece of work with the Association of Directors of Public Health on what we called the future health protection system. The aim was to work out how we could make those boundaries work. In Covid, because there was an unprecedented need, we ended up with two parallel systems, effectively. When I came into post, knowing both bits of the system, I tried to glue them back together in an effective way. I hope we are heading that way.

It won't always be perfect but, for example, we have DAS, the data, analytics and surveillance grouping. We have about 120 data agreements with local authorities now. This starts to address some of the data issues. I meet with them regularly. The CMO does as well. There is also a national public health senior group that meets to try to flag informally where there are issues.

We had a conversation the other day—I probably should not bring this in—on migrant health to ask whether we all have a shared understanding of what is happening, what the risks are and what the issues are. There will be a view in the local authority and a view nationally, and we stick them together. I hope we are starting to make that better. Hopefully, directors of public health will recognise that I have sat in their shoes, which was probably not the case previously.

Q1649 **Rachael Maskell:** I am thinking particularly about track and trace, which was where the biggest strain came.

Professor Dame Jenny Harries: On test and trace, just for awareness, you will hear one narrative on one side and I will hear another narrative on the other.

In fact, a moderate way into the pandemic—it may have been the omicron surge or a later one—there was a national contact tracing system, but the directors of public health said, "We can do this better." NHS Test and Trace handed bits of it over. I did not own it at the time. The directors of public health said, "Yes, this is very good," but then they said, "Stop, please. We can't cope with that."

What that signals is that you need the right balance and flexibility in the middle because directors of public health can't do it all either. If you have something that is really significant, you have to have some sort of complex national system to manage it. Trying to get that handover is the important bit.

Q1650 **Rachael Maskell:** The other question that I want to ask is about the resilience of the workforce. Clearly, there is a significant vacancy level in social care and in the NHS. My experience of working alongside NHS staff is that they are completely burnt out. If another pandemic was on the horizon, as we have heard it could be, we could see a mass exodus. How are we ensuring that staff have the resilience to be able to endure another pandemic?

Professor Dame Jenny Harries: That is a really good point. I recognise that from my own teams. It is also a content problem in terms of memory and legacy. People who were perhaps retiring stayed on for the pandemic. They worked through and then retired, and then a few people left early because they were worn out. All of a sudden, you have an exodus of really experienced staff at one time. We need to maintain that throughput or flow. Scientific and technical careers take a long time to build. You can't just go and find another 10 infectious disease consultants or the equivalent directors of public health.

There is quite a lot of work going on—I do it with my own health protection teams and I know directors of public health do it—to recognise that problem. People are very worn out. Some people find it really traumatic to go back over some of the work that they did in the pandemic. It was so fast-moving. Clearly, for NHS staff on the front line who were dealing directly with individual patients, that is totally recognisable. Other people felt just as directly involved in responding to calls, managing outbreaks in care homes and things. I absolutely recognise that.

We need to recognise it. Clearly, people need to be supported at work in the environments that they are in. The most important thing for this Committee is to recognise that there has to be a steady flow of the right technical people coming through. You cannot just switch them on and off. That is really important for all aspects of our work. We find it particularly

in our laboratory staff. We cannot just suddenly go and find 20 people. Once you get below a certain critical mass, you cannot run a laboratory.

Q1651 **Paul Blomfield:** I am conscious of time, but I would like to ask a couple of different questions. During the pandemic, there was a lot of discussion about the different approaches that different countries took, not least Sweden. Everybody said, "We won't be able to assess it in the short term. We can assess in the long term who got things right, or at least where different decisions might have been better."

Are we at a point now where we can learn anything from other countries in terms of where they might have done things better than us or not?

Professor Dame Jenny Harries: On different topics, yes. At the time, many people said—I would stand by this—each individual country often has very different characteristics. For example, New Zealand put a complete lockdown on the whole country. Even within the country, you have more sheep than you have people. Everybody is spaced out. It is a very different environment.

The UK is a travel hub. That is good for some things, but it is not very good for infectious disease risk and the proximity of individuals who can transmit the infection. It is quite difficult to compare individual countries, but there is some learning. My point would be that you can always learn from another country, full stop.

There are some interesting points. The week before last, the Gulf Center for Disease Prevention and Control was just starting off. This involves six states around the Gulf. It is very interesting. We are working with them. They are developing a new organisation. They are coming to us because we are quite experienced. They want us to share our knowledge. They have detailed knowledge of infections that we don't routinely see. There is always an opportunity when we are doing these exchanges. We have memorandums of understanding with all sorts of public health institutes right across the world.

We are very interested in some countries in particular. Some countries are recognised to have done a very good job. Korea, for example, is very good on data and its laboratory and testing capacity. We are working with them directly. My Chief Scientific Officer has been over. We have a memorandum of understanding with them. I am going over in about two or three weeks, because they are growing a new organisation, as are we. They are approaching the opportunities for getting ahead in vaccine development, testing and diagnostic assays in exactly the same way as we are trying to. There is an opportunity for us, in two different parts of the globe, to progress that agenda together.

Q1652 **Paul Blomfield:** That is really interesting. I have a completely different question about long Covid and indeed the long-term impact of the virus on people, which is not necessarily presented as long Covid. There is speculation about what different impacts Covid could have, as any virus might well have. What learning are we doing there?

Professor Dame Jenny Harries: That is not an area that I am personally directly involved with. I would probably refer you more to the NHS. It manages the clinical oversight of that. Through the support that it gives to patients, it will provide more detailed information. Nevertheless, there is research available. Some of the more recent findings, which were published in the last month or so, were around cerebral function in the longer term.

We still have a few problems with nomenclature. We are back to baselines. Who is the affected group? What does that mean in the longer term? A significant amount of research funding went into NIHR around the autumn time in 2020. Much of that data and primary care information—this picks up the question earlier about what is happening to these individuals—was slightly later on. To start off with, it was easier to monitor hospital patients. It is difficult to distinguish the severe hospital impacts, such as intensive care admission, which would routinely give most people some sort of negative longer-term outcome, from the impact of Covid.

Those studies are still not through to publication. I would expect many of them to start to come out over the next year or so. There will be a lot of confounding factors in them, which will lead to more studies. Clearly, there is more of a molecular-level understanding around inflammatory processes as well. Again, that is not my specialist area, but there is lots of research work ongoing.

Q1653 **Paul Blomfield:** Can I ask one final question? Again, this is something completely different. You will have seen that the RCN, among others, has been arguing that we should be bringing back masks in response to the JN1 variant. As I understand it, the JN1 variant is not particularly more damaging, but it is getting around quite a lot at the moment. What is your view on mask-wearing in health and care settings? JN1 variant or not, there are a lot of respiratory viruses going around all the time. Is it so foolish to think we might encourage it more than we are?

Professor Dame Jenny Harries: JN1 is around 85% of the variants that we are currently sequencing. We are not sequencing many, but that is a reasonable representation of where we are. As you say, it is not particularly significant. I will come back to the immunosuppressed groups, but most of our population is very well protected now. Those who are most vulnerable have had additional vaccine programmes and we have treatments.

Because there is not really a differentiation now between Covid and other respiratory infections, the question for me is, "How would we normally treat a respiratory infection in a healthcare setting?" That depends on what is happening in that environment and the population that is affected.

The RCN statement came when JN1 was new. It was around December time, and it was flagging the WHO advice. If you look at the detail of the WHO advice, it mentions universal masking, but it talks about universal

masking where healthcare workers are dealing with Covid cases and high levels of transmission. That is not quite the right wording, but it effectively translates to exactly the position in our advice in healthcare settings, which I might add is given by NHSE. It is NHSE's operational advice.

Basically, we are saying that you risk-assess what that situation is. If we are in a dip, where rates of viral infection are low and you have a fairly average hospital population, you should apply whatever is normal to apply. If you are following aerosol-generating procedures, you should be using a respirator. That is normal practice. If there are low rates around, you are sitting in an outpatient department and you are not expecting people to have Covid infections, you should treat it as we treat flu or anything else.

The one area where it is different is where you have immunosuppressed patients. You will have some wards with immunosuppressed patients. Hospitals will know how to handle that. It is left to the discretion of the hospital and the individual trust, each of which will have a director for infection prevention and control. They will assess the situation. If they want to understand more about the local epidemiology or prevalence, they will come to us and we will link with them.

That is how it is left. It is for the local trust to decide what is appropriate at that time in that healthcare setting.

Chair: We said we would finish at 6 pm and we are in good shape. The final word is to our guest today, Greg Clark.

Q1654 **Greg Clark:** I am sorry that you have to have a double dose of me in a week, Dame Jenny. You heard Sir John Bell talk about the inevitability of another pandemic of some sort, and you agreed with that. You probably heard his memorable phrase that things should be "always on" in terms of the preparation for that.

Last week at the Science, Innovation and Technology Select Committee we talked about testing and the fact that two labs have been contracted to provide that—the Berkshire and Surrey Pathology Services and the University Hospitals Plymouth NHS Trust. As you know, their contracts come to an end this month. Therefore, they will not be always on. Will you be able to revise the termination of those contracts to make sure we do have that "always on" facility for testing?

Professor Dame Jenny Harries: I would need to confirm, but I think the actual expiry date of the provision is the end of June. You are right.

The key point—similar to the comment I made at the Science Committee—is that we are always on as the UK Health Security Agency. We are on 24/7. We can scale up. We can start that initial testing. We have scientists on tap 24/7 to work on it, should something come through. We can scale up rapidly to around 4,000 tests. We can go up to 20,000 with NHS labs fairly quickly. The two labs that you mention are designed to go that next step up.

We had something like 850,000 PCR tests per day during the pandemic. As I mentioned at the Committee, there is an issue about how you deal with this. Do we say, "That is what we want to do" and have that on tap? It is for Ministers to decide, but it is an extremely expensive intervention to have on tap. Just to keep the RFL effectively flat, not doing anything and not directly ready to go, costs £500,000 a month.

My comment to the Science Committee—I would perhaps make the same one here—was that there is a national decision to be made, which is clearly not just for me. There are two extremes. One could say, "We will have whatever the UKHSA has and we will have a scalable boundary." That is definitely what I am trying to deliver. We are retaining a small team who know how to scale things up if the funding and resources are available. There is a knowledge element here as well. You could have just that boundary and no more, and then build it if an impact happens. That would be a bit like the last pandemic but slightly better, one would hope.

The alternative is to say, "We are going to run everything hot. We will maintain that output for a population of 65 million." As I pointed out, my guess is that we should be somewhere in the middle. That is for Government to decide. It is clearly not for me. There are opportunity costs associated with investments in running things hot and keeping them ready to go.

It sounds like a very simple thing to do until you start putting the costs of it in because it multiplies. You have to have all the supplies on tap as well. For something like the RFL, one of the considerations is that the equipment changes. Let us suppose the pandemic does not hit for five years. Much of the equipment would be obsolete. You have to maintain and keep changing the equipment when you don't know whether you are going to use it.

Q1655 **Greg Clark:** We were talking about the two organisations that are currently contracted, not necessarily the RFL. Perhaps finally, you just indicated that this is a decision for Ministers rather than your agency. Indeed, you said to our Committee that your organisation is responsible for assuring its own preparedness for the things within its remit, not the totality of the country.

Your strategic plan, which was published last year, says that UKHSA aims to ensure that the country is prepared for and, when feasible, can prevent future health security hazards, including pandemics. Is the UK Health Security Agency responsible for certifying the preparedness of the country?

Professor Dame Jenny Harries: No. I would go back to what I said at the Science Committee. In fact, the oversight for pandemic preparedness sits with the Department of Health and Social Care.

The wording in our strategic plan—it is very carefully phrased—is "when feasible". Clearly, there are resource implications as to what you can do generally. We work with the Department of Health and can support that very strongly. Our aim is to ensure the country is as prepared as

possible, but it will be within the framework of whatever is decided should be the level of preparedness.

Q1656 **Greg Clark:** I will leave it there. I will just note that "when feasible" was for "can prevent". There was no qualification to the UKHSA being responsible for ensuring that the country is prepared for future pandemics.

Professor Dame Jenny Harries: I think it says "aims to", and we absolutely do. We are working directly with the Department of Health. It goes back a little bit to what I said at the start. Clearly, we want to see what the public inquiry recommends.

There is a portfolio of work looking at not just respiratory viruses, for example, but five different routes of transmission, working upstream. We hold some of those strands of work. There are four or five that sit with UKHSA around things like diagnostic assays and others that sit with the Department of Health.

Q1657 **Greg Clark:** Just to finish where the Chair started, it would be imprudent to wait for the conclusions of a public inquiry that is not going to finish until 2026.

Professor Dame Jenny Harries: We are not. Just for absolute assurance, that work is ongoing. It is more likely that a final plan will come out once we have done some of the early work, but the work is ongoing.

Chair: Thank you very much, Greg. Thanks very much, colleagues. Professor Dame Jenny Harries, Chief Executive of the UK Health Security Agency, thank you for your time this evening.