HOUSE OF COMMONS

Health and Social Care Committee

Oral evidence: Coronavirus - NHS Preparedness, HC 36

Tuesday 17 March 2020

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Watch the meeting

Members present: Jeremy Hunt (Chair); Paul Bristow; Dr Luke Evans; Dean Russell; Laura Trott.

Questions 67 - 188

Witnesses

I: Sir Patrick Vallance, Government Chief Scientific Officer.

II: Sir Simon Stevens, Chief Executive, NHS England and NHS Improvement; Professor Keith Willett, Director for Acute Care, NHS England; Amanda Pritchard, Chief Operating Officer, NHS England and NHS Improvement; and Professor Steve Powis, National Medical Director, NHS England.

Examination of witness

Witness: Sir Patrick Vallance.

Q67 **Chair:** A very warm welcome to you, Sir Patrick. We are extremely grateful to you for sparing the time. Also, a very happy birthday, I believe. The whole country will be wishing you "Happy Birthday" twice as we wash our hands today.

On a serious note, we want to thank you. We appreciate the enormous pressure that you and your staff are under at this incredibly challenging time. We would like you to pass on our thanks for the extraordinary amount of work that you are doing.

I am going to start with a few questions about what we now know about the virus and the testing issue. Then I am going to move on to my colleagues, if that is all right. Could I start with a general question about the approach?

Last week, the Government announced that we were moving to delay and then mitigate, but today you published some analysis from Imperial—Professor Ferguson—which says very clearly that the strategy should be suppression and not mitigation. Therefore, is what we talked about last week, of mitigation potentially allowing for herd immunity, not now the strategy? Is that correct? Have we changed to a suppression strategy over the weekend?

Sir Patrick Vallance: We have been working and meeting as SAGE since early in January. Right from the outset, the aim was to save lives and protect the vulnerable, through two approaches. One was to try to suppress, as far as we could, the peak and try to push that off to the right; and the second was to shield the most vulnerable people in society. That remains the approach.

The thing that is really important is at what level you want to suppress that. That is where intensive care, particularly ventilator capacity, becomes important. It means that at the time the curve is on its fast upswing you need to make sure that it is at a level that the NHS can deal with. That is what Neil's paper was really about, which we commissioned from a variety of modelling groups.

It is a semantic difference, whether you call it suppression, delay or mitigation. The aim is exactly the same, which is, how do you keep this thing down, how do you keep it below the level at which you want to keep it, and how do you keep it down for long enough to ensure that you have managed to achieve suppression? That is what we need to do.

There is a second question that comes at the end of that, which is what happens when you release all those measures. That is one of the big unknowns that we are going to have to think about very carefully.

Q68 **Chair:** One of the things I understand the modelling says is that roughly—it is obviously very approximate—one can count on there being

around 1,000 cases for every death, which would mean that there are potentially now about 55,000 cases. Does that feel right to you?

Sir Patrick Vallance: We have tried to get a handle on that in SAGE. We put all the modelling information together. That is a reasonable ballpark way of looking at it. It is not more accurate than that.

Q69 **Chair:** As I understand it, prior to the measures that were announced yesterday, your working assumption was that the number of cases was doubling every five to six days but because of the very dramatic social distancing measures that have now been announced it is possible that we could see the number of new cases actually start to reduce in three weeks' time. Is that what the hope is?

Sir Patrick Vallance: You would expect to see an effect of any of the measures after about two to three weeks in the sorts of presentations we are picking up. Obviously, the effect will start sooner, but you will not see it and be able to measure it easily for two to three weeks.

Q70 **Chair:** Judging from the evidence from other parts of the world and other countries that have followed very dramatic suppression and lockdown in different flavours, does that mean that there is a possibility—of course we cannot predict anything—that new cases could start to fall in two to three weeks?

Sir Patrick Vallance: Yes. That is what we would like to see. The interventions we have made have all been modelled out—it is just modelling; we need to be aware of that—to say what effect they would have on the peak. In the first one we introduced, case isolation, you would expect to bring the peak down by about 20%. In the second one, whole household quarantine, you would expect to bring it down by about 25%. The social shielding of the elderly has less of an effect on the peak but a much bigger effect on the mortality, where you might expect it to be between 20% and 30%. General social distancing measures—as you said, quite extreme ones have now been introduced—would be expected to reduce the peak by about 50%.

They are not necessarily all completely additive, but it tells you that together we should expect those to have a very significant effect on the peak, and we should start to see the rates come down in two or three weeks' time. The ambition in any outbreak is to try to get the R0 value down below one. That is the value, on average, of what one person would do in infecting others. At the moment, the R0 value is somewhere between two and three, and the aim is to get it below one, at which time things start to decrease.

Q71 **Chair:** To be clear, that is not two to three weeks; it would take a bit longer than two to three weeks.

Sir Patrick Vallance: Yes, that would take longer.

Q72 **Chair:** What would be your hope there?

Sir Patrick Vallance: It is difficult to get a very accurate handle on it. That is where monitoring becomes incredibly important. As we enter this next phase, having made very significant interventions, it is going to be really important that we can get good data to monitor the effects.

It is important for two reasons. One is that we might need to do more. I have been very clear from the beginning that there is a whole range of things that we need to look at. All of them are on the table. We might need to do more and also, at some point, we will need to back off. We need to be able to monitor the consequences of backing off.

Q73 **Chair:** I appreciate this is the upside and that there are no certainties, but, if yesterday's announcement bears the fruit that you are hoping, the total number of deaths, rather than being in the hundreds of thousands, could potentially get below 20,000. That is still a huge number of deaths but is none the less a much better picture than many might have feared.

Sir Patrick Vallance: That is the hope—that we can get it down to that. To put it into perspective, every year in seasonal flu the number of deaths is thought to be about 8,000 excess deaths. If we can get this down to 20,000 and below, that is a good outcome in where we would hope to get to with this outbreak. It is still horrible. That is still an enormous number of deaths. It is an enormous pressure on the health service. Having spent 20 years as an NHS consultant as well as an academic, I know exactly what that looks and feels like.

Q74 **Chair:** Before I bring my colleagues in, I have one final question about what we have come to understand about the disease. Most people understand that the people who are at risk are either people with a long-term condition or older people. In the Netherlands, we understand that half the COVID-19 patients in intensive care are under 50, including one 16-year-old. Have we had any deaths in the UK of people who are young and without long-term conditions?

Sir Patrick Vallance: I do not have all the clinical information because that is privy to the Health Department, the NHS and the chief medical officer. It is really a question for them. It is obviously a very important thing. I know for sure that the vast majority of deaths in this country are of people who are elderly and have pre-existing conditions. I cannot tell you, because I do not know, whether there are any exceptions to that.

Q75 **Chair:** Are you aware of any doctors or nurses who are currently in intensive care because they have picked up the virus from patients?

Sir Patrick Vallance: Again, I am not privy to that sort of information. I know that the CMO is being very careful, rightly, about protecting the confidentiality of patients. One of the points that may be underlying the question, which is important, is that these viral infections can adapt and change as we go along. We must keep an eye on everything, from the clinical picture through to outcomes and different ages, to make sure that we are always dealing with what we think we are dealing with.

Q76 **Dr Evans:** With reference to the percentages you gave, what is the confidence interval you are using on those? If it is nice and narrow, it does not matter.

Sir Patrick Vallance: It is very wide.

Q77 **Dr Evans:** Can you give us a ballpark?

Sir Patrick Vallance: For example, for the first measure of case isolation the range was between 15 and 25. Even that you would take as a model but not a precise estimate. All the confidence intervals in these things are quite wide.

Q78 **Dr Evans:** You mentioned the monitoring side. With the change in policy around testing, can you explain how you expect to monitor if we are not doing as much testing. I think people struggle with trying to see that picture.

Sir Patrick Vallance: At the moment, the UK has done something like 44,000 tests, which is in the top three or four countries on testing. Public Health England has a capacity of about 4,000 or so per day. That is clearly not going to be enough going forward. One of the recommendations from SAGE is that we need to get our testing in the right position to make sure that we can monitor this effectively.

At the moment, the priorities for testing are patients in hospital in intensive care units; those with respiratory illnesses in hospital, pneumonias in particular; isolated cluster outbreaks, to make sure that we can understand what is happening there; and GP surveillance systems to try to get a handle on what is going on in the community. As the capacity ramps up—there is a very big effort going on to try to ramp it up—it will be extended to other groups. Ideally, you would get that very wide.

The second form of testing that is going to be incredibly important is serology testing, looking for antibodies of people who have had the infection. The reason that is so important is that all we can do at the moment is detect somebody who has the active virus that they are shedding. There is some evidence that, if you are asymptomatic and you are infected, the test is not at all sensitive, so nobody is able to pick up the asymptomatic people very easily. With an antibody test, we would have a much better handle on the proportion of people who are asymptomatic and the true number who have had it in the community already. I think we would get a better handle of what has happened in other countries, in China and in Italy. It would change a lot if we could understand that.

Q79 **Dr Evans:** One of the groups you missed in that, and which my colleagues in primary care and indeed in hospitals are most concerned with, is those having to isolate without any symptoms, and suddenly three, four, five or six members of staff drop out of surgery. Their argument is, "Why aren't we being tested? I want to get back there and

help. It would help a lot." What do you say to them in answer to that question? Partly, it sounds like capacity, but is there any other reason? What can we do to rectify that?

Sir Patrick Vallance: I think the next group of people are the key workers. I know that PHE has checked with the CMO to make sure that that is exactly where they want to go, to make sure that they are tested. Obviously, healthcare workers would be absolutely there. As the capacity ramps up, I think that is where you would go next, to make sure you can do that. That is the plan.

Q80 **Dr Evans:** It would be useful to know. Let's not forget that most people will recover. This is flu for most people. Could you talk us through how quickly they recover and when they could return to work? Also with that cohort, it seems like you have a response phase, you start to improve, your antibodies fire off and you get a cytokine release that causes ARDS, so you have respiratory problems and that is when people crash. Is there any indication of how you are spotting that? Do those people have a sign? Is there a test for them? There are two parts to that question.

Sir Patrick Vallance: You are right, and very early on I spoke to colleagues I have known and worked with in Singapore early in their outbreak. It was clear from them that there were two phases of illness. The vast majority of people, as you say, get a viral illness that gets better, so that by seven days they are feeling better; often by five days they are feeling better. Some of them go on to get the second phase, which is the immune reaction. That immune reaction seems to kick in at around five days. It is characterised by shortness of breath, failure to get better from the first round and then a deterioration. It is important that it is not, at that stage, due to active viral replication so much as the body's response to it. The idea that antivirals are going to work then is probably wrong; they might work very early on.

What are the features that make people more likely to be in that phase? There is some evidence that it is initial dose of exposure, which is why healthcare workers potentially are at risk at the beginning if they are exposed to very large doses; and that it is pre-existing diseases and age, which presumably is a surrogate for pre-existing diseases as well. That is what we know about it at high level at the moment. It has quite big implications for how we think about treatments.

Q81 **Dr Evans:** Could you explain it for the public? Do the people who are getting better develop an immunity, and when can they return to work? If they do their five days and they are feeling better, are they able to go back out into the workforce and are they protected so that they can carry on working?

Sir Patrick Vallance: The vast majority of people seem to stop having significant viral shedding around seven days. Some may go on a bit longer, and that is why the seven-day isolation period was recommended for individual cases. Some may go on a little bit longer, but for the vast

majority of people the viral shedding decreases quite rapidly after about four or five days.

Q82 **Chair:** Can I go back to the comments you made about testing? I think there is quite a lot of confusion about that. First of all, we have the words of Dr Tedros Ghebreyesus, the director-general of the World Health Organisation. He said, "You cannot fight a virus if you do not know where it is. Find, isolate, test and treat every case to break the chains of transmission."

On Friday, we stopped community testing for people with mild symptoms, and Chris Whitty said that people who were in the community with a fever or cough do not usually need testing. A GP who, for example, self-isolates because his daughter has a fever is not now able to get a test. Are we now saying that it is the priority to test as many people as possible, and that what we did on Friday was an absolutely temporary measure, and we intend to reintroduce community testing as soon as possible?

Sir Patrick Vallance: I think what Chris said or meant—I think it is what he said as well—is that that is what we had to do with the capacity we have. We need to use the testing in the right place at the moment. We simply do not have mass testing available for the population now. There is a big effort going on to try to get it in place as quickly as possible to be able to manage this. People are producing all sorts of tests that may be much more readily applicable in the wider community. Those are all being looked at by Public Health England to decide which ones work and how they might be got out. The point I think Chris was making—he will obviously speak for himself—was that, in a situation where you have capacity to do a certain number of tests, the priority should be the areas I mentioned.

Q83 **Chair:** But how it came across was that there was a change in approach and that from now on we were focusing our testing efforts on hospital cases. I think what you are saying is that that is not the case and that it is absolutely the intention, as we ramp up our testing capability, to go back to testing in the community. Is that the case?

Sir Patrick Vallance: Remember that I am the Government's chief scientific adviser, so I am advising, and SAGE advises, that we need to ramp up testing for all the reasons you have mentioned. There are two things that are critical: ramping up testing and making sure that we have great data flows. Those two things are very important in how we manage this, both for the interventions and, as I said, for removing interventions.

Q84 **Chair:** Of other countries that have taken the suppression model that was published in the Imperial paper this morning, and which we are now following, the one that most people think has had the greatest success is Korea. They had a more serious situation than us because they had a super-spreader. If you look at their testing capacity per head of population, they are testing 10 times more people. Is that the kind of

scale we are looking at? It is not just increasing it from 5,000 to 10,000 a day, but a massive increase.

Sir Patrick Vallance: I think we need a big increase in testing, and that is what I am pushing for very hard. Everyone is working hard to try to make that happen. The other thing is that you do not want everybody coming to the hospital to be tested. That is the worst possible thing. The quicker we can get to something that looks like a true community-based test that people can do easily, the better.

Q85 **Chair:** Do you have any sense of timescales on that? A lot of people are concerned that, when we are not testing in the community, we will not have the data to know what the spread of the disease is.

Sir Patrick Vallance: The first thing to say is that the measures that have been put into place—case isolation and now whole household quarantine—are measures you would take anyway. The potential downside of what we are doing at the moment is putting people into whole household quarantine who might not have coronavirus, so they may have to do it more than once. But we are doing the right thing if you have coronavirus, and we are doing it for the whole family.

In terms of the actions, it does not matter. In terms of the speed of test, lots of people claim to have tests, and there are very good laboratory tests that can be done. There is a lot of work going on at the moment in Public Health England, the NHS and DHSC to select which test we should go for and how that can be ramped up, possibly, and I think quite likely, by the private sector, so that we can get things out there fast on the community side, having the other part of the testing controlled by Public Health England for the hospital and other bits that need to be done.

Q86 **Chair:** I have a couple of brief final questions in this section. In some of the countries that have followed the suppression approach successfully—Taiwan is one, alongside South Korea—one of the things that is very striking is their use of mobile phone technology to follow someone who turns positive for the virus. They trace all the mobile phones that have been near that person. Obviously, there are civil liberties implications that need to be worked through, but if that was shown to reduce it by increasing the speed at which you isolate potential cases, as a scientist, is that something you would consider recommending?

Sir Patrick Vallance: I think that would have been an absolutely brilliant thing to have had in January. At the beginning, that sort of approach makes total sense. It may well have utility later on, and it may well have utility as you go to a situation where you get the R0 down and then you want to see what happens when you release. Those technologies certainly have a place that needs to be looked at and implemented carefully. I know that people are working very hard on that sort of approach. As you are probably aware, it was used quite extensively in China through the WeChat app that they have.

Q87 **Chair:** Could I ask you a question in your capacity as a former NHS

consultant and not just chief scientific adviser? Luke alluded to staff not being able to look after patients if they themselves are ill. A lot of staff are worried about the lack of protective clothing and equipment.

Here is a comment from a doctor who is currently treating coronavirus patients in a major UK hospital: "One week ago I was wearing full personal protective equipment. Now we have been told not to bother with any of that, contradicting WHO guidance. I am terrified. I can't bear the thought of infecting other patients with a disease that could kill them." What is your reaction to that, given our determination to bring down mortality rates?

Sir Patrick Vallance: That is a question that really needs to go to the NHS as it thinks about how it organises the response to this. It is important that we get the proportionality right on where protective equipment is needed and where it is not. One of the things that is a risk is that, if we go to the wrong place on protective equipment, it hampers all sorts of other parts of healthcare delivery. I do not think that is a question that I am in a position to answer, but I think it is one that the NHS could answer.

Q88 **Dean Russell:** Sir Patrick, thank you for being here today. I have two broad areas of questioning. One is around data and one is around schools.

On the data side of things I have had a lot of scientists—I am a former scientist myself—asking me why we are not releasing open data on everything we possibly can, given the number of brilliant brains, not just in academia but also in business, who are, to use the phrase someone shared with me the other day, "chomping at the bit" to try to help and look at the modelling. I am interested in getting your view on why that has not happened and what will be happening on that front.

Sir Patrick Vallance: There may be two bits to that question. I think the data are being released by PHE and NHS. Those are the data that everyone is using; they are data collected from around the world.

There is a second question about the modelling. Clearly it has been rather fast moving, and we have had all sorts of different modelling things that have gone along. Neil Ferguson released his paper yesterday and we are releasing the modelling that has been done and the various other parts of the science input to SAGE this week, to try to get that out into the public domain.

In terms of the multiple brains on it, it is the data access that is important and that data access needs to work well. It needs to be open and it needs to allow people to crunch the numbers and come up with the answers they come up with. The models and the codes will be made public by SAGE and the academic groups that are doing that. It is not a Government organisation doing it; academic groups are doing the modelling. That will be released.

Q89 **Dean Russell:** One of the other questions I have had, which may be a naive question, is whether the modelling that we are using in the UK is the same modelling that is being used throughout the world. Given that it is a global pandemic, is everyone using the same approach? If so, why in some cases do we seem to be making slightly different decisions from other countries?

Sir Patrick Vallance: Modellers, as always, are using different models depending on what they think are the most important variables to put in and how they treat those. The modellers that we use are being used by others as well and are in quite a lot of demand. Other countries have either used the modelling that has been done here or have asked the modellers to be involved in things. I do not think there is any great difference in how modellers have approached this, but some countries have fewer modellers and some have more. The UK happens to be a country that has extremely strong science right the way across the board, including in modelling.

Q90 **Dean Russell:** Regarding the modelling side of things, we have seen during elections and in so many different areas that data is used both for predicting disease and so on, but can also be used to identify vulnerable areas and people, perhaps older people in certain areas. Is there a plan to start to look at that in a slightly different way, where we can predict where potential vulnerable people might be so that we can ensure that there are volunteer networks and support is given to them ahead of time?

Sir Patrick Vallance: I know, for example, that at DHSC they are using the data they have to try to understand where the most vulnerable people are, in order to make sure they get the specific advice they need. I guess that will happen within the Department and within the NHS.

The other question for modelling, going forward, is to what extent it can help understand where capacity is being reached and where, therefore, more stringent interventions might need to take place in one area or another in order to manage this. There is going to have to be an actively managed process to keep on top of it, which means, to come back to my two points, that testing and data flows are going to be critical to get it right.

Q91 **Dean Russell:** On the school side of things, because that seems to be the biggest topic in many MPs' casework and inboxes, I understand that closing schools might mean that children then have to be looked after by grandparents and so on, but what I am hearing is that it is already happening on a lower level already. For example, I was told a story just this week of one school that is testing the temperature of children as they walk in the door. If their temperature is too high, the parent then has to find somewhere for them to be looked after, and in many cases that is grandparents. Can you give a clear view on why schools are not closing now, why we are doing it differently from other countries that seem to be quite commonly closing schools, and, if schools are to be closed, what the plans are around that?

Sir Patrick Vallance: When we looked at all the interventions, we looked at the ones that had the biggest impact first, albeit with the variability that we have talked about, and those that have less effect. School closing is definitely a bit lower down the list than some of the ones we have announced. It does not mean that it does not do anything; it would have an effect. It has all sorts of complicated effects as well, including the one you mentioned of potentially leading to children being with grandparents and so on, and of course causing an enormous problem not just for the workforce generally but for the workforce in the NHS as well.

It is a complicated one. All I can do is give the science advice on the effect. As you look across the world, Singapore, for example, has not closed schools. It has introduced some different measures in schools. Taiwan did not close schools in managing this. There has been variability across the world on school closure and whether that has been part of the approach or not. It is absolutely on the table, as the whole suite of measures is. The evidence base is there to suggest where it might work and where it does not work. Decisions will, I am sure, be made at the time they need to be made around school closures, which is one of the levers to pull to try to get on top of this at the right time. As I say, it is not without quite complex consequences.

Q92 **Dean Russell:** I have two more brief questions. One is around schoolchildren; I have a daughter myself. A lot of kids are talking about this; they are not ignorant of the situation. One of the concerns is around mental health and how children are being taught about this in schools. They are worried that they are going to give their grandparents something that could potentially harm them.

Is there any discussion around mental health? Of course, physical health is absolutely key, but with mental health the concern is that the repercussions over the coming months and years could be quite high.

Sir Patrick Vallance: I think that is one of the big worries. We need to remember that the health service is going to be under pressure during this process. There will be the direct illnesses and tragic outcomes relating to the virus, and there will be the indirect, due to the fact that other people may not be able to get care at the time they need it, and there will be the consequences of things like loneliness, of people feeling isolated and people not being able to get enough exercise and the other things they might want to do to keep themselves healthy. Mental health is definitely part of that.

That is why the measures that were announced yesterday are a very substantial set of measures, with a lot of consequences. It is also why it is something for all of us. Our ability as a society to help each other during this time is going to be incredibly important. That is where we will see a lot of people wanting to help in order to try to get through this. It is not an easy situation and it is going to go on for some time.

Q93 **Dean Russell:** I imagine you must have talked at some point about schools potentially closing. If that were to be advised, do you foresee its being an overnight decision, in which case tomorrow morning children will not be going to school, or would it be a staggered thing so that teachers, parents and children get a chance to adjust and know what their plans will be, so that kids are not just given to grandparents, as it were?

Sir Patrick Vallance: It is a decision for Ministers to take as to how they would make a decision about closing schools and in what way they would choose to do it.

Q94 **Paul Bristow:** Thanks for appearing before the Committee today. On schools, I have a couple of questions after the exchange you had there. I have had a number of inquiries from teachers who have emailed me about the risks that they feel they have from exposure to the virus. What would you say to them?

Sir Patrick Vallance: All of us want to try to reduce transmission, and that is one of the reasons we have given the advice on the measures we have. Those are the social distancing measures. There will be groups of teachers and others who are potentially particularly at risk. That is something the CMO is looking at hard and is thinking about the right advice for those people.

For everyone working in the public sector, and those continuing to work in aspects of the private sector as well, clearly the more we are going out and about, the more we all carry some risk of catching this. To go back to the point that was raised earlier though, for most people it is a mild illness. We need to remember that for the vast majority it is a mild illness.

Advice around specific measures for vulnerable groups and those most at risk is what the NHS and DHSC are producing.

Q95 **Paul Bristow:** I noted that there has been some talk of advice given to those who are pregnant. I declare an interest in the sense that my daughter is just 12 weeks old. What would you say to mothers and carers of very young children and babies?

Sir Patrick Vallance: I do not want to dodge the question, but it is really a question for the chief medical officer. I know I am a doctor but I have not practised for a long time, and I do not want to give advice that the CMO and the NHS should be giving.

Q96 **Paul Bristow:** That is fair enough. Are the Government engaging with scientists who disagree with your plans?

Sir Patrick Vallance: Completely and absolutely. If you thought SAGE and the way SAGE works was a cosy consensus of agreeing scientists, you would be very mistaken. It is a lively, robust discussion, with multiple inputs. We do not try to get everybody saying exactly the same thing.

The idea is to look at the evidence and come up with the answers as best we can. There are sub-groups that work and feed into SAGE. The membership of SAGE changes, depending on what we are discussing. It is not as though it is the same group of people who always discuss all the topics; there are members who come for specific items.

Q97 **Paul Bristow:** You made it clear that your role was to advise. How much do you believe that the current strategy is being driven by scientific evidence, how much by behavioural science and how much perhaps by economic interest?

Sir Patrick Vallance: The advice that we have given from SAGE, which is based on modelling, virology, clinical and behavioural science and other areas of science as well, and goes to the Government, has been carefully listened to and has not been in any way, from our perspective, overlain with economic considerations as a reason to change the advice. It is a very straight environment. We are interested in two things. We are interested in saving lives and protecting the most vulnerable. That has been the driving force that will continue in all our outputs.

Q98 **Paul Bristow:** Finally, other than the regular daily conferences we are going to see from now on, what strategies are in place to ensure that effective information is given to the public and other organisations on the essentials of the plan?

Sir Patrick Vallance: Again, that is not really a science question, in the sense that I am not in charge of the communication of it, but it is critically important. It is very obvious that this is complicated and it is frightening. People do not know what to do sometimes, and therefore clarity and the ability to keep repeating the same thing in a way that people can understand is crucially important.

All the behavioural science would suggest that we have to get the transparency right. We have to get the communication right. We have to trust that people want to know things, they want to know about this and they want to be able to be empowered to make their own decisions. I think those are some of the key things in how we communicate.

Q99 **Laura Trott:** There were some very serious measures imposed yesterday. You mentioned earlier that what happens when you release them is the big unknown. You also said that we have to look at the consequence of backing off, when we think about taking them off. Can you talk us through what the process is for these measures being lifted and when you think that might happen?

Sir Patrick Vallance: We are just at the start of implementing them, so we are nowhere near talking about releasing them. It is about making sure that we do them properly. As I said yesterday, and I have said again here, there may be other things that need to be added. We have talked about one of them here; there may be others.

When we get to the stage where we have the outbreak down to a level where we know we can keep it below NHS capacity, which is the aim, and when we are happy that that can really be maintained properly, that is the time to start talking about how you might release it. There are various ways that you could think about that in terms of backing off a bit, seeing what happens and putting things back. That is the sort of approach that might be necessary in due course, but we are not there.

Q100 **Laura Trott:** Do you have a figure for the NHS capacity you are working to?

Sir Patrick Vallance: The NHS capacity will come from the NHS, so they will provide the figures as to what their capacity is, and then the models and the data streams can flow into that to say, "Where are we against that capacity?"

Q101 **Laura Trott:** There isn't a number now that you know will be the capacity so that when you think you can manage that number you will lift the restrictions.

Sir Patrick Vallance: There are two bits to that. There is the infection itself, how common it is and how much it is going to increase or decrease. Then there is the capacity of the NHS, which they are working on incredibly hard to try to increase. Both numbers are moving, and obviously both are numbers you need to keep an eye on as you think about when you might be at a stage when you can think about backing off.

Q102 **Laura Trott:** There are some people who are suggesting that these measures may last 18 months. Is that something that you think might be credible or not?

Sir Patrick Vallance: I do not know how long the measures are going to be needed for. The modelling so far suggests that it is certainly not a couple of weeks. If you look at some of the approaches that have been taken, the assumption that you might just close things for two weeks and start up again is not correct. It is going to be months. I do not know how many months.

It is going to have to be data driven; in other words, as you see things changing, you might need to do more or you might need to do less. By the way, that might happen quickly, just as it did over the course of the last week. That is not because there is a sudden change of strategy. It is that you are responding to the information you have in order to change, and that is what we need to be prepared to do. We are going to have to be equally nimble as we think about backing off again.

We are going to have to try it. One thing is for sure: we do not have immunity to this virus and therefore, as we back off, it may come back again and we are going to have to manage that very carefully. We are going to have to hope that we can get through quickly with some of the other interventions to try to get on top of it, with vaccines and the other

approaches that are being taken. There have been remarkable efforts and progress on some of those, but we are still a long way off.

Q103 **Laura Trott:** In your conversations internationally about countries that are further ahead than us, do you have an idea of what their plans are or what their approach is going to be on lifting the measures—for example, potentially China?

Sir Patrick Vallance: Not really is the answer. Everyone is asking the same question. If you look at some of the scientific papers coming out from China and elsewhere, people are looking at what could happen, but we do not know yet. All the evidence from previous epidemics of this type of infection would suggest that you cannot avoid it bubbling back up again when you lift off. That is what we are going to have to be aware of and try to manage.

Q104 **Laura Trott:** When you say bubbling back up again, do you mean a spike or something like what we would understand as seasonal flu?

Sir Patrick Vallance: Seasonal flu is, in a sense, a spike every year. This may ultimately become something like that. That may be what we need to plan for.

There are two ways that you can think about it. If you withdrew all the measures immediately, you would probably have a lag phase and then a peak. If you withdrew some of them, you could begin to see whether it was just creeping up and we were beginning to see an effect. You might then reimpose them. That is why I refer to agility in managing it. That is going to be quite important.

Q105 **Chair:** I have a couple of questions from our colleague James Murray, who is not able to be here. First, I want to follow up on one of Laura's questions. The thing that is puzzling people who look at other countries is this. China has officially announced that it thinks it is past the peak. The South Korean Foreign Minister was on TV at the weekend saying that she thinks South Korea has passed the peak, and it seems to think it has passed the peak with less than 1% of the population being infected. It is very realistic that there could be second or third waves, but it does not seem to be expecting it as much as you do.

I was very struck by the phrase you used just then. You said that if you look at all the evidence you cannot avoiding concluding that it is likely to come back. Could you explain that to non-scientists? The Chinese and Korean view seems to be that it could be something like SARS, for example, which just burns itself out when the reproduction rate gets below one. Why is it that you are, unfortunately, so certain that it will come back?

Sir Patrick Vallance: Sorry, I do not want to be the merchant of doom. I think the transmissibility of this virus is very unlike SARS. SARS was not transmissible in the same way, and it had a very high mortality rate. This has a rather lower mortality rate. It has a very high degree of mild

infection. Just today, I was reading a paper from China suggesting that something like 86% of the infections in Wuhan were never detected at the time, so there is a very high degree of transmissibility.

All of those characteristics, from the evidence from everyone we have heard from, suggest that, when you lift, you are going to get something coming up again. I cannot tell you how big that is going to be. We may be lucky and maybe it will not, but everything suggests that that is what you would think in an outbreak like this, with a virus like this, and with its sorts of properties. That would be what you would expect to see. By the way, I hope they are right and it does not come back. That would be a perfect outcome and, like all scientists, I will be very happy if I am wrong on that and it does not come back.

Q106 **Chair:** These questions are from James Murray. First, more than other countries the approach in this country continues to segment the population with different levels of isolation. Could you explain very specifically why you have chosen this route rather than more blanket approaches, with reference to scientific evidence, behavioural science, economic interests and so on?

Sir Patrick Vallance: We have said that everything is the same for case isolation. Everything is the same for household quarantine and asking people to stay together in the whole household. We have given the same group of social distancing measures for everybody and said that everybody should take those seriously. It is particularly important to be very stringent about them if you are over the age of 70 or have another illness. We have taken one group of much more vulnerable people with serious illnesses that can predispose you to viral infections and to other things, where there will be specific advice. I would be surprised if people like that were not getting specific advice in other countries, if they are particularly susceptible. We have gone for pretty similar advice across most of the population.

Q107 **Chair:** To be clear, because there was a bit of debate about this yesterday, for the over-70s who do not get contacted by the NHS as someone with a long-term condition that makes them especially vulnerable, could you explain what sort of changes in their lifestyle you are hoping for? Perhaps the easiest way to do it is to ask, what are the kinds of things they might do now that you are asking them not to do going forward? This is for the healthy over-70s.

Sir Patrick Vallance: Avoid crowded spaces. Avoid gatherings. Do not go to the club that you normally go to where everyone is sitting around together. Reduce travel. Try to avoid unnecessary travel. Do not go out to do your usual things in terms of going to the shops unless you absolutely have to. If somebody can deliver it for you, so much the better. There are several things that they should not do that they are doing now.

What Chris Whitty said—it is an important point—is that you can go for a walk around the garden or go for a walk avoiding close contact with people. We are not asking everybody to be completely separated, but quite a bit of change is being asked for and the specific guidance is on the DHSC website.

Q108 **Chair:** Very specifically, what about going to Sunday lunch with their family and their grandchildren? Yes or no?

Sir Patrick Vallance: They shouldn't do it.

Q109 **Chair:** Shouldn't?

Sir Patrick Vallance: No.

Q110 **Dean Russell:** Exercise is going to be key. When you mentioned walking in parks and so on, is that the sort of thing that, if someone wants to play golf or do sporting exercise that they can do en masse but where they are not close together, they could still do?

Sir Patrick Vallance: The advice is to try to avoid or reduce close social contact. Realistically, a walk is okay if you are keeping a distance, but it is not if you are going to be in close contact with people.

Q111 **Dean Russell:** Realistically, it is possible that over the coming months healthy people over 70 could go out to parks as long as they are keeping away from each other, effectively, They could do group exercise but be 2 or 3 metres away.

Sir Patrick Vallance: I do not think group exercise, no. Again we are straying into areas that are very much NHS advice, and DHSC and CMO advice. This could go on quite a long time and it is important that we get it right. The danger is in crowded places and gatherings where a few people are in an enclosed environment. Those are the sorts of things that we are saying do not do. Do not go out to the shops if you do not have to, and make sure you do it only when it is absolutely essential and there is no alternative. I am afraid it is avoiding the sorts of social interactions that are such a crucial part of everybody's life. I am afraid that we are asking us all not to do that.

Q112 **Chair:** The final question from James Murray touches on what you said before but I want to ask it because he has asked me to ask it. Given that the advice is slightly different for the under-70s and the over-70s, does herd immunity and the concept of herd immunity play any role in the thinking with respect to that slightly different advice?

Sir Patrick Vallance: No. In fact, the advice is the same, but it is just saying do it more stringently for the over-70s. The whole point about the over-70s and the vulnerable groups is that most of the measures we are talking about are to try to protect everybody. They are about trying to prevent the spread of the virus in a way that puts people at risk. For the elderly and vulnerable, it is about protecting yourself. It is a rather different set of messages. Clearly, it is also part of the first message

because they are not spreading it either, but it is very much about protecting themselves.

Q113 **Dr Evans:** I have a couple more questions about evidence, particularly around medication. There was concern a week ago that there could be a problem with common blood pressure medications, things like lisinopril, ramipril and candesartan, which a lot of people are on. Yesterday, France announced that there could be a problem with ibuprofen, and *The BMJ*, although you probably have not had time to see it, has produced an article today saying avoid it. Could you comment on the evidence around both of those and whether you think that is good advice? I appreciate that we are straying into medical advice.

Sir Patrick Vallance: I can talk about that from the scientific side. I have spent quite a lot of my life trying to make drugs and making drugs, so I know about that.

There are theoretical reasons around ACE inhibitors that are quite interesting, but I do not see strong compelling data yet to know what the answer is as to whether that is real or not. That is being looked at. The ibuprofen example again may or may not be right, but the sensible thing would be to say, "Don't take it at the moment and take something else like paracetamol."

Q114 **Dr Evans:** What has surprised you most about the situation we are in?

Sir Patrick Vallance: I do not think any of us have seen anything like this. It is a first in not just a generation but potentially the first for 100 years. None of us has seen this. It is not like an outbreak of something like Ebola, which is a very different type of disease with a very different type of death rate and a very different set of criteria or circumstances around it. This is a daily changing and unique situation where we are learning as we go along.

We are going to have to invest heavily in science. We are going to have to research hard to find out why some people are getting ill—the real illness—and why some people have a particular cytokine storm; why people get better quickly in some cases; what the vaccines are; what the tests are; and what the treatments are. It is a big, intensive research effort. What surprises me most, as always in medicine, is that you find out there is a lot you do not know.

Q115 **Dean Russell:** I want to come back to the data question. You talked about modelling earlier. It has just occurred to me from some of the comments you made about the use of data for public information, and the collection of data, that testing is one thing, but making sure that we are doing the right research relies on the right data being collected.

Have any conversations happened with Facebook, Google and so on to enable people to track their own journey when they have the illness? Are you looking at data from hospitals or local areas where they can say, "Look, we are nearly full," so that people can see the capacity, so that

there is shared data and a responsibility to share that data?

Sir Patrick Vallance: There are three things. The first is that the research community has stepped up really quickly to some of this. We have had meetings, which are called every week or so, with UKRI and research funders such as the Wellcome Trust and so on to try to get money out more quickly to get things going. That has worked really well and those organisations have worked brilliantly.

The tech companies are all over this, for the reasons you said. They have been talking to Government and other Governments about how we can do it. The data flows on what is happening locally are going to be critically important to understand where NHS capacity is filling up, where there is an outbreak that has got a bit more and where there is one that has got a bit less.

I said yesterday that London is ahead of the rest of the country in where it is on the outbreak at the moment. Others will catch up and we will see it at different times in different places. We need to be able to get the right data flows from the NHS, who are working incredibly hard on that, and Public Health England, who have done an amazing job in their activities so far, to make sure that we get it right to be able to monitor it properly.

Chair: Thank you very much for sparing your time, and thank you for your valiant efforts, which are very much appreciated.

Examination of witnesses

Witnesses: Sir Simon Stevens, Professor Keith Willett, Amanda Pritchard and Professor Steve Powis.

Q116 **Chair:** First of all, thank you very much indeed for coming. We completely understand how busy everyone is. The first thing the Committee wants to do, not on behalf of us and Parliament but on behalf of the whole British people, is to thank you and, through you, the whole NHS for the absolutely extraordinary efforts they are making. It is a bit of a cliché to go on thanking the NHS, but when people see what is happening in Italy on their TV screens, they know what the NHS is preparing for at the moment and we feel incredibly proud to have such dedicated staff on the frontline. If you could pass that on, we would be extremely grateful.

Sir Simon Stevens: Certainly, thank you.

Chair: I am going to ask a few questions to start with and then I will hand over to colleagues. If it is a question about capacity, would that be Keith or Amanda?

Sir Simon Stevens: Any of us.

Q117 **Chair:** Let me start with you, Keith, if that is all right. What is the current

number of general adult acute beds that we have?

Sir Simon Stevens: Shall I start on this, Chair, and then we can divvy up other things? As of today, we have 98,000 general and acute hospital beds open across the English national health service.

Q118 **Chair:** What is the current occupancy?

Sir Simon Stevens: The current occupancy has been falling and, as we speak today, is at under 90%.

Q119 **Chair:** Of those, how many are critical care or intensive care beds?

Sir Simon Stevens: We have 3,700 critical care beds in play for adults at the moment and, obviously, as part of our readiness for the likely influx of more coronavirus patients, we are going to be taking concerted action across the whole of the NHS to free up to a third of the general and acute beds. We want to enable perhaps 30,000 of the 100,000 general and acute beds to be available for coronavirus patients. Today, I am asking the NHS to do three things to get us into that position, to be able to receive those extra patients.

First, we are suspending elective non-urgent surgery, with an assumption that it will be suspended everywhere from 15 April at the latest for at least three months, but with discretion for hospitals to take action earlier if they need it either because of the pressure of patients being admitted or in order to adapt their facilities or train their staff.

Secondly, we are working intensively with community health services and social care, using some of the flexibilities that the emergency legislation before Parliament will mean to unblock some of the discharge processes, as well as some of the extra funding that the Chancellor announced in the Budget. Thirdly, we are working with community hospitals, intermediate care providers and independent hospitals to bring that capacity online for coronavirus patients.

Q120 **Chair:** Cutting to the chase, the modelling published this morning by Professor Ferguson at Imperial, which I think the Government are working on, basically has an assumption that 4% of COVID-19 patients will need a hospital bed, and, of those, 30% will need a critical care bed. If you take those assumptions and combine them with the measures that were announced yesterday, which are expected to slow dramatically the growth of the virus, are you now confident, combined with the other measures that you have already been working very hard on, that we will have enough intensive care beds for people who need them?

Sir Simon Stevens: This is obviously an unprecedented global health threat. Unmitigated, there is no health service in the world that would be able to cope if the virus let rip, and therefore it is crucially important that the measures that were set out by Public Health England and by the Government yesterday take effect, in order to reduce the infection rate such that the peak pressure on the NHS is moderated. In the meantime,

what the NHS is doing, of course, is pulling out all the stops to make sure that we have as many staff, beds and other facilities available, including critical care, for that peak in demand.

Q121 **Chair:** I am not trying to ask you to have a crystal ball, but on the basis of the modelling and what it would be reasonable to think would happen as a result of yesterday's measures and the preparations that are being made, do we have some degree of confidence that, as things stand at the moment, we will have enough intensive care beds?

Sir Simon Stevens: Those measures will certainly make a big difference and, in our view, were absolutely necessary, but, frankly, we are going to have to keep them under review. If it turns out that further measures are required in order to reduce the number of people who get the virus, that will be something that policymakers and Government have to consider. In the meantime, the NHS is making sure that not just overall hospital beds but particularly intensive care beds, operating theatres, recovery bays being repurposed, mechanical ventilation, about which there has been a lot of discussion, and other facilities across the hospital sector are expanded to the greatest possible extent so that in the NHS we do all we possibly can.

Q122 **Chair:** With respect to, I think, the second of the three things you have just announced, I had a message from a hospital in Surrey about a big problem that they were having in discharging palliative care patients to care homes and hospices, because the care homes and hospices did not want to take patients unless they knew that they did not have COVID-19. Is that a problem that we have a plan or a solution for? Will what you have announced today help to deal with that issue?

Sir Simon Stevens: We are testing patients who are emergency admissions to hospital with respiratory or question mark COVID-type symptoms, so we have those diagnoses now available to us, and, obviously, as we look to discharge patients through the extra community health services, potentially palliative care services and social care services, we will have to tackle that. Steve, I do not know whether that is something that has crossed your radar particularly.

Professor Powis: No, but Simon is absolutely right that we are testing individuals in hospitals who have a wide range of symptoms that might be compatible with COVID-19, so our knowledge of patients who are positive and who have recovered will increase, and that information should be available.

Q123 **Chair:** The doctor who wrote in to tell me about that really wanted to know whether we have a plan to stop hospitals being unable to discharge patients in that situation, which is effectively a community plan, and I wondered whether you—

Sir Simon Stevens: I think the answer to that is yes, but not if the implication is that we are going to be testing every single patient in hospital regardless of the symptoms they display. That is not what is

currently proposed by Public Health England. With the additional financial flexibilities that have been set out in the Budget, hospitals, with their local authority partners, will now be able to fund additional discharge support, and the emergency legislation before Parliament proposes to take out all the delays associated with eligibility checking and needs assessments, so that those transfers can take place very quickly. We think, on the back of that, Chair, that potentially up to 15,000 of our 100,000 hospital beds could therefore be freed up for coronavirus admissions.

Q124 **Chair:** Can I move on to ventilators? Lots of people with COVID-19 get breathing difficulties and need what is called a mechanical ventilator effectively to do their breathing for them, and that can be absolutely a matter of life and death. What is the total number of mechanical ventilators that the NHS has access to in England?

Sir Simon Stevens: As of today, we have 6,699 adult mechanical ventilators operational in the NHS, together with 750 paediatric mechanical ventilators, which can be repurposed, an estimated 691 in the private sector and 35 in the Ministry of Defence. In the round, all told, we have 8,175.

For some weeks, we have been out preparing and procuring mechanical ventilators and can see a line of sight over the next several weeks to another 3,799, bringing the total to just under 12,000. In addition, you may have seen that the Prime Minister hosted a call with the manufacturing sector to seek to bring new supply into the country for mechanical ventilation, and we have set an open-ended goal for what that would be.

Q125 **Chair:** So that we understand what you are up against, if we are not successful in suppressing the virus and end up in our reasonable worst-case scenario, what does the modelling show you would actually need in that situation as the number of mechanical ventilators?

Sir Simon Stevens: If when you talk about reasonable worst-case scenario, you are talking about an 81% infection rate across the population, with none of the population mitigations in place that have already been announced, there is no country in Europe that would be able to have a health service that could deal with all of that need, which is why it is so important that we do not get to 81% infection and why it is so important that these additional measures are enacted and succeed.

Q126 **Chair:** If you take into account the additional measures, does the modelling show that when we get up to 12,000 mechanical ventilators, we should have enough?

Sir Simon Stevens: That will partly depend on the clinical protocols that are being used for the patients requiring care, and Steve and Keith may want to comment on that. It will also partly depend, frankly, on the extent to which we as the people of this country respond to the asks that

are being made of us, and it is very important that collectively we do because that is what will keep the infection rate down.

Q127 **Chair:** I understand that you cannot predict these things, but I am trying to get a sense of whether this is an issue that is potentially solvable, that we could potentially have enough mechanical ventilators if yesterday's measures—you must have done some pretty detailed modelling of what yesterday's measures would—

Professor Powis: Nothing is certain, particularly in an epidemic with a new virus where we understand the science better every day, but our aim, working with the modellers who are working with SAGE on the various processes, is to ensure that we match our expanded capacity with the interventions that the Government have announced so that we have the best possible chance of having the capacity that will manage the number of patients who are infected with COVID-19, including mechanical ventilation. But, as Simon said, those measures will only work if the public act on them and stick to the various measures that the Government have proposed. It is important that we all do our bit in society, because the more we do our bit in society, the less demand will be placed on ventilators.

Q128 **Chair:** Yes. I understand that you do not want to commit, but you are using phrases like, "That will give us the best chance of having enough mechanical ventilators," and I am just asking a straightforward question: with what we expect to happen as a result of yesterday's announcement and the suppression of the disease, and what we expect to happen in getting additional new mechanical ventilators, perhaps up to 12,000, does the modelling show that in that situation, if all goes according to plan, we could have enough?

Sir Simon Stevens: It depends. We will be in a better position to give an answer, based on what the group from Imperial and Sir Patrick Vallance, who has been speaking to you, are telling us, when we see the sort of impact those measures are having in practice over the next week, fortnight or three weeks. As we see the change, hopefully, in the new infection rate and the hospital admission rate, it will give us more confidence as to what the landing zone is going to be. As we sit here today, less than 24 hours after those measures were announced, I think we all accept that there is a degree of uncertainty around how this will play out over the next month, two months, three months and beyond.

Q129 **Chair:** There is a final area of questioning from me. I want to talk about protective equipment for staff. It is a massive priority to keep staff safe; indeed we owe them no less and everyone would agree on that. In the key elements of protective equipment, such as gowns, face masks, goggles, gloves, aprons and hazmat suits, do we have any shortages at the moment?

Sir Simon Stevens: Amanda is going to answer that.

Amanda Pritchard: You are quite right. From a staff point of view, we know that is hugely important and it is something that people are rightly anxious about. They want to keep themselves safe and their families safe, so it has, as you would expect, a very high degree of focus from us.

On a reassuring point, we have been assured that there is sufficient supply available nationally. We have had the benefit of being able to release our influenza stockpile, and to release from the EU exit stockpile, so nationally we are currently assured by colleagues that we have the adequate supply we need.

However, we are aware that there have been some local distribution problems, so we do not necessarily have the kit in the right place. What we have done today is set up a dedicated helpline so that, if people have local issues where they need immediate response, they have somewhere to go and we can make sure that the stock is moved from where it is to where it needs to be. This is something that has a very high level of continual focus, but, as we stand today, we have the national supply that we require.

Q130 **Chair:** May I ask you, Simon, to respond to this because I think staff will want to hear it?

Sir Simon Stevens: Sure.

Q131 **Chair:** On the basis of what Amanda said, you are confident that you will have enough protective equipment to keep staff safe, and if there are gaps at the moment they are localised, but will you have enough to keep staff safe in the months ahead?

Sir Simon Stevens: I underline and endorse what Amanda said: as we sit here today, nationally the Department of Health and Social Care procurement team has sufficient for the PPE that we are going to need over the coming weeks, but there is a distributional issue around the country and we are going to need more of it.

Let us be clear that this is a challenge facing every country. A lot of the Chinese supply for some of the more basic items has been disrupted, so we are going to need to ramp up production for gowns in particular, and some of the face masks. This is not a flash in the pan. As we know, it is not something that is just going to be resolved in a fortnight or a month; the coronavirus pandemic is going to be with us for months to come, so we are going to have to ramp up domestic production of those items as well. It is a combination. Have we got aggregate supply now? We are being advised yes. Do we need to improve distribution to every part of the service? We think so, hence the approach that Amanda set out. Will we need more stock over the coming months? Yes, we will.

Q132 **Chair:** Perhaps I could read you a couple of comments that have been sent in from people on the frontline because there is such a lot of concern about it. This is from an A&E doctor in London, writing yesterday: "It's absolute carnage in A&E, utter chaos. We don't have any proper PPE. We

are being given paper masks, not the gowns, not the FFP3 masks we need and not everyone even gets those. Literally, the doctors seeing the sickest patients, the ones with suspected heart attacks, PE, sepsis, all they have to protect themselves is a bit of paper across their mouth. I am in shock. I feel like we are being thrown to the wolves here. Some of us are going to die." How long is it going to take to sort out those localised problems?

Professor Willett: First of all, our staff are critical and they are doing an enormously important job and we need to respect what they are saying.

As to the PPE, as Amanda said, there will be establishment of a hotline to deal with the immediate issues of distribution so that hospitals where there are problems can contact us directly or contact the hotline directly to ensure that we get immediate supplies out to them. The PPE guidance from Public Health England has changed in recent days, so there is some education about what is appropriate, depending on whether the case is a confirmed or a suspect case. Now, an important part of what we have to do is to educate our NHS staff as well so that they feel assured that what they have is correct.

We are in a unique position in the UK for two reasons. One is that we have always held a pandemic influenza stockpile, and that is what the Department is now drawing on and pulling down into the distribution chain. That is now happening. That is an enormous replenishing stockpile that we have had long term. As you know, many countries do not have that.

We also—a silver lining—inherited the EU exit stockpile, which we managed to retain before a lot of it was taken down. There is a significant amount, but we have to listen to staff, and we have to respond and assure them that the personal protection equipment will get to them.

Q133 **Chair:** The one thing that would reassure them most right now is if you give me a date by when the localised distribution problems will be sorted out. Can you commit that, for example, within the next week all the localised distribution problems will be sorted out and staff will have the protective equipment they need?

Professor Willett: We have had discussions this morning and we have been assured by the Department that the stocks are there and a distribution model is going into place.

Q134 **Chair:** In a week?

Amanda Pritchard: They are being sorted out right now. We also have in place today an intention to do a kind of regional distribution so that regions can make sure that they have some control of additional stock that they can distribute locally. In addition to sorting out, through the dedicated line, individual issues that come up, we are putting some additional stock into the system so that regions can distribute it today and have a bit more flexibility than they had yesterday.

Q135 **Chair:** But can that A&E doctor be confident that this time next week the problem will be sorted?

Amanda Pritchard: What we are saying is that we are not waiting a week. We are on to it now.

Q136 **Chair:** So he can be. Okay, if he can be, that is great; that is what we want to know.

Amanda Pritchard: That is the intention.

Q137 **Chair:** I have a comment from a different doctor who makes a slightly different point. This is another A&E doctor from Luton and Dunstable: "I am treating patients who are perhaps presenting for a broken ankle and they suddenly start coughing all over you, you are breathing in an aerosol spray of droplets and we are not even wearing a mask, just scrubs and a plastic apron." Should the NHS, Sir Simon, nationally have a policy that all staff should be wearing PPE in hospitals where there is a reasonable chance that they are going to come into contact with a COVID-19 patient?

Sir Simon Stevens: I defer to Steve Powis, our national medical director, on that. We are guided by the advice that the infection control specialists at Public Health England issue. That is the basis on which the PPE has been provided, but we all believe that staff have a right to expect the sort of protection that would give them confidence. So, part of the question, in the dialogue with PHE, is what is reasonable in A&E departments and other parts of the hospital.

Professor Powis: Yes, I absolutely agree with Simon. PHE are the experts in this area and issue the guidance, and, as Keith has already said, that guidance has evolved over the last few weeks as we have learned more about the virus. Equally, from our staff's point of view, providing them with the confidence that they are safe in all circumstances is important too, as Amanda said, so there is continuous dialogue with colleagues at PHE on setting the right approach. I am sure that will continue to evolve.

Sir Simon Stevens: To underline the national availability point, I am advised that right now we have more than 28 million of the most intense face masks available, with many more in production. Those face masks are here in the country.

Q138 **Chair:** This is the last question on PPE. *Pulse* magazine had a story about GP surgeries in 20 areas being sent batches of masks that said "Best before 2016" and a sticker had been put over that saying "Best before 2021". A lot of GPs, and indeed the BMA, have written to us worried about the quality of protective gear that is being sent to them. Is there anything you can say to reassure them on that?

Sir Simon Stevens: Definitely. Keith?

Professor Willett: We are fully aware of those. They came from one of the stocks that I talked about, and they went through a quality assurance test for health safety. The reason they were rebadged is that it was appropriate. They were tested to ensure that they are of current standard.

Q139 **Chair:** There is one last question from me and then I will hand over to my colleagues. This is prompted by the absolutely heartbreaking scenes that people have been seeing in northern Italy. Perhaps the most awful stories are when doctors have to choose which patient gets an intensive care bed and effectively play God because the patient who does not get that bed is going to die. A lot of people have been writing in saying that they do not have guidance as to how to make those appallingly difficult decisions. Is there a plan to send guidance, particularly to intensivists but to all doctors, so that in that nightmare situation, where they have to make those choices, doctors have some guidance that they can use?

Professor Powis: The first thing is the reason that we are expanding capacity and the reason we have been working with Government closely on the policies they have introduced and discussing policies that they may introduce, which they have laid out, is to ensure that we do everything we possibly can not to get into that circumstance. Doctors make clinical decisions with patients, and with relatives, every day. We want to be able to support doctors to make those continued decisions on the basis that they currently make them.

Because we are ahead of Italy in the curve of the epidemic, as I am sure you discussed with Sir Patrick, it gives us the opportunity to do planning ahead, but nothing is certain in medicine. Doctors and clinical staff have to make difficult decisions, and, of course, if that becomes the case, we will support them locally and nationally in that sort of decision making. I must emphasise that if everybody in the population follows the guidance that has been given, and we work on capacity in the way we have described, our aim is to ensure that medical practice does not have to change.

Q140 **Chair:** I understand that, and I think we would all agree, but I want specifically to ask whether you are going to be sending out guidance to intensive care doctors that tells them how they should make such impossible decisions if they end up having to make them. Is that guidance going out and, if so, by when, because that is on people's minds?

Professor Powis: We would be working with our relevant colleagues in intensive care, but not just in intensive care.

Q141 **Chair:** So you may not be sending out that guidance.

Professor Powis: I think we have to work out the best way of doing it, but I absolutely hear the concern. It is something that we will be working on with our professional colleagues in intensive care and other specialties to address.

Q142 **Chair:** You cannot give any more comfort than that. It is happening today in Lombardy and people are worried that it is going to happen here. They just want a very simple set of instructions, or guidance; that's all. I think you are basically saying, "We will listen to you and we understand this is difficult."

Professor Powis: No, I am not saying we will listen; I am saying that we want to work collectively and collaboratively with our colleagues rather than just sending out guidance. It is something we need to do collectively.

Q143 **Chair:** But you will come up with some guidance. It might not be you that has written it, but you will come up with some guidance from talking to the royal colleges and whoever. Is that what you are saying?

Sir Simon Stevens: We are not at that point.

Professor Powis: If it is required—it is an "if", and, as I absolutely emphasise, it is a point that we do not wish to get to—of course we will work collectively on guidance where it is required.

Q144 **Chair:** There would be guidance before such situations arose.

Professor Powis: If it is required, and it is a huge "if", yes, we will work on that guidance.

Q145 **Dr Evans:** Thank you all for coming in today. Before I came into the House, I was a GP by background, so my question set is about some of the practicalities that you might see.

I will start with secondary care and work my way out of hospital, if that is okay. You mentioned 8,000 ventilators. How many of them are in use at the moment?

Sir Simon Stevens: A number of them are in use for some of the procedures we are going to defer. Part of the reason for calling a halt to non-urgent operating is that we free up not only ventilators but, critically, a number of the operating theatres and recovery rooms that can then be repurposed for extensions to critical care.

Q146 **Dr Evans:** You do not know if 5,000 are in use at the moment, because, once a patient has a ventilator, that's it, they have a ventilator. Do you know the number in play and being used at the moment?

Sir Simon Stevens: A number are going to be brought back online rather than being in use right now. I think you know this, but it is worth saying, and it may be worth Steve saying, that mechanical ventilation is not just a question of a bit of kit; it is a very complex and sophisticated procedure that involves a sedated, paralysed person carefully being monitored, perhaps for 10 days. It is about trained staff as much as it is about equipment.

Q147 **Dr Evans:** You beat me to my next question.

Professor Powis: Simon gave you the number of ITU beds, but of course not everybody in an ITU bed is mechanically ventilated, and that will be changing literally from hour to hour across the NHS. The answer changes on clinical need every minute. A proportion of patients in ITU beds will be on mechanical ventilators. As Simon also said, there are mechanical ventilators used in operations, in operating theatres, and that number varies from day to day. The key number is the number he gave you earlier, which is the number of ventilators that are available, because our capacity planning assumes that they will all be used.

Q148 **Dr Evans:** How many staff do you have to use them? I could not use a ventilator; I could probably be trained, but it would take a while to get used to it. The other thing that goes with that is arterial blood gas machines, which are critical for working out which settings you need. Do we have enough of them aligned with the ventilators? It is about the people to use them and the machines to make the judgment and adjustments.

Sir Simon Stevens: We have been talking with the Intensive Care Society, the Royal College of Anaesthetists and many of the other medical disciplines. As we have a slowdown in non-urgent surgery, a number of anaesthetists will, with their intensivist colleagues, be available for that type of work. Sitting next to me are a professor of medicine and a trauma surgeon, so why don't I hand over to Steve and Keith?

Professor Powis: Again, Simon is absolutely right that there are staff who use ventilators but not in an ITU capacity. They will need some further education, and some retraining if it is a skill that they had in the intensive care setting and they have not had it before. We are working, as I think you have heard, on ensuring that that education is in place. Many hospitals are doing it already. On your point about other bits of kit, it is not just kit; drugs, and so on, are required for patients who are ventilated, and we are looking at supply chains and ensuring that we have the supplies in place for everything else that is required around ventilation.

The final point is that there are forms of ventilation that do not require mechanical ventilation connected to a machine, such as non-invasive ventilation with a tight-fitting mask. From the experience we have heard about in other countries, we think that the clinical course of the disease is such that we want to place an emphasis on mechanical ventilation. That is exactly why, as you have heard, our efforts are aimed at increasing the supply in the number of mechanical ventilators.

That does not mean that other forms of oxygen treatment—non-invasive ventilation with a tight-fitting mask, or, for probably the majority of patients who are hospitalised, just regular oxygen—are not an important part of the treatment as well. That is why we are working to ensure that we have supply of those items and why we are working hard, for example, to ensure that the oxygen supply to hospitals is maximised so

that we do not have constraint in any part of the supply chain. Keith might want to add to that.

Professor Willett: Obviously, there is the medical side in terms of the anaesthetists and intensive care doctors, but a critical part is the anaesthetic nursing staff and the operating department practitioners. They are all occupied in operating theatres, doing planned work a lot of the time. As we wind down that activity, they will become available. The ventilation and breathing support required for patients with coronavirus is at the relatively—I say relatively, because clearly it is specialist—easy end of the very complex things that go on in intensive care, which include renal dialysis and lots of other things that are important. It is therefore possible to look at your staffing resource quite differently and to be able to support that across a wider number of patients.

What we are doing in the NHS over the course of this week, which started today, is an exercise with all our acute trusts, essentially walking them through an exercise to get them to think and understand. Many of them have done it already, and that is fantastic. You can imagine that most doctors and most hospitals are way ahead, but it is to make sure that everybody understands what the pressures may feel like and how they may best adapt to ensure that as many patients as possible get exactly the right care that we want to give them.

We are walking them through, so today we are giving them a point in time in that curve—week 6. Tomorrow, we give them what is called an inject: a lot of new data that says, "Now you're at week 7." On Thursday, we will take them to week 8, and on Friday we will be at week 9. That will stress the NHS on a tabletop, safely; it will be a completely useful exercise so that they understand what they are going to have to do. Some of them will have their plans in place and can test out their plans; others will realise that their plans need to do more, and that they need to think much more creatively and innovatively about how they move towards the sort of bed numbers, mechanical ventilations and sites that they can provide over that period of time.

Tied into that is going to be an education programme. There is a bit of a call to arms as well, or call to action, so that in the NHS we are all on the same page in responding, because we need all the NHS to move with us, and we need all our supporting partners outside health to help us. There will be education packages that ensure that the staff have the education and really understand what a coronavirus is. We make an assumption that everybody in health knows what a virus is, but, if people are not working in that field, they are unsure. Some of the anxiety that you alluded to, Chair, is lack of familiarity with this, because they do not see it. There are education programmes going through, some of which will be nationally based, in national resource, and many will be locally based.

On secondary care, as we walk into this, and as we expect it will become more difficult, it is about how each of the hospital specialties takes down

things that they would normally do, which have the least impact on patients, perhaps things that just cause inconvenience and not harm. They take those things down and then redeploy the staff. For instance, I am a trauma surgeon; in the emergency department, there are many minor injury patients you might have sent in previously, who have injured toes or fingers, ankle sprains or whatever. We can lift all of those out of the emergency department and move them into the orthopaedic setting, freeing up our emergency doctors to do respiratory cases and the other ones that only they can do. We can do that through each specialty so that we start completely to restructure how we deliver care.

Q149 **Dr Evans:** With some of that, the next step down would be routine care and cancelled operations. For people with cancer, can you comment on cancer operations? Will they still go ahead?

Sir Simon Stevens: Yes.

Q150 **Dr Evans:** On prescribing rules for GPs—we are a bit further out now—will there be any relaxation around prescribing rules, for repeats, when people should have reviews, to try to release some of the system a little bit lower down?

Sir Simon Stevens: Almost certainly, yes.

Q151 **Dr Evans:** On new registration of patients, and indeed staff, patients have to go into a GP surgery to register. Plenty of people will now be thinking that they need to get on to GP healthcare, and normally they have to come in to show identification. Is there any thought on doing something about that online? For staff who want to come back in, is there any centralised system for allowing them to get up to speed very quickly, to step back into giving care?

Sir Simon Stevens: It is a probable yes, and a yes. On the probable yes, perhaps I can put a bit of context around it. What we are doing, not just with GPs but with community pharmacists, hospitals and NHS trusts, is to say that for the next four to six months we will clearly all be going flat out at coronavirus, so we are suspending the usual rules around contracts, payments and incentives. We are going to pay up front the funding that staff and organisations need to do the right thing for their patients on coronavirus. There will be myriad aspects of the way the GP contract works that will conform to that, but it is not just GPs; it is all parts of the health service as a whole. In the letter that I issued to the NHS this afternoon, I laid that out.

Q152 **Dr Evans:** The CQC has said that it is going to reduce its regular checks, in essence. One big thing that happened last week was the LMC voting down the primary care network that was due to come in. Are there any thoughts on that? The benefit of reducing it and not putting it through may well be the fact that you reduce the workload; the downside is that there is money attached to it. Is there any thought about those kinds of processes being elongated and postponed, and the impact that might have?

Sir Simon Stevens: My team are discussing with the General Practitioners Committee the best way of doing this going into next year. Two of the things that you have just referred to would, frankly, be a help to practices, not a hindrance—namely, being able to work together with other practices in their neighbourhood, also known as primary care networks, and getting extra staff, whether it is therapists, nurses or other members of the practice team. Those are probably two of the things that you would not want to go slow on; you would probably want to do more of them at this highly pressurised time.

Q153 **Paul Bristow:** Thanks very much to all four of you for coming to speak to us today. I want to follow up on a couple of things that were said in response to Luke's questions. You talked about suspending or postponing non-elective procedures in the NHS, and you talked about cancer procedures. Forgive me if this has been mentioned, but, for clarity, are trusts still going to be measured against existing targets, such as the four-hour waiting time in A&E, or will they be relaxed for the duration of the pandemic?

Sir Simon Stevens: No changes will be made to the measurement set, but the reality is that we are asking the whole of the NHS to mobilise around doing the right thing under this pandemic coronavirus outbreak. Of course, ensuring that patients are looked after appropriately and quickly in A&Es is an element of that, but it is about doing the right thing and applying the correct local judgments in a flexible and agile way.

Q154 **Paul Bristow:** That is the key word, isn't it—flexible? You do not want to see the unintended consequences of previous targets, which in peacetime, if you like, made absolute sense but at this time make no sense whatever.

Sir Simon Stevens: I completely agree.

Q155 **Paul Bristow:** To build on some of the things that Luke said about the capability of primary and community care, are you confident that general practice has the capability and resource to deal with the effect of the pandemic, based on the modelling that already exists?

Professor Powis: I am confident that in general practice, like hospital practice, as Keith outlined, they will need to change the way they work over the next four to six months, because we have an unprecedented situation that will require that. As Luke asked and Simon replied, part of it will be about discontinuing a range of things to change that model, but some of it will absolutely be working in a different way.

I expect that they will still be supporting the patients they know—for instance, vulnerable patients who are being asked to spend more time at home and being shielded. Those are the patients that GPs know best. I am sure that any GP would immediately, probably without going to their list, give a list of the patients they were most concerned about. They will have to support them in a different way, which might involve more telephone conversations or more remote ways of contacting them, rather

than people coming into the surgery. It will force a different way of thinking, but I am absolutely confident that practices are up to doing that. Actually, many of them use models that are perfectly applicable to the situation we are going into and will be well used to the sorts of changes they need to make, although at an unprecedented time those changes will have to go further than they might normally.

Q156 **Paul Bristow:** Forgive me for building on this and painting a scenario. If a patient with a particular long-term condition, such as diabetes or AF, is having problems managing their condition, they are used to going in to their GP regularly and having a personal relationship. I know that already in some GP settings you have to be on the phone at 7 o'clock in the morning to get an appointment, and all the rest of it. How do you think that modelling will look? Is it going to be very much more telephone?

Professor Powis: Absolutely.

Professor Willett: Yes, it must be, particularly for the vulnerable patients you have described, with underlying chronic conditions, as the Government programme laid out. Those are the ones for whom we need to increase social distancing, so they do not get exposure to the virus. Secondly, for those who are very vulnerable—we will say more about that as they are defined in the coming days—we will essentially ask them to stay at home to protect themselves.

At the beginning of this, only six weeks ago—that is how fast it has changed—the WHO said something to the tune of, "It does not yet constitute a public emergency and there is no evidence that it will spread outside China." That was 23 January. Can you see where we have gone since then? We have had repatriation flights and we have completely changed the model. We have been isolating people who had the virus to protect the rest of society from acquiring the virus. We are now getting into a position where we recognise that there are vulnerable people we need to protect and isolate to ensure that they do not get the virus. That is a substantial shift. For those sorts of patients, that is where general practice will need to transform significantly.

CCGs have been given permission to ensure that finances do not interfere with the way practices can adapt and change, so it is about videoconferencing and telephone consultations, as well as increased out-of-hours services so that, if people need home visits, they can be arranged. It is quite a transformation model, and I suspect at the end of this, when we all sit down in a year's time, we will have learned some important things about traditional practice that will benefit the NHS and our patients and, at the same time, will have protected a lot more vulnerable patients.

Professor Powis: I think you said flexibility and agility, and that is absolutely the mindset that all of us will have to be in.

Q157 **Paul Bristow:** I am thinking of people like my mother and my father,

who are used to a trip to the GP, almost on a monthly or fortnightly basis, to manage their long-term conditions. Let's get the message loud and clear: we are saying do not go to a primary care setting. That is a substantial change, as you said. Other than the daily briefing, which is very useful, that the Prime Minister is having every day on the changing situation, what more is the NHS doing to provide that sort of essential and accurate information, not only to the public but to NHS professionals?

Sir Simon Stevens: In terms of direct public communication?

Paul Bristow: Yes.

Sir Simon Stevens: On the nhs.uk website and the NHS online website there is the full information set, including the advice that came out last night from Public Health England on social isolation. Over the course of the next week, as you have just heard, specific contact will be made with the majority of people in the very high-risk group, who are particularly being asked to reduce their social contact and shield themselves from other interactions so that they can have their questions answered; for example, if they have an appointment scheduled for the hospital or they need to be in touch with a GP, they can ask, "What do you recommend I do about that?"

Q158 **Paul Bristow:** I have experience of this already in my constituency and my patch: what are we doing to counter misinformation that is already out there, in the public domain?

Sir Simon Stevens: We and the Department of Health and Social Care, and in fact DCMS, have been working with the social media companies, including Google, Facebook and others, to try to ensure that, where ludicrous lies are promulgated online around treatments that most obviously will not work and are just a public scam—frankly, I include in that some of the homeopathic practitioners, but there are others as well—that is zapped by the platforms providing access to that damaging and scurrilous material.

Professor Willett: And nhs.uk is the public point of truth. If people need to find out what the position is, that is where they should go.

Q159 **Paul Bristow:** That is very reassuring. As something very reassuring on a personal level, I have seen that there has been information provided, or there has certainly been an announcement, for people who are pregnant and how they should look after themselves. Is there going to be any specific information to young mothers of recently born babies? I say that as the father of a very small baby.

Professor Powis: When it comes to pregnancy, the evidence base on the virus is fairly limited at the moment because, obviously, it is a new virus and we have emerging information. Working with the chief medical officer, we are urgently looking at that evidence base, and we will issue further guidance specifically on pregnancy, and the period of pregnancy when we believe that most care needs to be taken.

Professor Willett: We represent NHS England, but all the activity is being done across the four nations at every level, across the NHS and with the chief medical officers. The chief medical officer for Scotland is an expert in the area of pregnancy.

Q160 **Paul Bristow:** Forgive me if you are not the right audience for this, but I had a phone call this morning with the chief executive of the Sue Ryder hospices. I am interested to know what implications there could be of the impact of coronavirus on the hospice sector for the NHS. For example, if they struggle to cope and are beginning to say that they cannot take new patients for one reason or another, have you thought about how that might be dealt with?

Sir Simon Stevens: I think Hospice UK has raised that question with the Department of Health, and I know that the Department is looking very carefully at whether or not additional support could be provided to hospices during this very difficult time.

Paul Bristow: That is very reassuring. Thank you.

Q161 **Dean Russell:** I echo the comments made earlier and give heartfelt thanks to every member of the NHS, and their families as well, who, no doubt, are supporting them.

My questions are about volunteering in the community. I have had emails from people who volunteer with St John Ambulance, for example, who are asking what the approach is on deployment and training for people who have a certain level of skill and understanding, so that they can then give support on minor injuries and ailments and take the pressure off that side of things.

Sir Simon Stevens: Sorry, did you say St John Ambulance in particular?

Q162 **Dean Russell:** That was an example, but I am thinking also of pharmacists and perhaps even school nurses, over time, as well—anyone who has skills that could support you.

Sir Simon Stevens: St John Ambulance is very kindly working up a proposal specifically to offer additional support in emergency departments, which I think is based on a pilot that they have successfully undertaken in Peterborough with trained volunteers, who have been helped with recording observations, supporting paramedics and so forth. I think they are planning a call to action to bring in more volunteers and to upskill people as advanced first aiders over the next several months. Many of those volunteers are, in fact, student paramedics, nurses or doctors, who can help.

It goes wider than that. We have 10,000 community first responders across the country, who already volunteer for NHS ambulance services. We are very grateful for the work that St John Ambulance will be leading, and there is Age UK and a number of other organisations, too. That is going to have to be an enormous part of looking after—speaking

personally—my parents' generation, as they go through what is going to be a very difficult number of months.

Q163 **Dean Russell:** We are seeing lots of volunteer groups popping up all over the country, and in my area in Watford we have many appearing, Facebook groups and all sorts, gathering data on where vulnerable people are, and so on. One thing that seems consistent is the fact that it is so inconsistent; that is the consistency. Lots of groups want to try to help. With regard to the volunteer network, especially in this space, is there a sense that there will be a centralised database so that people who want to help can go to one place and potentially be vetted, if needed, and we do not end up with the risk of the wrong advice being given, and people know, as with the NHS website, that they go to one point of truth, in supporting?

Sir Simon Stevens: For those who are volunteering, particularly in health settings—the British Red Cross is another fantastic example—we absolutely want to do that. But, as you say, there are many local groups, for which the right network will be through the local council. The Local Government Association, as the umbrella for local authorities, I think is going to support the MHCLG in putting in place that kind of infrastructure, because what happens in Watford might be different from what happens in Surrey or Doncaster. Localism is very important to foster as well.

Q164 **Dean Russell:** We mentioned care homes and so on earlier. What are the pathways at the moment? I met people at a care home on my patch this week, and they were very conscious that, especially for people with complex issues in hospital at the moment, it is not just the case that they need to shift beds to another location; there is a lot more to it. How is that planning going? What do they need to do to support you, and, vice versa, what are your plans to make sure that they have the right information and advice?

Professor Willett: There is a variety of things going on with the care homes. There is the staff side of it, which is clearly important in how the volunteer sector comes alongside to support. We will now have numerous patients at home, because of the programme that is coming through Government. We have local resilience fora as part of the emergency planning structure in the NHS, so there will be collective efforts at local level to identify the sort of support needed across all the community. Care homes are in a privileged position, because they exist and are a stable structure. Clearly, they want to protect; it is a collective that we are protecting and isolating for their own benefit. That will be key for the care homes.

My concern is for the wider number of people who will be isolating at home for quite a lengthy period of time. Some of those the local authorities will know well; they will already be receiving social care support, and that is wonderful, but we need to look at the social care workforce and ensure that we support them. Although the Department of Health and Social Care is responsible for the social care part, we are

aligning the sort of work we do with them. There will be people who have friends and family, who can support them individually at home, and that will be absolutely paramount. As Simon said earlier, we need the whole country to stand up behind this; it is not something the NHS can do on its own and not something local authorities can do on their own.

There will be people in society, whom we will identify, who may have been in social isolation before we started. Loneliness is one of the things that we have discussed around this table before, and this is another opportunity for us to use our wider support in society to pick up some of those problems. Everything is about everybody doing the right thing. We have said that the message is about being responsible as an individual and being responsible for society. That is easy to say and hard to do, but simply washing your hands could mean one less patient on a ventilator. People need to understand exactly where we need to be as a nation on this.

Q165 **Dean Russell:** Thank you for that very thorough answer. Do we think at the moment that the social care sector is equipped enough in size, scope and funding to be able to cope? I am thinking of older patients or people who may be bedridden, who have to be moved regularly to get rid of bed sores, and things.

Professor Willett: That is obviously a responsibility for the Department; it does not sit with us, but we are doing everything in alignment. Having sat around this table from the EU exit point of view, I have to say that there is an immense benefit for adult social care from the no-deal planning. They started to collect data and understood bed availability; they looked at their resilience and started to understand just how fragmented they are. There are 12,500 care homes; we have more domiciliary care providers than we have GP practices.

Pulling all that together to understand what was needed has put us in a much stronger position, and the additional window we have had from contact tracing, and the excellent work that Public Health England has done, has put us in a position where we can walk into this with more confidence that we understand it, but we have to deal with the hand that is dealt to us.

Sir Simon Stevens: I agree with everything Keith said. The fact is, however, that the social care sector, as we know, has been under enormous pressure for a long time, so going into this pandemic we have to take the opportunity to do what we can to support and strengthen social care. Apart from anything else, not only in supporting the millions of people at home who are shielding from social contact but in being able to free up the 15,000 or so hospital beds we need to be able to discharge people from so that we can receive coronavirus patients, it will be very difficult if social care is unable to play its full part.

Q166 **Dean Russell:** I have a few questions on the staffing side of things. First, there will be, and no doubt already are, GPs, nurses and so on who

self-isolate. Instead of their being stuck at home twiddling their thumbs, although I am sure they could do with the time off, are there any opportunities for them perhaps to do remote surgeries? I do not mean physical surgeries but remote consultations with patients. That no doubt would take pressure off those who are not self-isolating.

Amanda Pritchard: Yes, absolutely. One of the things we are asking people to do locally is to work with staff in highly vulnerable groups, to make sure that they have the opportunity to make a contribution, but from the safety of their own home. That is a similar idea. We know, of course, that NHS staff are desperate to make a contribution and are going to want to be able to do that, whether they are basically well at home because they are self-isolating or because they are in the higher-risk group and for their own safety we need to make sure that they are able to work from home, but contribute differently. Those are exactly the sorts of conversations that are happening now across the NHS.

Q167 **Dean Russell:** Is the technology infrastructure there for that? One reason why I ask is that one of the barriers in the commercial world is GDPR around data privacy. Do you foresee a point where patient privacy might need to be managed slightly differently to ensure that patients are being looked after?

Sir Simon Stevens: We are confident that there is the flexibility consistent with patient confidentiality to make that work. Our team at NHSX, which does our digital work, has paired up with the Information Commissioner's Office, and the ICO has issued very helpful and straightforward guidance saying that there is nothing about the way the rules work that should stand in the way of a flexible way of looking after patients.

Q168 **Dean Russell:** Staff who are self-isolating are one challenge. We talked a lot in the previous session about school closures; the reality is that, in a couple of weeks' time, or in three or four weeks' time, schools will be closed for Easter, and then again in the summer. Are there plans in the NHS to set up some sort of childcare network so that nurses and doctors do not have to stay at home with their kids? That is going to happen, and they may already have booked holiday to do that. What is the thinking and planning around that?

Sir Simon Stevens: It is an interesting idea. We are obviously thinking about all scenarios in respect of schools. It is worth remembering that we have a workforce many of whom, certainly on this side of the table, still have school-age children. I do not know about you chaps. Yes, we experience exactly what you are describing, and it is clearly something we should look at. More broadly, the interaction between schools policy and staff availability in the NHS is a big consideration.

Q169 **Dean Russell:** With regards to looking after staff longer term, is there a plan around mental health and support for them? I appreciate that we are in really intense times right now in just getting over the bump, as it were.

As the Chair mentioned earlier, they are going to have to make very difficult decisions; they are going to see things that in some cases might feel akin to a war, in volume and intensity. What is the thinking on that and what are the plans for that?

Amanda Pritchard: I couldn't agree more. I should have said that, before I did this job, I was the chief executive of Guy's and St Thomas' Hospital. The absolute reality of how it feels when you are on the frontline, providing care, is something we are all very conscious of. People were doing an unbelievably good job, as you know, before coronavirus, let alone now.

As colleagues have said, all the actions we are taking are designed to prevent us from getting to the position where people feel under that degree of pressure. None the less, even now, we all recognise that we need to support staff however we can, with particular consideration around mental health. We have plans being developed, and we are already in active conversation with the NHS about what we can do locally to support people.

Q170 **Laura Trott:** I have a few questions about the residual bit of the NHS, which will not be dealing with coronavirus. Can you talk through what the infection control is in hospitals? People with elderly relatives in hospital at the moment will be very worried. Can you reassure them on that point?

Professor Willett: The programme we have already put in place is that patients coming into hospital who have symptoms consistent with coronavirus are being tested, although most at this point in time probably do not have coronavirus; a few weeks down the line it may be different. We are managing them currently in a way that is a form of isolation, but it is not like putting them in a side-room, while we await the results, so that protects other staff.

People need to understand what coronavirus is. Without being too simplistic, a virus is a tiny bit of genetic material; it is minute. You have millions of bacteria on your hands, but, as far as bacteria are concerned, a virus is a bit like a mosquito on their skin. That is how small a virus is. What a virus does is attach to your cells, usually in the nose, throat and lungs, and that genetic material goes inside the cell. Unless you have seen that virus before, you do not even try to stop it. The virus then takes over the production line in your cell and produces thousands and thousands more virus until the point when it releases them. That is when you get the cough and the temperature, because you have a damaged cell, and your body recognises it and starts to attack.

That is what is going on. We understand what the virus is. A virus cannot go anywhere. It does not float around in the air; it comes out in droplets when you cough, and those droplets will go only a certain distance. Hence the 2 metres that we talk about for social socialisation; if you are outside that, you are not going to get the virus. But it means that, in a hospital, that is what we have to do, and that is why the level of personal

protection equipment that Public Health England now recommends is different from when we started. When we started, we called this a high-consequences infectious disease, but it was not a high consequence for most individuals because, for most individuals, it is nothing worse than a winter cold. It was a high consequence for society because there is no immunity and we did not know what the virus was. Now that we have learned a lot more about the virus, we understand that, actually, we can treat it pretty much like flu. It is not flu, but we can treat it pretty much like flu.

To go back to your question—sorry for the deviation, but I thought it might be useful—that means that, when a patient comes into hospital and we have tested them, we get the result back on whether they are positive or negative. If they are positive, we move patients into cohorted areas. In other words, we put them all together in the same area and nurse them in one area. That is important, because it makes nursing much easier; you can treat them all in the same isolation area, rather than having to go in and out, with multiple changes and donning and doffing of all the equipment, which is arduous and uses up a lot of equipment. We have discussed what the supply chain is like for that.

For other patients who go into hospital, we can be confident that they have not got coronavirus. We cannot be absolutely certain; as Steve said, there is never certainty that we have got everything right. In general, it means that we will be able to have segregation of pathways of care through a hospital, to give that assurance. It also means, to go back to the staff point that Amanda was making, that it is possible for us to take staff we may consider we do not want in one area—perhaps a pregnant member of staff—and move them to an area where the likelihood of exposure is much lower.

There are lots of opportunities, which is why today, in the directive that has gone out to the NHS, one of the early things we talk about is segregated pathways, and therefore the appropriate protection of other patients and staff. Someone else may want to comment on what we think should be happening with visitors, but that is an important thing in its own right.

Q171 **Laura Trott:** Are you confident that you can maintain that segregation as we reach the peak of the illness in this country?

Professor Willett: In the exercise we are going through, stress-testing each of the services over this week, it will become apparent how many patients you need to cohort and how you go about doing that. You would imagine that an organisation—each will be different, and its estate will be different—will work out the sequence of wards that are best placed to become the cohorted wards for patients with coronavirus.

In addition, you will think about segregating your emergency department in the way that best fits the layout so that patients who come in with symptoms that are consistent will be in one area rather than another,

again maximising segregation. Likewise, when patients have diagnostic CT scans of the chest, for instance, which is a common investigation for the COVID-19 disease, in those circumstances, you might start to segregate if you had more than one, because that would reduce the necessity for the amount of decontamination that needs to go on, which follows patients around a hospital. Those are the sorts of practical things we need to do and maintain for as long as we possibly can, to protect our patients and staff. Clearly, there is a logic in not exposing visitors to that environment and not bringing in visitors who may bring a virus into an environment that has not already got the virus.

Sir Simon Stevens: At the height of the epidemic here, it is likely that every NHS hospital will be looking after coronavirus patients, and it is possible that some hospitals will almost exclusively be looking after coronavirus patients. As we have looked at what the respiratory and oxygen capabilities are like in different parts of the NHS estate, there are some places where, frankly, we may choose to deploy almost the entirety of the hospital for coronavirus patients.

On the visitors point, we are issuing new guidance to hospitals recommending very significant reduction, other than in the most essential circumstances, of routine visits to hospital patients.

Q172 **Laura Trott:** In the case you describe, when we are at the peak and there may be hospitals that you deem are dealing almost entirely with coronavirus, if you are, for example, a stroke victim in an ambulance, does that mean you will be diverted elsewhere?

Sir Simon Stevens: Yes.

Q173 **Laura Trott:** If a pregnant woman is going into labour and there is a complication and she urgently needs to go into hospital, again, will that mean that that woman is diverted elsewhere?

Sir Simon Stevens: It could, although it is less likely that some of the maternity wings would be converted to looking after the respiratory needs of coronavirus patients. They would need to be completely separated from infection control.

Q174 **Laura Trott:** Understood. Can I clarify a point about the spread of the disease? If you are asymptomatic, can you spread the disease or not? There seems to be some mixed messaging around that.

Professor Powis: The evidence is that you spread the disease when you develop symptoms. It is possibly the case that there are asymptomatic individuals, and one of the uncertainties is around how they spread. In general, the spread of the virus is from symptomatic individuals, in the first few days of symptoms, and then it tails off quite dramatically as they get asymptomatic. But we are learning about this all the time, and it would be fair to say that the evidence is still evolving.

Professor Willett: At the earliest sign that you have symptoms consistent with coronavirus, you get out of work and you self-isolate. You do not wait around till tomorrow, to see whether it is going to get better, because you are now highly infectious. With early signs, even mild ones, you self-isolate to protect others.

Professor Powis: The seven-day isolation policy is designed to take you through the period when you are most infectious to a period when you are not infectious, and then you can go back into society.

Professor Willett: To explain what self-isolation is, because I think a lot of people do not understand it, if you are in a house where you can segregate yourself, and you are fortunate enough to have a second bathroom and you can do that, it is about staying away from anybody else. You should use your own towel, if you share a bathroom, and you should wash the sink afterwards; you sleep on your own and do not share anything.

Apart from the droplets, which are the main form of spread, there are what are called fomites in the medical profession—things you touch. There are things that you touch and you drop the virus on, particularly if you have coughed into your hands. When you touch a surface, the virus will be viable on that surface for a period of hours, so somebody else who comes along and touches it would then pick up the virus. If you do what we all do, which is to touch your face repeatedly, you will then be at risk.

Washing your hands for 20 seconds is absolutely critical. Whether it is the tube train that you have been on or somebody else's car you have got out of, or touching a shelf in a supermarket, washing your hands frequently is the single most important thing to do. That is what self-isolating is about; it is about wiping down the door handles. You just do not touch anything that other people can touch until you have gone through that seven-day period.

Professor Powis: Of course, the reason that you are most infectious when you have symptoms is exactly what Keith described earlier—the spread of the virus occurs in droplets that you cough, and coughing is the main symptom. The symptomatic period is the key, and that is when you need to stay at home, isolating yourself as much as possible from everybody else, because that is the period when you are shedding the virus and potentially spreading it.

Q175 **Chair:** Thank you. I have a couple of questions from colleagues who are unable to be here. This is from James Murray, who has a question about information provision. Are we confident that the information provided on 111 and the NHS website is always up to date and broad enough?

Professor Willett: The answer is that we are trying very hard. Going forward, things will be much easier, because we have reached a sort of tipping point, and now we have quite a stable run into the next phase, although it will evolve and there will be differences. As I said, it was only

23 January when this was still considered not to be significant, and the policy and changes have happened literally every few days, and it was almost impossible to keep everything aligned.

Going forward, an enormous amount of work has gone into NHS 111, particularly the online service. It has gone from not really existing for coronavirus to taking 650,000 hits a day, and the information is, we guarantee, updated every day. It needs to be.

Professor Powis: Could I pay tribute to the staff who man 111 and run it? They have seen unprecedented demand and have had to change what they do very dramatically over a very short period of time, not just because of the demand but because of the evolving nature of the disease and, therefore, the advice they have been asked to give. They have done a huge amount of work under extreme pressure to ensure that the public have the information they need.

Q176 **Chair:** Thank you. This is a second question from James. Do you think that the new guidelines issued yesterday to the public about social distancing would be more effective if they were mandatory rather than advisory?

Sir Simon Stevens: I think we will know the answer to that question within a matter of days. As I think we heard the Prime Minister say yesterday, the first approach is to appeal to the good judgment and altruistic instincts of the British people. If it turns out that further measures are required, I am sure that the scientific advisers will put those before the Government to consider.

Professor Powis: Could I take that back to the question you asked at the start, Chair, about modelling? What is really important is the actuality of what happens. Simon's point about how the public respond to the measures is critical, as I said earlier. What we need to see in the next few days or the next week is evidence that they are having the effect that is included in the modellers' work. The answer to the question you have just asked, as Simon said, is very much contingent on what we see. I cannot be plainer than to say that the importance of adhering to these measures as much as you possibly can is going to make the difference to whether the NHS copes or not. It is as plain as that.

Q177 **Chair:** There is a question from Rosie Cooper. What message or advice do you have for dentists, who are obviously not able to do their work remotely and have been talked about virtually not at all in the national media? Is there anything specific that you want to pass on to them?

Sir Simon Stevens: I think the chief dental officer published comprehensive guidance for dentists on how to respond under the current circumstances, first on 27 February and then updated on 5 March, with a further communication on 9 March. We would advise dentists to follow the advice from the chief dental officer and proceed accordingly.

Q178 **Chair:** Before we wrap up, there are things that have arisen from some

of the comments that you have made that I want to clarify, if I may, so that everyone absolutely understands. On the business of visitors to hospitals, are you saying that you are going to advise all hospitals that they should ban all but essential visitors?

Sir Simon Stevens: Yes, that is essentially what we are saying. Obviously, in the case of parents and children there may be particular considerations, and in the case of end-of-life care there may be particular considerations. But the presumption should be trying to reduce as much visiting as possible.

Q179 **Chair:** One comment that has come back on social media is to ask why we are waiting until 15 April for implementing the postponing of elective care, rather than going into it straightaway.

Sir Simon Stevens: We are not. We are giving local services the ability to do that straightaway, if they believe it is the right thing from the point of view of staff training, or the beds that they require. To be absolutely clear, the letter we have issued to the NHS today says: "Assume that you will need to postpone all non-urgent elective operations from 15 April at the latest, for a period of at least three months. However, you also have full local discretion to wind down elective activity over the next 30 days as you see best, so as to free up staff for refresher training, beds for Covid-19 patients, and theatres/recovery facilities for adaptation work."

Professor Powis: Local discretion is also important because we do not expect the epidemic necessarily to be at the same level in different parts of the country at the same time. There are good reasons for allowing organisations to act locally according to their circumstances, on staff, operations and what is happening with the infection locally.

Sir Simon Stevens: The corollary is that if the opportunity presents itself over the next several weeks, we would like as many people to be able to have their operations as we possibly can, and not just in NHS facilities. If there are opportunities in local independent hospitals, we strongly advise that people take that opportunity, too.

Q180 **Chair:** You gave a very clear answer earlier about cancer, but how likely is it, as things look now with the modelling that we have, that other urgent treatments—for example, for strokes or heart attacks or trauma treatment after a road traffic accident—might also end up getting postponed, and people might not be able to get the treatment they would normally expect from the NHS?

Sir Simon Stevens: Those are emergencies and, in suggesting that we can see a route to freeing up 30,000 of our 100,000 hospital beds, the implication is that the other 70,000 are likely to be used for heart attacks, strokes and major trauma.

Q181 **Chair:** You are planning to keep your capacity for emergency as it is.

Sir Simon Stevens: Our plan is that we keep capacity for emergencies.

Q182 **Chair:** There is a specific question from one doctor about cancer patients. She has noticed that in a number of the major London teaching hospitals you can still go into cancer waiting rooms where people are waiting for chemo and see patients squashed up very close together. There does not appear to be any guidance that people should distance themselves because of the COVID risk. Is that something you could take away and issue some guidance on, if that is appropriate?

Professor Powis: Yes, I think we can. Also, because cancer patients under active treatment are in the high-risk group, advice will be included in the general advice we are providing over the next few days to very high-risk individuals.

Q183 **Chair:** The two biggest concerns from NHS frontline staff are, first, the issue of protective equipment, which we talked about earlier, and, secondly, rapid staff testing. I appreciate that this is a matter for PHE, and Sir Patrick Vallance, before you, said that they wanted rapidly to scale up the testing; he envisaged it moving on to South Korean lines, where they have about 10 times more capacity than us. From your perspective, as things stand today, with the advice that you should self-isolate for 14 days if one of your kids gets a fever, does it worry you in terms of NHS staff capacity that we could lose vitally important people unless the problem is resolved quickly?

Sir Simon Stevens: We are concerned about that. There are two very specific things that we are enacting for the NHS today, and Amanda can run you through both of them.

Amanda Pritchard: We would completely agree with what Sir Patrick Vallance said about the importance of ramping up testing. I suspect that is absolutely going to be an important part of the longer-term strategy. On what we can do today, as Simon says, what we have done, issued in guidance that we sent out today, is to offer all staff who wish to take it—it is entirely voluntary—the opportunity to have NHS-reimbursed hotel accommodation so that they can continue to work but do not have to go back to a place where they might come into contact with an infected family member. That is entirely voluntary, but it is something people have asked us for, so we are trying to respond very quickly.

The second thing that we are doing is to work with PHE to stand up, again as a matter of urgency, some testing for symptomatic NHS staff who, if they turn out not to have coronavirus, can return to work straightaway, rather than having to go through a period of self-isolation.

Q184 **Chair:** So that I understand that last comment, or the penultimate one on the hotels, this is obviously not for people whose daughter has developed a fever, because as things stand they would have to stay in isolation for 14 days, unless they got a test that was negative. These are people who are not in that situation but might want to move into a hotel so that they can avoid the possibility of having to isolate if a member of their family gets ill. Is that correct?

Amanda Pritchard: No. It is for the group of people for whom, exactly as you say, for example, their daughter came home from school and had a bit of a temperature. At the moment, as per Keith's explanation, you would not anticipate somebody, if they themselves were to be infected, to be symptomatic and have any risk of infecting other people for the initial part of the time that they have been exposed to a family member. The risk is that you continue to stay exposed to that family member for an extended period of time, and then of course you cannot work, because you are at much higher risk of both getting the virus and passing it on, unless you have been tested and we know definitely, and the staff member knows themselves, that they are negative.

For the moment, what we want to do is to say to people that, if a family member has been exposed, then, absolutely, if they wish to continue working, as long as they are not going home to that person, and we can offer them accommodation that allows them to continue to work so that they are separated from that family member, we would wish to be able to do so. Clearly, in that circumstance, if somebody then became symptomatic, we would expect them, as now, immediately to remove themselves from the work environment and do all the things that we have issued as guidance for anyone who finds themselves in that situation.

Q185 **Chair:** You are satisfied that if someone has a family member who becomes symptomatic, without doing a test, it is okay for them to carry on working in the NHS with vulnerable patients, if they live in a hotel separately from their family. That is the advice that you have.

Amanda Pritchard: I shall let Steve come in, but that is the judgment.

Professor Powis: This relates particularly to the new policy introduced yesterday, which is that, if a family member becomes symptomatic, the rest of the household should isolate for 14 days. That has an implication for NHS staff, and, as you alluded to earlier, we have heard very clearly from organisations about the potential impact of that. It is absolutely not for everybody, for exactly the reasons you described earlier around home circumstances, but it is one way for somebody whose relatives become symptomatic. They can say, "Actually, I'd like to continue working for a period of the next few days and I'd like to have accommodation so that I can continue working." It is an option, but it is absolutely not for everybody.

Q186 **Chair:** I want to understand that. Obviously, you are the NHS England medical director. If you have a symptomatic family member and you work for the NHS, rather than self-isolating, it is okay for you to carry on working; it is safe for colleagues and safe for patients, providing that you leave your family and stay in a hotel. Clinically, you are saying that it is safe for people to do that.

Professor Powis: It depends when the symptoms started for the symptomatic individual. If the symptoms started when you were at work,

if you get a phone call that symptoms have started, or you have been on call overnight and have not been there for a couple of days, yes; because, as we said earlier, the peak of the infectious period is during the symptomatic period. But it is absolutely not for everybody, and it needs to be used with discretion.

Professor Willett: We have two choices. For someone who has an exposure, a very mild early case exposure, we are saying, "Right, we are not going to lock you in quarantine alongside someone we know is going to become more virus-spreading over the next 48 hours and become unwell. We'll park you out and you can carry on, but we'll watch you very carefully, and, if you get any signs of infection, you'll go into self-isolation." If you have been with the infected person all weekend and been exposed, clearly, that would be inappropriate.

Q187 **Chair:** Isn't there a safer solution—just to put that person right at the front of the queue for the next test?

Professor Willett: For the test duration, what are you going to do with them? You are going to put them into a hotel, I guess, aren't you? You are going to separate them; you do not want to put them back into an environment where they are at risk.

Sir Simon Stevens: But the underlying argument is correct, Chair, which is that we need a lot more testing capability for NHS staff. As it happens, the first in the queue should be symptomatic NHS staff, rather than the asymptomatic family members of somebody whose relative is in isolation. As we get more testing, we absolutely want to be able to test NHS staff as quickly as possible so that they can get back to work if they are negative.

Chair: We have a final quick question from Dean.

Q188 **Dean Russell:** I wanted to jump in on that with a question akin to your question around the testing piece. Are you saying that, at the point when tests become available, with that guidance, the first instance would be to test them rather than to put them in a hotel?

Sir Simon Stevens: The first instance would be to test symptomatic NHS staff, and then the wider net would be the group we have just been describing, yes. That is why we are very enthusiastic that Public Health England and the Department of Health procurement team, and so on, are able to expand the volume of testing available in this country.

Professor Powis: Our priority at the moment is clearly to test patients, and that is right, and staff would support that. As testing ramps up, our absolute next priority, as we have said, is to ensure that NHS staff are tested, so that they know they can come back to work if they are negative. Knowing who has been positive is also important, because we will then develop a group of staff who have immunity to the disease and will, therefore, be more confident in their ability to provide care.

Chair: This is a busy time. Thank you for being so generous with yours.