(10.30 am)

LADY HALLETT: Mr O'Connor.
MR O'CONNOR: Good morning, my Lady. Our witness today is Sir Patrick Vallance.

## SIR PATRICK VALLANCE (affirmed)

 Questions from COUNSEL TO THE INQUIRYLADY HALLETT: Sir Patrick, I'm sorry the modular structure of this Inquiry means we have to keep imposing on you.
THE WITNESS: I suspect this is not the last time.
LADY HALLETT: I fear not.
MR O'CONNOR: Could you give us your full name, please.
A. Yes, Patrick John Thompson Vallance.
Q. Sir Patrick, as my Lord has just indicated, this is not your first visit to give evidence to the Inquiry. You prepared a witness statement for the first module of this Inquiry, which we see on screen now, and for completeness it's also right, isn't it, that you gave oral evidence to Module 1 of the Inquiry on 22 June of this year?
A. Yes.
Q. And the transcript of that evidence is of course available on the Inquiry website.

You kindly have prepared two further witness statements at the request of this module, Module 2, of 1
A. Yes, I was at University College London and St George's Hospital, London.
Q. After that, your career took an academic turn, and in the 1990s and the early 2000s you spent some time first as a senior lecturer and then as a professor of clinical pharmacology, again at UCL?
A. I was a professor of medicine at UCL and I continued to practice during that period as well.
Q. Yes, I was going to say, during that period you were a consultant physician --
A. Yes.
Q. -- at various UCL hospitals?
A. Yes.
Q. Then in 2006 your career took another turn and you spent from 2006 to 2018 working for GlaxoSmithKline?
A. Yes, I was a global president of research and development for them.
Q. Then, and this of course is the period with which we're most concerned, in April 2018 your career took another turn and you were appointed on that date as Government Chief Scientific Adviser, and you remained in that post until March of this year?
A. Yes.
Q. When you left that post in March, you were succeeded, is this right, by Dame Angela McLean, who the Inquiry will
the Inquiry. First of all, a lengthy statement which we see -- the first page of which -- on the screen now. That is a statement that runs to over 200 pages, and we will be looking in some detail at it today. It's signed by you on the last page of that statement, and we can see from this page that it's dated or indeed from the last page as well, that it's dated 14 August of this year.

Are the contents of that statement true to the best of your knowledge and belief?
A. Yes, they are.
Q. Thank you.

More recently, you have prepared a short further statement for us. It's, as we see, the third statement on the screen now. That is dated, on the top there, 14 November, only a few weeks ago.

Is that statement also true to the best of your knowledge and belief?
A. Yes, it is.
Q. Thank you.

Sir Patrick, very briefly, a few questions about your career. It's right, isn't it, that your initial training was as a medical doctor, you then spent some time practising as a general physician in NHS hospitals in London; is that right?
be hearing from in due course?
A. Yes.
Q. Let me, again by way of sort of preliminary matters, ask you about two further documents, Sir Patrick, beyond your witness statements.

The first of those is the technical report. We have it on screen now. We see the first page, it's described as "A technical report for future UK ... Medical Officers, Government Chief Scientific Advisers, National
Medical Directors and public health leaders in a pandemic".

We can see that it was dated December of last year, and it's right, isn't it, I don't think we need to look at this, but you were one of a series of authors of this document, the other authors including Sir Chris Whitty, the Chief Medical Officer, his deputies and others; is that right?
A. The chapters were all written by different experts, and Sir Chris and I and the other deputy medical officers and medical officers from the devolved administrations acted as sort of an editorial team to try to make sure that we ended up with the finished product that we thought would be useful.
Q. We may go to certain passages within this document as we go through matters today, but with that title in mind,
can you just expand on that slightly and give us an idea of what the purpose of this document was?
A. The purpose of this document was to try to understand a few things about what had happened during the current pandemic from a technical perspective, and to try to draw from that and other evidence what useful things might be for a future, as it says, Chief Medical Officer, Chief Scientific Adviser, or others, to be able to look at it and say: well, there are some things there that we need to take notice of. So some of them are recommendations about what should be put in place now in order to make sure that you get the preparedness and the structures right, and some of them are things that we think would be useful for people to look at, should there, which I'm afraid there will be at some point, be another pandemic, not because you can predict what that pandemic would look like, because each will be different, but there are some generic lessons in there that we thought would be helpful for people to understand.
Q. Yes. So this document, if you like, sits alongside your witness evidence as drawing on some very similar themes?
A. It does.
Q. Thank you.

Let me move on to a different set of documents by 5
the following day.
These were private thoughts, they were instant reflections from a day, and once they were written, I actually never looked at them again. I mean, they were put in a drawer and that was that, and I certainly had no intention of doing anything else with them either.
Q. Just on that last point, no intention to publish them or use them as a basis -- we've seen various people who were involved in the pandemic, including some of your scientific colleagues, have written memoires or accounts of their time; did you think you might draw on those notes in such --
A. I had no intention whatsoever of these ever seeing the light of day or me looking at them again and sort of felt the world had probably had enough of books of reflections of people's thoughts during Covid.
Q. If we can go over the page, please, at paragraph 478, that's the bottom of the next page, you make the point -- you've already said these notes were written quickly at the end of the day, but you then add the perhaps obvious point that they weren't intended, they couldn't perhaps have been, a considered analysis of events. Reading on, you say you have never gone back to them, you didn't edit them, you didn't, as it were, add
way of introduction, and that is the evening notes that the Inquiry has already heard something about.

It's right, Sir Patrick, isn't it, that in response to a disclosure request made by this Inquiry, you produced a lengthy set of personal notes that you wrote during the pandemic. You produced them to us and, just to be clear about this, although those notes contained some very sensitive and personal entries, you disclosed the notes in full to the Inquiry, as it were, at the first time of asking?
A. Yes,I did.
Q. You describe something about those notes in your witness statement, and I wonder if we can go to paragraph 474, please, on page 157.

You describe here, Sir Patrick, that your practice of writing these notes started as a means, essentially, of protecting your own mental health, given the stress that you were experiencing on a daily basis. You wrote them, the term has been used, as something of a "brain dump" at the end of each day. Is that right?
A. Yes. At the end of each day, often quite late in the evening, I would just spend a few minutes jotting down some thoughts from that day, some things and reflections, and did it as a way to get that, in a sense, out of the way so that I could concentrate on 6
to these thoughts things that happened later or any further reflections. Are those important matters that we need to bear in mind when, as we will, we look at some of those notes?
A. I think they are. I mean, from my perspective, these were a way of just decompressing at the end of a day, and they were some thoughts I'd had that day and wrote down that day, as I say, in order to be clearer the following day -- that I was going to concentrate on the following day, and they had no purpose other than that. Nobody, including members of my family or anyone, had seen them or I had any intention of showing to anybody.
Q. You've obviously much more recently, in the last weeks and months, looked back at many of those notes. Would it be fair to say, then, that some of them, some of the notes you made, reflect thoughts which you still think, in fact, are accurate, and perhaps others you would wish to qualify or even disown?
A. Yes, I mean, some of it I look back and think, well, that seems like sort of a sensible series of reflections over that period. Others I look back and I can see I might have written something one day and then, two days later, written something that said actually I don't agree with myself on that, which may have been how somebody had behaved or somebody had made

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an observation. So they were very much instant thoughts.
Q. And we will bear all those things in mind when, as we will, we look at some of these notes later today.

May I just ask a rather practical point about these notes: I think there is at least one section of the notes which actually are notes that you took during a meeting, the meeting of 20 September, with Professor Gupta and others, but by and large, as you've said, is this right, you remembered things that took place during the day and then wrote about them in the evening?
A. Yeah, I might have described the occasional thing down on a bit of paper during the day and then looked at it in the evening, but -- so they're a mix of things that I noted at the time and things that I noted in the evening, and, as I'm sure you've had the pleasure of realising, my handwriting is not exactly excellent.
LADY HALLETT: You're a doctor, Sir Patrick.
A. I know.

MR O'CONNOR: I'm glad to say that that is a task that others in our team have had to grapple with, Sir Patrick.

But I just wanted to pick up the point you made about making notes during the day, because when we look
or so of your term was very different from the latter period?
A. Yes, it was.
Q. You have set out in your first witness statement for Module 1 a degree of detail about all the things that the role of Government Chief Scientific Adviser entails, and I'm not going to go to that statement in any detail, but it is apparent from that statement that there is far more to that role than the fairly narrow function -very important function, but fairly narrow function -that you performed during the pandemic.

Can you, in a few sentences, give us an idea of the breadth of the role that you were performing, perhaps particularly in that first year and a half or so?
A. The role of the Government Chief Scientific Adviser is to provide science advice for policy rather than policy for science. So it's to try to ensure -- and the job reports to the Cabinet Secretary and is accountable to the Prime Minister and Cabinet -- that areas of policy consideration and thinking can be informed by science advice, whether short-term or long term. attention, areas like what the science system was in government and was it adequate to provide that right the way across every department, and areas like how the

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That means areas like climate were a big focus of my
at the notes, we see that quite often there are direct quotations that people who you were in meetings with said. Might that then be something that you made a note about at the time and then put into your notes later, or would that just be your best memory later in the day of what they said?
A. It could have been either of those things and I might have just jotted down the quotation on a bit of paper during the day.
Q. Yes. You've mentioned your handwriting, Sir Patrick, and just for clarity, in terms of the process, you provided us, didn't you, with your manuscript notes, the originals that you wrote? Those have then been transcribed into a typed version, and a further exercise has taken place to capture certain excerpts which have been put into a schedule. And during the course of today we will be looking mainly at the schedule of excerpts and a little bit at the transcript, but happily not at the manuscript version at all.

I'm going to move on, and again by way of introduction ask you something about your role as Chief Scientific Adviser before the pandemic, in peacetime if you like.

We've heard that you were appointed in April 2018, and one assumes that the first year and three quarters
science base could be best harnessed to think about innovation and areas that might be relevant to the economy, were the sorts of things that I was involved with, and indeed even during Covid those things continued, so I was the Chief Scientific Adviser for COP26 in Glasgow as well on behalf of the government at that stage.

So there are many different areas that this role covers, and there's a separate Chief Scientific Adviser in each department as well.
Q. Yes. It's a very important fact for us to bear in mind, is it not, that although, of course, so much of your work during the pandemic was based on medical matters, which tallied with your own training, the role of Chief Scientific Adviser covers a far broader canvas: you've mentioned the environment, I think there's a reference in your statement or possibly the notes to matters to do with space exploration, dams overflowing, Novichok in Salisbury, a whole range of scientific matters in normal times?
A. Yes, and I would characterise that in three blocks: the science for everyday matters of policy in government, which covers everything, as you've said, from things like space exploration to transport or other areas; there's a second block, which is in emergencies, and in 12
my time there was an emergency obviously relating to
Novichok in Amesbury in Salisbury, there was one relating to the potential collapse of the dam at Toddbrook Reservoir; and the third is science as it relates to economic matters as well.
Q. During that first period of a year or so before the pandemic, you were involved with, and I think commissioned, something called the Science Capability Review and this is something you discuss in your witness statement.

Can you give us a little detail of that exercise and also can you tell us whether there were any issues that emerged from that exercise that subsequently you felt were relevant to the way in which the pandemic was dealt with?
A. Yes. That was an exercise undertaken together with Jeremy Heywood, who was the then Cabinet Secretary, and the Treasury, to ask the question: was science capability adequate in the government for what I saw then as a central plank of what all modern governments need to know about?

And the work which was published in 2019 identified a number of areas: first that the funding for science had decreased across many departments, and that left departments somewhat disabled in their ability to use 13
information. But the second is that it also meant that there isn't always a good receiving system for science, because, a way of thinking, it's different from perhaps how others approach a problem, and that meant it wasn't always easy to get the right sort of pool for science across the civil service. And I'm really pleased to say, I should say, that as a result of that report there is now a target to have $50 \%$ of the intake with a STEMM degree, which I think is about right, it shouldn't be 90\% the other way either.
Q. Yes, do you know whether that target has been reached or how it's doing?
A. The target is set for -- to be reached by 2024 , and I'm going to look with interest from the sidelines to see whether it's achieved.
Q. All right.

Turning then to your role during the pandemic,
Sir Patrick. At a very high level, those who have been following this Inquiry, reading the documents and so on, might think of your role as falling into three parts: first of all, your management role at GO-Science, managing, providing structure to those generating scientific advice, in particular of course chairing SAGE; secondly, a role providing personal advice to the Prime Minister and other key decision-makers; and,
science; second, that the departments needed a chief scientific adviser who was more than a lone operator, that he or she needed a structure around them to be able to do it; and a series of observations about public sector research establishments and other parts of the government system, but perhaps the most sort of striking headline in a way was the realisation that the fast stream, so the graduate intake programme for the civil service, where future permanent secretaries and leaders of the civil service come from, had an intake which comprised $10 \%$ of $--10 \%$ of the intake comprised people with a STEMM degree. So $90 \%$ was arts, humanities, social science degrees, and only $10 \%$ was a STEMM degree, which struck me as being something that would destine the civil service to stay roughly in the same position as it has been for quite a long time.
Q. Yes, it was actually that last point that I wanted to pursue with you. It is a striking statistic. Perhaps it's obvious, but what was the effect of having only 10\% of these leaders of the civil service with a STEMM, with a science technology training?
A. Well, it means two things. It means that the routine consideration of science in policy formulation was not where it needed to be. Now, you can do some of that with the scientists trying to be round the table giving 14
thirdly, a presentational role, explaining scientific advice to the public, of course in the press conferences that we're all familiar with.

In broad terms, does that capture it, or are there other important aspects that you think we need to think about?
A. I think in terms of the work during the pandemic, those three categories are reasonable, although of course they're all quite broad.
Q. Yes. Yes. I mean, we won't be saying very much today about your role regarding vaccines, because of course that's going to be the subject of another module, but particularly given your background and your work with GlaxoSmithKline, you had a considerable role to play, did you not, in the development of the vaccine programme?
A. Well, I set up the Vaccine Taskforce in order to get the appropriate skills and focus on what I saw as a major, major issue for the world, to get vaccines in time and of the right type, and to get them available, in this case, into the UK.
Q. In terms of the second of those three limbs, the role providing personal advice, and, as we will see, usually that was orally to the Prime Minister and his advisers, initially, is this right, that was a function you

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performed at COBR meetings, we've all seen the COBR meetings that took place in the early stages of the pandemic, and latterly it became something that you did at other committee meetings and also less formal occasions at Number 10?
A. Well, the personal advice element of course went to the Cabinet Secretary and others as well, it wasn't just to the Prime Minister. The COBR system really was a place where the output from SAGE came into a ministerial forum, and where other outputs would come as well. So that is the place where -- certainly in other emergencies, I'd seen it work well -- where different inputs, whether it's economic, whether it's science, whether it's something else, come together, ministers make decisions, and there's an operational structure, which is the Civil Contingencies Secretariat, that would then make sure that the output of that was properly handled across Whitehall. So that had worked well in the previous emergencies l'd talked about, and that was the structure that was in place at the beginning of Covid.
Q. Yes. We will come back to explore in a bit more detail how well that worked, and issues around how your advice is to be docked and how that might be reflected in future occasions.

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on three occasions, and I think I'm right in saying that my predecessor Mark Walport actually didn't have a meeting directly with Theresa May. So it wasn't as though the Science Adviser is in and out of Number 10 the whole time. That obviously came to be the case during Covid but it was for specific purposes.
Q. We'll come to see that there certainly were times where you were meeting the Prime Minister on a daily basis?
A. Yes.
Q. But not all day, and there would be some meetings that you attended and then you were asked to leave and other meetings would go on in your absence; is that fair?
A. Yes.
Q. You've mentioned already, but for completeness, although of course your work was so heavily focused on the pandemic during this time, were you in fact also required to perform some of those other duties we mentioned about matters completely unrelated to Covid?
A. Yes, there was a Chief Scientific Adviser network that continued, that obviously kept that going in departments. As l've said, I was asked to lead science for COP26, the climate conference in Glasgow, to make sure we had that side of things right, and there was work going on on things like the Integrated Review, the position of the UK in the world, which had a big science 19

I wanted, though, at this stage, just to clarify with you how frequent those occasions were and how we should regard your role, the sense being this: that the Inquiry has now heard from several witnesses who had as their full-time job advising the Prime Minister, they were with him all day every day, they would spend, it seems, much of their days during this time talking to him about what steps should be taken, whether that's civil servants or his political advisers.

How different was your role to that?
A. Oh, very different. I mean, it's not a role that lives in Cabinet Office or in Number 10. We came in, in the case of COBR, to come in to give advice in the COBR meeting. And then subsequently, as things ramped up and there were daily meetings in Number 10, I might be in there for 45 minutes in a meeting in the morning and then perhaps not at all till the following day or sometimes not every day. So this was an intermittent time to give science advice, I wasn't living and breathing the policy or operational aspects and didn't have a policy or operational role. That's for others who are embedded in that system to do.

And I think it's also worth noting that prior to the emergency I'd met the Prime Minister probably on a couple of occasions and then met Mrs May before that 18
theme in it as well. So work like that continued and GO-Science continued to produce other reports, but was -- of course the absolutely major focus was at all times on the pandemic, and that took precedence over everything else.
Q. Yes.

Could I ask you to look at paragraph 13 of your witness statement on page 9, please. Picking it up about half the way down, you say:
"It was by chance that as [Chief Scientific Adviser] I had a background in medicine and pharmacology."

You say that, as we've already noted, the person filling that role could come from any scientific discipline and is expected to cover all scientific areas, and you say it would be wrong to expect, and this perhaps follows from what you've said, that any future scientific adviser would have specialist knowledge on medical or epidemiological matters.

First of all, given your no doubt fortuitous experience in medicine and pharmacology matters, on reflection do you think that you played a greater role in responding to this pandemic than perhaps you might have done if your speciality had been different?
A. I think the role of the GCSA would still be to chair SAGE, and during a health emergency that's done together 20

| with the Chief Medical Officer. I think that would have | 1 |
| :--- | :--- |
| continued. I think inevitably there were some aspects | 2 |
| of what I did when I was called in because of my | 3 |
| particular knowledge, particularly, as you've mentioned, | 4 |
| around vaccines, where I had a role, which I don't think | 5 |
| in any way would be something which the GCSA would | 6 |
| normally necessarily do, and I think probably -- no, not | 7 |
| probably, definitely I had more knowledge of some of the | 8 |
| areas that were being discussed than a GCSA would have | 9 |
| in day-to-day SAGE activities for this particular | 10 |
| emergency. | 11 |
| Q. $\begin{array}{l}\text { Looking forward, Sir Patrick, given, first of all, the } \\ \text { profound effect that the pandemic had on this country, } \\ \text { and also, as you've said, not the likelihood but the } \\ \text { certainty that there will be another pandemic in due } \\ \text { course, do you think it's right that the Chief } \\ \text { Scientific Adviser should continue to be selected as } \\ \text { someone who may or may not have a medical background, or } \\ \text { do you think that in fact the person fulfiling that } \\ \text { function ought to have some relevant expertise that } \\ \text { would be useful when the next pandemic arrives? } \\ \text { A. I don't think the GCSA role is set up primarily for } \\ \text { pandemic preparedness, it's set up to provide science } \\ \text { advice across government. The great crisis that all } \\ \text { governments face for the next many decades is the }\end{array} 1412$ |  | 21

Q. Well, this is a theme I wanted to explore briefly. If we can look at paragraph 98, please, on page 34, again picking it up about half the way down, you refer there to the DHSC as being the lead government department for pandemic planning and operations. You say it would be inappropriate for you to become involved in operational delivery plans. And then you make the point that the CMO and one of his deputies were infectious diseases experts, epidemiologists, and you then refer to Professor Horby, who was chair of NERVTAG and so on.

More generally, then, were there particular areas where Professor Whitty took the lead, as it were, between the two of you, in responding to the pandemic?
A. Well, can I first make the point that operational delivery is absolutely outside the scope of the GCSA role. It's a science advice role, it's not a policy or operational role.

The CMO and many of the other experts from DHSC of course took the lead in things in the department and were very much in the driving seat in the initial phase in January when this was a departmentally-led response, and at all times the CMO of course would take the lead on clinical matters and matters relating to medicine, NHS and other things which were outside my remit, and is deeply expert in this. I mean, he was -- this was his
climate challenge, and so it would be equally well argued that you could have somebody who has that expertise.

So I think that the GCSA should be appointed on their scientific knowledge and breadth, and their ability to work across areas, and there should be no expectation that a GCSA is necessarily expert in this area.
Q. Thank you.

Just finally on this sort of introductory section, we haven't mentioned so far Professor Whitty, and if one thinks back to those three limbs of your function during that time, it's right, isn't it, that to a greater or lesser extent you performed those functions jointly with him?
A. Yes. I mean, there is a difference, in that the Chief Medical Officer role is clearly solely focused on matters of health and particularly has a remit for public health, and is embedded in the Department of Health and Social Care, so it's a departmental role, very senior role or rather older role actually than the GCSA role in terms of the government, and that has an overall accountability for that, and of course to some extent is closer to policy questions as well as the medical advice that's given. 22
expertise in academia and clinically.
Q. When you say "this", you mean?
A. Pandemics and epidemiology and the spread of infections, that is his background.
Q. Yes

Let's turn, then, if we may, to that early period.
A. And by the way, he's very good.
Q. He's very good. Well, if he is watching, I'm sure he is grateful for that.

January to March 2020, Sir Patrick. I'd like to start if I may by looking at an email that Professor Woolhouse sent and which the Inquiry has seen before. He didn't send it to you, he sent it to two people that you knew, Jeremy Farrar and Neil Ferguson.

If we can look, please, at this, so this is the -we see that -- an email sent on Saturday January 25. He sends Jeremy and Neil, as he calls them, this email. We'll come to see, and I imagine you've looked at this already, that part of their response, I think it was Neil Ferguson's response, is to say that he had been having a similar conversation with you. So that's why I ask you about this, even though you weren't in fact the recipient of the email.

We see, do we not, Professor Woolhouse sketching out, on the basis of some fairly broad brush analysis
and some basic figures, his understanding of the coming pandemic? He refers in the second paragraph to two key numbers reported in the WHO statement, the R number of 2 , the case fatality rate of $4 \%$. He talks about making a reasonable guess at the generation time.

And then he says, and we can see that in the paragraph two below he talks about this being a rough calculation that his undergraduate class could work out with a pocket calculator, a ballpark estimate of half the people in the UK getting this infection over a year or so, a doubling of the gross mortality rate, and, as he puts it, a completely overwhelmed health system.

Then two paragraphs down, having asked the question
"What's the right response?", he adds, his words:
"That's not a worst case; that's based on the central estimates published by [World Health Organisation]."

So not -- we asked him about this -- a scenario but, if you like, a prediction.

Then if we look back one page, please, we can see at the very bottom of the page that Neil Ferguson responded by saying:
"Fully agree. Jeremy and I were saying the same to Patrick Vallance and Chris Whitty last night."

Do you remember that particular conversation or 25

The second thing is that we didn't really know on the overall transmissibility as to whether this would be contained in the way that SARS and MERS had been contained at that stage. And so I don't think it was inevitable at that moment that this would spread, and you can see lots of opinions being expressed quite forcibly by people around then as to whether it would or wouldn't reach right the way across the world, and WHO I think at this stage hadn't declared it as a public health emergency of international concern, certainly hadn't declared it a pandemic.

So I think if it escaped and if it continued to behave with the numbers he said, then yes, that's true, but we didn't know that at that stage. And I think you can see actually by people's behaviours and even senior scientists' behaviours over the next few weeks that not everyone was behaving as though this was going to happen necessarily.
Q. Do you think they should have been?
A. Well, I think -- it's very difficult to know whether this was going to be contained in China and elsewhere, and had it been then it could have been shut down. And it wasn't. And it became spread much more easily than I think anyone had anticipated, much more easily than SARS and MERS, which were containable. And that's what 27
conversations with Jeremy Farrar and Neil Ferguson about that time dealing with this sort of analysis?
A. I don't remember a specific conversation, but I had many conversations with both of them and others around that time, and it was very clear from the numbers that we'd already looked at in the first SAGE meeting we'd called that this had the potential to be really quite devastating, and the numbers or potential deaths and infections was extremely high, so I don't think there's anything in here that's terribly surprising, and it was indeed the case that we knew that if this got to the UK, if this spread around the world, that this would have a large effect
Q. I don't want to split hairs, Professor, but you've used the word "potential" there. The point that Professor Woolhouse makes in his email is that it's not a scenario, it's not a worst case, it's something that -- again, I don't want to get into technical terms, but he seems to be trying to convey the impression that it's more likely than just something which is a scenario or something which might happen. Is that sense something that you shared at the time or not?
A. Well, I don't think at that stage this had escaped China in a sort of uncontrolled way, so the first question was: would it fully escape China in an uncontrolled way? 26
was not known at the time
Q. All right.

Let me move on. I want to ask you some questions about this whole question of NHS capacity. As we know, and the Inquiry has heard detailed evidence, the strategy which was adopted over this time, the mitigation strategy as it's been described: contain, delay, mitigate. And within that context, if we can look, please, at paragraph 204 of your statement, page 65 I think it is.

Yes, so picking it up at the bottom, you describe, and again the Inquiry has heard plenty of evidence about the policy to flatten the curve, which is shown in that graph that we can see further up the page, you say you:
"... understood this to be a continuation of the existing policy goal once containment was not possible."

And if we can go over the page, please, you say "the graph should not give rise to a false sense of precision", and then this:
"No minister defined a cut-off point for the number of infections or deaths other than by reference to avoiding the NHS being overwhelmed."

Two points to pick up on that. Firstly, an issue you raise at various points in your different statements is that there was, I think, generally throughout the 28
pandemic and certainly in this early stage, a lack of clear understanding on the part of the scientists of what the government policy was. And to put it another way, the scientists lacked a baseline against which they could do their modelling and provide advice. Is that fair, is that something that you raised and which applies at this time?
A. I think in a sense there were three broad possibilities: one, that the disease could be contained and eliminated; the second, that the disease would run wild and not be controlled at all and people would make no effort to do anything; and the third was to try to control it in some way to minimise the impact. And we didn't know at that stage whether it was fully containable or not, but once it breaks out -- and by the way, the break-out of containment domestically is dependent on the infrastructure you have, so the test, trace and isolate infrastructure -- but once it breaks out, then my understanding, from the beginning, was the government did not want to do anything other than to make -- it didn't want it let it run riot, it didn't think it could get to zero Covid, and therefore it was to control it and suppress the numbers in reference to the NHS being overwhelmed. That was the closest we got to sort of understanding the aims, coupled with, as you will see 29
started on non-pharmaceutical interventions.
Neil Ferguson in particular drew up a lot of modelling around that, what the different options were, and came up with a figure that others endorsed as well of needing to get the $75 \%$ reduction in contacts in order to try to really suppress this to the right level.

So there was a lot of work done on the modelling, there was a lot of work done exposing those options into COBR, including with the behavioural science input on that, and there was a discussion -- which I think Boris Johnson puts in his statement -- which he had with the CMO at the end of February on lockdown options and what the implications of those would be.

So I think there was a lot of evidence that there were things that needed to happen in order to achieve this aim of suppressing the curve. I'm not convinced that there was a very effective operational response to that.
Q. A lot of work you've described on understanding the growth rate of the pandemic and different NPIs that might be used to suppress it. My question is: running alongside that, if the policy direction was "yes, you must suppress it but the target is to keep it below the NHS", was there enough work going on in parallel to understand what that cap actually meant?
later, a desire from the government not to impose overburdensome restrictions on liberty.
Q. Yes, so my question is, on that first point, and maybe this wasn't a moment where you might have wished for greater understanding of policy, but might you have wished for more detail from the government about precisely what they were prepared to accept or not accept in terms of mortality, or was it enough simply to be told, "We just don't want the NHS to be overwhelmed"?
A. Well, I think it would have been helpful to have that, but I also think, and I think I say this in my witness statement, we asked at several times to try to define a number, and nobody would give that number. I do think that's a very difficult question to answer. So mathematically it's rather helpful to have it, it's actually a difficult question to answer. But what we had at this stage was NHS not being overrun.
Q. So moving from there, given that that was what you were being told, do you think that enough was done during February to understand what that meant and what an NHS overwhelm would look like, what the numbers involved were?
A. I think the numbers -- well, there was a lot done in terms of what needed to be -- what the options were to reduce the spread. So quite early in February work 30
A. Thank you. Sorry, I didn't answer that part.

We had great difficulty -- when I say "we", the modellers had great difficulty in getting clarity on the NHS numbers. What we did know was that the NHS runs at pretty much $100 \%$ capacity, which is quite unlike most other countries. So we knew that the NHS capacity was likely to be very full anyway, and trying to get precise numbers on ICU beds and occupancy of other types of high-dependency beds was pretty difficult during February, and I think it culminated in a meeting which I think I asked to be set up on the first day of March with the NHS modellers to try to see if we could resolve this logjam, why was it so difficult to get the numbers.
Q. Let's look, if we can, at an email exchange you had with Ben Warner.

So this is INQ000195863, please.
LADY HALLETT: Mr O'Connor, you're coming back to what Sir Patrick meant by the operational response being not very effective?
MR O'CONNOR: Yes, my Lady, I will, I think.
LADY HALLETT: Thank you.
MR O'CONNOR: This is an email exchange, Sir Patrick, late in February, 27 February, so a month or thereabouts after the email we saw with Professor Woolhouse and well into the time, judging by your statement, that it was 32
understood that NHS overwhelm was the policy aim, what you were supposed to be avoiding.

Ben Warner says to you, he's a little concerned the NHS didn't seem to know what they needed for their models, didn't seem to have started modelling, and then your response, you have been "pushing them on this for the last 10 days or so", you think they've now grasped it, there's a "meeting planned for Monday", "they haven't defined [their] input variables well enough".

Taking a step to one side, Sir Patrick, you've already mentioned issues such as NHS capacity, was it really a complicated modelling exercise that was needed or was there simply a sort of basic mathematical exercise of: how many beds have they got, at what point, on our understanding of the pandemic, will they be overwhelmed? Is it that complicated?
A. Well, in one sense, no, it's not that complicated, and in Exercise Nimbus, which I think took place in the middle of February, the question of NHS capacity inevitably being overrun was discussed, and Simon Stevens I think has referred to that, so it was very clear that the projections, the worst-case scenario, would overrun the NHS. That was clear and discussed all the way through February. What is being asked for here is the point that the modellers needed 33
critical care surge beds on the right, and said: well,
there you go, that's the point of overwhelm.
Just for completeness, perhaps we'd better look at the next page, please. A different graph there, that's the mitigated peak, the same lines are drawn.

It doesn't look, at first blush, as though that is an exercise that really needed to take weeks and weeks and weeks, and we don't know what the variables are, we don't know what the inputs are. It looks like somebody has just said, "Well, this is how many beds we've got, we'll draw that line on the graph"?
A. Well, that's fine for this, and that's not what the modellers were asking for, but this is absolutely understood, and it was understood in Nimbus in mid-February that in a big peak the NHS would become overwhelmed. What it doesn't tell you is at what stage you think you need to act in order to do something. That's what the modellers were trying to understand and why they needed more precision. But, I mean, on a basic level, anyone could see that with the -- if you had a huge wave of infections it would cause this problem.
Q. The reason I'm asking, Sir Patrick, is that as we know, and we'll come to this, when the weekend of $14 / 15$ March came around, one of the reasons why it was felt necessary to take sort of dramatic steps or change
better information to try to understand when that was going to occur, and what the warning signs were. Because at all times during February, from a scientific point of view, and this goes right back to a comment that Sir Chris made in February, we wanted to try to understand the mechanisms to get $R$ below 1 , to make the pandemic shrink. The question, then, was: when do you trigger that and how deeply do you trigger it in terms of the number of things you need to have? That's what we were trying to understand, and the modellers needed the precise details to be able to understand what that looked like. So this was not an academic exercise, it was important for them to understand, and we thought it should be relatively straightforward to get these numbers. It turned out, like a lot of data flow early in the pandemic, it wasn't easy to get these numbers.
Q. I think you said there was a meeting in early March, and when we look at some of the data that was provided, the modelling from the NHS -- if we can look at INQ000146571, please.

This is 9 March -- and if we could just zoom in on those bottom two graphs, please -- the essence of it seems to be that there's a peak, this is the unmitigated peak, and that what someone has simply done is drawn a line relating to total NHS beds on the left and
direction, depending on which way you look at it, was a new understanding that the NHS was going to be overwhelmed. I suppose my question is: is that -- was that part of the analysis something that could have been understood earlier if only more urgent steps had been taken in February to do this sort of analysis?
A. Oh, I don't think there's any doubt, if you look at the CRIPS in February, that the people understood the NHS could be overwhelmed. So I don't think that's a new understanding. I think the new understanding on the weekend of 14 and 15 March was that we were much further ahead in the pandemic than we realised, and the numbers that came in that week showed that there were many more cases, it was far more widespread, and was accelerating faster than anyone had expected. That's what triggered an urgent recognition that this was an imminent problem of the NHS collapsing, not something that was weeks away, with the possibility of introducing measures at a more leisurely rate.

So that weekend was an intense acceleration and indeed intensification of the measures that were required to stop this.
Q. Let me turn, then, and ask you some questions about that weekend, and by way of introduction it's well understood that different people who were there seemed to 36

| understand the events in perhaps a slightly different | 1 |
| :--- | :--- |
| way. Some people regard it as being a time when | 2 |
| measures were fast forwarded or accelerated, other | 3 |
| people regard it as a change of direction. | 4 |
| But certainly I think, do you agree, it was on any | 5 |
| view a time when decisions were either made or started | 6 |
| to be made that a suppression policy, a policy of trying | 7 |
| to keep the pandemic -- the R number below 1, needed to | 8 |
| be introduced whereas previously that point hadn't been | 9 |
| reached; is that fair? | 10 |
| A.Well, the plan right from early February was to keep <br> R below 1 to stop it growing, but this was a recognition <br> that this had to be really implemented very, very hard <br> at that weekend in order to achieve that. So all of the <br> measures needed to be put in place. <br> Q. Is that right that the plan from the very start had been <br> to stop the pandemic growing? We looked at those charts <br> and we see a curve. I mean, flattening the curve is not <br> the same as suppressing the virus, is it? <br> A. $\begin{array}{l}\text { I think ultimately it is. It's a question of how far } \\ \text { you want to suppress it. So you could suppress down to }\end{array}$ <br> zero, which was never the aim. You could suppress <br> a little bit, but you couldn't do that if that was going <br> to overwhelm the NHS. And so the question was how far 13 |  |
| you needed to suppress it and at what stage you needed | 14 | 37

A. I'm not sure that he's criticising the science, actually, I think he's talking about the operational plan to deliver, so that the notion that you had to intervene, and there are multiple emails and charts and things that were presented at COBR meetings as well, talking about the combination of NPIs that would be required to reduce the spread and to get R below 1 . The question was when and how much to do it. And this unfortunately wasn't mirrored by an operational readiness. So the bit that I think is missing is whether the operational development of plans to do that at short notice were as advanced as they should have been, and they weren't.
Q. Are you there talking about things like test and trace or --
A. Well, test and trace for sure, we had a -- and isolate. We had an inadequate scale of facility to do that through Public Health England, but also the plans for introducing the NPIs. I think, given that they're described quite early on, there should have been an operational plan to have those ready to pull the trigger on as soon as they were needed, and what we see is it takes quite a long time to get those actually working and to get the process in place to do that. I think that is a sort of learnable lesson, that you
to do that.
And I do think the focus on trying to get that timing exactly right was incorrect. It was an error to think that you could be that precise. That's a really important lesson that came out of this, I'm afraid: you need to go early.
Q. Yes, we'll come to that idea of yours which you repeat in your witness statement.

I want to ask you about a passage from Ben Warner's witness statement, please, so if we can look at paragraph 303 -- yes, we have it there -- on page 78. It's the final sentence -- no, sorry, the final two sentences, he says:
"Changing from a mitigation strategy to suppression midway would have been the worst of both worlds. From early 2020, we should have developed alternative explains (for example lockdowns), after seeing the actions in China or at least after northern Italy."

So his reflection, and it's one which is shared by some others in Number 10 who we've heard from, is that the events of that weekend in hindsight suggest that they had previously been on the wrong plan, and that they should have been thinking about a different plan, a suppression plan, earlier. Is that your view? Do you think that is a valid criticism of the science, or not? 38
should start earlier. And I think -- I take the comment -- Andrew Parker, the previous head of MI5, has said very clearly that he heard the warnings that we were giving in early February and took actions in that organisation to do things.

I'm not sure that that urgency of action was as consistent and as reliable as it should have been across Whitehall at that time.
Q. You've focused your remarks very helpfully, very clearly on the operational, if you like, the implementation aspect of this. It may be that Mr Warner was also directing at least some criticism towards SAGE and saying that SAGE should have thought more about lockdowns and more severe, more stringent NPIs earlier. As you say, it's ambiguous, but is that a fair criticism to make?
A. Well, I think if you look at it, we thought a lot about NPIs, there's lots of work on NPIs, lots of work on the notion that you had to have lot so NPIs, you had to use them together probably, that this was going to be behaviourally difficult, it was -- links to the behavioural science group to look at that, all of that was done through February. Where we were wrong, and I think it's very clear, is our belief that we understood when to do that. It wasn't that we hadn't 40
said do it and that this is going to be needed, it was that we thought we could understand when to do it.

The data that came in during the week leading up to the 14th and 15 th showed clearly that we were much further ahead, it was much more likely to be needed urgently than anyone had realised. That's a data problem, but it was also, I think, a scientific problem, in that you can't manage this with the precision that you think you can, and you therefore have to take different actions.
Q. I'm going to come back to the ultimate -- the decisions taken over that weekend briefly in a moment, but l'd like to take a step to one side before I do that, and ask you some questions about your relationship with Professor Whitty at this time and the extent to which your views differed.

If we can look, please, at INQ000214802, this is an extract from Jeremy Farrar's memoire -- one of those memoires from scientists that you referred to, Sir Patrick -- giving us an insight into events.
Sir Jeremy, of course, was a member of SAGE during this time, was he not?
A. Yes, he was.
Q. And he describes, we see the second paragraph there, a "friction", as he describes it, "between waiting and 41

## At the end:

"... more cautious than me."
If we can go to page 3 , please, the last few -- the
last sentence or so:
"[Chris Whitty] worried about pulling trigger too soon -- 'cause harm' \& introduced some stuff on [behavioural] 'fatigue' if you started too early ..."

Then on page 582 of the schedule there is an entry that you made much later on but reflecting on the early events, so we're now in February 2021, but Sir Chris talking afterwards about the Inquiry:
"... was lockdown too late in March, could we have known ..."

And then this:
"... (he was a delayer of course)."
So help us, Sir Patrick, was there this tension or friction between the two of you about how quickly to proceed with NPIs in that first period?
A. Well, I think Chris Whitty is a public health specialist and he was rightly, in my opinion, concerned about the adverse effects of the NPIs. He was concerned that there would be more than just the issue of the direct cause of death from the virus, that there would be indirect causes of death due to effects on the NHS, that there would be indirect harms due to people isolating -43
wading in". He says it "led to a palpable tension between Patrick and Chris in the early weeks of 2020, particularly given the apparent absence of political leadership in that period". And he refers to the fact that Boris Johnson didn't attend the first COBR meetings, as we have seen.

So it's what he describes as a "palpable tension", "between waiting and wading in", and there are some references, Sir Patrick, in your notes which would seem to support that suggestion.

If we can look, please, at INQ000273901, this is the schedule, and I just want to show you a few references, Sir Patrick.

In January -- perhaps we ought to say that you weren't in fact writing these notes contemporaneously for the first three months or so of the pandemic, were you?
A. Correct.
Q. You wrote a sort of catch-up section, in March or thereabouts, looking back to the early months.

But relating to January 2020, you said:
"Chris thought would be contained [...] PM 'my gut tells me this will be fine' ..."

But then:
"... [Chris Whitty] ..."
mental health, loneliness, issues of health that come from that procedure -- and that there would be indirect long-term consequences due to the economic impacts creating poverty, which is a major driver of health. So he was definitely of the view that the treatment and the result of that treatment needed to be considered together, and that pulling the trigger to do things too early could lead to adverse consequences. And that I think is a totally appropriate worry from the Chief Medical Officer and a legitimate public health concern throughout. And I didn't have exactly the same worry, I was more on the side of "we need to move on this", but I think that's partly why the two of us found it useful to work together. I mean, he would bring in views that were broad public health views looking at the consequences of interventions as well as the direct consequences of the virus, and I think sometimes I would want to push and he might not, and sometimes he was right and sometimes I think we should have gone earlier. This was an occasion when I think it's clear that we should have gone earlier.
Q. Let me go back, then, with that in mind, to those meetings over that weekend of the 14th and 15th. We have gone through them in some detail with other witnesses and I'm not going to go through them in detail 44
with you. But in summary, what was it that you were arguing for during the course of those meetings, and what was your understanding of what was decided?
A. We got information on 13 March which unambiguously showed that the pandemic was far more widespread and far bigger and moving faster than we had anticipated, and that came from a number of sources, including surveillance systems that we'd set up to look at people who had pneumonia, hospital-based surveillance, and some work coming in from the initial sporadic surveillance systems and NHS numbers. That was unambiguous, and extremely worrying. Over that weekend, it became very clear that much more stringent measures would be needed to control this and they needed to be introduced quickly. I made my views known about that, that that was the view of the SAGE committee and the modellers, and it was my view that we were in a position now where we had to move quickly. That decision, I believe, was understood. On the Sunday of that weekend I was unambiguous in the meeting that much more stringent measures would be needed now, I think that's recorded in Imran Shafi's notebooks, and the following day when the Prime Minister announced that there would be voluntary measures to keep people from making contacts, I also suggested on that day that London was so far ahead that 45
Q. Now, there are various references in the documents, in your witness statement, to the reaction of some of those who were at those meetings to what you were saying. You refer in places to people being incandescent, and you also refer to yourself having been reprimanded for advancing those views. Who was it that reprimanded you?
A. Well, I got a message back that Chris Wormald, the permanent secretary at DHSC, was incandescent with rage, as was the Cabinet Secretary, about the fact that I'd said this during the meeting on the Sunday. I subsequently spoke to Chris Wormald and asked him why he thought that was something to be incandescent about, and he said it was the manner of raising it in the meeting rather than the substance that he was concerned about, and that l'd sort of thrown it into a ministerial meeting whereas it should have gone through more due process, but I stand by the fact that I think it was the right thing to say at the time.
Q. That was the reprimand as well, then, was it, for the manner in which you raised it?
A. Yes, I was told that I hadn't done things the right way and it was inappropriate for me to have raised that, and I -- subsequently, on the Monday, when I'd suggested that London was so far advanced -- and it's worth remembering, actually, that in terms of timing of this, 47
it would be necessary to possibly lock down London.
So those were my views over that weekend. I think frankly on that weekend an in principle decision was taken that lockdown would be required. It then took several more days to work that into a full mandatory process. But whether it's mandatory or voluntary is a political issue, not a scientific one.
Q. We know and we've heard from others that the term "lockdown" may not have been one that was in play then, but you have said that your view in essence was that that was what you were campaigning for at the weekend and there was at least an understanding that that was where things were headed as early as that?
A. Well, I wasn't campaigning, I was trying to point out what the evidence was and how I interpreted it and what SAGE thought. And Neil Ferguson's work and others' work during February had shown that in order to really get this down to the levels that it would need to be reduced by, you needed to reduced contacts by $75 \%$. That is a huge reduction, requires all sorts of interventions. I'm not even sure we ever really achieved much more than $75 \%$ at the peak of the interventions. And that's what I was arguing for on that weekend, that if we wanted to now stop this from becoming devastating we needed that degree of reduction of contacts. 46

London was quite a long way ahead of other parts of the country, so although we had seeded the infection right the way across the country, other bits, you could argue, went into NPIs really quite early. Certainly earlier than other countries when you look at where it was. London, though, looked like it needed more. And I made that point in that meeting, it was discussed, there was a very clear rejection of that proposal, and certainly I don't think the Chancellor looked terribly pleased at that moment.
Q. Why not?
A. Well, quite rightly, he's concerned about the economy, and London was very much the engine of the economy, and that was a massive, massive decision to take.
Q. Well, we may come back to that. Just the last question on the reprimand: there is one of the documents amongst the disclosure which suggests that Sir Chris Whitty was one of those who reprimanded you on this occasion?
A. No, no, Chris was the messenger.
Q. Right.
A. He did not -- he did not reprimand me.
Q. He didn't -- he didn't have skin in the game.
A. No.
Q. I want to move on. The last set of questions on this particular issue is about the timing of the lockdown.

You, as I understand it, in your statement say that you think the lockdown, this first lockdown, was imposed a week too late, and I think you're referring there to the delay, as you would put it, from that weekend, when the discussions we've just been covering were had, and the mandatory lockdown which was introduced a week later. The word you use is "implementation", so a delay in implementing the decision. First of all, is that a fair summary of your witness statement?
A. Yes, I think that's probably the earliest at which that decision could have been made. Maybe a few days earlier, if we'd got the information. I remember at the time Neil Ferguson wrote that we were taking actions earlier than other European countries relative to where we were in the pandemic. But I think that weekend was in principle a decision that all these measures would be needed, and I think it would have been sensible to have got on and done those as quickly as possible. But, you know, I'm not an expert in how you implement these things, how you operationalise them, what the legal requirements are, and there were some very significant legal requirements around that, and that took another week or ten days for that to be in place.
Q. So those are the operational implementation type matters which in fact we touched on when we were discussing 49
measures to restrict contacts worked, and we did know that you had to move early. And the number of infections and deaths at every stage for subsequent decisions were orders of magnitude in some cases higher than at that period in March. So I think in retrospect, you know, the March decision was earlier than some of the later decisions, even with the knowledge that came with that. So I think ... I think it's difficult to conceive that that decision would have been made much before the -- that weekend, as I say, possibly a few days.
Q. We certainly will be coming on to talk about later in the year, and September and the second lockdown and so on. Before we leave this, the premise of my question so far has been that there was going to be a lockdown in March, or thereabouts, just a question of when it happened and could it have been imposed earlier. Adopting the same hindsight approach, do you think that in fact that first lockdown might have been avoided altogether had things been done differently?
A. I think that if we'd had a scaled test, trace and isolate system in place, you stand a better chance of keeping this under control. I think that, in that situation even a short type of lockdown, without defining exactly what's in that, but NPIs to try to

Mr Warner's evidence. But what I want to press you on, then, is the period before that. Bearing in mind what was understood about NHS overwhelm, bearing in mind the modelling and so on, do you think that that set of decisions, that understanding that was reached on that weekend, could or should have been reached earlier?
A. Well, I've just said I think it could have been a few days earlier. I think it's -- it's difficult to know, if you look at the numbers of cases and the numbers of people who, even by then, were beginning to show how serious this disease could be. The measures themselves are not neutral, they're harmful, and so the question is around timing, it's around when you're prepared to take an intervention, accepting that you're about to use definite harm. Because we knew the interventions would cause harm, we didn't know exactly how many of them would be needed to stop the spread of the disease. I think it's difficult, and I think other witnesses have said this, I think it's difficult to conceive that that would have been much before that weekend. I mean, maybe a few days, but we would have required very different systems.

And it's worth actually doing the thought experiment to move to September when we did know what the consequences of this virus was, we did know that the 50
reduce it, could have brought things down and then kept it under control with test and trace. But the reality was we didn't have tests at scale, we didn't have a test and trace and isolate system at scale, and we were unable or PHE and the organisations seemed unable to operate that, and that would have required a lot more planning over previous years than had occurred.

I -- even with that, because we got seeded so widely across the UK, not from China, not from the countries where people thought this would come from, but from Europe, with huge importations, and we can see this in the genomics --
Q. This is half term?
A. This is half term. And we had a huge influx from Spain, France and Italy over that half term and beyond which meant that we probably had lost control, and test, trace and isolate only works at low levels of prevalence and a high level of capacity in the system.

So, sorry, that's a long answer, but I think with everything that we had in place or didn't have in place at the time, I'm afraid that the sort of ultimate option of trying to lock things down probably was the only route open at that time.
MR O'CONNOR: Yes. Thank you very much, Sir Patrick.
My Lady, is that a convenient moment? 52

## LADY HALLETT: Yes

Just before we break, Sir Patrick, as you know we take breaks for everyone just to take the opportunity to take a breather.

When you had this so-called reprimand, you said it was the permanent secretary at the DHSC, Sir Christopher Wormald, and the Cabinet Secretary. Were they really more concerned about the process aspect of what you were saying than the substance, which was basically the dam has burst?
A. That's what they said to me after. I spoke to Chris Wormald about it and said, "I hear you're very cross with me for what I said". His response was, "There are ways of doing this that we need to do to make sure it's structured and ordered and it goes with the proper process", rather than the fact that I'd said it as statement and --
LADY HALLETT: I won't ask you --
A. We agreed to differ a bit on that. But I mean --

LADY HALLETT: I should say, I won't ask you for your reaction to that.

Very well. A 15-minute break.
(11.46 am) (A short break) 24 (12.01 pm) 53

This is an issue that you touch on in your witness statement but you don't perhaps go into it in quite as much detail as there. Do you agree with these sentiments?
A. I do, and I didn't when it first happened. In other words when it was first said "We're following the science", my reaction was: good, they're listening to us. Because that's not always the case in government, for the reasons I've laid out. But I think that the way in which this was both heard and possibly meant in terms of slavishly following the science, obeying it at all times, is completely wrong. I mean, you can't -- and I can also totally agree there is no such thing as "the science". I mean, science by its definition is a moving body of knowledge that tries to overturn things by testing the whole time.
Q. You say when it was first used you weren't opposed to it. Was it then something about the number of times, the repetition of it, or perhaps the circumstances in which it was used? I mean, at what point did it become a negative thing for you?
A. Well, pretty quickly. I mean, initially I thought: good, they're listening to us and they want to hear the science, that is the right thing for them to do. But I think it became taken, both interpreted I think widely

## LADY HALLETT: Mr O'Connor. <br> MR O'CONNOR: Sir Patrick, I want to move on and ask you some rather more general questions about different aspects of the pandemic and the response to it. <br> First, I'd like to ask you about the words "following the science", the mantra we will see -- other people's words not mine -- that we heard so much of at least in the early stages of the pandemic. <br> I'd like to ask you to look at a section of the expert report that the Inquiry received from Alex Thomas, or latterly at any rate, from the Institute for Government. Paragraph 120 of that, please, on page 35. <br> It's at, as I say, paragraph 120 where we see his views on this issue. He says: <br> "There was a blurring of policy decisions and expert advice, with ministers' mantra that they were 'following the science' very damaging. The repeated assertion undermined the importance of ministerial judgement, and the accountability of ministers for decisions. It made it harder for experts to set out their view. And 'the' science implied that there was one single view, which was rarely the case. From the start, ministers and other government communicators should have been talking about being 'informed by', not 'led by', science."

 54in the press and again possibly inside government as well, as a sort of direct following the science, a slavish following of it, which -- I agree, these are difficult ministerial decisions, they are precisely what needs to be taken by ministers to integrate the different forms of evidence and make those almost impossible judgement calls which the science can't make and shouldn't make.
Q. Did you speak to Boris Johnson or others asking them not to use that phrase?
A. I can't remember whether we did. They knew that this was damaging at one point and I think they did -- it did get sort of softened to "we're being informed by", and I think the Prime Minister at the time actually says that at some point, that "we're being informed by the science", quite early on, in March or April, I can't remember when.
Q. In her witness statement, Helen MacNamara made the observation in this context, that you would never hear a politician saying that he or she was following the economics, and drawing that distinction. Do you think that one of the reasons why this phrase may have been used was because the politicians didn't feel comfortable about their understanding of the science and so, if you like, they said they were following the scientific
advice in a way that, as Ms MacNamara said, they would never say they were following economic advice?
A. I think that is true. There's a great variability and largely an uncertainty and unfamiliarity with science in government, and my experience is that many people who haven't had a scientific training also view science as giving immutable facts. You know, they remember at school they were taught a lot of facts about science. The truth is that science is a process: it's a way of testing what you currently know, experimentally or observationally, overturning hypotheses, advancing and trying to increase your knowledge base, and it's a description of what you currently have, which can easily be overturned by new evidence. And I think that's not widely understood -- I mean, "understood" may be the wrong word, but it's not intuitive to many people. And therefore I think there was a bit of dependency, that this was a scientific problem and people would listen slavishly to this and wanted to sort of slightly hide behind this at times.
Q. Just going down the page, let's look at paragraph 122, please, a related but slightly separate point that Mr Thomas makes, he said that:
"SAGE ended up filling a gap in government strategy and decision making. That meant that government 57
proportion of fast stream applicants with STEMM degrees, and of course this question of non-science graduates struggling to understand scientific matters is a very old one.

In your witness statement, perhaps we can go to page 207 of your witness statement, paragraph 642, you describe, if you like, your general experience of providing science advice to decision-makers. Picking it up about four or five lines down you say:
"... I am not in doubt that the CMO [that's of course Chris Whitty] and I gave advice from SAGE repeatedly and that it, together with the uncertainties, was usually understood by decision-makers. However it was often necessary to explain scientific concepts on many occasions. In my view, it is entirely appropriate for decision-makers to challenge science advice ..."

In the next paragraph you say you were asked a number of questions about whether the science advice that you provided to the Prime Minister and core decision-makers was understood. You make the point that others would be better placed to answer that question, and of course we can ask the Prime Minister and others. But you say, again, that you took care to explain these concepts in a way that was comprehensible, which was appropriate. Then a couple of sentences on:
decisions were held off until the scientific advice was overwhelming, rather than using scientific inputs alongside other analysis to take distributions at the most appropriate time."

Again, sentiments that you endorse?
A. I agree that we ended up filling gaps and there are several examples where we did step into places that we thought just needed some attention, and we tried to provide that, and there are several examples in my statement. I also think it's true that other inputs weren't as visible and weren't as obvious, and so there wasn't that overt ability to trade off between them, and I think l've made this point about the economic analysis. I mean, it wasn't obvious where that was coming from, and it wasn't visible. And that led people to assume therefore the science was the decision-making force, so I think -- I don't think I'd disagree with anything that's written in this statement.
Q. Yes. Well, and the point about economic input is one that we will certainly come to in due course.

I'd like to move to a related subject, which is about the ability or the ease with which government ministers, civil servants, decision-makers, understood the advice that you were providing them with. We've already touched on the point about the 58
"Some points had to be explained repeatedly and some areas proved more difficult to get across than others."

Just flicking on to the next page, you make the point that:
"Some concepts were particularly challenging, for example absolute and relative risks in relation to comorbidities."

I just want to take you, Sir Patrick, to a few entries in your notes which touch on this subject, and try and get a feel for whether that is a general position and whether those reflections apply particularly to the Prime Minister or whether in fact the position was more marked with him.

So can we go, please, in the schedule, first of all, to page 42. So this is an entry on 4 May. And by this stage you are making the notes daily; is that right?
A. Yes.
Q. You say:
"Late afternoon meeting with PM on schools. My God this is complicated and models will not provide the answer. PM is clearly bamboozled."

Page 53, please:
"PM asking whether we have 'overdone it on the lethality of this disease'. He sways between optimism and pessimism ..."

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Then this:
"PM still confused on different types of test (he holds it in his head for a session and then it goes)."

Page 93, please.
"Watching PM get his head round stats is awful. He
finds relative and absolute risk almost impossible to understand."

Page 124:
"PM struggled with whole concept of doubling [times] ... just couldn't get it."

Then just two more, please, page 167, this is from later in the year, September:
"Clare Gardiner ... talked PM through the graphs (it is difficult -- he asks questions like 'which one is the dark red one' - is he colour blind?) Then 'so you think positivity has gone up overnight oh oh' then 'Oh god, bloody hell'. But it is all the same stuff he was shown 6h ago."

Then finally 389, this is now going forward to 2021:
"PM Dashboard ..."
Is that a reference to a meeting, dashboard meeting?
A. Yes.
Q. "... Taken through the graphs but it was a real struggle to get him to understand them."

So the question then, Sir Patrick, is those
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at the time, but it was hard work sometimes to try to make sure that he had understood what a particular graph or piece of data was saying. And I'd learnt from a number of meetings, including around climate, where there were certain things that would catch his eye and would work for him and other things that wouldn't work for him, so there were ways of presenting the data that allowed him to get better access than others.
Q. Mr Johnson, it hardly needs saying, was the man who was making decisions that had incredibly broad impacts on the whole country, and it was critical, was it not, that he did understand the advice that he was being given?
A. Yes.
Q. We have been talking so far about the need to repeat advice sometimes or to, as you say, use particular techniques or tags to help him understand matters. Was it ever the case that you had the impression that despite repeating things or despite explaining things in a particular way, he actually had completely misunderstood some of the advice that you'd given him?
A. It's possible, but I think certainly when I left a meeting I would be -- I would usually be persuaded that we had got him to understand what it was we were trying to say. But as one of the extracts showed, that you put up there, that six hours later he might not have
paragraphs of your statement that we looked at, yes, you talk about sometimes needing to repeat things and needing to explain things in detail, help us, and tell us if this is an example of passages that you no longer want to support, but the message that we get from these repeated entries appears to describe something, at least as far as the Prime Minister is concerned, more serious: a repeated failure to understand graphs, scientific concepts and so on, forgetting things that had been explained to him only a few hours earlier repeatedly. Was there a more serious problem with him than that which you describe in the witness statement?
A. Well, I think I'm right in saying that the Prime Minister at the time gave up science when he was 15 , and I think he'd be the first to admit it wasn't his forte, and that he did struggle with some of the concepts, and we did need to repeat them often. I would also say that a meeting that sticks in my mind was with fellow science advisers from across Europe when one of them, and I won't say which country, declared that the leader of that country had enormous problems with exponential curves and the entire phone call burst into laughter, because it was true in every country. So I do not think that there was necessarily a unique inability to grasp some of these concepts with the Prime Minister 62
remembered what was in that presentation. So I can't be sure that he kept it in his mind all the time as he was going into whatever the subsequent meetings were that designed policy.

I would also say that I think, and I don't know, you'd obviously have to ask him, but I think he does have the technique of almost deliberately going to sort of a misunderstanding just to check that somebody isn't in a different position, and that was something he would use from time to time.

But I think there was a problem in scientific understanding and it's not unusual amongst leaders in western democracies.
LADY HALLETT: And he wouldn't be the only person who struggles with graphs. I confess to struggling with graphs myself on occasion.
MR O'CONNOR: Let me show you a couple more entries, Sir Patrick, just to try to gauge the issue here.

First of all, page 163, please. So we're in September 2020 now, there is a reference to the chief constable saying the rules are too complex, that's a subject of different evidence we've heard, but then this:
"PM looking glum. Then suddenly ..."
And I take it this is a quote from him:
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"... -- 'Is the whole thing a mirage? The curves just follow a natural pattern despite what you do' Incredulity in the room [...] The whole meeting carefully manages the PM (is it always like this?) ..."
Is that an example of him perhaps being provocative or did that demonstrate just a fundamental misunderstanding?
A. It was a point that he raised on several occasions and he would look at the peaks of waves of infection and ask: are the interventions we're making doing that or is this what would have happened anyway? And he did come back to that point often and we'd talked him through what the evidence was that the interventions had made the difference. And of course it is true that at some point the peak will come down because at some point public behaviour changes, the number of susceptible people changes, the amount of immunity in the population changes, they do go up and down, but the point was that clearly these were being manipulated down by interventions.
Q. Just before we leave this entry, do you see the last sentence there, and note that we're now in September:
"CMO still keeps offering a slightly slower path ..."
We've talked already about the caution that 65
together'.
He doesn't seem to have been the easiest of decision-makers for you to provide scientific advice to, Sir Patrick?
A. It was difficult at times, and this is an example of where I suspect in this meeting I would not have tried to get across too many scientific concepts, would have waited for a better opportunity to do so and to have spoken to some others.
Q. As you mentioned at the outset, you had worked with other decision-makers, Mrs May; was this reception of scientific advice that you were providing something you were used to or was it out of your experience?
A. Well, he, Boris Johnson, and Dominic Cummings, were extremely keen to get scientific advice, so they had, I would say, a disproportionate interest in getting science advice. But, as you can see, it wasn't always easy to provide it in a way that was understood and actionable by the Prime Minister. And I don't think -I mean, I doubt that the sorts of things described in here are terribly surprising to most people.
Q. Just before we leave this, I want to add in one extra factor, which is of course we know the Prime Minister was unwell for some period sort of March/April time in 2020. The extracts I've shown you do have some in that 67

Sir Chris had in March. It looks as though you're recording a similar issue later in the year. Was it something that continued?
A. Well, I think the point in brackets is important:
"... (I think this is wrong and said it)."
And Chris and I discussed this sort of thing often. I still think that he, as the Chief Medical Officer with a public health accountability, was right to raise the problems associated with the measures being taken, and that appropriate caution I think was useful and it was very helpful for the two of us to be able to discuss that and understand why we were in positions of either greater or slower pace on some of these things. I think it's appropriate.
Q. One more of these references, please, page 190. So we're at very much the same time, September of 2020. You record that the Prime Minister had come back from a Battle of Britain memorial service distressed by seeing everyone in masks, and then this:
"Starts challenging numbers and questioning whether they really translate into deaths. Says it is not exponential etc etc. Looked broken -- head in hands a lot. 'Is it because of the great libertarian nation we are that it spreads so much." 'Maybe we are licked as a species' ... 'We are too shit to get our act 66
period but, as we've seen, also later. Is that a factor that we need to bear in mind with all this?
A. I think he was -- there was a period, and I described that, when I think he was really unwell and was unable to concentrate on things. When he came back, he eased himself back into things over a few weeks and thereafter I think there was no obvious change between him and what he was like beforehand.
Q. Thank you.

I'd like to move on to a separate subject, please, and that is in the first instance about SPI-B, the behavioural science subgroup of SAGE. Perhaps we can start by looking at the SAGE minutes which record the decision to set up that group.

As we can see, it was SAGE 7 on 13 February. If we go over to the next page, we can see that you were there -- I don't know, did you in fact attend every SAGE meeting during this period?
A. I think I missed one.
Q. Right. Not this one?
A. Not this one.
Q. If we go on to page 4, please, we see the section of the minutes headed "Behavioural science", and this was a summary, was it not, of the discussions which led to the decision that a behavioural science subgroup would 68
be a good idea and then we've heard from Professor Rubin the way in which it was set up.

I wanted to draw your attention to one of these paragraphs without reading it out, which is that there is a repeated reference within them to messaging. Do you see that? I haven't actually counted, but most of these paragraphs refer to the importance of messaging and the link with behavioural science.

Is it a fair understanding, then, of these paragraphs that part of the purpose of setting up SPI-B was to assist with the exercise of providing the public with appropriate messaging during the pandemic?
A. Part of the reason for having behavioural scientists there, and by the way I think James Rubin and Brooke Rogers, who were at this meeting, are absolutely exceptional, was to make sure that the principles underlying messaging were understood. So it wasn't to design the messaging, it was to make sure that principles like collective ownership of things was important, like don't drive fear as the messaging vehicle. And those sorts of things were important messages. And SPI-B produced some really important papers on that. It's because of that that around this time I introduced James Rubin and Brooke to both Dominic Cummings and to Alex Aiken, who was the head of
into communications and messaging, beyond communications, messaging more generally. Those -- that link is an important one, and I think the ownership though of the actual communications had to be within Public Health England, within the public health system, within government communications, and where SPI-B could help was making sure that the principles were clear, and indeed on occasions I think they were brought in to help with specific messaging as well, as individuals, but I don't think it -- maybe I'm wrong, but I don't think it would be appropriate to have an academic group designing government communications.
Q. Well, I don't want to overstate this, of course one can see that in principle providing the academic sort of direction is one thing and designing the communications themselves is a different thing, but the evidence we heard from Professor Rubin and also Professor Yardley was that how it worked out was that, yes, they did the behavioural science work, but they couldn't see that being taken into account at all in the communications strategies, and in fact they disagreed, sometimes quite strongly, with several of the main strategies that were rolled out.

I think when we spoke to Lee Cain, he said "Well, I really paid more attention to my focus groups than
government communications, to make sure that there was a vehicle for them to feed in their principles of messaging.
Q. Yes. This is really what I wanted to explore, Sir Patrick, because on the one hand, as we've said, we see great emphasis being placed on messaging, on the other hand we asked Professor Rubin about the fact that the forerunner to SPI-B, which had been set up during the swine flu pandemic, was called SPI-B\&C, the C standing for communications, and I asked him whether the lack of a C this time round was accidental, he said: no, there was a deliberate decision taken that we weren't to be involved in communications.

It's fair to say, isn't it, that there is, if you
like, an inconsistency there, to have on the one hand a committee which was, at least one of its main purposes, to be involved with developing messaging, and on the other hand to be told, "But you're not having anything to do with communications"?

## Is that a fair point?

A. I'm not sure it is, actually, because the point that the behavioural scientists are trying to give is the principles behind messaging, not the actual construct of the communications, and I think that distinction is quite important. This is behavioural science advice 70
what the behavioural scientists were telling me". So perhaps in principle the division you describe is sustainable but in practice it didn't work, did it?
A. Well, I think it's exactly the same as science advice and ministerial decision-making. So I think SPI-B gave very good advice on this. We introduced them to Alex Aiken, to Dominic Cummings and others. The fact that the government then chose to do things that were different from that, provided they've understood that the input has come, provided they've heard it properly, that is a ministerial decision to do things differently.

I mean, I happen to think that they could have listened more to SPI-B on this for sure, and that would have been helpful, but it seems to me that's exactly where ministerial accountability comes in and decision-making. It's the same for this area of science as other areas of science. And maybe to put it even more baldly, "following the behavioural science" would have been as bad as "following the science".
Q. Are there, though, lessons to be learned for next time? Accepting your point that ultimately it's for politicians and their teams to either accept or reject advice they're given, it can't be regarded as a positive, can it, that the evidence we have heard is that one had a group of behavioural scientists

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suggesting one thing and a group of communications people at Number 10 essentially ignoring them and getting on and doing their own thing? I mean, that can't be regarded as having been a successful outcome?
A. No.
Q. Are there lessons to be learned for next time?
A. I think there are lessons to be learned, and one of the lessons which is important is to get the advice and the papers out quickly in the public domain. Because then it's very obvious when ministerial decisions are deviating from that advice. Ideally you'd like to know what other advice they'd received that meant that they had gone down a different route, and you said that Lee Cain suggested it was focus group advice that he wanted to pay attention to. Again, that seems to me to be a decision that is one that the ministers and their officials can follow. But I agree with you that the advice from behavioural science needs to be prominent, clear and accessible to everybody, and it wasn't a good outcome that some of these things were ignored.
Q. Let me move on and in fact pick up that theme. One of the solutions or the solution you have suggested is transparency, which echoes an approach you took with SAGE, which we'll come to. But it may be that some of the documents suggest that precisely one of the problems

Brooke was that it also undermined the way that SPI-B
works sometimes, because people were concerned about expressing their views for fear that that was then going to appear in a newspaper.

So I think there was, and this is my personal
judgement, there was too much policy, too much commentary on things that even weren't behavioural science sometimes, on other aspects, and too many individuals who didn't distinguish between them as an individual and them as SPI-B and SAGE.
but it was not how it was ultimately portrayed, and I think it's very difficult to run a government advisory committee if things are perpetually being discussed in the press.
Q. Can I ask you about a different document but it touches on the same issue, but this time in relation to SAGE itself rather than SPI-B.

So this is INQ000232074, please.
So this is, if we have the bottom half, a Treasury email which summarises a SAGE meeting. It's a read-out.

We see the first bullet point there. We don't need to go back but we can see that the date was April 2020. It says:
"Vallance started the meeting by highlighting he had 75

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And by the way they might have done that themselves,
with SPI-B, and perhaps more broadly, was with scientists expressing their views publicly.

If we look, for example, back at the schedule of your notes on page 50, you say that -- we're in March, sorry, May 2020:
"SPI-B -- had to calm them down about the role of advice vs decisions."

So to that extent clearly a division you've already explained.
"Immediately after another article in the Guardian...with quotes from people and SPI-B -disgraceful."

So if part of the solution you're suggesting is that SPI-B's views should be made public, why was it disgraceful that they were doing that?
A. This wasn't a SPI-B, it was individuals in SPI-B, and one of the problems that I think did occur was a very, very small number of people, one, two or three, made policy judgements very visible in the press and statements on existing and planned policy, including, on occasions, even discussions that had taken place in SPI-B, in the press.

That had the effect of undermining SPI-B, and it undermined trust in SPI-B from within government, and my understanding from discussions with James Rubin and 74
seen several reports in the media of SAGE members commenting on the science behind the government's approach. He highlighted that this wasn't helpful, and said that no one should be speaking to the media."

Again, of course, scientists were independent and, in that sense, they had to right to speak to the media, but was this something, to go back to your point about SPI-B, which increases transparency and makes it easier for the government to be held to account, or, as you're suggesting here, was it something that undermined the advice function itself and therefore ought to be discouraged or even prohibited?
A. Well, I'm going to take issue with the minute, because the chair's brief, and indeed the repeated commentary that I made at SAGE, was: any of you can speak to your own topic, your own expertise, in the press and should feel free to do so. So actually we had a very open policy to people speaking to the press about their own areas of expertise. We asked that people didn't comment on policy, because that then would confound the SAGE remit with their policy views, and we asked that they tried not to stray into areas that were not their area of expertise, because that inevitably would reflect back on SAGE, and we asked that they didn't report the discussions that were taking place in the meetings 76
because the minutes wouldn't have come out by that stage.

So that's what the restriction was. It was
absolutely not that people couldn't speak to the media.
And if you ask Fiona Fox from the Science Media Centre, she would say there has been more scientists from government committees out speaking about their expertise and trying to help the media understand in this pandemic than we've ever seen before. So I think we actually actively encouraged, where it was appropriate, for people to go and speak about their own areas of expertise, but not policy.
Q. So you're telling us that that is not an accurate summary of what you would have said?
A. Yes.
Q. It has more nuance to it --
A. Yes.
Q. -- that that, and that's what you've just given us?
A. Yes.
Q. With that nuance, is it your reflection that that was
the best way of dealing with this issue of how
scientists should speak publicly without being able to stop them completely?
A. Well, I don't know if it was the best. I mean, there may be better ways of doing it. I did know that it was 77
go on to the next page, please.
Yes, we see at the top there an email from
Stuart Wainwright. It's an exchange at this point between him and James Rubin, and you can see that they are discussing the fact that, I think, at that stage, a small number of members of SPI-B had joined ISAGE, Independent SAGE that is, and Mr Wainwright says:
"... it raises real issues of trust for policy
makers in HMG in the ability to bring things to the committee as a 'safe' space."

Do you see that?
Then if we can please look at the email immediately before that, so back to the next page, you can see Professor Rubin saying that:
"DHSC will presumably want us to adopt nervtag style membership arrangements and I think that is the appropriate time for a refreshed set of [terms of reference] ..."

Then just before I ask you about this, if we can
look at a subsequent email, this time it did involve
you, INQ000196969, we see an email, two-thirds of the way down, from you to Professor Rubin:
"James
"The effect is that Government departments are now
becoming very wary of putting anything to SPI-B because
very, very difficult when scientists spoke about policy and other areas because it then undermined trust in the committees, and we saw that later in the pandemic with some departments and some ministers saying, "I won't bring something to SAGE because it's just going to leak and people will talk about it". And I know that, again, the Science Media Centre felt that we'd got it about right. So l'm not sure what more could be done here.

I definitely believe that people should be free to speak about their own areas, and I also believe that it's very difficult for a government committee to operate if people are apparently reporting government advisory views in the press outside the formal mechanisms. It becomes really difficult to build the trust that's required to get influence inside government.
Q. Thank you.

Let me just move, we're sticking with SPI-B, to a related issue. That's not so much them commenting publicly but several of them joining Independent SAGE.

For these purposes perhaps we can look at some email exchanges between you and Stuart Wainwright. First of all, can we please look at INQ000197131.

Here -- excuse me a moment.
Yes, so if we look towards the ... I think if we can 78
of a risk of leaks or misuse. We should think about how to deal with it. Frankly it is bizarre behaviour ..."

And just for context, by this stage rather more members of SPI-B had joined Independent SAGE.

So a related problem, Sir Patrick. Is what we see here in effect a chilling effect, that HMG becomes less willing to ask questions of SPI-B because, in this instance, of a concern about whether that information will simply be passed to Independent SAGE?
A. Yes, I think that is what was happening. There were confidential papers that came to SPI-B and to SAGE, and it was important that people who put those papers in knew that they weren't going to disappear somewhere else, and it was important that the outputs of those committees came to ministers with a chance for them to reflect upon them before it was widely articulated elsewhere.

And I think there are -- I mean, I'm second to none in my belief of academic freedom, but if you join a government committee it's slightly odd to then be on a committee that's set up to challenge the government committee. It doesn't seem quite right to me. And I think Kamlesh Khunti when he gave his evidence was very good on this and said that Independent SAGE was very often focused on policy rather than science advice.
with a sort of policy advice organisation with direct links to some of the papers that had come confidentially to SPI-B. So I was worried about it, and there are some examples where there was a chilling effect, where people didn't want to bring things to either SAGE or to subcommittees as a result of either this or, indeed, the transparency of publishing all of our minutes and papers.
Q. Again, looking forward and thinking about how, as we stand now, some of these committees have been disbanded, some others are getting on with their work, but of course, in an environment which is completely different, there isn't the blaze of publicity, we don't hear scientists debating these issues in the press all the time. But as you have said, there will be another pandemic, and we can imagine that similar circumstances might well arise.

What have we learnt from this experience? Are there
ways of controlling what scientists do? There was a reference to the NERVTAG arrangements. Are those different, and is that a blueprint for the future?
A. I don't know exactly what the NERVTAG arrangements were, but we have definitely, as part of the SAGE Development
Programme developed guidelines on what you should and
whether the government had made appropriate decisions or not?
A. Yes, I think we'd made the decision to publish minutes in March and then did the backlog catch-up by May. I do think, and this again has been put in the SAGE development plan, I think there should be a process for publishing minutes and papers as soon as is reasonable after the meeting, with some caveats, and those caveats would be national security, one, and, two, if there was a need to delay things for a little bit to give ministers a chance to be able to consider policy options in advance. But I believe both the evidence for SAGE but more widely I believe the scientific evidence that underpins advice to departments should be made public, because that's what science does best. It puts things out there, other scientists can challenge, and that creates the right external environment to actually be helpful, not on the policy but on the evidence base, and I think that is a valuable thing. And we had to go through quite a lot to make that happen during the pandemic, including operationally it's quite difficult to get these things done, because you've got to get permissions from the authors, you've got to get them in the right format, you've got to get them up on the website, and that took a little while in a team that was 83

And that seemed like quite a big worry, that we'd end up 1 81
shouldn't do in terms of speaking to the press (and it's the rules that l've just said, speak about your own area, please do, that's helpful to inform, but don't go outside that) and about membership of other organisations (that it needs to be declared upfront and there needs to be discussion with the chair before it's agreed whether that's appropriate or inappropriate).

The difficulty here was it just happened without anyone knowing about it, and then it became public, and it became very difficult to deal with.
Q. Thank you.

Let me move on, although sticking with this theme of transparency, because, as you've said -- you talk in your witness statement about SAGE transparency. In particular we know that, at the outset of the pandemic, the SAGE minutes, indeed attendees of SAGE, was not something that was published, and this was something that you took on yourself and after a few months that changed and minutes and lists of attendees were published, and you describe that step in a very positive way in your witness statement.

Is this right, you regarded it as important both as a reputational matter but also, and I think this is the context in which you raised it with SPI-B, as a means of providing challenge and allowing people to understand 82
very busy doing other things. It's the sort of thing that we -- I describe in the so-called 100 Days Mission is getting the rules of the road sorted out in advance, so you're not trying to sort them out during the pandemic.
Q. One can see and you've described very well all the advantages that flow from this policy of transparency, but there are problems that come with it, are there not, and one of them is the problem we've just been discussing in the context of SPI-B, which is a chilling effect, and if we look at your notes -- well, I will ask you, but at least on the face of it, it seems that this policy of transparency did indeed create this type of chilling effect with SAGE itself during the pandemic.

If we can go, please, to the schedule, and look at, I think it's three references, thank you, first of all this one, we're in June 2020, and you write, you refer to a paper from Number 10, you say someone has completely rewritten it:
"They have just cherry-picked. Quite extraordinary."

And then, for our purposes here:
"Note -- apparently Simon Case ..."
I'm afraid I can't remember now whether at that point he had -- no, he wasn't, he was

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a permanent secretary within the Cabinet Office at that point, he hadn't become the Cabinet Secretary.
"... Simon Case said don't bring new schools advice [questions] to SAGE -- as the minutes get published."

If we can move on to page 102, another note:
"[Secretary of State for] Education DfE says don't ask SAGE as minutes get published."

Then moving forward a few months, both of those references were in June, we can move forward to page 253, please, we're in October, on a similar theme:
"Apparently CO ..."
The Cabinet Office, so not the Department for Education but the Cabinet Office:
"... now cautious about putting things to SAGE because we publish it all. That is a very bad outcome."

Well, it is a bad outcome, Sir Patrick, and I just want to ask for your reflections on where the balance is. I mean, for all the reasons you've given there is a lot to be said for publishing the minutes, but on the other hand if the consequence of publishing the minutes of an advisory body is that its customers don't come to it for advice any more --
A. Yeah 23
Q. -- isn't that something of an at least mixed situation?
A. If I may just, on the very first one you read out, about 85
is just what it is, and provided all of the evidence is published, ministerial decision can be completely free to overturn that evidence and say, "I choose to do something different".

So it is a worry and it was a concern particularly during this period, but I don't think the answer is to reach for more redaction or more secrecy around this, I think it's to get into a normalised position where evidence publication is seen as the right route.
Q. Sir Patrick, you emphasise evidence in contrast to advice, but what we've seen in these extracts is a concern, in this case emanating from the Department for Education, about the SAGE minutes being published. Surely those minutes contain advice?
A. The minutes usually are containing evidence and have it couched in terms of "if the aim is to do $X$, then the following would be necessary", or "given the state of the pandemic at the moment, without a decrease, it's likely to lead to the following situations". It is usually not the case that it's giving direct advice on precisely what the science is suggesting a minister should do.
Q. Sir Patrick, we don't want to split hairs about this, but thinking about the practical situation that, in this case, the Department for Education seemed to have been 87
someone rewriting the science, that was an internal paper in Cabinet Office, and that rewrite never went anywhere, so that I think is not -- but this is a very important question, and there is no doubt that DfE took this view at times and Cabinet Office, there was an alarm that that might happen.

I don't think in the end it stopped us doing anything on schools that we wanted to do, but it did mean we sometimes didn't get precise questions. I do think it's a problem, and I don't know what the answer to it is, but I believe there is a cultural issue which can be overcome, which is the more the principle is accepted that the evidence is published, not the advice, not the policy position but the evidence is published, the better government decision-making would be, and the more that happens during normal time as well as during emergencies like this, the more it will become a culturally accepted and reasonable thing.

There is a fear sometimes that if the evidence is out there it's going to force a minister's hand, and, as I said, I do think you need to give ministers time to do things before it becomes public, but my approach has been, and I've had this discussion during peacetime in government as well as during the pandemic, is the evidence itself can neither be harmful or beneficial, it 86
in, the thought process appears to be: "We have this policy that we're considering, why don't we ask SAGE about it, one reason not to ask them about it is that if we do their minutes will record their discussion" -- and you can call it evidence if you like, but anyone reading it will see, if this is the view they took, that they think it's a bad idea -- "and that will mean that if we go ahead with it people will criticise us". I mean, that's the problem, isn't it?
A. It is the problem. And again, I think the more you focus on evidence rather than advice, the easier it is. It is a problem. I don't know what the answer to it is. My instinct is that greater transparency is helpful all round and my experience from the pandemic was that, in the end, none of these came to be a problem. In other words, DfE did try and not bring things to SAGE, we overcame that and they did in the end bring them, and we also did work on it. So they were -- they were bumps in the road, they weren't blocks. And I think Stuart Wainwright laid out the sort of pros and cons out very nicely in his evidence. I would not wish to see less transparency of the science evidence.
Q. Let me ask you briefly if I can about a similar but slightly different issue. Here we're discussing the question of whether SAGE were asked at all about issues. 88

There is another issue which emerges from the notes where SAGE were asked but their advice was either ignored or even apparently attempts made to change their advice.

Can we look at some entries in your schedule, please. First of all, page 56. So here we have your comment that:
"We have been excluded from the PM's strategy meeting. Chris [that's Chris Whitty no doubt] is sure it is because the economic secretariat in [Cabinet Office] want to be able to present things about re-opening without us contradicting them."

That's perhaps a little like the other ones we were looking at.

At page 94, please:
"... the 2 [metre] rule meeting made it abundantly
clear that no one in no 10 or [Cabinet Office] had really read or taken time to understand the science advice ... Quite extraordinary."

Page 98, please:
"No 10 pushing hard on releasing measures ... They are pushing very hard ..."

And then this:
"... and want the science altered. We need to who would on to our hats. There will likely be a second 89
we were not invited to things sometimes, and there is --
it definitely is the case that there were times when,
because we were giving unpalatable evidence and advice,
people would rather not hear it. And I think that
probably is a normal part of politics. And our job was
to make sure that we weren't in the politics, we were continuing to make that advice as heard as we could make it.
Q. Did you, and this I now ask for your view on reflection, not writing your notes late at night, but did you feel that you were in some way being manipulated or handled or that your advice was -- people were asking you to change your advice?
A. Well, I don't think anyone -- well, I know, nobody actually got us to change our advice. I mean, the example of somebody maybe putting pressure on us to do it, we wouldn't do, and I think there's a WhatsApp exchange you've got where Matt Hancock asked me to change something and I say "No, we're not going to change our advice". Because that's where the evidence bit comes in, that you've got to at least see that, even if you disagree with it, you don't want to do it.

But I'm sure, I'm absolutely sure, because politicians are politicians, that there were attempts to manage us and make sure that we were not always given
peak."
Then lastly page 112 :
"In economics meeting earlier in the day they didn't realise CMO was there and [Chancellor] said, 'It is all about handling the scientists, not handling the virus.' They then got flustered when [he] chipped in ..."

So a collection of entries, all of them, to be clear, in terms of date, around sort of May, June, July, re-opening in 2020, the common theme is that either SAGE is being ignored or it's not being asked or even a suggestion that the SAGE scientists should be handled in some way or that their advice should be altered.

Help us, was there a feeling, perhaps particularly at that time, that perhaps you weren't being asked for your advice in good faith?
A. I think there were definitely periods when it was clear that the unwelcome advice we were giving was, as expected, not loved, and that meant we had to work doubly hard to make sure that the science evidence and advice was being properly heard.

Now, it doesn't surprise me that there were meetings that we were not included in. That's normal. We were, as I said, in Number 10 probably for 45 minutes or an hour and there were things going on all day and political decisions as well, so it's not surprising that 90
the access that we might need. But I think overall we actually managed to get through all of that and make sure that the advice and the evidence was heard. So I don't know what damage it did, and I ... I'm not sure exactly what I'd recommend for the future on that, because it seems to me that's partly the nature of the way the political system seems to operate.
Q. One thing we do know, and you state this in your evidence, is that around this time and in the period just after it, there were a series of government initiatives in respect of which SAGE was not asked to provide its advice: Eat Out to Help Out in the summer of 2020, tiers, the rule of six later in the year. I mean, do you know whether the type of thinking that's evidenced in these notes was part of the reason why you weren't asked about those matters?
A. I -- quite possibly. I don't know the reasons behind each of those. I mean, Eat Out to Help Out we didn't know about until it was announced, and I think our advice would have been very clear on that. I think the tiers, we were involved in some of the discussions, as they started to say what they wanted to do, to try to advise on what would be sensible in different tiers if that were going to go down this route, but I don't think we were involved at the inception of that. And in some 92

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Mr Sunak's statement where he says that you never objected to it.
A. Well, we didn't see it before it was announced and I think others in the Cabinet Office have also said they didn't see it before it was formulated as a policy, so we didn't -- weren't involved in the run-up to it. And around that time lots of measures were being released, and you will see repeated references in various minutes and notes and emails, and indeed, I'm sure, in my private notes, to our concern that people were piling on more and more things and that this would come to drive R above 1, and I think that was discussed at Cabinet as well, that that was the concern we had. So I think it would have been very obvious to anyone that this was likely to cause -- well, inevitably would cause an increase in transmission risk, and I think that would have been known by ministers.
Q. And Mr Sunak?
A. If he was in the meetings, I can't recall which meetings he was in, but l'd be very surprised if any minister didn't understand that these openings carried risk.
MR O'CONNOR: Yes. Thank you, Sir Patrick.
My Lady, I'm about to move on to another topic, if that's a convenient time.

LADY HALLETT: Certainly, Mr O'Connor.

wouldn't have had an effect on transmission, and that would have been the advice that was given, had we been asked beforehand.
Q. Yes. Well, let me just take you to your statement, if I may, it's paragraph 648 on page 209. It's the last sentence or so, you say:
"As I have discussed, SAGE [this is the point you have just made] was not asked to provide advice ahead of the Eat Out to Help Out scheme being introduced ..."

And then you say this:
"... but I think it would have been obvious to all involved that our advice would have been that this was likely to increase transmission of the virus."

If we can hold that in mind, can we look at a paragraph of Mr Sunak's witness statement, please, thank you, and it's paragraph 317, and Mr Sunak says:
"Throughout the period at which [Eat Out to Help Out] was in operation, and immediately prior to its implementation, I do not recall any concerns about the scheme being expressed during ministerial discussions, including those attended by the CMO and CSA."

No doubt he means the GCSA, that's you.
There's a certain inconsistency between your statement where you say that you think that it would have been apparent to everyone that you opposed it and 94

2 o'clock, please.
(1.01 pm)
(The short adjournment)
( 2.00 pm )
LADY HALLETT: Mr O'Connor.
MR O'CONNOR: Sir Patrick, one of the matters we touched on this morning was the question of the advice other than SAGE advice covering areas such as economics and societal issues, and how that fed into policymakers, both privately and publicly, and I want to ask you some questions about that topic, and I'd like to start by looking at another passage from Ben Warner's witness statement, something we asked him about a week or so ago when he gave evidence.

If we can look at paragraph 309 of his statement, please, he said this:
"I felt that the biggest absence throughout the pandemic was the lack of economic modelling in decision making. HMT [that's the Treasury] ... responsible for economic modelling, has a strong set of policy officials, but when it came to my interactions for all aspects of my work in Government, I found that HMT was severely limited when it came to specialists in science, advanced analytics, technology or data."

So Mr Warner's view was that this was an important 96
gap in the larger picture. That may be very much the same point that you were making in one of your notes. If we can look, please, at the schedule, page 522, this is late, this is an October 2021 entry, where you say:
"Economic predictions! HMT saying economy nearly back to normal [and] plan B would cost 18 [billion]. No evidence. No transparency. Pure dogma [and] wrong throughout."

Now, Sir Patrick, that may be one of those comments which is towards the frustrated late at night end of the spectrum, but am I right in essentially you're making the same point there as Mr Warner was about the problems with economic advice feeding into decision-making?
A. Well, so I agree that's probably the late night frustration comment, but I did think that there was a lack of transparency on the economic side and it was difficult to know exactly what modelling had been done, and what input there'd been to various assertions and comments made, and that made it very difficult. And of course it wasn't publicly available either, and that created I think an imbalance where the science advice was there for everybody to see, the economic advice wasn't, and it wasn't obvious what it was based upon, and it therefore unduly weighted the science advice in the public mind, I think, and created a real problem in 97

So in a meeting where the question of rising numbers of infections was being discussed, there was very little that I saw that said that the economists had understood that rising infections alone were enough to cause a problem for the economy, and a lot of emphasis on why interventions were negative for the economy, and quite difficult for me to see what the workings were behind that and why that was the case.

So I didn't see evidence of a very strong analytical basis, but -- it may have been there, I just never saw it.
Q. When you talk about here, for example, "no evidence", "pure dogma", that does at least seem to suggest that you thought it wasn't there, rather than you --
A. I did think it wasn't there.
Q. And that, as you say, is perhaps one of the reasons why you suggested an economic SAGE?
A. Yes, and I wasn't even necessarily suggesting an economic SAGE, I just thought that an external economic body would be helpful. And certainly that was the representation I was getting from various rather eminent academic economists, who felt that that would be helpful.
Q. Yes. Well, then let's look, if we may, at an email which is INQ000235261, please.

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terms of how decisions could be made.
I did try to suggest that an economic advice group similar to SAGE was set up, and indeed had one meeting where we brought people together, but it wasn't pursued.
Q. No. Well, I'm going to come to that in a moment and we'll look at some documents. But before we do that, I think what you're describing is, if you like, two different problems, albeit perhaps come from the same root. One is, which we can all see, there was an imbalance in terms of the public perception, because on the one hand SAGE minutes were being published and certainly there was no similar exercise with anything to do with economic advice or modelling. So, as you say, an imbalance there, and that led to the sort of public perception that you've described.

But there's a second issue which I want to press you on, which is: was it just an imbalance publicly or was there in fact a lack of or deficiency in the advice, the economic and other advice, that decision-makers were receiving?
A. Well, I can't comment on what they were receiving because I don't know what they were receiving. That was part of the problem. There was definitely, in my opinion, a lack of seeing that, seeing the basis for decisions and assertions made at meetings. 98

It's dated 5 June 2020. It's in fact an internal Treasury email from Clare Lombardelli to her colleagues at the Treasury, but it describes a meeting at which you were present, Sir Patrick, and I think in fact this may have been a meeting that you were -- convened or were instrumental in organising. We've asked Mr Warner about this email as well. You refer in your witness statement to having convened a meeting. Do you think this was it?
A. I wasn't sure, reading this, whether it was that meeting, but --
Q. All right.
A. -- it was probably in or around this time.
Q. In any event, we see Ms Lombardelli recording what had taken place at that meeting, we see it was at Number 10 and chaired by Mr Warner, but I think we know, and this is right, isn't it, that you were there?
A. Again I wasn't quite clear from this whether I was at this meeting or not. It refers to a follow-up with me. I certainly don't think Ben Warner would have been chairing a meeting that I organised, I think that was a separate meeting probably, because it was chaired by --
Q. Yes.
A. -- possibly Clare.
Q. Well, if it helps, if we look at the bottom of this 100
page, we can see another email, in the way these things often work -- this one -- which seems to have been in the run-up to the meeting, and you are one of the copyees, can you see "Government Chief Scientific Adviser"?
A. Okay, well, that, with Tim Besley and Nick Stern, I was involved for sure.
Q. So that was a preparatory step to the meeting, so it looks like perhaps you were there. In any event, let's not worry too much about that because I want to ask you about the substance of Ms Lombardelli's email.

So if we can go back up to that, please, thank you, she says the discussions "felt very familiar":
"... the economists all did a very clear pitch on smarter NPIs being able to deliver the same level of virus control at lower [economic] cost."

Then this:
"There was a general conclusion (by economists) that the economics is not being considered enough. And a desire for a place to bring this together." And three options: first, an economic SAGE; secondly, a single model; and lastly, something more informal.

She then says:
"The economists [obviously] killed the single 101
having a group that tries to integrate the very thing that ultimately is a ministerial trade-off decision and one that is an important democratic area. So I would not be in favour of having an integrated single model, for the reason that it then tends to put out the answer, which it can't possibly do. And given what I know about the uncertainties in infectious disease mathematical modelling and the uncertainties in economic modelling, I suspect there would be one almighty uncertainty that came out at the end of it.
Q. So just to be clear, I think what you're saying is that, as far as the modelling is concerned, that is something that should and could be pursued to see whether it's possible?
A. Yeah.
Q. And certainly the evidence we heard from the modellers was that if that is to be pursued then, I think their phrase -- it should be done between pandemics rather than during a pandemic. And that may take us back to the type of institution or academic body that you described.

Switching focus to the SAGE idea, I think what you've said is that you are against the idea of, as it were, adding an economic strand to the existing SAGE; is that --
model ... "
Just pausing there, we've heard some evidence from members of SPI-M, in particular I think it was Professor Keeling, but Professor Medley and Professor Woolhouse touched on this subject as well, about early steps that were taken during the pandemic to try to bring together economic and epidemiological modelling, and certainly the flavour of their evidence was that this was something that should be pursued.

Do you know why it would be that economists don't take kindly to this idea, and what's your view about whether this is something that should be pursued in the future?
A. Well, I'd like to deal with that in two parts, if I may. I think that there should be in the UK an academic centre for pandemic preparedness, and l've put that in my witness statement, and I think such a centre should be very multidisciplinary, and in such a centre I can absolutely imagine how economists, mathematical modellers, infection -- social scientists could get together and work out whether there is a way of modelling this, and that would be a very important thing to do. So on that level I agree it's worth exploring.

On the question of whether there should be an economic SAGE, I think there's a very grave danger in 102
A. Yes.
Q. What about separately having a separate body similar to the existing SAGE which is more focused or entirely focused on economics, which may have been the suggestion here?
A. Which -- I think that sounds sensible, and it's one thing that I would support. But, and I want to make an important caveat here: I'm not in Treasury, I don't really understand all the sources of advice they've got, and it may well be they've got similar advisory mechanisms going on. If so, I didn't see them. So on the face of it I would be in favour of an economics SAGE type activity.
Q. You are in favour now and I think it was the case, you said in your statement, you were in favour --
A. Yes
Q. -- two years ago or so, three years ago, when this was discussed at the time. The message in the email is that this is an option that was going to be taken forward. We can see there it says:
"It was agreed that Ben Warner would follow up with ..."

Individuals including you.
What did happen to this idea back in 2020? Were steps taken to try to establish an economic SAGE? 104
A. If I remember correctly, I think Simon Case pulled together a meeting at my suggestion, which may have been following this one, with economists to try to see whether that would work, but there was no take-up afterwards. So I think there was a single -- a single meeting and no follow-up, and I don't know what happened to this within Treasury. Clare Lombardelli would probably be the best person to answer that.
Q. In your witness statement you say that your understanding was that the Treasury did not wish to pursue this idea.
A. Well, that seemed to be the case.
Q. I can take you to it if you like. I don't know if you've looked at it, but there's an IFG report that was published recently that puts the position slightly more strongly than that and said that they understand the Treasury vetoed this proposal. Is that something that you can speak to?
A. I don't think I was aware that there was a veto. I mean, I was aware that nobody really wanted to do it, but I don't -- I don't know whether it got as far as sort of concrete written proposal and somebody said no.
Q. I suppose one of the possible criticisms of this approach, which would set up a new body sitting alongside the existing SAGE, is that one might then say, 105
work for pandemic preparedness and I think a single centre with a sort of hub and spoke model would work extremely well in the UK, and it could look at all the things that you would like to have looked at during normal times to make the input much more effective during a pandemic, and that could include everything from evaluating the effects of NPIs, which ones work, which ones didn't, how well do they work, what would you do differently, smart NPIs, different approaches to viral detection surveillance systems, ways to understand, pathogenesis of viruses. I mean, it should be a very broad activity, in my view, which should draw on existing groups rather than necessarily bring everyone into something which is only working on that, because you then have a huge amount of expertise brought into an area that's focusing on how one thinks about pandemics. And Oxford and Liverpool and others have suggested doing this and I'm a strong supporter of the idea that this would be a useful thing.
Q. Would it involve government funding?
A. Well, I think it should, and I think it should also involve UKHSA, because UKHSA is the body with the statutory responsibility for this area, and one of the things that I observed during this pandemic was that Public Health England didn't have the strong connections 107
well, if we've got an economic SAGE and an epidemiological SAGE, why don't we have a sociological SAGE or -- and one creates sort of too many advisory bodies. Is that something which you think would have any force?
A. I think -- I mean, a lot of social science was included on SAGE and would be included on the economics SAGE as well, and I certainly asked the British Academy to do a piece of work in, I think, June 2020 looking at the Covid decade, trying to understand all of the ramifications, and there are other ways to get that, so I think you're right, it is a risk that you end up with a sort of plethora of these things, but I think that one and a science one does seem like a sensible approach, provided Treasury want it and will make it work, otherwise it will be not effective.
Q. Yes.

Before we leave this subject, you mentioned the academic centre for pandemic preparedness a moment ago and it's something you've referred to more than once in your witness statement. Is there anything else you want to say about that in terms of how you imagine it, what it would cover, what it would address, how it might be set up?
A. Well, there are several universities that are developing 106
and science base that were needed. It had some very strong ones, but it wasn't -- you know, it wasn't as robust as it should have been during that time, through no fault of their own, but there was inadequate funding and inadequate links to various academic groups.
Q. Let me move on to another subject, Sir Patrick, although it's related, which is a sort of structural SAGE question of how the advice which is generated within SAGE and the subcommittees is communicated to ministers.

There are perhaps two linked issues: one is by what means is that advice communicated and the other is sort of to whom or to what body should it be communicated.

And it may be that we need to bear in mind the distinction between, if you like, the typical short-term emergencies for which the COBR system was designed on the one hand and the type of pandemic that we're addressing on the other, because in that first category of case, I think we can see that the existing system worked well. You have SAGE, it discusses issues that it's asked to discuss, it can produce a minute, and then the chair of SAGE, you or another, can convey that information in a fairly straightforward way to a COBR meeting. And both of those issues, therefore, that l've mentioned are addressed.

The difficulties perhaps come from the pressure that was put on that system by the much larger scale and the much longer duration of this pandemic.

Before I go on, do you agree that those are the issues?
A. Yes.
Q. So starting with the question of the means by which the advice is communicated, several witnesses who have given evidence to the Inquiry have commented on the great pressure that was put on you and Professor Whitty as, as it were, the conduit for advice from SAGE to decision-makers. All of them, I hasten to add, endorsed your hard work and ability to undertake that task, but they have said that both because of the enormous amount of work that was being done by SAGE and all of the subcommittees that were sort of corralled underneath it, and the duration, that in fact it was really an enormous task, perhaps too big a task, to expect the two of you to be that very narrow point of connection in terms of explaining and passing on that advice orally to decision-makers.

What are your comments on that, and should we be thinking of a different model for the future?
A. I think you have to have a point of connection from SAGE which is one or two people into the system. You have to 109
to ask questions that perhaps he might not want to ask in a bigger group. I think that is something that's worth exploring a bit more. But I think it's not practical to assume that you could have a group of modellers going in to speak to the Prime Minister and getting a sort of sensible sort of interaction.
Q. I wasn't really suggesting an alternative, I was asking if there was one, but I think your broad answer is that more or less the system that existed at the time ought to carry on.

Just to press you on that, we've already noted that we as a country were very lucky that the two individuals who were occupying the two posts of Chief Medical Officer and Chief Scientific Adviser were so well qualified by their experience and training to deal with the pandemic. If one imagines another pandemic where the CMO and the GCSA are not specialists in epidemiology, pandemics, vaccines, pharmaceuticals and so on, but come from completely different specialisms, would that be an extra problem in those individuals bearing the weight of conveying SAGE advice to decision-makers?
A. I think the CMO will always be an expert in this area in some form or another, and the CMO will always have around him or her a group of people who really
build trust within Whitehall, you have to have trust within the Cabinet Office, you have to have it clear who people turn to, and similarly you need a docking point on the other side that's equally clear and able to receive the advice.

I think on occasion it's useful to have a broader group. So we had various teach-ins that took place in Cabinet Office where we had up to sometimes 170 people coming to listen to things and hear more about them. That's useful. I think we had at least one meeting where a number of dissenting scientists got together and spoke directly to the Prime Minister in a small group. I have to say I don't think he found that in the end particularly helpful, other than to realise that it was difficult to work out what to do with all these dissenting voices.

So I think it's not practical or realistic to assume that you can have groups of scientists just pitching up to talk to the Prime Minister or to the Cabinet Secretary without some structure around it. I do think that we could have benefitted from an occasional step-back meeting, and this is something I did certainly during peacetime where we bring in a few scientists to speak to the Prime Minister on a particular topic to give him, in that case, a chance 110
understand this, which is why the lead government department idea does have some importance to it.

So I don't -- I don't have concerns there. I think it's highly likely that the GCSA wouldn't, and that has advantages and disadvantages. What the GCSA would need to do would be to make sure that they had the right advice around them so that they could undertake that function, but I suspect there would be more weight on the CMO's shoulders in that sort of situation, and it may be that one of the deputy CMOs or one of the other people in that sphere would step up as well.
Q. I've focused up to now on the first part of the equation in terms of who is -- what's the conduit from SAGE into the decision-makers, and I want to move on and ask you for the other end, which you've referred to as the docking point, because it's right, I think we can see, that although at the start of the pandemic you were conventionally feeding into COBR, once the COBR meetings ceased to certainly take place regularly you were then providing advice to a range of committees, whether it was Covid-S to dashboard meetings, the Covid Taskforce, and so on.

Do you think that there is a need to be clearer about, your term, the "docking point" for SAGE advice?
A. I do. I think it was very clear when it was CCS, the 112

Civil Contingencies Secretariat, for COBR. It then became very unclear. It became clearer again when Simon Case came in to lead the Covid Taskforce, it narrowed down to a more sensible system, and that then improved quite a lot over time in terms of them being able to ask better questions as well and frame them more appropriately. But I think there needs to be a system that swings into action immediately in the case of a pandemic that says: here is a structure which will stay constant and it's properly populated with people who can both look at the operational needs that come out of that, so they can co-ordinate that across Whitehall, and have enough scientific understanding and data analysis understanding to be able to absorb the evidence and understand the implications.
Q. Would that system be an expanded CCS or something completely different, do you think?
A. It's always easiest I think to build off things that are used routinely rather than to stand up something that is completely special for one event, and so I think building it from some expanded CCS, which is then exercised regularly in other forms, but knowing that you're going to have to increase the scale of this and the duration of this very dramatically at the time of an event, would probably work. 113
were able to fulfil without blurring that line or at least blurring it too much between your independent role to give advice and the government's role in setting policy and announcing it?
A. I think it would be very helpful to have others doing it as well, and we said that at the time, so economists, people from the NHS, others, to make sure that the operational side was properly covered.

In terms of the blurred line, a lot's been written about this, people have strong views in both directions. My view is it was helpful for us to stand up and deliver the evidence as we saw it and the outputs from SAGE, it was unhelpful when questions became overtly policy driven and political, which is inevitable in a press conference, and that worked best when whichever minister we were with or the Prime Minister took those questions himself.

But I think it did cause some people to say, well, it lends a sort of credibility to a policy that you might not agree with. All I can say is, yes, I think that is a risk, but there were occasions when we overtly at the podium disagreed on the evidence that was underlying or at least explained the evidence that underlay a decision. So, for example, in the move of the 2-metre rule to a lower figure, I was clear on the 115

In the SAGE system, we've -- in the SAGE development plan -- come up with the idea of reservists who could be brought in -- who would always be sort of aware of what was going on and they could quickly be brought in to expand capabilities, and it may be that something like that would work as well inside the Cabinet Office.
Q. Thank you.

Let me ask you briefly just about one other, a rather discrete point, which is about press conferences. Can we look, please, at paragraph 743 of your witness statement, page 235.

We of course all, Sir Patrick, remember your appearance --
A. I don't have anything on my screen.
Q. No, we have confidence that it's coming. There it is.

We all remember, Sir Patrick, the press conferences at which you and Sir Chris Whitty were regular, albeit not permanent, attenders. In this paragraph of your witness statement, you say, and we can see here, picking it up at the end of the second line and going on, this was not a role that you sought, but you were asked to do it and you did.

The question I want to ask is whether, looking back over the whole run of the couple of years when you undertook this task, you think that it was a role you 114
podium 2 metres is safer than 1 metre, full stop.
Doesn't mean that it's not unreasonable -- it's unreasonable to make a policy decision to move, but the evidence base is clear.

So I'm sorry that's a rather long answer to your question because I don't know whether ultimately it's the right or the wrong thing for us to have been there. I think it's something worth looking at. My gut feel is it was probably, overall, beneficial for us to be there.
Q. One could of course imagine a recommendation that that simply shouldn't happen and that the risk of independent advisers such as yourself becoming too associated with government policy was such that it was better for you not to take part in those sessions at all, but that would come at a cost?
A. Yes, I think -- exactly, there's risk on both sides.

And I think marginally I'm in favour of saying, yes, that was beneficial, but I don't have an evidence base to back that, and there are clear risks associated with it that need to be recognised. And if somebody had said to me, "Don't worry, you don't need to cover any more press conferences", I wouldn't have lost any sleep over it.
Q. Well, I may come to ask you one or two more questions about press conferences before we're done, Sir Patrick, 116
but --
LADY HALLETT: One of the risks too, presumably, is the risk of abuse about which Sir Christopher Whitty spoke during Module 1, the abuse that you and some of your colleagues suffered because you had been associated with the policy decisions.
A. Yes, I think that's a risk that's going to occur anyway and it was very real during this pandemic for a lot of us, and something that needs careful thinking about in the future, and for -- certainly some members of SAGE had that as well even though they were somewhat distant from the direct association with politicians.
MR O'CONNOR: Sir Patrick, I want to move on and ask you some questions about events in the latter part of 2020 and to start with questions about the segmentation policy or suggestion.

As an introduction to that, really just to take you back to the line which you mentioned earlier and which is repeated several times in your witness statement about the learning you took from that whole experience about -- well, I'm not going to say it, because there are some quite careful words you use in your witness statement, l'd like to show you them, it's page 71, paragraph 225, please. We see about four lines down you say: 117
argued that their area shouldn't be in a higher tier, they should be in a lower tier. So everyone is arguing to do things just a little bit less than they should do. The result of that, particularly -- and this is important -- particularly when there is a high prevalence -- and it's worth remembering there was a high prevalence for a lot of that period -- means that you tip over into an R above 1, and then you grow.

So I think this is an important thing and it's
partly my psychology, which is "than you like to", and
partly just the reality that these things need to be taken into account.
Q. Yes. I said that we were starting a discussion about segmentation, which was a suggestion championed by, amongst others, Professor Woolhouse, and you will know that his -- he has another sort of approach which is similar perhaps to what you've described and I want to explore how different it is.

His approach is: the earlier you impose an NPI, the less restrictive it needs to be. And therefore he is very much in favour of imposing moderate NPIs as early as possible.

Now, at first blush that's not the same as "go sooner than you like, harder than you like". How much difference is there between those two ideas?
"The most important lesson that I learned and stated repeatedly from the first lockdown onwards in respect of the timing of interventions was that you had to go earlier than you would, harder than you would like, and broader than you like."

Sometimes people talk about that as "go early, go hard", but it's not quite what you say there, is it? And I think the difference is important. Can you just in a few sentences explain this thinking and how your thinking about this developed during the pandemic?
A. Well, as I mentioned, in the first wave I think we didn't go early enough, and I absolute -- and there was a trickle in of measures when I think we should have gone with more measures simultaneously, and at various other times when geographical areas were put into certain measures the temptation was always to make it as limited as possible and then that failed because the surrounding areas immediately got very overwhelmed.

So my rider that it's "than you would like to" is very clear, and that is because the observation I made was that everyone's instincts is to not to do any of these things, it's to delay just a bit too much, it's to argue that the measures shouldn't be quite as strict at the moment, or to argue -- and we saw this very clearly during October, I think it was October, where every MP 118
A. Well, it entirely depends on what he means by moderate, and it's obviously very circumstance dependent. My experience is that if you said "I'm going to go very early but I'm going to go with quite mild interventions" the chances are the interventions that were ultimately selected would be even milder than the ones that you thought and you would be playing catch-up. And I think that's exactly what happened at several stages: people, well meaning, trying not to put too many restrictions on, would go a little bit lighter than they should have done. And you play catch-up.

And I'm sorry if this is sort of a very obvious point but I think it's just worth thinking about: there is a lot of focus on the $R$ value but actually it's the prevalence that matters as well. So if, to take an extreme, the prevalence in the UK was only ten people had Covid, you could keep $R$ at 1 and feel perfectly happy, and if it went up to 1.2 you'd be able to see it and deal with it. When you're dealing with 50,000 people or 100,000 people with Covid and you're keeping that level $R$ about 1 , the moment you break the 1 , so you're now growing, you're growing in huge numbers.

So this is even more important in a situation where the prevalence is high and you don't want to allow escape from what is a controllable situation to one that 120
then becomes uncontrollable
Q. Does this point about prevalence help us, in turn, understand the floating of the segmentation idea and perhaps one of the reasons it wasn't pursued? Because would it have been a proposal that would have been much easier to follow at a time of low prevalence whereas in fact, as we know, it was proposed and discussed over the summer and into the autumn of 2020, which was, of course, a time of rising prevalence?
A. So segmentation, the idea of sort of having one part of the population heavily shielded in some ways, was inherent right from the very beginning. Yes, it works much better at low prevalence, just as test, trace and isolate works much better at low prevalence. I think, though, it's worth remembering that we never found a form of shielding, and Mark Woolhouse may argue, well, it never went far enough, and he may be right, but we never found a form of shielding that meant that the prevalence didn't increase in that population at the same time that it increased in the general population.

So the risk of running at very high prevalence and shielding is that the moment that prevalence goes up in the general population, it's probably going to go up in your shielded population, you've now put them at risk as well.
supershielding idea, which is a very interesting idea, which is that not only the vulnerable person but all of their carers and family all get shielded in a group, and we were worried there that the added complication was that would place most burden on multigenerational households, very often in poor situations and, indeed, ethnic minorities, where we know multigenerational households are more common. So we were worried that there were all sorts of problems with this, in terms of how you would do it, that would ultimately lead to a worse outcome for the shielded population not a better outcome.

But I think the idea of segmentation is a very interesting one, it's the sort of thing that needs to be looked at, and my view is it's much better to try to get that in at a low state of prevalence than at a high one.
Q. Now, you mentioned Long Covid, the discussion about segmentation, for and against, is very -- or certainly is capable of being based on Covid itself and the risk of catching the acute symptoms or disease, but, as you said, the concern about Long Covid is a slightly separate factor, is it not?

We can see, if we look at the schedule of your notes, if we go to 159 -- yes -- this was something that you were concerned of at the time. You say:

The other problem with that is that you've then got a lot of people in the general population with Covid, they also will suffer, there will be a problem with subsequent Long Covid, and there is a problem with increased viral mutation rates.

So lots of things argue against keeping a high prevalence. Keep it low prevalence then all sorts of things can work much better.
Q. I'm going to come back to the question of Long Covid in particular in a moment, but just sticking with the segmentation proposal for a moment, with hindsight do you think that it might have been a proposal that could have been made to work if it had been introduced earlier, or do you think that the objections you've just really identified, which after all -- I mean, we looked at this with Professor Woolhouse at the SAGE minutes where it was discussed and refused -- do you think that those objections really would always have counted against it?
A. We never really had a really low prevalence situation, and I think we -- I mean, that proposal of segmentation was there right from the beginning, it was discussed a lot in April, it was re-discussed in great detail in June and July, and at that point I think Professor Woolhouse was also suggesting a sort of 122
"No 10 team segmentation meeting. Pushing really hard on segmenting and allowing people back. We explained (i) young still get ill and may get long-term effects ..."

Is that a reference to Long Covid there?
A. Yes.
Q. Then we see that you refer to some of the other problems that you've just identified. And indeed you also refer to Long Covid, we see another reference in your notes, if we look at page 210.

Now here you are addressing the Great Barrington Declaration, which, just to be clear, is a very different beast to the segmentation ideas that were being developed by Professor Woolhouse; is that right?
A. Well, they are related. I mean, there was -- part of what was being suggested was segmentation, then allowing the levels to rise in other groups. The Barrington Declaration was at one end of that, which was a complete let it sweep through everybody else, and I think Mark Woolhouse was not in that position.
Q. No. So a much less nuanced approach but nonetheless Long Covid was an objection to the Great Barrington approach and one which you've identified here, we see the numbered point 4.

That is on 6 October, a note that you make. We know 124
the Great Barrington Declaration was current at the time.

If we go on three pages in the notes, please, to page 213, we can see that very much at that time you are also making a note that the Prime Minister was very sceptical about Long Covid:
"... 'It's like Gulf War syndrome,' he says."
We've seen other records from around this time and indeed later where he made this or a similar comment.

Help us with what your understanding of the Prime Minister's view about Long Covid was at the time, and also whether, as you understood it, it actually had any impact in terms of policymaking or whether these were really just noises off?
A. I think he didn't really think it was a big -- big problem. I mean, he recognised, because we described, three different long-term consequences: there was the post-intensive care syndrome that some people get, that's a well recognised problem; there was organ damage that some people got from Covid, that's a very well recognised clear problem; and there was Long Covid, which is much more ill defined. And I think he was -as it says here, he was sceptical about that, and I don't think was keen to take that into account for policy making.
to be a reliable, trustworthy colleague. I don't want to take you through a whole load of unnecessary references; perhaps you can summarise your understanding, your experience of working with Mr Hancock in this sense?
A. I think there is one entry which I -- I will explore, which -- I think he had a habit of saying things which he didn't have a basis for, and he would say them too enthusiastically too early, without the evidence to back them up, and then have to backtrack from them days later. I don't know to what extent that was sort of overenthusiasm versus deliberate, I think a lot of it was overenthusiasm, but he definitely said things which surprised me because I knew that the evidence base wasn't there.
Q. Said things that weren't true?
A. Yep.
Q. Turning just briefly to Long Covid, Sir Patrick, and looking a little further ahead, as we know and l'll come on to ask you in a moment, later on in 2020 there was the second lockdown and then the third lockdown in early January 2021, and, moving forward still, a process of unlocking and removing restrictions as one went into the spring, early summer of 2021.

One of the risks that was going to be faced by the 127
Q. Do you think that there were decisions that he made or didn't make which turned on his approach to Long Covid?
A. I don't -- I don't think so, in the sense that I think he didn't really think about it, so there wasn't any active decision based around this. He didn't really want to consider that, I think. You'd have to ask him. But there was definitely, during this period -- the Covid pandemic was running at high levels all the way from August through to the end of that year, and so the recommendation was: keep the prevalence low. That was not happening, and the consequence of that is more people with Long Covid. And I don't think that was something that policymakers were keen to factor in.
Q. Right.

One more reference, please, in this same document, page 166, it's a few weeks earlier. Here we see Matt Hancock, as you say, "explained things well for once and reminded them about 'long Covid'". So can we take it that Mr Hancock was understanding and alive to the issues of Long Covid at that time about this time?
A. It certainly sounds like it from that.
Q. There are many other entries in your dairies which refer to Mr Hancock, Sir Patrick, and you will know that some of the evidence the Inquiry has heard from others is that they did not find, during this period, Mr Hancock 126
population at that stage, in particular perhaps the younger population, was a risk of Long Covid. Do you think that that risk was flagged sufficiently, taken into account sufficiently by policymakers in that later period?
A. Well, it was definitely flagged. It was a real issue, and I think by that stage in the unlocking -- so we're talking about the unlocking in 20 --
Q. 2021.
A. -- 21, that unlocking was done much better than the previous unlocking, and it was properly monitored with proper gaps in between the stages and the next stage, and indeed there are examples where the stages were pushed back further in order to allow the prevalence not to rise too high. So I thought that was a much better process and much more structured, and kept prevalence lower than it otherwise would be. I don't know to what extent Long Covid was factored into the thinking of the policymakers on that.
Q. All right. Well, going back to the period we were looking at, then, and sort of second half of 2020, we know, we've seen references in the diary notes and so on that we've looked at, you've explained prevalence was increasing over the summer and into the autumn, the mechanisms that were put in place to react, tiers, 128
rule of six and so on, you make clear in your statement that from sort of late September the view that SAGE was expressing was that there autumn to be some sort of circuit breaker, at least to try to create a pause and to reduce the prevalence. Is that a fair summary of the sort of general position --
A. Yes.
Q. -- towards the end of the year?

Then what I want to do now is look at a series of entries in your notes to try to understand the sequence of events running up to the second lockdown.

So if we can start, please, by looking in this schedule that we have up at the moment, at page 245, this is Sunday 25 October, and, I mean, before we even look at the content, what we will see is that you were attending meetings, giving advice every day of the week over this period, Sir Patrick, seven days a week.
A. Yes.
Q. Presumably at least some of it working from home, but nonetheless attending meetings, advising. Was it a very high tempo situation?
A. Well, I think the seven-day-a-week working started in February 2020 and didn't end till end well into late 2021. I mean, possibly later than that actually.
Q. Working -- were you advising and having meetings with 129
circumstances or that they should -- not so much concern should be had about casualties of that age; is that really what he was trying to say?
A. I think it's important to note that he might easily have said the following day "I want no deaths at all".
Q. We'll come to that.
A. So, yes, he must have said that on that day.
Q. We see a few lines down you've put:
"PM then back on to 'Most people who die have reached their time anyway'."

Would these be examples of perhaps little notes you made at the time and then --
A. These are probably scribbled notes I wrote on papers of this meeting.
Q. A few lines down:
"PM concludes, 'Looks like we are in a really tough spot, a complete shambles. I really don't want to do another national lockdown'."

This 25 October, so about -- for about a month would it have been by then that the SAGE advice essentially had been that a circuit breaker lockdown was needed?

Then you -- "DC", I'm looking at the last line now:
"DC [Dominic Cummings] says 'Rishi thinks just let people die and that's okay.' This all feels like a complete lack of leadership."
the Prime Minister almost on a daily basis throughout that period or --
A. Most of it, yes.
Q. Right. Well, let's look at this one. Sunday the 25th, as I said, it starts with:
"PM meeting -- begins to argue for letting it all rip."

That was almost a term of art by that stage, perhaps it's obvious: simply removing restrictions and the Great Barrington proposal?
A. Yes, there had been lots of discussion on that in September and we'd had a meeting at the end of September with some external scientists invited in to discuss that as well, and that was something that was very prominent in much of the press as well, and "letting it rip" became the expression that people used.
Q. The Prime Minister saying:
"... yes, there will be more casualties but so be it ..."

Then you've put quotes:
"... 'they have had a good innings'."
We've seen other references of a similar nature.
Was this something that the Prime Minister returned to from time to time, the idea that the casualties of any "letting it rip" would be older and perhaps special 130

Is that your comment at the end there?
A. Yes, I think so.
Q. Perhaps it's obvious, again tell us, is this one of your late night furious thinking or is it something you would stand by now?
A. Well, it must have felt like a complete lack of leadership on that day and, reading it, it feels like quite a shambolic day.
LADY HALLETT: And to put things in context, that's Mr Cummings saying that that was -- the thought that just let people die, it's not necessary -- you didn't hear that from Rishi Sunak himself?
A. That is what Dominic Cummings said.

LADY HALLETT: Reported, yes.
A. Yes.

MR O'CONNOR: Let's just move on in the sequence, please, and to do this let's go into the transcript, so we can see a sort of full record of your notes rather than just extracts for these next few days, because, as you say, there were changes.

So if we can look at INQ000280061, page 240, please -- yes, thank you.

So we see a date which is just disappearing off the top, the 26th, so this is the next day, the Monday, and as you say, Sir Patrick, it appears the

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Prime Minister -- you've recorded in fact -- he's in a "different mood":
"... terrible, terrible, terrible numbers.
"Says 'we need to do local lockdowns fast.'
"'Foot to the throttle', 'accelerate' ... He is so inconsistent."

So previous day letting it rip, this day something very different, by the look of it?
A. Yes.
Q. Then if we can go on to the next page, please, there is a similar observation:
"On Sunday all [Prime Minister] wanted was a sense
of mutually incompatible outcomes -- says Simon Case privately."

That's to you I take it?
A. I think that must have been in a call with me.
Q. "Owns something for a day and then changes."

That's his comment.
A couple of lines further down, we're now into the next day, the Tuesday, you record the number of deaths. This takes us back perhaps to a comment you made this morning, which is to compare what was happening in October with what was happening in the run-up to the first lockdown, when of course there were far fewer deaths at that stage than there were by then. 133
which was a good one, on mass testing as a way to reduce the incidence in the population, which was everybody would test on one day and then everyone who is positive would isolate, and that would definitely have cut things down a bit. But of course you've then got to repeat it and you've got to do it several times. And as that was being worked up as a sort of moonshot, it just wasn't feasible at that time, there weren't enough tests, the right sort of tests, it wasn't practical to do it. And I worried that as people were looking at that as the absolutely, we were seeing numbers go up anyway and that there were some other things that could happen to try to get the numbers down.
Q. Then if we look further down the page, we can see a line saying -- it's a bit further than that, no, sorry, that's fine, three lines up:
"[Prime Minister] resistant to national lockdown \& wants to continue with regional."

But then both above that and below it, there are observations by you that it's not enough to deal with the areas in the higher tiers, you need to deal with what you describe here as lower prevalence areas as well.

You mentioned earlier the issue with lower prevalence areas having their incidence rising; is that 135
A. I think on 16 March there was something like 51 deaths, and now we're talking about nearly 400 per day.
Q. And your observation:
"Everything we said is happening and still no action."

Is that a reference to advice you had given -- well, tell us, dating back how long?
A. I think it dated back from a press conference that Chris Whitty and I had done on 21 September, and indeed to many SAGE papers and SPI-M papers that had come out in the meantime.
Q. Let's look over the page, if we can, that takes us to the 28th, the Wednesday, there's a -- you say "PM Dashboard". Was that a meeting with the Prime Minister and his close advisers?
A. There was a morning meeting just to go through numbers and have an update called the dashboard meeting.
Q. About five or six lines down we see
"PM completely obsessed with testing as the solution even as numbers so bad that is obvious more action is needed."

Explain why your reflection was that testing wasn't an appropriate or a sufficient answer to the problem at that stage.
A. Well, there was the proposal that was again in traction, 134
what you're referring to here?
A. Yes. Because test, trace and isolate has a limited capacity, and it's actually rather effective when you have low prevalence, so you can keep a lid on low prevalence with that. Once it get swamped it becomes totally irrelevant because it's been swamped and the prevalence will increase.

I was worried at this time that, for all sorts of reasons, test, trace and isolate was being surged into high prevalence areas where it wasn't going to make any difference and it would have been more effective to have used it widely in low prevalence areas to keep them low and dealt with the high prevalence areas with other means.
Q. So there is a passage in your witness statement where you say that SAGE urged the government to look beyond current prevalence as the trigger point for moving between tiers. So is this really making the same point, that one should try and keep the low prevalence areas low rather than just allowing them to move up?
A. Yes, because unfortunately the tier system was such that, and as I said already, many people were arguing that their own area should be in the lowest tier possible; well, that was the surest way to end up in a high tier.
Q. Yes.

Let's move over the page, please, we're still on the Wednesday, and about three lines down we see you've made a note: our circuitbreaker idea and applied it. (We sent them the papers)."

Is that a recollection that you had -- have now, or obviously something you thought about --
A. Well, I had organised meetings between science advisers from about eight European countries, we met every couple of weeks, sometimes every week, very informal meetings where we just shared information and advice, and we often shared papers and we -- they'd asked us about the circuit breaker idea and we'd sent them the papers. I've no idea if it is what triggered them to take action or not.
Q. Just above the redaction, towards the bottom of the page, we see here an extract we looked at earlier:
"Apparently [Cabinet Office] now cautious about putting things to SAGE because we publish it all. That is a very bad outcome."

It's notable that this happened at this time of increased tension. I think you said earlier that you weren't convinced that in fact anything ever came of

And this takes us back, does it not, to a point we raised earlier about scientists needing to understand exactly what the government was trying to achieve, other than perhaps just stopping the NHS being overwhelmed?

That was in March where we were talking about it this morning. It looks as though that concern arose again at this time.
A. Yes, possibly even intensified at this time.
Q. Just help us, I mean, what would you have liked to have been told that you weren't being told?
A. I think it would have been very useful, for example, they might have said "All we care about is NHS collapse, just work to only that", but that isn't all they cared about, because on some days it was "We can't stand the numbers of deaths and we want to have this lower". So that then begs the question: so what is the target if that's not the target? Is it that you want to have all routine care in the NHS running properly and cope with Covid? Or is it something else, which is "We'd like to manage the NHS as effectively as we can but with the economy being in a stronger position with more things open"?

I mean, there are several different permutations that one could think of that would have been helpful to then be able to ensure that we tailored the advice
"France and Germany have acted. France I think took 137
that concern. Did you in fact think that at this time there were things that you might have been asked about but weren't because of this caution?
A. I suspect and, I'm sorry, I can't remember, that I would have had a direct conversation with Simon Case and said "That's not okay, we've got to see things". And I don't think that they -- I don't think Cabinet Office ever did not bring something to us because they were worried about it, but clearly there was a mood that it might happen.
Q. Then just above that we see you have referred to the press and then said "we have a weak indecisive PM". Again, is that something that, on reflection, you stand by or was that a late night brain dump?
A. Well, it was definitely a late night moment of frustration. I do think that the Prime Minister was influenced a lot by the press.
Q. Let's go over the page, please. We are on now to the Thursday of that week, 29 October, and you make a reference immediately under the date to a call with the Cabinet Office, I assume, and you say:
"I argued strongly for [Prime Minister] to set out his aims. What does he want to achieve.
"Protect NHS? Something else? Emergency care, all care etc."

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accordingly.
Q. In your witness statement you describe a feedback session or -- with some of the scientists who worked on SAGE and its subcommittees, and this feeling that they didn't have a clear understanding of government policy was one of if not the sort of top issue that you heard, and in fact it's something that we've heard in evidence ourselves. So is that a learning point for next time?
A. It is a learning point, to lay that out as clearly as possible.

I do want to offer one slightly pragmatic observation, though, which is: I've worked in global multinational companies and many other things, and everyone always says, "I don't think the strategy is clear enough", wherever you are.

So I think we shouldn't dream that setting out the policy clearly is going to be something that satisfies this need, but I don't think it was clear enough at that point.
Q. Yes.

We can go on two pages because the next one is a blank but it takes us then into the Friday of that week, and in fact -- yes, at page 246, that's it -- and we can see towards the bottom of the page again the same point:
to define his aims but he still hasn't done that."
And a similar point raised, clearly a matter of continuing concerns; is that fair?
Then at the bottom of the page, we know that there was a lengthy meeting on that Friday or possibly more than one meeting, we see "PM meeting" at the bottom there, do you see that, and then if we scroll on to the next page there is a few entries and then about halfway down the page "PM Dashboard Meeting". Would that have been a separate meeting or a continuation of the first one or --
A. A separate meeting, I think.
Q. Were these meetings taking place remotely or would you have been in Downing Street or can't you remember?
A. They were a mix. I can't -- I can't remember this one. A lot of the meetings were taking place in person.
Q. Now, we're now on the Friday of that week and we know that there were events over the weekend when this lockdown was announced, and I think what we see in the next few pages is a fairly lengthy debate, is it not, about whether a national lockdown should or shouldn't be imposed? And you obviously sat down that night and wrote quite a lot of notes just at the end of that day.
us?
A. Well, it looks from this as though the decision probably had been made in another meeting and there had been weeks of build-up to what needed to happen, and this meeting sounds like it was an update on the situation and the PM reiterated what Simon had already told me in what WhatsApp was going to happen.
Q. Because if we go over the page again, and we're still on that Friday --
A. I think that's "Homeric logic", at the bottom of that page, it's a mistake, not "Humeric".
Q. Yes. There's then a discussion about -- amongst other things the Prime Minister talks about a painting, but about four lines down you see:
"[Prime Minister] then argues that letting it go may be better economic route."
And further down the page, just falling off the bottom at the moment:
"'So the case is weaker if we are just arguing about saving lives, as they are all very old anyway'."
So on that argument -- on that basis it would seem that a decision hadn't been made at that point or is that not right?
A. That's what it looks like.
Q. Were these records recording the sort of toing and
"We have pushed all week that the key is for the PM

Let's go over the page, please, to 248 . You've made 141
an entry just under the first redaction that Simon Case sent you a WhatsApp to say "national lockdown on Monday -- French style". Well, we know -- we saw that the French had just imposed a lockdown. And you say: "I wonder what that really looks like ..."
So do you think you were being told there that that decision had been made?
A. Yes.
Q. Would that have been during the meeting that you were in or --
A. No, it must have been in another meeting that I didn't know about.
Q. I see, I see. Because you then carry on describing the meeting with the PM, and we see that you refer there to:
"... graphs on projections that suddenly got given to [Cabinet Office] without me seeing them."

And they will become significant over the next day or so, will they not?

And then, a couple of lines further down:
"[Prime Minister] says -- we need to act. French style national lockdown ..."

So again it appears that a decision has been made but the notes that follow suggest that there may have been a certain amount of toing and froing. Can you help 142
froing or the -- of the arguments at the meeting?
A. I think I was just recording, as far as I can tell from what was written, exactly what happened over the course of the day, with things changing from meeting to meeting depending on who was there and what had happened in between.
Q. And you weren't clear whether there was going to be a lockdown or not presumably?
A. No, it looked like there was, but it was difficult to tell.
Q. Then over the page, someone has said "These are truly horrible decisions".
"[Dominic Cummings] said 'the only reason not to do it now is if you won't ever do it'.
"[Prime Minister] says 'should we just level with the public \& say we will tough this out \& tell them there will be deaths'."

And Lee Cain, who has given evidence to this effect, essentially says there needs to be a lockdown:
"... 'I don't see any world in which we don't act'."
Then going over the page one more time, still on that Friday, you say --
"Meeting ended with no decision and going round in circles. 'Too many unknowns' -- 'we need to look in our windscreen \& avoid a car crash \& deaths will be
unacceptable ..."

## And so on.

Although then, further down the page again, "28 day lockdown".

We're obviously just looking at your notes, Sir Patrick. The notes convey a suggestion of a great deal of indecision on that day. Does that align with your memory, your understanding?
A. I think this was a time of -- I mean, this was almost a microcosm of what had been going on for the previous weeks with the incidence, prevalence and $R$ changing a bit and people moving from one position to another, and the Prime Minister would take a certain position in one meeting and then perhaps another one later on, and sometimes I think was also trying to test people's positions and find out whether they really held to what they were saying.

But these meetings largely look to me like they were meetings that probably Chris Whitty and I were there to provide information as requested rather than as active participants in what was a policy discussion.
Q. What we know, and you describe this in your witness statement, is that that Friday night there was a leak, and so the next morning, on the Saturday, there were reports that a lockdown was going to be ordered, and 145
six-week medium-term projections", which was showing exactly where things were going and were much more reliable examples of what was happening, which was pretty grim.

Then overnight on Friday, having had the policy -having made the decision they were going to do a lockdown, that was leaked, so the decision was leaked to the press.
Q. Yes. Then if we look on the next page, we come back to this slide point, that it says:
"The PM has latched onto that \& the one of NHS collapsing as the reason for doing it."

And he was "furious" that he'd "based a decision on a slide that I [that's you] was now having to slightly row back from", and you describe there being a sort of demand, a requirement from Number 10 that the slide be used in the press conference.

You subsequently, in a subsequent note, say that you said it shouldn't be but in the end you were persuaded that it should.

Now, this instant has become the subject of some debate, so tell us in your own words what the rest of that part of the story was?
A. Well, so we were called in to do the press conference, Chris Whitty and I, and we were then in a room for 147
there was then a sort of hastily arranged press conference.

If we go over to the next page, you record that in your notes. This is now Saturday the 31st:
"Frantic day, whole thing leaked into the media.
"Everyone can see action is needed ... some [people] are pushing hard against it.
"We suddenly have to do a presser [press conference] today.
"... why not keep it quiet, get it right over weekend \& then announce properly on Monday."

It's clear from the tone of this that you felt -- it had obviously been the case -- somewhat sort of bounced into making an announcement?
A. Well --
Q. Or being part of an announcement?
A. Yes, being bounced into the press conference.

So the sequence was that a graph that had been to SPI-M had been taken from SPI-M directly into Number 10 that we were unaware of. I think Ben Warner took it in. And we got rather sort of blindsided by this having been shown to the Prime Minister and the Number 10 team on Friday, and we at that time said "I think you shouldn't take too much notice of this graph because it's a reasonable worst-case scenario, you should look at the 146
three hours or four hours, I think, when the Prime Minister was making calls to various backbenchers and other people and no doubt the press to try to get people on the right side to that decision.

As I said, we'd been clear the night before that this slide was a reasonable worst-case scenario, and that's not a good thing to show at a press conference because it's so complicated to explain what a reasonable worst-case scenario is and that we should simply only show the medium-term projections, six-week medium-term projections, which made the case, and Simon Stevens had also said the NHS is going to collapse if we don't do something. And we said that's an important statement, it would be good to have Simon standing at the press conference saying that if that's the case.

The -- those three or four hours we were in the room waiting, the message came back several times that the Prime Minister felt that as he had seen this slide it was only right that the public saw it, and that we had to show it, and I think in the end we agreed that I would show the slide but try to move on to the medium-term projections, which were the real thing. And I think that argument, "I've seen it, therefore the public should see it", carries some legitimacy.
Q. With hindsight, was this one of those moments that we 148
talked about earlier where you, as a sort of independent adviser to the government, were being drawn uncomfortably close to being aligned with certain policy decisions?
A. Well, maybe. I mean, it was a slide -- I did check because this slide had appeared from, as I say, nowhere into Number 10. I did check with the SPI-M people that they would stand behind this slide, and it was the right slide and it had got the right validation through SPI-M, so there was nothing wrong with it in terms of its sort of scientific origins and its validity, it was more I just didn't think it was a sensible they think to show at a press conference because these are complicated things to explain, reasonable worst-case scenarios, and it wasn't really the issue. The issue was what's going to happen in the next six weeks, not what the theoretical unmitigated scenario looks like over the next several months. So I think it was -- I think I made a mistake to agree to show it, and I think in retrospect probably what I should have done, maybe I even did do this, I can't remember, is phone Simon Case and say that, "I'm being put under a lot of pressure to do something I don't think I want to do". But I didn't have any worries about its sort of scientific legitimacy; it had come through a proper 149
scientists who took time away from what they would otherwise have been doing voluntarily, unpaid, to feed into that system and, as you said to my Lady, in some cases at least suffered some difficulties as a result of that.

As with other aspects of the SAGE system, this was another example of the system being tested in a way it hadn't been tested before. Is that element of the system, the dependence on unpaid voluntary assistance, viable in another pandemic?
A. Can I just make one other comment about the slide, which is after the press conference the Prime Minister said to me "You skipped over that pretty quickly and went on to the other ones, didn't you?"
Q. Was he right?
A. Yes, and I caveated it very heavily.

I do think that there was an extraordinary effort of altruism from scientists right the way across the country to work on this, unpaid, gave up their normal work, all hours of the night and day some of them, and some of them subject to abuse and physical threat. And it was extraordinary to see it, and a fantastic example of why funding a broad research base in the UK, both academic and industrial, is important for the resilience and success of the country. So I thought they were
process and was a reasonable slide. I just thought it was not a sensible slide to show.
Q. Subsequently did the modellers, the people who had provided you with that information, did they stand by that slide or did they subsequently start to suggest that maybe their modelling wasn't quite what you had thought it was?
A. Well, they stood behind the fact it was the reasonable worst-case scenario from three weeks before and that's what it showed and, like me, thought that's not the one you'd want to be showing today. And then of course, inevitably, the reasonable worst-case scenario evolved and changed subsequently. But it was, as I say, it was not a slide that they said is not correct, it was correct, for what it was.
Q. Yes. Right.

Sir Patrick, just finally, I want to move on to one final point, which is perhaps something we haven't dealt with as fully as we should have done, which is l've asked you a lot of questions about the SAGE structure, committees, the advice and so on, you of course were a paid civil servant, you were doing your job in everything that we've described, but it's also right to say, isn't it, that that whole structure of advice below you relied on voluntary assistance from expert 150
fantastic.
I think we put too much on them, and some of them we needed to I think give more breaks than we did, and we should have implemented a payment system to backfill teaching commitments and so on, which we did, but it was difficult to get that going in the middle of a pandemic. We did get it going.

All that said, I think the mechanism, ie to pull on world-leading, active academic researchers, is the right one, rather than to build a big intra-government infrastructure to do this. I think that worked, and we were very fortunate to have the level of input skills, debate, dissent, challenge that we had as a result of that. So I'm not sure I would dramatically change that beyond things like: make sure we get the diversity right, make sure we get the geographical diversity right, make sure we have way to pay people so they can backfill teaching and make sure we provide both psychological and security support for people.
MR O'CONNOR: Sir Patrick, thank you very much.
My Lady, those are all my questions.
LADY HALLETT: Thank you very much.
We will take a break now, and I shall return at 3.30. And I can undertake, Sir Patrick -- I can almost do a United States Supreme Court, can stop people 152

| in mid-sentence -- we will definitely be finished by | 1 |
| :---: | :---: |
| 5 o'clock at the very latest. I'm sorry it's such | 2 |
| a long day for you. | 3 |
| (3.18 pm) | 4 |
| (A short break) | 5 |
| ( 3.30 pm ) | 6 |
| LADY HALLETT: Mr Weatherby, are you going first? I meant | 7 |
| to check when we had the break, and I'm afraid I forgot | 8 |
| to do so. | 9 |
| Questions from MR WEATHERBY KC | 10 |
| MR WEATHERBY: Thank you very much. | 11 |
| Sir Patrick, I represent the Covid Bereaved Families | 12 |
| for Justice UK, representing bereaved families from | 13 |
| across the UK. | 14 |
| There are just two topics that I'm going to cover, | 15 |
| and I'll be well within the time estimate. I was going | 16 |
| to share my time with Mr Wilcock, my Lady, but in fact | 17 |
| Mr O'Connor has covered his questions -- | 18 |
| LADY HALLETT: Oh, I see. Right, thank you. | 19 |
| MR WEATHERBY: -- and I'll be within the time. | 20 |
| LADY HALLETT: Thank you, Mr Weatherby. | 21 |
| MR WEATHERBY: I want to return to a point that Mr O'Connor | 22 |
| raised about -- and I'm quoting here -- how many deaths | 23 |
| were acceptable. I just want to explore that a little | 24 |
| more with you. | 25 | 153

just for the record, paragraph 406, you're dealing with the lessons learnt in fact from the second lockdown, and your first observation is that the first lesson that should have been learned was the same as should have been learnt from the first wave: go earlier, harder, and broader on the introduction of NPIs; yes?
A. That's a clear lesson that --
Q. Yes. And then your second lesson was where you returned to this issue and you say there was a need to establish some greater "degree of clarity on the level of mortality or morbidity the government and society were willing to accept for an epidemic". And that there is bookending it, February, and then, looking at your observations on the second wave, the same concern: you're not being provided with the strategy and that makes it much more difficult for you as advisers to give advice in good time so that swift, real-time, efficient and effective decisions can be taken; is that a fair summary?
A. I think it was illustrated in the quotes that

Mr O'Connor showed of me asking: what is the
Prime Minister's aim and objective?
Q. Yes. So the answer to my question is yes?
A. Yes.
Q. That's the problem.

So in your statement that's the term that you used, and the context of it is the middle of February of 2020, and you observe that this is a question that was put to ministers but never answered. And today you very fairly indicated, of course, it's a very difficult question for an elected representative to actually come out and answer.

Nevertheless, it's a central point for you as the scientific adviser, isn't it?
A. It is, because -
Q. Indeed.
A. -- a lot follows from that.
Q. Indeed. And it's so central that by April you and I think Professor Whitty provided an advice paper about different approaches, and you referred to it in your statement as "hot" or "cold" policy or somewhere in the middle, and you're explaining to government there in April how important it is that first of all they have a strategy but also that you as advisers know about it; yes?
A. Yes.
Q. That question was never in fact answered through the whole period, was it?
A. No, not with (overspeaking) specificity.
Q. And that's why, again going back to your statement, and 154

I'm going to come to just one more of those messages in a minute, but before I do, in order to give proper scientific advice, you've got to research, you've got to model and that's the only way that you can provide very fast real-time advice; is that right?
A. Well, the only way to provide real-time advice is to build on the knowledge you have at that moment.
Q. Yes, but in the context of an overall strategy?
A. Yes.
Q. So Eat Out to Help Out, you've already told us that you didn't know anything about this policy decision until after it had been taken?
A. Correct.
Q. You've also told us that it inevitably increased the number of infections, and therefore it must follow, mustn't it, it must have increased the number of deaths?
A. It's highly likely to have done so.
Q. Yes, and you say at paragraph 348 , just for the record, that you have "no doubt that the decision-makers would have understood from the general advice that I and others had given before the introduction of the scheme that it would increase viral transmission and potentially quite substantially". So you're saying there that, although you weren't asked to advise, you've no doubt that those who took the decision understood the 156
general points about the increase of transmissibility; is that right?
A. I think I answered that earlier on as well, that it must be the case because it was the complete sort of turn on its head of the public health advice.
Q. Yes, and then in the next paragraph you go on to say that these principles, and I'm quoting:
"These principles were clear and had been discussed with ministers and at Cabinet."

And that "it was entirely predictable".
So you're not leaving much room for doubt about not only the effect of Eat Out to Help Out but also the fact that ministers were aware of what its likely effect would be when they took the decision?
A. Well, that was certainly my view when I wrote that, yes.
Q. Yes, that's very clear, thank you very much.

The second point relates to a notebook entry, your diary entry of 11 October, and it's again picking up from a topic that Mr O'Connor's dealt with, and I do want to put this on screen, please, it's INQ000273901 at page 220. I think it bears reading:
"Press conference tomorrow."
11 October 2020.
"Press conference tomorrow. I am now dropped in favour of Cx ..."
exponential resurgence of Covid at that time; is that right?
A. I think this is a discussion of tiers, if I'm --
Q. Yes.
A. -- correct, and it's a very clear statement that the tiers were not going to be strong enough to keep $R$ below 1, as the Prime Minister says.
Q. So your frustration here is that SAGE has given forceful advice that what is actually required is a circuit breaker and Covid-O are still discussing with ministers directly involved about trying to make an alternative suite of measures work, and your frustration is that they're ignoring SAGE and trying to follow a course that won't work?
A. I think the message is not so much around a circuit breaker as the tiers need to be stricter at the top end if they're going to have an impact, and this is me in the evening referring my frustration that that's very clear, and the Prime Minister says as much, $R$ will not go below 1 unless local leaders go further than the tier system.
Q. Okay, so, but you're expressing a very strong view here, aren't you, first of all that the press conference which you thought you were down to do was now going to be dealt with by a minister, the Chancellor, Mr Sunak, and 159

That's the Chancellor of the Exchequer?
A. Yes.
Q. "... - good. They need to understand and own the decisions they are making [...] Covid O [...] Being asked to 'approve the measures knowing that it is not enough'. Gave the example that Bolton worked but only because hospitality fully closed. This is a massive abrogation of responsibility."

Then I won't read the next bit but you go on to deal with individual ministers and what you thought their position was. Then you refer to the fact that -- this is relating to I think a Zoom meeting, and you say:
"Whilst waiting someone clearly not on mute -- baby crying and then she starts singing 'the wheels on the bus' -- somehow symbolic of the shambles. PM said on call, 'The package we have as a baseline is unlikely to get $\mathrm{R}<1$ unless local leaders go further' ... Hancock says this is our last shot at avoiding national lockdown...meek as mice from Cabinet ministers."

Again, for context, this is referring to the fact that Covid-O, the ministerial and officials' meeting, had been looking at a package of measures which were not consistent with the September SAGE 58 meeting, advice, and that advice had been this robust call for a circuit breaker, and a suite of NPIs, given the 158
you were happy about that because you didn't want to be putting across this view that was contrary to the scientific advice that had been given to government?
A. I think these are different sections stitched together, so I'm not quite sure how they flow on in terms of -but yes, I mean, I wouldn't have want to be in the press conference and I would have said R will not be brought below 1, and I think I did at other press conference --
Q. Yes, so you're clearly saying that ministers should own the decisions where they're standing away from the scientific advice that you were being -- had been conveying to them?
A. That is the case.
Q. Yes, and you were saying it in forthright terms, "a massive abrogation of responsibility"; that's the only way you can read that, isn't it?
A. Yes. I mean, again, that's obviously what I thought that night when I wrote these notes.
Q. Okay. Well, again, that's very clear, thank you.

Finally this, can you just help us with the last sentence. The baby crying and the wheels on the bus might be quite clear, but what did you mean by "Hancock says this is our last shot at avoiding national lockdown ... meek as mice from Cabinet ministers"?
A. Again, it's a bit difficult to know because these are -160
looks like they are selected sections with something in between. I'm sure that that's a reference to Mr Hancock saying at the Cabinet meeting this is the last shot at avoiding a national lockdown and probably trying to implore his colleagues to go further, and it sounds like there wasn't much of a Cabinet discussion.
MR WEATHERBY: Yes.
Yes, thank you very much.
LADY HALLETT: Thank you Mr Weatherby. So no questions, Mr Wilcock?

MR WILCOCK: No, thank you, my Lady, they were covered by Mr O'Connor.

LADY HALLETT: Ms Gowman.
Questions from MS GOWMAN
MS GOWMAN: Thank you, my Lady.
Sir Patrick, I ask questions on behalf of Covid-19 Bereaved Families for Justice Cymru. My questions are centred around the interactions with the devolved administrations and in particular Wales.

Firstly focusing on your role as chair of SAGE, please can we bring up exhibit INQ000216615.

Now, on 26 May 2020, the First Minister for Wales, Mark Drakeford, wrote to you in your capacity as the chair of SAGE requesting the ability to engage more directly in the work of SAGE and specifically in respect 161
requests, probably -- no, definitely too granular to answer properly with modelling and that there may be some advice that could be given, but it was not going to be possible to model this sort of degree of granularity, all you'd end up with is spurious accuracy.
Q. And insofar as the second point raised by the First Minister within his letter, did SAGE take up the Welsh Government's offer to support the development of the evidence base?
A. Yes, we got a lot of very useful information fed in through Rob Orford and Fliss Bennee who were the two people from Wales on SAGE. There are references several times to the useful information. And it was also very helpful because there were minor differences in policies between devolved administrations that did allow to us and try to look and see what effect things were having.
Q. Thank you, Sir Patrick.

Moving on to your role as the Government's Chief Scientific Adviser, what was the role, if any, of the Chief Scientific Advisers across the devolved administrations, including yourself, in the co-ordination of advice and policies across the four nations?
A. Well, the four nations worked very closely together at a scientific and medical level. The Chief Medical 163
of the development of the evidence base, and looking to commission work directly from SAGE.

Please can we bring up exhibit INQ000216616.
Here we see the list of modelling questions that accompanied that letter that the Welsh Government wanted SAGE to answer, and my questions are these: to your knowledge, had any requests been made by the Welsh Government to commission work directly from SAGE prior to 26 May 2020?
A. I don't think a direct request -- well, I know a direct request hadn't come from the First Minister before then. It's possible that the representatives from Wales had got pieces of work done through subcommittees before that.
Q. Are you aware whether SAGE complied with the First Minister's requests of 26 May?
A. I replied a few days later and said that Rob Orford, then Acting Chief Scientific Adviser for Health, I met with him, went through all of these requests, made sure he was linked into SPI-M, which was the modelling group, and that he'd realised the papers which had gone before, which were in the public domain, that he'd seen anyway because he was on SAGE --
Q. Yes.
A. -- and that these were very, very specific modelling 162

Officer met with the CMOs of the four nations very regularly, at least once a week, I think, right from the very beginning, and we had representatives on SAGE. I also had a direct long-standing relationship with the Chief Scientific Advisers for Scotland and Wales, one of whom was involved in Covid and one of whom Wales decided wasn't involved in Covid and suggested Rob Orford and Fliss Bennee be linked to SAGE.

So I think we had them involved in SAGE. We also created a SAGE chairs' meeting where specific things were brought up relating to devolved administrations and others that could then be put into the work plan, and separately I had regular meetings with the overall Chief Scientific Advisers for the devolved administrations except Northern Ireland who didn't have one.
Q. And it follows from that question, my next question: where there were proposed divergences in policy between devolved administrations, were these ever discussed between the Chief Scientific Advisers across the devolved administrations in advance of implementation?
A. The science advice was uniform, pretty much, across the four nations, the policy decisions diverged, and I think there was probably more discussion amongst the CMOs, because most of the decisions were more in their territory than in the CSA territory, but they were 164
obviously regionally important distinctions and policy preferences that altered between the nations.
Q. Thank you.

Finally, did the Chief Scientific Advisers from the devolved governments have access to information, including data, on an equal footing to yourself to enable the fully informed exchange of views in any meetings that you had with them across the four nations?
A. They saw all of the information that SAGE and the chief -- the person who chaired the Scottish committee, Andrew Morris, actually is the chair of Health Data Research UK, which is the big data repository, so he probably had rather more information than I did from time to time, but we were very careful to make sure we that all saw everything.
Q. So, from your perspective, you didn't consider that the devolved administrations were disadvantaged in their access to data?
A. I don't think so. I mean, there may be specific examples but I don't know of any and there were certainly many examples where the data that came from the devolved administrations was incredibly important. I'd single out Scotland in particular there, with some of the work, with their electronic health databases and the EAVE study, which was incredibly important. 165
indications of changes, through to very important data on the vaccine efficacy, which led to multiple publications in top tier international journals, and was a continued source of helpful information into SAGE and to other bodies.
Q. And am I correct in saying that some of the data comes from GP notes and indeed the data was able presumably then to cover what is approximately $98 \%$ of Scotland?
A. I think Scotland has done, over the years, a brilliant job of getting health records, both primary and secondary care health records, and linking them, and that's been a piece of work that was done a long time ago, and it really came into its own during this, to be able to provide very useful information.
Q. Thank you.

I wonder if I can now turn to your role in SAGE and ask you some questions about that.

The first thing I want to ask you about is, I suppose, it would be informing the policymakers. We've heard this morning the job that you went to to try to ensure policymakers were well informed before taking decisions, and you said, neatly, that you provided science for policy rather than policy for science.

You said and I caught that you did teach-ins, and those were large, you said, in fact, up to 170 people -167

MS GOWMAN: Thank you, Sir Patrick.
Thank you, my Lady.
LADY HALLETT: Thank you, Ms Gowman.
That leads us nicely to you, Ms Mitchell.

## Questions from MS MITCHELL KC

MS MITCHELL: Sir Patrick, I appear as instructed by
Aamer Anwar \& Company on behalf of the Scottish Covid Bereaved, and just perhaps taking things out of order but as you spoke there about EAVE II, it might be best if I can take you to one of my questions on that.

In the course of giving your statement to this Inquiry, you said, at paragraph 45(h), that doesn't require to be brought up unless you would like it, that you said that data that you got from Scotland included electronic health records and the EAVE II studies which you considered was "very useful and provided rapid information".

Firstly, can you assist the Inquiry with what the EAVE II is and then also can you explain to the Inquiry why it was particularly useful?
A. So the EAVE studies were run by Aziz Sheikh, from Scotland, and it was a very effective way of looking at electronic databases held in Scotland and health records to give early signals on things, so we got information from there, everything from rates in Scotland, early 166

I'm obviously assuming these are all online, was that correct?
A. Yeah, well, they -- I'm pretty sure they were all online. I didn't take part in them, they were various chairs of subcommittees. So Cath Noakes, who chaired the transmission subgroup, was absolutely brilliant at giving tutorials inside Whitehall. I think they were probably all virtual.
Q. My question then really focuses on that particular issue. Were these teach-ins only given within Whitehall?
A. I don't know for sure. I suspect the answer is yes, but I don't know for certain, and the agreement was with the chief scientific advisers and indeed the chief medical officers from devolved administrations that they would take the information to the devolved administrations to make sure that people understood it there.

Whether they ever got people like Cath Noakes to give the teach-ins to them or whether they were able to get copies of it, I'm sorry, I just don't know.
Q. Would you consider that if policymakers from the devolved administrations were given the same opportunity as policymakers in Whitehall that would have been of assistance to them in forming their policies?
A. Yeah, I think they were completely open to get it, so 168
what I just don't know is whether the chief scientific advisers from the devolved administrations that to make it happen or not, but it was there and available if people wanted it. And I certainly had a discussion, I can't remember when now, with one of the Scottish ministers directly who wanted to speak to me about something.
Q. And was that in relation to finding out more about a particular topic to inform themselves?
A. Yes, and I can't -- I'm sorry, I can't remember what it was now, it was during a visit that I made.
Q. Well, we will hear from Scottish politicians in

Module 2A, so perhaps someone will be able to advise us at that time.

In relation to discussions with politicians or indeed others, I would like to move on to the next topic, which is the issue of borders.

Now, in your statement you speak of borders and you're discussing them in relation to international borders. What I am wanting to ask you about is whether or not there were any discussions about border controls between the borders of Scotland and England or England and Wales?
A. Our science advice on borders was very clear to stick away -- to stay away from policy, and our advice was 169
would be used in schools and thereafter England followed suit at some point in August of 2020; do you recall that?
A. I recall that happened, yes.
Q. I wonder if we can have up INQ000273901, pages 148, do we see your entry records:
"Scotland breaks ranks over face coverings and schools despite CMO having worked hard to get all CMOs aligned to a very good statement released the day before."

Now, I just want to check, that's your personal observation, I take it, and not anyone that you're recording?
A. That is my personal observation as what happened.
Q. I see. And why do you use the phrase "break ranks"? What I'm really trying to explore is: why was it a good idea to ensure that everybody was doing the same thing?
A. I think this was a CMO to CMO thing. I wasn't really involved in this discussion, but I think the CMOs were very keen that the four nations worked together and that the advice was similar across the four nations. This was medical advice being given, didn't come from SAGE and didn't come from me, but they wanted to work together, they'd reached an agreement and they'd given consistent advice across all four nations. That's
really quite simple, which is border control measures are of importance when the country that you are talking about has a much higher prevalence than the current prevalence in the UK or in one of the nations of the UK, and that's when border measures could make a difference, and that in order to be effective border measures needed to be extremely stringent and, even if extremely stringent, would delay rather than stop importation of cases and -- particularly variants is what we were thinking of. So that, pretty much, was the science advice, summarised rather briefly, but it didn't go further than that. We never said what you should do in any particular border. That was a policy decision.
Q. So, for example, when the prevalence of Covid was almost entirely London-based to begin with, based in England, there was no discussion about the possibility of closing the border in Scotland or in Wales?
A. I don't recall that being a discussion, but there may well have been policy people thinking about that, I don't know.
Q. But certainly you weren't part of that --
A. I never heard that suggestion.
Q. Moving on to my final issue, and that is in relation to the issue of masks in schools. You made a call, Sir Patrick, that the Scottish Government decided masks 170
obviously advice; the policy was clearly different.
Q. So from a scientific perspective, from your perspective, there wasn't a necessary need to keep all four consistent?
A. We always anticipate -- there was a very important need to make sure that we had appropriately aligned science advice, where it was right to do so. I mean, it was highly unlikely the science advice would be different in the four nations, in fact it was hardly different across the whole of Europe. The policy choices are obviously for politicians and they will differ as politicians wish them to differ
Q. I wonder if we could have that same Inquiry document, page 151. Now, this reads:
"Hancock -- praising himself for mask decision. He know that Scotland decision was not based on medical advice (ie it was totally political)."

Now, can you assist the Inquiry with whether or not you are simply recording what his view was or what your view was?
A. Well, it's certainly not my view. I mean, my view was the advice had been given and it was consistent across the four nations, anything else was politics
Q. So if we see here, just to be clear, if we see here "He knows that Scotland decision was not based on medical 172
advice", no part of that is you saying that it wasn't medical advice? Indeed, as far as you're aware, it was consistent with medical advice?
A. All -- I think if it's the same time, all I'm -- as the previous one, all l'm saying is that the four medical -the CMOs had all agreed something, so that presumably was unified advice.
Q. Well, I think in this particular instance it wasn't unified advice and that's why I'm asking to draw your attention to it. It appears to be advice that came from Scotland and then at a later stage England followed suit.
A. I don't know. I mean, this was the CMOs. I'm sorry, you'd have to ask them this. I wasn't involved in this and don't know exactly what happened.
MS MITCHELL: I'm obliged.
Thank you.
LADY HALLETT: Thank you, Ms Mitchell. Mr Dayle.

## Questions from MR DAYLE

MR DAYLE: Sir Patrick, I ask questions on behalf of FEHMO, 21 the Federation of Ethnic Minority Healthcare Organisations, and I have a clutch of questions for you. Can I invite you first to have a look at paragraph 552 of your witness statement, if it could be 173
into account and, I'm sorry, I don't know exactly when we would have first raised this. I raised it at a press conference pretty early on, I know that.
Q. Very well, but you wouldn't be able to say whether this was advice that, as a general proposition, could be infused or was infused in the type of advice that you would have given?
A. I'm pretty sure that Chris Whitty would have said this very early on, but I'm sorry, I don't have any -- exact date as to when that would have been said.
Q. Very well.

Could we now turn to one of your diary entries of 17 April 2020 at INQ000273901_604. In the interests of time, I will read what it says:
"... Yvonne opened up the only two areas we agreed to steer clear of -- ethnicity (we don't have the answer yet) and she wasn't even asked the question [...]"

I'll stop there. My question arising from that is -- well, first of all, can you confirm that the reference here to Yvonne is to Professor Yvonne Doyle, then the head of Public Health England?
A. Yes, I think she was the medical director of Public Health England.
Q. And this was at a press conference where you were both appearing?
brought up, please
It's at INQ000238826_180, it's the first paragraph of the section of your witness statement entitled "Covid-19 Disparities", and you say this:
"I was aware that the pandemic, and the measures required to tackle it, [could] have an unequal impact. As I stated at more than one press conference, the virus fed off inequality and drove inequality ... It was entirely foreseeable that pre-existing structural and health inequalities within ethnic minority and other vulnerable groups would result in disparities in risk and outcome."

Can I ask, firstly, whether this clear understanding expressed here formed part of the advice to senior decision-makers as you and Sir Chris Whitty spoke with them in the period leading up to the first lockdown in March 2020?
A. I think it was -- I mean, it's historically -- this is an historically true statement, that pandemics differentially affect the most disadvantaged people and they drive further disadvantage and inequality, and this is a statement that describes that.

I can't recall exactly when we would have given that advice, and in a sense it's not really science advice, but it is something that policymakers needed to take 174
A. I don't think I was appearing at that conference. Maybe I was, but I can't remember it. Those two were, maybe I was the third person.
Q. Very well. My substantive question is this: was the ethnicity issue that you both had agreed to steer clear of the matter of disproportionate death rates among BAME healthcare workers?
A. No, the issue was the previous day we'd received preliminary information from a study called CO-CIN about disproportionate proportions of different ethnic minorities in hospitals and outcomes and they weren't quite sure exactly what was happening and why they were seeing it, and they'd gone away to undertake some more work urgently to try to understand whether this was a difference in admission to hospital, a difference in outcome in hospital, a different pathway that people were following during treatment, or whether it was related to pre-existing comorbidities and underlying illnesses. So there was a piece of work that we'd just seen literally I think on the afternoon before, on the 16th, that was due to be updated with the information as to what was causing it so we could actually give proper information as to what might be done.
Q. Okay. So it was a very specific set of facts or 176
a scenario that you were talking about. That's the reason why you wanted her to steer clear of it; is that correct?
A. Yeah, because we didn't know -- the question that we were trying to address was, as I say, what happened in hospital, was this something that was going on in hospital, that the same proportion of different ethnic groups were being admitted and then the outcome was worse in hospital, or was it something to do with the admission and was it something to do with underlying disease states which made it worse? We'd seen something that didn't look right, and we wanted to understand the likely underlying causes of that so we could comment on it more effectively.
Q. Very well.

I have to ask you this question: would you say, in reflection, that there was any nervousness to speak authoritatively on issues of disparity in health outcome based on ethnicity?
A. No, I think we -- well, certainly not from our perspective. We very early on raised this as an issue, we were very keen to see it properly understood, Public Health England undertook work and published it, and the ONS also undertook work and published it, so we were keen to actually try and understand what was driving it. 177

## Questions from MR MENON KC

MR MENON: Thank you, my Lady.
Good afternoon, Sir Patrick, I ask questions on behalf of a number of children's rights organisations. I have a few questions on three topics.

Firstly, the Inquiry has heard evidence from a Dr David Taylor-Robinson, a public health expert, to the effect that social isolation for children is totally different than social isolation for adults as there are critical and sensitive periods in children's development and windows of opportunity, as he called it, in children's lives that you can never get back.

Are you aware of any scientific research done for the government during the pandemic on the specific impact of the lockdown rules and restrictions on children as compared to adults?
A. I don't know of the specific pieces of research that may have been done. We set up a Children's Task and Finish group to look at the question of impacts on children which involved people from the Royal College of Paediatrics and Child Health, and various other organisations, and was chaired by the Chief Scientific Adviser in the Department for Education, to try to understand exactly these questions of disproportionate impact, risk to children, and it became the basis of, 179

And I think quite early on -- I don't remember the date, I'm sorry -- we came to the conclusion that the likely causes was to do with inequality and to do with issues of health related inequality, rather than to biological differences which were driving this outcome at that stage.
Q. Very well.

My final question: is it fair to say that during this time, on or around the middle of April 2020, the matter of disproportionate deaths based on ethnicity was considered more a matter of public messaging, political messaging, rather than a bona fide issue of public health?
A. No, I think it was seen by the public health people very much as an issue of public health, and that there were obviously pre-existing structural inequalities that were causing a problem and, as I've already said in a previous quote, I was worried that not only was there inequality in terms of what the effect of the virus was, but the virus itself was then driving even further inequality because of that. So I think this was seen as absolutely a public health issue.

MR DAYLE: Very well, thank you for that.
LADY HALLETT: Thank you, Mr Dayle.
Mr Menon.
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I think, a very complicated position of relative risks and benefits in children. I don't know of specific research that was undertaken then to look at the impact, but Public Health England or ONS may have done so.
Q. So am I right that you can't assist as to whether any of that work, research or otherwise, was in fact presented to the key operational decision-makers in government; is that correct?
A. Oh, no, the task and finish group, all of their work was fed directly into all of the decision-makers, and it was deliberately chaired by the Chief Scientific Adviser in the Department for Health to make sure that the officials in the Department of Health could have listened in to the group, understand all of the work that came out of it, and it was plugged directly into the highest levels in the Department for Education and indeed into Number 10.
Q. So it was considered within the remit of scientific advice being provided to the government; is that right?
A. Yes, it was.
Q. Thank you.

Secondly, in February 2020, did you ask Professor James Rubin and Professor Brooke Rogers to run SPI-B?
A. Yes.
Q. Did this in turn lead to the creation of a specific 180
subgroup on education that came to be known as SPI-Kids?
A. No, that came later, I think, and was part of the -what started, I think, as a task and finish group to try and undertake a piece of work, and then it morphed into SPI-Kids, which brought together lots of the people who had worked on that to become a more regular way of looking at things relating to children.
Q. And SPI-Kids, for example, produced a paper on the role of children in transmitted Covid; is that right?
A. Sorry, in what?
Q. Transmitted Covid.
A. Yes.
Q. Transmission.
A. Yes.
Q. Do you know whether SPI-Kids ever researched or considered the wider impact of the government's non-pharmaceutical interventions on children and their long-term social and psychological wellbeing?
A. Yes, there was a very extensive report published by them on the negative effects of NPIs, and there were some very vocal inputs from people around that subject. I think there was -- I'm not sure about this, actually, there may have been a report from Public Health England as well but, yes, it was a topic that was -- the reason that group was set up was exactly that sort of risk 181
Q. And that's your view, isn't it?
A. And that was the view of that group as well, and that's precisely why it was set up, because in all of these cases -- I'll just take a step back, if I may.

All the NPIs carried risks as well as the obvious benefit of stopping the spread --
Q. Yes.
A. -- and it's often perceived that somehow they were an easy option, whereas stopping the spread was the priority. But we were aware at all times that these carried significant risks, and they carried particular risks for children.
Q. Thank you.

Thirdly and finally, I have a question for you about something that appears in your handwritten notes. I don't think I can put this on the screen, I don't think I'm allowed to, but l'll just give the reference for the record. It's INQ000280061, page 223. It's a note of yours -- l'll just read it to you -- dated 15 October 2020, and it reads as follows:
"SAGE pushing for 'can't we exempt children from rule of 6 ' -- we said no not unless CO wanted to revisit."

I'll just read it again:
"SAGE pushing for 'can't we exempt children from 183
rule of 6 -- we said no not unless CO wanted to revisit."

Can you explain that note, please?
A. I don't know what context that was in, but it sounds like it was a SAGE meeting where people wanted to think about whether the rule of six should or shouldn't include children, and Cabinet Office didn't want to revisit that policy.
Q. Would that view of SAGE have been communicated to the Prime Minister or any other government minister at the time?
A. I think --
Q. This is October 2020.
A. Well, I think on the rule of six, we were pretty clear that we didn't actually think that that had an enormous basis in anything. In other words, it was: why six? Why not eight? Why not ten? We couldn't tell anyone which was better or worse, only that the more contacts you had, the more likely it was to create a spreading environment. Exactly how that was organised was a policy matter.
Q. Would that -- can you assist as to what the government's response was, if any, to that view that SAGE apparently held in October 2020?
A. I can't recall. I think, if I remember correctly, the 184
government had made a decision that it wanted to stick with six, and that was the policy decision.
Q. And it wanted to stick with six in England, without making any exemption for children, unlike Scotland and Wales --
A. Yes.
Q. -- who took a different approach. You know that, don't you?
A. Yes.

MR MENON: Thank you very much.
LADY HALLETT: Thank you, Mr Menon.
Mr Friedman.

MR FRIEDMAN: Sir Patrick, I act for national disabled peoples organisations.

Can I ask you about representation on SAGE and related expert groups. Mr Dayle, to my left, for FEMHO has asked you today about your statement at paragraph 552, that it was entirely foreseeable in effect that pandemics as a rule have the greatest impact on those who suffer from pre-existing structural and health inequalities, and we would take it disabled people fall into that category, and today you've called that "an historically true statement".
should, though, have looked at it more in SAGE, I think.
Q. Yes. So in effect you should have and, as it were,

HM Government as your client should have pushed you more to consider it?
A. Well ... yeah, definitely this is an HM Government issue because they have a unit that focuses specifically on this, and so I think could have fed us a question.

In terms of the science, though, the two areas that I think are most important that were repeatedly covered was: keep the prevalence low, and look out for special institutions. And l'll pick up one example: in May 2020, we received a piece of work that had been done by a subgroup on forgotten institutions that was specifically looking at those institutions where spread might occur, including residential homes for people with disabilities. That's a sort of science question we can address, but I would argue it's primarily a policy and operations question for the Cabinet Office unit to think about that.
Q. Yes.

Well, can I move on about, as it were, prompts, then, that came within the course of the work. You've just referred to one. for National Statistics that the Chair has seen, that in 187

Questions from MR FRIEDMAN KC

In your Module 1 oral evidence, we needn't go up to 185

Can I just then ask you about the work of the Office
it, but it's Day 8, 22 June 2023, at page 165, lines 5 to 23 , you told the Chair on reflection that it was:
"... a terrible, terrible truth, and it's something that we all need to reflect on, which is that all pandemics feed off inequality and drive inequality."

And you added that awareness of issues of inequality ought to have been:
"... embedded right from day one, it needs to be one of those questions on the first SAGE, you know: what are the issues around inequality that you should be thinking about now? In terms of science advice."

And you added:
"Others need to think about it in terms of operational planning."

Now, given that foresight, why was there not more representation of those with insight into the predicament of those groups embedded from day one into SAGE?
A. Well, I think the insight was that that would have been helpful. We didn't do that on day one. We had a number of scientists looking at specific areas. I think my statement actually is that there is a policy and operations group within Cabinet Office that deals specifically with disabilities and inequalities, and that's really where this should be driven from. We 186
effect showed disproportionate impacts upon mortality rates and quality of life for disabled people becoming apparent from their papers from June 2020 onwards.

Again it may be a similar answer, but can I just ask you: why, when it was recognised by that time or thereabout that time that SAGE standing committees could benefit from a wider diversity of expertise in terms of inequalities, was no dedicated expertise sought regarding disabled people?
A. I think that ONS survey came out of discussions probably at SAGE, that piece of work --
Q. Yes.
A. -- because lan Diamond was part of the SAGE -- he's the National Statistician -- part of the SAGE group. That clearly is a report that needs to go into central government to deal with. As I said, I think -- and I said this in my Module 1 -- I think this is an area where it should automatically happen in SAGE going forward, and it didn't.
Q. Is that the answer to my question about: why no dedicated expertise? Because I just want to push you on that. My question is: why, when this kind of data is coming out, whether you have been involved in commissioning it or not, is thereafter there's no dedicated expertise sought regarding disabled people 188
into SAGE and its dedicated subgroups?
A. I think the dedicated expertise needed to sit somewhere else and ask questions of SAGE, which we can then potentially bring people in if we needed to. But I think there's a danger, I mean, SAGE is not the operational or the policy organisation, and it's not the place where these sorts of things need to be turned into action.
Q. That may then follow on to my next question, which is: in effect the work that is commissioned of SAGE, and I take the answers you've already given about this. You've given a list of not all, but many of SAGE commissioned pieces of work. Just for the record, at page 180, at paragraph 554, and it's (a) to (p) of your statement subparagraphs.

Now, none of the list there is dedicated in its focus to the disproportionate impacts of the Covid-19 pandemic upon disabled people, and we found no dedicated SAGE paper of that nature.

Now, we understand that SAGE supplies the advice it's asked to supply from HM Government, but again why no dedicated focus? Is it simply that you weren't asked?
A. Well, I'll go back a bit to an answer that Professor Kamlesh Khunti gave in relation to a similar question, 189
needs to happen, and I think that would have been helpful and we didn't have it, and it would be useful going forward to have a specific focus on that question just to make sure we are getting the right questions coming to us. But I do think it's not a good system for government to rely on a group set up to give science advice largely filled with academics to try and plug holes elsewhere.
Q. Finally, may I ask you about the risk posed by a Covid-19 virus to the learning disabled and particularly those with Down's Syndrome.

Professors Watson and Shakespeare have given evidence to the Inquiry to the effect that prior to Covid-19 pandemic, it was well established that respiratory disorders are the predominant cause of death for people with an intellectual disability, and hence those experts on disparities relating to disabled people regard the failure to identify those with intellectual disabilities and particularly those with Down's Syndrome early on as a missed opportunity.

Now, again, acknowledging to you and reminding myself, SAGE is not directly responsible for these lists of clinically extremely vulnerable and the like. Others are, and they're medical matters. But should those with Down's Syndrome have been on the clinically extremely 191
A. Which is why, in statement $1, I$ said: yes, I think that 190
vulnerable list throughout the pandemic and, if not, should they have been added sooner than
2 October/November 2020 when we know that revised letters were sent out to GP practices and the various healthcare bodies to that effect?
A. So the list of vulnerable and extremely vulnerable was entirely within DHSC and a matter for the medical community to define. It didn't come to SAGE, it wouldn't be expected to come to SAGE, and so I don't think there was any input, indirect or direct, on that, nor would I expect there to be.

In terms of what do I think, I'm not an expert in this area, but I think it is well understood that people with Down's Syndrome do have an increased infection risk and therefore do carry a vulnerability.
Q. Thank you for that.

I've understood your answer about division of labour on this, but if I could just ask you one more point about it. We know again it's a separate structure, but the NERVTAG clinical risk stratification subgroup in June 2020 had issued papers recognising high risk at least on the modelling in relation to those with Down's Syndrome.

Again, I'm not asking about responsibility, I'm more asking about looking forward. Given your answer about 192

making in respect of schools, of course the detail will be the subject of a future module but I have a few questions about the general approach to decision-making.

I'd like to start, if I may, with an entry in the Inquiry's schedule of your notes at INQ000273901, and in particular page 139. So when it arrives, we're going to be looking at an entry from 6 August 2020:
"PM Covid (S) meeting on schools. 'Don't want to hear about plan B and C for failure. I just want all pupils back at school' ..."

And then a further quote:
"... 'We are no longer taking this Covid excuse stuff. Get back to school'."

Firstly, are those quotes from the Prime Minister -or quotes of what the Prime Minister had said?
A. It looks like it.
Q. The context, of course, Sir Patrick, is looking forward to schools reopening that September. Is it right also, as a point of context, that at that time you and others, in around July and August 2020, had been raising some concern about the potential path of the virus over the winter months and the risks associated with lifting various NPIs at around that time?
A. Yes. We had raised the risk that prevalence was increasing and would continue to increase, and I had 194
a series of scenarios not a single option.
Q. Yes. So, and give us a sense of the importance of those scenarios being considered in advance rather than just holding tight to the plan A of schools open?
A. Well, these are very difficult operational questions that require planning, and we're now straying outside my role, but it's pretty clear that you can't just flip from one plan to another without preparing.
Q. Sir Patrick, you spoke earlier in your evidence about meetings going round in circles. Is it quite a simple consequence of having plan A but no plan B or C that one ends up, in the face of very difficult issues, just going round in circles?
A. It makes it much more of a binary choice, and it makes it much more difficult, I imagine, to operationalise if you do need to change.
Q. With that in mind, I'm going to look at just, I think, two entries in your notes in which you describe subsequent decision-making. The first, in the same document, is page 181, and this is from 16 September, so just six weeks or so after the "have a plan A but no plan B or C". There is a reference to the PM saying:
"... 'Maybe we should blame ourselves'."
And a reference to moonshot, which you have given evidence about.
"A rare moment of truthful insight."
And then you say:
do. No one had any answers."
Sir Patrick, give us a sense of what the completechaos was and why it was that no-one had any answers?A. I really don't know, I mean, that was my observationthat day. There was obviously a meeting where it didn'tsound like they were getting anywhere and there werea lot of things that needed to be addressed but l'msorry I don't think I can add anything to what thatscribbled note said.Q. Might it have been early indications of the R rate goingup?
A. Oh, we knew by then the R was increasing and theprevalence was going up and we were worried about it.Q. Were you particularly worried, Sir Patrick, in theabsence of a plan B?right in saying that five days after this, Sir Chris
Q. Yes.
impression from the meetings that took place that day.
Q. In terms of your impression of meetings not necessarily that day but over the course of that first year of the pandemic, did you form a view as to the effectiveness of the working relationship between Number 10 and the Cabinet Office and the Secretary of State for Education?
A. I had many discussions with the permanent secretary at DfE who was really trying to get on top of this and to understand the advice on schools, and I know there were some very strong views held by the Secretary of State there, and those views were discussed and sometimes taken up and sometimes not by Number 10. It didn't seem to me that there was necessarily an alignment between what was going on at the political level, and there was attempts by the permanent secretary to try and draw some structure to what was happening in DfE around this area.
Q. You described there wasn't necessarily an alignment, is that a slightly delicate way of putting it? How would you describe the extent to which there was a sense of coherent planning between Number 10 and the Secretary of State for Education?
A. I was worried that the schools planning was not under control and that there wasn't a very clear plan as to what would happen and why it was going to happen and how it would be implemented.
"Complete chaos over schools and what they shouldA. We were worried that action would need to be taken of 19some sort and that needed to be defined, and I think I'm 2021
Whitty and I held a press conference where we described ..... 22what we saw as a dangerous emerging situation. 2323
Q. Yes. ..... 24The next entry is at page 339 of the same document. 197

It's an entry of 3 January 2021. That was the day before primary schools were sent back for one day, wasn't it, Sir Patrick?

We see it says:
"The NHS in London is in real trouble. The govt needs to lock down more firmly \& to take the advice on schools...Called Chris \& agreed he should pull a group together to listen directly. He is worried about individual extremist views.
"... Schools is a complete mess largely due to [Department for Education]."

Why did you make the observation, at that stage, that "Schools [was] a complete mess [and] largely due to the DfE", the Department for Education?
A. I really can't -- I mean, I was obviously frustrated that evening, I was obviously very concerned about the rising rates and that London, I do remember, really looked like it was in big trouble at that moment. And that schools were considered to be an important part of the spread of what then, I think, was the Alpha variant that was spreading very rapidly throughout the younger part of the population. So I think that's the background to this. I really don't know why I said schools are a complete mess largely due to DfE, all I can say is that's clearly what I came away with, an 198
Q. In terms of trying to understand why it might not have been under control, could we look at page 605 of the same document, the schedule of notes. So we can see an entry in your notebooks from 11 June 2020:
"Slater ..."
And just pausing there, is that Jonathan Slater, the permanent secretary at the time that you were just referring to?
A. Yes.
Q. "Slater basically described keeping Gavin Williamson away from policy development but give him some illusion of ownership 'but not his area and not his expertise'."

Just pausing there, before we consider the remainder of that, did it strike you as dysfunctional that a permanent secretary was describing keeping the Secretary of State away from policy development?
A. Well, policy development I'm not sure, but policy ultimately agreement, yes that would be unusual. We're deep into the way departments work here, which I'm certainly not familiar with, as somebody relatively new to the civil service, but yes, it doesn't sound like a very good set-up.
Q. Was it your impression, you were in the room for many meetings, that that sort of dysfunction contributed to the lack of grip or lack of control which there might 200
have been?
A. I wasn't in lots of meetings to do with schools at this operational level, so I wouldn't have seen this, I think this is Jonathan Slater talking to me as he is trying to get some science advice, so I wouldn't have seen that.
Q. Okay. If we return finally just to that entry, it finishes:
"'I don't know what Gavin's plan for schools is but probably pretty feeble' PM."

Is that the Prime Minister stating, in a meeting in June 2020, his view of his Secretary of State for Education?
A. Well, that's a quote which I wrote down on that day from the Prime Minister about the Secretary of State, from a meeting. So I think I can't say any more than that, other than that's what presumably was said.
Q. To the extent that you were aware, from being present in 17 meetings, is that indicative of a confidence or lack of confidence that key people such as the Prime Minister had in the Secretary of State for Education? 20
A. I think that's a question that really needs to go to the 21

Prime Minister, but I have to say a lot of these 22 statements seem to fly around Number 10 about a lot of 23 people.24
MR JACOBS: Which we may have seen. ..... 25

Those are my questions, thank you very much.
LADY HALLETT: Thank you very much, Mr Jacobs.
That's all for Sir Patrick.
Sir Patrick, again, extremely grateful to you for all your help and your insight and for your patience in staying with us all day today. I'm sorry I can't say goodbye as yet -- I'm sorry from your point of view.

## (The witness withdrew)

LADY HALLETT: Tomorrow we'll sit again at 10, and then, just so people can make their plans, because we have got so much to do this week, I'm sitting at 9.30 on Wednesday and Thursday.

Thank you very much.
(4.42 pm)
(The hearing adjourned until 10 am on Tuesday, 21 November 2023)

## LADY HALLETT:

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