1 **Thursday, 22 June 2023**
2 **(9.59 am)**
3 **LADY HALLETT:** Yes, Mr Keith.
4 **MR KEITH:** My Lady, the first witness this morning is
5 Roger Hargreaves, please.
6 **MR ROGER HARGREAVES (sworn)**
7 **Questions from LEAD COUNSEL TO THE INQUIRY**
8 **MR KEITH:** Could you commence, please, by giving the Inquiry
9 your name, please.
10 **A.** My name is Roger Hargreaves.
11 **Q.** Mr Hargreaves, thank you for your assistance in this
12 Inquiry, and for the provision of the multiple witness
13 statements which you've provided. I think all of them
14 are known as corporate statements because you have been
15 good enough to make enquiries on behalf of the
16 governmental department in which you work to set out for
17 the Inquiry much of the history and the chronology of
18 Britain's approach to preparedness. So thank you for
19 that.
20 Have you provided three witness statements? We
21 won't go to them all in detail. Each one has been
22 signed by you, together with a declaration as to the
23 statement of truth.
24 My Lady, may all those be published?
25 **LADY HALLETT:** Certainly.

1 **MR KEITH:** And they're dated 1 February 2023, 28 April 2023
2 and 26 May 2023.
3 Please whilst you give evidence, Mr Hargreaves,
4 would you keep your voice up, so that we may hear what
5 you have to say, of course, and that your account is
6 recorded for the stenographer. If I ask you a question
7 which is not clear, don't hesitate to ask me to repeat
8 it. We may get to the break with your evidence, in
9 which case there will be a break mid-morning.
10 I'd like to commence, if I may, about asking you
11 some questions about your role.
12 You are currently, are you not, the director of the
13 COBR, the Cabinet Office Briefing Rooms, unit, which is
14 a directorate within the Cabinet Office?
15 **A.** Yes, that's correct.
16 **Q.** Is that a role that you've held, in fact, since July of
17 last year, 2022?
18 **A.** Yes.
19 **Q.** Before that, were you the director of the Civil
20 Contingencies Secretariat, of which we've heard much,
21 and was that a post that you had held since
22 October 2020?
23 **A.** That is correct.
24 **Q.** So does it follow that you took over the role of
25 director of the Civil Contingencies Secretariat from

1 Katharine Hammond from whom my Lady heard last week?
2 **A.** Yes, there was an interregnum of about four months, but
3 yes.
4 **Q.** Following your appointment as the director of the Civil
5 Contingencies Secretariat, the secretariat was split,
6 was it not, and it was split into two parts: firstly,
7 and it appears to be a more specific, or a more precise
8 entity, the COBR unit, the Cabinet Office Briefing Rooms
9 unit; and secondly, the Resilience Directorate, which
10 was then a new directorate formed within the
11 Cabinet Office.
12 In general terms, why -- and plainly it was post at
13 least the commencement of the Covid pandemic -- was that
14 split effected, why was that done?
15 **A.** I think the simple headline would be, when you've got
16 an organisation that does planning and response, there
17 is always a risk that the response phase draws you in,
18 and therefore people who are engaged in longer-term
19 planning are disrupted to an extent, and that I think
20 had been a bit of the history of the Civil Contingencies
21 Secretariat, that had happened over time -- you know,
22 this is the third -- my third stint in this bit of the
23 Cabinet Office, and I'd experienced it previously, as
24 kind of -- ever since the formation of the organisation.
25 That has some benefits, you can draw staff across and it

1 means the people who are thinking about planning have
2 a real understanding of what actual response feels like,
3 why they're doing their work, but that separation of
4 responsibility, that sort of specialisation was the
5 rationale behind it.
6 **Q.** May we just look for a moment at that in more detail.
7 So your evidence is, is it, that because part of the
8 functions of what was then the Civil Contingencies
9 Secretariat involved the maintenance, the running, the
10 operation of the United Kingdom's actual crisis
11 management capability, the COBR room, the facilities,
12 the secretariat around it, the provision of advice, the
13 running of our crisis management system, alongside the
14 general policy work and the supervisory work and the
15 co-ordination liaison that was a necessary part of being
16 responsible for the whole civil contingencies structure,
17 it was sensible to split out that crisis management
18 capacity out of the Civil Contingencies Secretariat? Is
19 that correct?
20 **A.** Yeah, I mean, to be clear, it's quite a finely balanced
21 decision. There were various reviews over the years
22 that looked at this bit of Cabinet Office and thought
23 about how it should be structured and settled on the
24 side of keeping CCS as a single organisation. You know,
25 there is a reason it endured structurally for 20 years.

1 That's a very long time in central government terms.
2 The decision to split it apart, I think reflected not
3 just the Covid experience but some of the other recent
4 challenges and there was a view that there just needed
5 to be a tighter focus on crisis management delivery, and
6 there needed to be a view of resilience which was much
7 less about detail and more about strategic resilience of
8 the UK, and that would be better served by separating it
9 out and connecting it a bit better into wider structure
10 making in government.
11 **Q.** You say the experience of the Covid-19 pandemic; so that
12 we may be clear about this, was it the experience that
13 the Civil Contingencies Secretariat had of having to
14 address the arrival of the pandemic and the response to
15 the pandemic and of course those terrible days in
16 January to March 2020 that led to an understanding that
17 the system as it was currently formulated was not
18 adequate to deal with the severe demands of such
19 a pandemic? The system hadn't, as it turned out, been
20 designed or operated in as best a way as possible to be
21 able to deal with managing a pandemic?
22 **A.** It's not sort of quite as straightforward as that. The
23 crisis management system in government as, say, existed
24 before the pandemic or, you know, if you go back
25 five years or so, it's there to try and deliver a crisis

1 response over a relatively short timeframe. Perhaps
2 two weeks, perhaps a month, and then you return back
3 towards normal. That's very good for a lot of
4 emergencies. But it was also very well developed for
5 civil emergencies, and a little bit different for
6 security emergencies. So essentially the system got
7 pulled out of shape by -- by, I don't know,
8 a terrorist -- a serious terrorist incident in 2017, by
9 planning around Brexit, by Covid, by Afghanistan, by
10 Russia/Ukraine, by a whole lot of things.
11 So when this question was looked at, it wasn't
12 looked at with specific reference to Covid, but Covid is
13 an interesting example of why there is a strong case for
14 having capabilities that are able to run an enduring
15 response, not just a short-term response, and why
16 upstream factors around prevention, risk reduction, and
17 things like the general fitness of society to deal with
18 crisis, are important.
19 So it was a rebalancing to try and achieve those
20 things a little more directly.
21 **Q.** Your last answer is focused on the resilience side of
22 it. How well did the specific crisis management
23 capacity, that is to say the COBR briefing system, the
24 COBR unit, the COBR room and the secretariat around it,
25 perform in the early days of the Covid pandemic?

1 **A.** Well, obviously I wasn't there, and I did think that was
2 a sort of Module 2 matter. I think my one --
3 I suppose --
4 **Q.** Mr Hargreaves, I'm so sorry to interrupt. You have been
5 involved in this area of government for many years. You
6 were a prime architect of the Civil Contingencies Act
7 2004, which is the legal framework for this system. You
8 were the first director of the Civil Contingencies
9 Secretariat to have the unit split underneath you, and
10 you are now director of the COBR unit part. So you know
11 why the unit was split, do you not?
12 **A.** Yes. I think as I've explained there's a range of
13 factors which contributed to that decision. For some
14 people who contributed to the review that led to the
15 decision, Covid would have been prominent in their
16 decision-making. For many people involved in it, it was
17 actually about other kinds of emergency and the
18 relatively poor performance in relation to international
19 emergencies versus domestic emergencies that caused them
20 to want a more common purpose around crisis management
21 inside the centre of government.
22 But on your specific question, I mean, I wasn't
23 there, all I can do is observe from the outside.
24 I think my reflection is consistent with the point
25 I made a moment ago, which is it was a system designed

1 to deal with relatively short-run emergencies. Through
2 January, February, March of 2020 that is what people
3 would have been experiencing, because at that point it
4 was forming up, it wasn't clear what was happening, and
5 that's why COBR met repeatedly, it's why that bit of the
6 Civil Contingencies Secretariat was so extraordinarily
7 busy at that point.
8 Obviously as the pandemic then took pandemic form,
9 there needed to be a more sustainable governance
10 structure that could carry it through.
11 **Q.** Was the COBR structure utilised fully and consistently
12 throughout the currency of the pandemic, or over time in
13 practice was it replaced by other structures or other
14 committees or groups?
15 **A.** Yes, it was replaced, because, as I said, the COBR
16 function is there to deliver a crisis response to
17 an acute moment. Something spins up, you establish
18 control, it moves back to business as usual.
19 A catastrophic emergency like Covid, and there are other
20 emergencies that fall into this category, require
21 a different kind of management. It's not necessarily at
22 the absolute pace that you get when you have a crisis,
23 you need something which will keep going week after
24 week, month after month, and that's not really what the
25 COBR structures are designed for. So, without wishing

to kind of go into Module 2 stuff unduly, it was ultimately replaced by a Covid taskforce. There were a few sort of deviations along the way, but that is the model that -- I mean, it's the model essentially that was used in Brexit, it's the model which we ended up using in Covid, and it's now part of our standardised approach.

Q. Was it not, in effect, replaced, even during the crisis part of the Covid pandemic, by ministerial implementation groups and also by two committees, XO and XS, which were dealing with the crisis, the catastrophic crisis that was the Covid pandemic?

A. XO and XS were Brexit committees.

Q. Yes, and how were they used, Mr Hargreaves, once the pandemic arrived?

A. Well, XO and XS, my understanding is that they continued to largely focus on Brexit.

Q. What, in January, February, March of 2020 --

A. Yeah, they would have --

Q. -- after, in fact, the Trade and Cooperation Agreement was signed and Brexit was over?

A. They would have met -- right, if they were meeting, they met much less frequently. I mean, this is not -- this is not a period about which the detail -- you know, I'm not familiar with the detail of this period, and it

isn't something that you explained to me I'd be asked about. So it's not in the evidence, I wasn't there, there's a limit to how much I can explain about the number of meetings of that committee.

What I would say, you know, in relation to your general point, is the early stages of the pandemic were handled as emergencies, national emergencies, are in government, using the COBR structures. They're designed to deal with short-run emergencies, relatively short-run. What happens at the start of an emergency is essentially you've got a kind of moment of decision or a period of decisions: is this something that will flare up and then subside, or is this going to become a much longer term problem? If it's going to flare up and subside, your assumption is that you will pass it back into business as usual structures. If it's going to be a very enduring problem, then you need to create new semipermanent structures to deal with it while the crisis endures.

So that's what we did for Covid. As I say, the journey through -- the journey wasn't a linear journey, we had the ministerial implementation groups, but now our doctrine would be that we would move straight into the sort of Covid taskforce-style structures, and if I think about some of the emergencies we've dealt with

since the pandemic, I can see those patterns in how we've approached them, because some of them have been dealt with by a more enduring structure and some of them have been dealt with just using the Covid mechanism to stand up and stand down. COBR --

Q. Forgive me, the fault is I'm sure entirely my own. I asked you to what extent did the COBR unit function throughout the currency of the Covid pandemic, the crisis, and you said that it became apparent that once the crisis had passed, the initial crisis had passed, the need for COBR had fallen away, because it's a crisis management capacity.

My question to you was: was COBR in fact started to be put to one side, was there an understanding in fact, in the early days of the Covid pandemic, that as a crisis management facility, it wasn't sufficient, and therefore during the crisis part of the Covid pandemic alternative structures had to be found and were found -- the XS, XO committees, the ministerial implementation groups and so on -- because the COBR unit wasn't functioning as well as it had been expected to do under the extreme demands of the Covid pandemic? That's the question.

A. Yeah. So I think what, I suppose, what I'm trying to explain is the purpose of crisis management structures

is to deal with crisis, so the COBR mechanism is designed for that purpose.

The pandemic was a particular kind of national challenge. It had an initial phase of crisis where we were standing up systems to try and understand and prepare to deal with an inbound pandemic, but then it takes the form of a kind of emergency which exists in the space between crisis, where you're desperately trying to deliver control, and -- and the kind of territory of business as usual, where you need to get into a rhythm and deliver things and work through problems and establish policies and so forth.

It's not a permanent problem, that's why it makes sense to create a semipermanent structure, and that's what happened.

So COBR dealt with the initial phase. When it became apparent this was both an extraordinarily complex wide-ranging problem and one that was likely to endure, new structures were required.

Q. The COBR unit, when those extreme pressures were applied, was found not to be sufficient or adequate for coping with those pressures, was it?

A. I think my point is that it wasn't designed for those pressures.

Q. Was it sufficient and adequate whether it was designed

1 or not for those pressures?
2 A. I think I'm -- I'm trying to explain, but possibly not
3 successfully, that the Covid crisis went through
4 different phases, and as a consequence COBR had a role
5 in the early phase, it was then superseded by more
6 complex structures with greater capacity, because that's
7 what the problem became.
8 Q. All right.
9 A. It's also the case that whilst the Covid crisis ran on,
10 there was still the prospect of other emergencies, so in
11 government terms it makes sense to be able to stand down
12 the COBR function, so if anything else happens
13 concurrently it's able to deal with that.
14 However, I'd also say that it certainly wasn't
15 a smooth transition, from what I could see from the
16 outside, from the COBR function to the more enduring
17 structures, and what we've done since then is create
18 a much clearer operational approach towards that
19 transition.
20 So I think if we were going through the same
21 experience again, from the off we would understand that
22 we would need immediately to begin to prepare to deliver
23 the Covid taskforce, or, you know, the pandemic
24 taskforce, and COBR would fill the space until it was up
25 and running.

1 Q. May I now ask you, please, about the Civil Contingencies
2 Act 2004. My Lady's heard a considerable amount of
3 evidence from Ms Hammond and others about how this is
4 the Act which provides the legal framework to the whole
5 of the United Kingdom's civil contingencies --
6 A. Yeah.
7 Q. -- arrangements.
8 I think you were responsible for the team or you
9 were part of the team that drafted the Bill originally
10 between 2002 and 2004; is that right?
11 A. Yes, I led the team.
12 Q. You led the team. In very general terms, does the Act
13 provide for a series of different legal duties on what
14 are known as Category 1 and Category 2 responders, those
15 responders are a mixture of local responders or, in the
16 case of the DHSC, the Secretary of State and other
17 departments, and those legal duties are designed to
18 ensure that those bodies which labour under those duties
19 are responsible for and are made to plan, to draw up
20 risk assessments, to think about how they might respond
21 in the event of an emergency, how to liaise with other
22 bodies, how to inform the public, all the moving parts
23 of a civil contingencies response --
24 A. Yes.
25 Q. -- both planning and response? Is that a fair summary?

1 A. Well, to be very specific, the duties are largely in
2 relation to planning. The Act does not contain a duty
3 to respond.
4 Q. Respond.
5 A. The reason for that is actually -- I don't know, it
6 depends on the audience, sometimes people regard this as
7 a complex explanation. It's a sort of legal
8 explanation, so you might receive a better --
9 Q. Well, my Lady is a former vice president of the Court of
10 Appeal and a very senior judge, so --
11 A. That's why I'm hoping for an enthusiastic reception.
12 There is a broad public sector expectation of
13 reasonableness, so if you have a duty to develop a plan,
14 that broad expectation of reasonableness holds that you
15 will implement that plan if an emergency occurs.
16 If you have a duty to respond then there is a risk
17 that you create an unfulfillable obligation because of
18 the circumstances at the time.
19 So the framing of it and the explanation accepted by
20 Parliament was that the combination of the duty to plan
21 and the expectation of public authorities acting
22 reasonably would deliver the effect of response.
23 So that's the kind of mechanism behind it, and that
24 is what has happened in practice.
25 Q. But my question to you was simply designed to elicit

1 that this is a system which imposes legal obligations
2 for both planning and response, because one of the
3 obligations on the variety of local responders,
4 for example, is to plan as to how they may respond in
5 the event of a crisis?
6 A. Yes, absolutely.
7 Q. Which is why it is a system designed to get ready as
8 well as to plan?
9 A. Yes, and it's -- sometimes people say, "Why is there not
10 an explicit duty to respond?" That's why.
11 Q. Okay. After the Act came into force in 2004, how many
12 reviews were carried out by the government as to whether
13 or not that Act was still fit for purpose?
14 A. So there would be various informal and formal reviews on
15 the way. We're now in a cycle of post-implementation
16 reviews, which happen every five years, we did one
17 relatively recently. That's part of general best
18 practice in relation to statute, that there is a review.
19 So I suppose we've done maybe three of those, perhaps,
20 but there have also been various internal reviews and
21 considerations of the operation of the Act.
22 Q. You've just said that it was envisaged there would be
23 a post-implementation review every five years; how many
24 post-implementation reviews were there within five years
25 of the Act, the 2004 Act?

1 **A.** So the post-implementation review process, as I said --
2 **Q.** How many --
3 **A.** -- applies to all legislation.
4 **Q.** I'm so sorry, Mr Hargreaves. How many
5 post-implementation reviews were there within five years
6 of the 2004 Act?
7 **A.** I don't think there were any, because it's a system that
8 postdates the five-year window.
9 **Q.** Could you elaborate on that answer?
10 **A.** The post-implementation review process doesn't just
11 apply to this legislation, it is general best practice
12 in respect of legislation to do post-implementation
13 reviews, and there's a process around that. My
14 understanding is that that process, that general
15 expectation of post-implementation reviews, was
16 introduced at some point after the five-year --
17 five years had elapsed from 2004, when the legislation
18 was enacted.
19 **LADY HALLETT:** So are you saying after 2009, say?
20 **A.** Yeah, yeah. Yes.
21 **LADY HALLETT:** So there wasn't a policy of
22 post-implementation reviews until after 2009?
23 **A.** Yes, I think so.
24 **MR KEITH:** So to say that there was a policy of having
25 a post-implementation every five years after 2004, which

1 is the question I put to you, wasn't quite right. There
2 was no review within five years of the Act because there
3 was no policy of having a post-implementation review?
4 **A.** No, there wasn't at that point. Sorry if I've
5 misunderstood your question. But that's the present
6 system.
7 **Q.** So there was a review, was there not, an internal
8 review, called an enhancement programme review in 2012
9 and then a formal post-implementation review in 2017?
10 **A.** I thought it was a little before that.
11 **Q.** Was there --
12 **A.** I might -- if you've got the dates, then you might be
13 correct, I thought it was 2015, but ...
14 **Q.** In the documents with which you were provided by
15 the Inquiry, Mr Hargreaves, there is a document
16 INQ000056230, we needn't bring it up, but it is the 2017
17 Civil Contingencies Act post-implementation review. So
18 would you agree it's 2017?
19 **A.** Yeah, that's --
20 **Q.** So it was 13 years after the Act was brought into
21 effect. 2004 to 2017.
22 **A.** If your question is -- I don't know what your question
23 is, but if it is: is that an unreasonable long --
24 **Q.** No, I was just asking you to confirm that, despite the
25 policy of post-implementation reviews, there was no

1 post-implementation review, a formal review, between
2 2004, when the Act came into effect, as it says on the
3 tin, and 2017; is that correct?
4 **A.** If that's the date for the post-implementation review,
5 then yes. There is an awful lot of consideration of
6 whether the Act works properly or not, and how it
7 operates in practice. Post-implementation reviews are,
8 as I understand it, designed to make sure that everyone
9 across government is thinking hard about whether
10 legislation works in practice, but I think it would be
11 wrong to draw the inference from that that no one was
12 thinking about whether the Act was working.
13 I mean, to give you an example of that very
14 practically, between 2007 and 2008 I ran the team which
15 supported Sir Michael Pitt's independent review of some
16 catastrophic flooding that had taken place in 2007. As
17 part of that we reviewed -- he, as an independent
18 reviewer, looked at the operation of the Act. So it
19 wasn't the case that everyone just left it idle and it
20 was not being thought about. It was very much a central
21 part of the system and a central feature of debate.
22 **Q.** Can you recall, Mr Hargreaves, whether that semiformal,
23 not the formal post-implementation review, but the
24 semiformal enhancement programme review in 2012
25 recommended significant change to the Civil

1 Contingencies Act 2004, or did it recommend a series of
2 moderate changes, so no departure from the fundamental
3 premise of the Act, which is that there were these legal
4 duties imposed on Category 1 responders and different
5 legal duties on Category 2 responders?
6 **A.** My understanding is that none of the reviews have
7 recommended a substantial departure from the broad
8 framing of the Act.
9 **Q.** Did any review or did the government ever consider
10 bringing together the legal duties on Category 1 and
11 Category 2 responders so that they were similar, or
12 perhaps even the same, or extending the legal duties or
13 a variant thereof that were in the Act to central
14 government?
15 **A.** Yes.
16 **Q.** When was that considered?
17 **A.** Well, certainly when I was running the Civil
18 Contingencies Bill team in 2004, 2003 --
19 **Q.** After the Act came into force. Sorry, Mr Hargreaves,
20 I didn't make it plain.
21 **A.** No, but --
22 **Q.** After the Act came into force, to what extent did the
23 government or any of these reviews consider significant
24 changes to those duties to bring Category 1 and 2
25 responders together or to impose a like duty on central

1 government?
2 A. The point I was starting to make is that these things
3 have been features of the debate around the operation of
4 the Act since its original design, and return from time
5 to time as questions, and certainly when independent
6 reviews or post-implementation reviews or anything else
7 is carried out, these points tend to be considered.
8 There is obviously -- you know, there are obviously
9 design principles behind the Act that explain the
10 difference in duties, that I'm happy to talk about more
11 if that's helpful, and the absence of duties on central
12 government. But these are obvious sort of pressure
13 points in the design of the system, and whether
14 Category 2 responders are doing enough is always a key
15 question, and whether central government needs more
16 obligation around it is obviously a key question too
17 when you're thinking about how the Act works and how the
18 civil contingencies system operates.
19 Q. So is the position that whilst there may have been some
20 degree of debate before the Act was passed, following
21 the enactment the government itself, either internally
22 or by way of a formal or semi-formal review, has never
23 suggested that there be wholesale change to those legal
24 duties or the imposition of a duty on central
25 government?

1 A. Well, as recently as the new national Resilience
2 Framework, we talk about doing work to consider the case
3 on whether there should be a duty on central government.
4 Q. Yes. What year, in that national Resilience Framework,
5 is that work promised by, Mr Hargreaves?
6 A. I don't think there is a specific date attached to it.
7 Q. Is it 2025 or 2030?
8 A. I'm not sure.
9 But there is a -- there's quite a good case for
10 having a duty on central government departments. When
11 the Act was done originally we didn't do it because it
12 was quite unusual to have duties on central government
13 departments. The broad principle, the broad organising
14 principle was that secretaries of state were able to
15 determine their own priorities and therefore it wasn't
16 necessary to have a legal duty. I think just in terms
17 of the broad shape in which law applies to government
18 departments, there has been a general move towards
19 having more duties described, particularly around topics
20 which people believe to be particularly important and
21 cross cutting.
22 So the balance has moved, I think, more, over time,
23 in favour of having a duty of this kind. I mean,
24 certainly in my nice symmetrical bureaucratic mind it
25 would make sense for duties to apply evenly or for there

1 to be a clear line of sight between obligations, but, as
2 I say, it's a matter that we think does need some proper
3 consideration and should probably be the subject of
4 a consultation, and that's why there's a general
5 commitment in the framework.
6 Q. But despite that change in thinking, Mr Hargreaves, and
7 the point, if I may say so, is well made that there is
8 a case for having a legal duty placed on government, the
9 government's own 2022 post-implementation review made no
10 such recommendation, did it?
11 A. We said we'd consider it.
12 Q. Did it call for the legal duty in some form to be placed
13 on central government?
14 A. It said we would look at it. I mean, I ... there is ...
15 I've given you my view, I suppose, on the shifting case,
16 and there's a commitment to do that. The sort of thing
17 which requires -- you know, any legislative change is
18 going to require a consultation. It wasn't so
19 transparent from the responses to the framework,
20 you know, consultation that there was an absolute
21 expectation that people felt this was necessary, but
22 I think there is a building case, a case that grows over
23 time, to do something specific here.
24 LADY HALLETT: Why do you think that, Mr Hargreaves? Just
25 for those who are watching who aren't familiar with the

1 system.
2 A. Possibly it is my nice neat bureaucratic mind thinking
3 it, but ... I think it is helpful where government cares
4 about something in the round for there to be
5 a consistent set of expectations, and I think one of the
6 broad themes of this Inquiry might well turn out to be
7 whether government takes civil protection seriously
8 enough in the round. In fact not just government, but
9 whether the UK does. On matters like that, sending
10 a signal across government through a statutory
11 obligation can be very powerful and the debate which
12 accompanies it can be very powerful.
13 It's also important that, I think, that there is
14 transparency about what government does, so government
15 can be held to account and, again, can foster political
16 debate on the level of ambition. So a statutory
17 obligation is a very effective way to do that. It's not
18 because I think that government departments don't take
19 that seriously, I just think there may be room to take
20 it more seriously.
21 MR KEITH: Could we have, please, INQ000055883, page 1.
22 This is the post-implementation review of last year
23 published by the Cabinet Office, is it not?
24 A. It is.
25 Q. If we go forward one page, we can see that it comes from

1 the Cabinet Office:
2 "Lead department or agency: Cabinet Office."
3 It's dated 29 March last year. It's a statutory
4 review. The objectives of the measure were, that's to
5 say the original Act, to: establish a consistent level
6 of civil protection activity; encourage consistency
7 between the responders; define the tasks; ensure local
8 responders retain the ability to make decisions about
9 what planning arrangements are appropriate; and to
10 provide powers for the government to make temporary
11 regulations.
12 That last paragraph, is that part 2 of the Civil
13 Contingencies Act 2004?
14 **A.** Yes.
15 **Q.** Which provides for emergency regulations applied by
16 a system of regional directors or perhaps governors, if
17 the emergency arrangements are triggered. Has that
18 part 2 of the Act ever been used in the United Kingdom?
19 **A.** It's not.
20 **Q.** No. Was it used at the time of Covid, Mr Hargreaves?
21 **A.** No. When the Bill went through Parliament, this point
22 was discussed -- you know, when we would use it was
23 discussed at some considerable length, and there was
24 concern that government would use it too freely.
25 There's obviously a fair sort of back story on the use

1 of emergency powers by government and so forth.
2 What government committed to Parliament at the time
3 is that it would only use emergency powers where it was
4 not possible to use normal constitutional routes.
5 I think, in a sense, emergency powers are a bit of a --
6 they're a kind of constitutional aberration which has
7 been co-opted into the constitution, it's a device for
8 making legislation when it's not possible to do it
9 through normal routes.
10 **Q.** Do you mean when it's not possible to bring a Bill or
11 statutory --
12 **A.** Yes.
13 **Q.** -- legislation before Parliament?
14 **A.** Yes.
15 **Q.** Right.
16 **A.** So I think there is a misconception sometimes, people
17 think it's a list of things government can do and it
18 just picks and chooses. Actually, it's a mechanism for
19 making emergency legislation at high speed through
20 secondary legislation, but often with the kind of reach
21 of primary legislation, and it's designed to be
22 temporary, and designed to have just a much more --
23 a much faster mechanism for delivery.
24 **Q.** All right.
25 Could we go over the page, then, please.

1 "What evidence has informed the [post-implementation
2 review]?
3 "The National Resilience Strategy Call for Evidence
4 public consultation ... Workshops and engagement
5 events ..."
6 There were, were there not, as it says, there was
7 a call for evidence and I think there were some surveys
8 done, and individual workshops and engagement events
9 carried out?
10 Then this at 3:
11 "The Act continues to achieve its stated objectives.
12 Duties are placed upon local responders, with the
13 principle of subsidiarity ensuring they retain the
14 flexibility to collaborate in a way that is suitable to
15 their specific needs. The recommendations made
16 (including changes to the guidance) aim to strengthen
17 the fulfilment of the Act's objectives, but there is no
18 case at this stage for a fundamental overhaul of the
19 legislation. Whilst the objectives and the Act's
20 fulfilment of them are broadly fit for purpose at
21 present, the evolving risk landscape, as well as work on
22 the Integrated Review commitments to consider
23 strengthening LRFs and develop a National Resilience
24 Strategy, may create a need for further changes to the
25 Act in future."

1 Mr Hargreaves, in relation to your earlier answer
2 that this post-implementation review stated that there
3 would be and there was a debate to be had about the
4 imposition of legal duties on central government, where
5 is that reference? Where do we find the reference in
6 the review to that debate to which you said it made
7 plain reference?
8 **A.** It's the reference to the national resilience strategy,
9 which emerged as the UK Resilience Framework, which
10 includes the commitment to look at that.
11 **Q.** This review, if we go back to the first page, was in
12 March of last year. The framework, the national
13 Resilience Framework, was published in December.
14 Where is the reference in this review, the reference
15 which you said was in it, to debate being given,
16 consideration being given and a debate revolving around
17 the imposition of a legal duty on central government?
18 **A.** It would be a point raised in consultation responses
19 from local resilience forums.
20 **Q.** Where is it in the review, Mr Hargreaves?
21 **A.** I'd have to look through the review and find it.
22 **Q.** So the position of the review was that no fundamental
23 change was recommended, there should be no significant
24 overhaul, there should be no imposition of legal duties
25 on central government, and no real change to the

1 relative legal duties imposed on Category 1 and
2 Category 2 responders; is that correct?
3 **A.** Yeah. I mean, the Act provides for local response
4 organisations to carry out civil protection in
5 a systematic way, assess risks, develop plans, and so
6 forth, and that holds good. It provides for
7 an emergency legislation-making mechanism, and that
8 holds good. Over time, and, you know, partly from the
9 responses to the consultation around the review, partly
10 from policy debates inside government, partly in
11 response to events, we will contemplate extending
12 elements of the Act, or other bits of legislation that
13 apply to emergencies.
14 So ... so this does hold good as a piece of
15 legislation, but that doesn't mean that there isn't
16 necessarily room for change.
17 **Q.** Coincidentally last year in March your predecessor,
18 Mr Mann, from whom the Inquiry heard, co-chaired
19 a National Preparedness Commission review of the CCA
20 2004, did he not?
21 **A.** So I understand, yes.
22 **Q.** Have you read that review?
23 **A.** His review?
24 **Q.** Yes.
25 **A.** I have looked through it, yes.

1 **Q.** Yes, because, of course, it's fundamental, is it not, to
2 any proper consideration of the CCA 2004; would you
3 agree?
4 **A.** Well, not quite.
5 So we get very many think pieces from consultants,
6 academics and so forth, on how the system of civil
7 protection should be organised, which reflects their
8 views. The National Preparedness Commission, the lay
9 observer might conclude from the name that it has some
10 government status or official role. It doesn't, it's
11 a sort of think tank. And the independent review is
12 independent in the sense that it has nothing to do with
13 government, not in the sense that this Inquiry is
14 independent, for example.
15 **Q.** That's good to hear, Mr Hargreaves.
16 The document that you describe as a think piece was
17 a document prepared by the National Preparedness
18 Commission, a relatively august and independent body,
19 and the report which I'm holding up in my hand by
20 Bruce Mann, Kathy Settle and Andy Towler, ran, perhaps
21 in a way analogous to Mr Mann's expert report for this
22 Inquiry, to some 351 pages.
23 It was an extremely complex, detailed, thorough
24 investigation of the workings of the CCA 2004 prepared
25 by an independent body which is solely concerned with

1 national preparedness.
2 Is it just a think piece?
3 **A.** Yes. Yes, it is. And if -- look, there are many
4 organisations that operate in the field of civil
5 protection, many of them are able to draw on people with
6 a great deal of expertise, and in government you get
7 many -- many of these sent to you, and you need to have
8 a look at them. In the context of an ongoing statutory
9 consultation, you have to take some care around what you
10 get, and you have to give fair balance to everyone who
11 might wish to contribute.
12 The National Preparedness Commission is a relatively
13 new organisation. It has some august people on it, but
14 there are other -- other similar bodies available, and
15 it is a very long report, which I looked through with
16 interest because I have a great deal of respect for
17 Mr Mann, but I did not prioritise its comments over
18 anyone else's, because that would not be proper.
19 **Q.** What was the core finding of your predecessor's National
20 Preparedness Commission report, the primary finding in
21 relation to UK resilience and the legal framework, the
22 structure, the CCA, that underpins it?
23 **A.** I don't know.
24 **Q.** You don't know the main conclusion or finding of this
25 piece of work done by your predecessor and the

1 Preparedness Commission into resilience and the Civil
2 Contingencies Act 2004?
3 **A.** I could give you a broad description of the findings,
4 but I couldn't tell --
5 **Q.** Please. Could you tell us, please, a general
6 description of the findings?
7 **A.** Well, they're in the similar vein to the expert report
8 produced by Mr Mann and Professor Alexander, that they
9 seek a reform of aspects of the system. Some of it
10 relates to the fine detail of how civil protection work
11 is done. There are some broader proposals. It's
12 slightly different in focus to what we think the focus
13 should be inside government, and what we concluded
14 through our public consultations and statutory reviews
15 and so forth. There is a slight -- you know, there is
16 a slight difference of opinion between us and the team
17 that did that about where the focus should lie.
18 **LADY HALLETT:** Can you analyse or summarise the focus,
19 difference in focus?
20 **A.** In very simple terms, the people who wrote that report
21 are people who specialise in providing quite detailed
22 advice to people around quite detailed tasks. The main
23 thrust of work in government is focused on getting more
24 upstream of emergencies, doing more preventative work,
25 trying to ensure that there is a very, very broad public

1 understanding and greater public and political
2 engagement in risk, because that's what shapes outcomes.
3 I think we are interested in moving the whole system
4 to a better place, and their report is focused on moving
5 the operation of those bits of the system that do
6 specific civil protection work to a better place.
7 **MR KEITH:** Mr Hargreaves, you've just stated that there was
8 a -- I didn't quite catch the word, but there was
9 a difference of view:
10 "... there is a slight difference of opinion between
11 us and the team that did that report about where the
12 focus should lie."
13 The post-implementation review carried out by the
14 government last year, as we've seen, said there is no
15 case for a general overhaul.
16 The primary finding -- and we'll have, please,
17 page 10 of INQ000187729 -- is that whilst the Act and
18 the resilience arrangements it introduced were a "vital
19 step down the road to building a Resilient Nation", and
20 whilst they've "served the [United Kingdom] well over
21 the past 18 years" and provided a "sound basic
22 framework", the:
23 "... pace of development has not been sustained over
24 the past decade. In some important areas, quality has
25 degraded. As a result, UK resilience today has some

1 serious weaknesses. It is not fit for future purpose in
2 the world the [United Kingdom] is moving into."
3 Is that a slight difference of opinion?
4 **A.** I think there's a lot of that which I would agree with.
5 **Q.** And the recommendations, could we have, please, 272.
6 Summary of recommendations, the authors of the report
7 make 117 recommendations, but two are of particular
8 importance. 275, please. Recommendations 29 and 30.
9 Who should have legal duties? 29:
10 "The full suite of Category 1 responder duties
11 should be placed on the organisations currently
12 designated under the Act as Co-operating Bodies ... The
13 [United Kingdom] Government should pursue and capture in
14 statutory guidance ways in which the additional burdens
15 of fulfilling the new duties might be reduced for
16 example by activity undertaken at
17 multi-[local resilience forum]/regional level."
18 Then this:
19 "The full suite of Category 1 responder duties
20 should be placed on the [United Kingdom] Government."
21 So to the extent that the 2022 post-implementation
22 review by the government said there was no case for
23 overhaul, is it your position now that you don't agree
24 with that conclusion and you do agree with the National
25 Preparedness Commission view?

1 **A.** No, my position is consistent. What -- some of this is
2 about how to achieve the ends. Right? The Act is the
3 Act and describes the obligations that fall on people at
4 the local level. When it comes to the
5 post-implementation review and testing the fitness for
6 purpose of those obligation, the conclusion of our
7 post-implementation review reflected -- which reflects
8 the consultative process that we ran, to which Mr Mann
9 contributed through this report, concluded that what we
10 had was broadly fit for purpose but suggested some small
11 changes.
12 I don't disagree at all that Category 2 responders
13 should absolutely take civil protection seriously. The
14 problem with the analysis is that that doesn't
15 necessarily mean you do that through the Civil
16 Contingencies Act.
17 Category 2 responders are generally regulated
18 utilities or other service providers of critical
19 infrastructure. They are subject to incredibly detailed
20 regulatory regimes which impose a wide variety of
21 different burdens and expectations on them, through very
22 carefully calibrated regulatory frameworks that balance
23 the cost to the customer with service delivery, with how
24 they perform in emergencies, for example.
25 Therefore I think we remain of the view that the

1 obligations on Category 2 responders are, on balance,
2 best delivered through those regulatory frameworks.
3 I do, however, think there is a case for
4 contemplating whether those regulatory frameworks, in
5 light of the Covid experience and other recent
6 emergencies, are clear enough and enforced with
7 sufficient vigour.
8 But if you place Category 2 responders in
9 Category 1, you place quite a substantial burden on them
10 to get involved in emergencies which have little to do
11 with them.
12 So, there are different ways to cut the cake, and
13 there's where I think we disagree, but I don't think we
14 disagree on whether Category 2 responders who provide
15 essential services should have clear civil protection
16 obligations, it's just that we disagree about whether
17 they should be in the Act, the Civil Contingencies Act,
18 or not.
19 **Q.** What about the imposition of legal duties on the
20 United Kingdom's central government? You are now
21 recorded as saying that, although it finds no reflection
22 on the face of the 2022 review, the governmental review,
23 that it was apparently raising that as an issue for
24 debate?
25 **A.** Yes.

1 **Q.** Although, as I say, we can see no reference to that
2 being the position of the government in the review. And
3 you say that that is something which the December 2022
4 Resilience Framework has in mind. Is that right?
5 **A.** So, again, the post-implementation review is about how
6 the Act operates. As it says in the passage that you
7 put up, highlighted, potential extensions to the Act
8 would be a matter for the national resilience strategy,
9 as we were saying, called, now, UK Resilience Framework.
10 As I also said earlier, I myself am pretty sympathetic
11 to that recommendation, and think it has merit and
12 probably more merit than it has when we did the
13 original Act.
14 So I think there I'd be in agreement. I mean,
15 you know, just to say in the round, it might be helpful
16 to say, Mr Mann and Professor Alexander and I agree on
17 almost everything. We are after the same thing. There
18 are some constraining factors that fall on you when you
19 are an official in government, as distinct from when you
20 are a consultant in the field of civil contingencies,
21 whatever your background. Like, for example, resource.
22 **Q.** So if you agree on almost everything, do you agree there
23 is an unanswerable case for the imposition of legal
24 duties on central government?
25 **LADY HALLETT:** I think you've got your answer to that,

1 Mr Keith, to be fair.
2 **MR KEITH:** All right.
3 Shall we have a look, then, at the document itself.
4 INQ000097685, the Resilience Framework of
5 December 2022, page 1, please.
6 So this was a document produced by the
7 Cabinet Office. We heard evidence from the Deputy
8 Prime Minister yesterday that he wrote -- I think he
9 said he wrote the foreword or he certainly appeared in
10 the foreword, along with his photograph.
11 This is a document which plainly has the involvement
12 of the Civil Contingencies Secretariat in it before the
13 split occurred between the COBR unit and the resilience
14 function, now in the Resilience Directorate, the
15 national security directorate. Presumably you had
16 a great deal of involvement in the production of this
17 framework?
18 **A.** A very great deal. So I was involved very heavily --
19 you know, I oversaw the work on this through till the
20 summer of 2022 and after the split, obviously I retained
21 an interest but I didn't produce the very final, final
22 draft.
23 **Q.** No, you left in July 2022. But it must stand to reason
24 that this document which is -- well, in terms of pounds
25 and kilograms, it's a less weighty document than the

1 National Preparedness Commission report, but it's
2 a sizeable beast. Presumably the first draft was drawn
3 up before July 2022 whilst you were still the director
4 of the Civil Contingencies Secretariat?
5 **A.** Absolutely. I think that if -- the government
6 experienced a bit of turbulence in that period. I think
7 if it hadn't, we might well have published it within my
8 tenure.
9 **Q.** All right.
10 Could we look, please, at page 5. We can see in the
11 contents page the way in which the report is divided:
12 there is an executive summary, and then the action plan
13 from the government for risk, responsibilities and
14 accountability, partnerships, communities, investment
15 and skills, and there is a summary of the framework
16 actions, as they're known, on page 72.
17 Did your then department's framework document divide
18 up the actions by timescale? So it identified a number
19 of things that the government was already doing, and
20 a number of things that would be done by 2025 and
21 a number of things that would be done by 2030?
22 **A.** Yes.
23 **Q.** Perhaps we could just look at some of the things in
24 relation to which the United Kingdom government is --
25 that it is already taking action.

1 So in fact Mr Dowden was asked about this yesterday.
2 Under the broad heading of "Risk", there's a reference
3 to:
4 "Refreshing the ... (NSRA) process, so it will look
5 [at] a longer timescale ... multiple scenarios ..."
6 Indeed, the 2022 risk assessment process last year
7 was significantly different from the 2019 version
8 because of the reference to multiple scenarios?
9 **A.** Yes.
10 **Q.** Then this:
11 "Creating a new Head of Resilience to guide best
12 practice, encourage adherence to standards, and set
13 guidance."
14 In which part of the government has a new head of
15 resilience been created? And the emphasis is "created".
16 In which part of the government has a new head of
17 resilience been created?
18 **A.** The head of resilience is -- leads the Resilience
19 Directorate inside the Cabinet Office.
20 **Q.** There was already a director of national resilience in
21 the Cabinet Office, a full-time post, from March 2020 to
22 May 2022. So to what extent was a new head of
23 resilience created, Mr Hargreaves?
24 **A.** It is an entirely new role.
25 **Q.** In what regard is it an entirely new role?

1 **A.** In the sense that it didn't exist before and now exists.
2 **Q.** So --
3 **A.** It is the part of the job that I did as CCS director
4 separated out, in the fashion that we talked about
5 earlier --
6 **Q.** So it's a job that was already a job being done by you
7 when you were director, it has simply been hived out
8 from your old job, but it is a head of resilience.
9 To what extent is a head of resilience different
10 from a director of national resilience, which was
11 a pre-existing full-time post?
12 **A.** I think that was a role in the national security field
13 less related to this kind of resilience. This is about
14 a head of resilience that superintends our national
15 civil protection system, particularly in relation to
16 civil emergencies.
17 **Q.** No new post was created, was it, Mr Hargreaves, other
18 than insofar as an existing post was given a different
19 name?
20 **A.** I don't know how more plainly I can say this, it's
21 literally a new post. It's a new post on headcount,
22 it's a new person, it's a new title. It carries out
23 some of the functions that were done previously, but
24 because it is a separately identified post, the person
25 is able to do that with more focus and weight that I was

1 able to do, or Katharine was able to do, or even Mr Mann
2 was able to do, when they were together.
3 **Q.** The reason it's a new person, Mr Hargreaves, is that the
4 previous incumbent of the post of director of national
5 resilience happened, coincidentally, to leave that post
6 in May 2022, before this report was even published, to
7 go to join a job in the Ministry of Defence. So it's
8 not that there is a change of person because a new post
9 was created, it's just that the previous incumbent
10 happened already to have left the post. Isn't that
11 correct?
12 **A.** It's just not correct.
13 **Q.** All right.
14 **A.** This is in a different bit of the forest. The fact that
15 the two titles include the word "resilience" does not
16 mean they are the same thing.
17 **Q.** All right.
18 The government is:
19 "... already taking action by:
20 "Strengthening [United Kingdom] ... resilience
21 structures by creating a new resilience function ..."
22 You have given evidence how the existing Civil
23 Contingencies Secretariat was split into the more
24 practical side, the crisis management side, the
25 COBR unit, and the Resilience Directorate within the

1 Cabinet Office. Both parts, the COBR unit and the
2 Resilience Directorate, are both formed from the
3 pre-existing Civil Contingencies Secretariat, are they
4 not? There is nothing new in either part that wasn't
5 already in the Civil Contingencies Secretariat, is
6 there?
7 **A.** Not quite -- that's not quite right. So some of this is
8 about the purpose and the focus of the Resilience
9 Directorate, and that in turn is shaped by the
10 Resilience Framework. Our ambition is to be more
11 expansive and more -- I suppose the term we would use is
12 "upstream", but preventative in our approach to civil
13 protection. So that directorate spends less time
14 looking at the detail of policy and procedures, and --
15 on balance, and more time trying to think about the
16 broad operating context of the UK and whether you can
17 solve problems.
18 So do you want to put your effort into, for example,
19 having very detailed plans to deal with an energy
20 security problem, or do you want the UK to have better
21 energy security in the first place?
22 **Q.** Is that reference to a new resilience function simply
23 a reference to part of the old civil contingencies
24 directorate which has been renamed as the Resilience
25 Directorate?

1 **A.** That's where it starts from, but in terms of its purpose
2 and its focus, it is evolving to a different place.
3 **Q.** In terms of headcount or objectives or legal scope, in
4 what way has it changed?
5 **A.** It would have a different -- slightly different framing
6 in terms of its objectives, to be more clearly focused
7 on system-wide reform and prevention. But in terms of
8 headcount, it is very similar to what was there before.
9 **Q.** Page 73, please.
10 But:
11 "By 2025, the [United Kingdom] Government is
12 committing to take the following actions:
13 "Clarify roles and responsibilities in the UK
14 Government for each NSRA risk ...
15 "Conduct an annual survey ...
16 "Introduce an Annual Statement to Parliament ...
17 "Develop a measurement of socio-economic
18 resilience ..."
19 What is that a reference to? What is a measurement
20 of socio-economic resilience?
21 **A.** When you have an emergency there are -- vulnerabilities
22 manifest in different forms, and obviously you've heard
23 from expert witnesses who have talked about this.
24 In very sort of brief terms, there are three kinds
25 of vulnerabilities we observe in emergencies. The first

is sometimes an emergency just affects a particular category of people. Covid is a very good example of that, because there's one particular group profoundly affected and that was the elderly, and they were affected disproportionately.

Sometimes you have vulnerabilities that arise because they pre-existed and were carried into the emergency. That's a lot of what Professors Marmot and Bambra talked about. If someone struggles to access public services because English is not their first language before an emergency, they will continue to struggle and may even struggle more profoundly during the emergency itself.

The third kind of vulnerability relates largely to people's ability to shape their own destiny, which largely comes down to how wealthy people are and how healthy people are.

So, understanding the landscape of areas that are impacted by emergencies and knowing that if we are -- you know, if we face a particular problem in a particular area, it will be hit more badly than if that same problem was to arise in a different place. It's a very helpful way to make sure we're managing the emergency very effectively and we get further ahead faster on the protection of people with vulnerabilities

during a moment of crisis. So that's the kind of work that we are now advancing.

Q. "Partnerships", further down the page, the government is committed to providing by 2025 a:

"[Growing in] the [United Kingdom] Government's advisory groups made up of experts, academics and industry experts in order to inform the NSRA. This may include establishing a risk-focused sub-group of the UK Resilience Forum."

Now, in the body of the report, I won't take you to it, Mr Hargreaves, paragraphs 130 -- and these are the paragraphs in which this conclusion is drawn -- 131, 132, 133, 134, 135 and 136, there are references to how the government will do this, what ways in which the advisory groups will grow. But all those paragraphs do is make reference to the existing structures, to SAGE, to STACs, to the United Kingdom resilience function, the UK Resilience Forum, and they say:

"... the Government is committed to inviting expert challenge and input ..."

It will "actively and regularly draw on ... expertise".

So the question for you is this: in what way over the next three years, two years, does the government envisage that the advisory groups will be grown? Do you

have it in mind to start, to put into place from scratch a new expert body, a new forum for expert advice? What did you have in mind when you wrote this report?

A. It was my view when I arrived in post at the end of 2020 that one aspect of our work that was not fully developed was how we made best use of experts. There were some places where we did it really well and had very well developed structures, SAGE is quite an interesting example of that, but more generally there was a question of whether we were tapping enough into that expertise. So I was quite keen to pursue relatively ambitious change on this. A lot of it had already been done.

We shifted, with helpful guidance from the Royal Academy of Engineering, how we were using experts in the risk assessment process, to really sort of aggressively broaden it out and to try to maximise the number of external experts who could challenge what we were thinking within that process.

We established the UK Resilience Forum, which is designed to allow representatives of all parts of society to come and sit with government and talk about resilience challenges.

So I was quite keen to embrace quite quickly some quite big shifts in how we used experts.

I think my expectation would be that that

establishes a trend and we find more and more ways to involve them over the coming period.

So, to the extent that this recommendation represents radical change, we've already done that. It's now a case of evolving that further in the same direction, I'd hope.

Q. Three final areas, please, Mr Hargreaves. On page 74 we have the list of actions that will be done by 2030, eight years hence from the date of the report, to nine years hence from now.

The communication on risks, proposals to make communications on risks more relevant and easily accessible will be drawn up. Work will be done across the three pillars of reform to strengthen LRFs. Standards on resilience will be introduced across the private sector. Better guidance will be provided to the wider private sector. Resilience standards for the CNI and a review of existing regulatory regimes on resilience, to ensure that they're fit for purpose.

To what extent has the government agreed by 2030 to impose any sort of significant change on the government itself, either in terms of its legal duties or core discharge of its primary functions?

A. There isn't a firm commitment in the way that we might have in some areas, but, as I've explained in previous

1 answers, it is something which I expect us to pursue in
2 a -- through discussion with those people who are -- who
3 have an interest in it. And as I've explained, my
4 personal view is that there is a strong case for moving
5 in that direction.
6 Q. The bottom bullet point under "Partnerships" says the
7 government by 2030, so in seven years' time, will
8 "review existing regulatory regimes on resilience".
9 Does that simply mean it will again review the Civil
10 Contingencies Act 2004?
11 A. Well, it will again have to do a post-implementation
12 review, but this is about the regulatory regimes which
13 fall on those outside government, who are adjacent to
14 government. That's the kind of point about the
15 partnerships bit of the report.
16 The idea that the framework introduces is
17 essentially you've got government, which has sort of
18 formal responsibilities, and then you have the sort of
19 public at large, which includes communities, smaller
20 businesses and so forth. But you've got this category
21 which we talk about as -- in the "Partnerships" section,
22 which is essentially things which are adjacent to
23 government and deliver services that the public,
24 I suppose, regard as public services but are not of the
25 public sector. So a lot of these recommendations are

1 about the regulatory and other statutory regimes that
2 exist and the strengthening of those.
3 This is the point that the Civil Contingencies Act
4 doesn't need to cover everyone everywhere on everything,
5 because there are lots of other statutory and regulatory
6 regimes that sit alongside it. And our organising
7 principle around the supply of public utilities, say, is
8 that we regulate a sector and its delivery. So we
9 regulate the water sector, and that includes how much
10 people pay and supplies of water and maintenance and all
11 kinds of things. And part of that overall framework is
12 obligations in relation to risk and emergencies. And
13 it's that bit which can be tested.
14 Q. At paragraph 60, on page 29 of the Resilience Framework,
15 it is said -- this is said:
16 "The [United Kingdom] Government will consider
17 a range of options for improving this and develop
18 an action plan to deliver these, including by developing
19 proposals for formalising duties on the United Kingdom
20 Government departments, particularly in respect of
21 working with Local Resilience Forums and wider local
22 responders ... on resilience across the whole resilience
23 cycle. Any new duty would be subject to an impact
24 assessment."
25 So is the government's position that it will either

1 consider a range of options for developing proposals for
2 formalising duties, which may consider -- may recommend
3 a new duty, or is the government committed (b) to the
4 imposition of a new legal duty on central government?
5 A. I think the position is as described there, which is
6 there will be a process to weigh up the case for
7 imposing those obligations. The detail here
8 specifically is reference to, if you impose those
9 obligations, doing it in the right way.
10 So, for example, you would not make every government
11 department a member of every local resilience forum,
12 because they would collapse under their own weight.
13 There is a means for co-operating with the local level
14 through the Department for Levelling Up, Housing and
15 Communities, so it's not about replacing that, say.
16 Q. All right.
17 Resourcing. One of the points made to my Lady in
18 the expert report from Mr Mann and Professor Alexander
19 was that this Resilience Framework is silent on
20 resourcing.
21 Now, a little research demonstrates that the word
22 "resource" or "resourcing" appears 19 times in the
23 report. Page 58, I won't bring them all up, it says it
24 is "important that investment in resilience is
25 considered and co-ordinated". "Implementation will be

1 iterative and will take time". There must be a
2 "co-ordinated approach to our investment in resilience".
3 Resilience investment within the United Kingdom
4 government must be mapped. The government will
5 "consider options for funding models for any future
6 expanded responsibilities and expectations".
7 Is the position of the Resilience Framework that
8 there is no commitment yet to increased resourcing,
9 there is instead a commitment to consider options for
10 future resourcing?
11 A. Yeah, I think that would be fairly summarised as:
12 there's no new money, there might be less money, but if
13 there are good proposals, who knows, there could be more
14 money. That is the kind of honest answer on that point.
15 Government is very good if it is spending more money in
16 telling you it is spending more money. It is not
17 spending more money here and might spend less.
18 Q. That, if I may say so, Mr Hargreaves, is an excellent
19 summary.
20 The last question concerns inequalities and
21 vulnerabilities. Is this the general position, that
22 none of the planning or the guidance or very little of
23 the planning or the guidance pre-Covid pandemic, in
24 relation to civil contingencies and preparedness across
25 the nation, paid any regard to the individual

1 circumstances of the vulnerable or marginalised sectors
2 in our community? There were references to the
3 important legal obligation under the Equalities Act of
4 the public sector equality duty, but that in no part of
5 this complicated factual and legal policy-driven process
6 for contingencies was any duty imposed on anybody to
7 consider the specific needs of particular parts of the
8 community?
9 **A.** The way in which all of our civil protection is
10 organised is to run with the flow of existing functions.
11 So we think that the people who are best placed to plan
12 for the delivery of local public services in
13 an emergency are those people who have those functions
14 day to day. It kind of runs through everything that we
15 do. When it comes to vulnerable groups -- it's like
16 a central organising principle.
17 When it comes to vulnerable groups, there is a great
18 deal of expectation on those organisations already, and
19 if you talk to any local authority or public health
20 organisation, the needs of vulnerable people is very,
21 very central to their kind of existence and their focus.
22 The expert report on this talks a lot about the very
23 wide range of guidance that is available. It is all
24 framed by that idea, though, that we are asking,
25 reminding, telling people that they need to, as they

1 would do ordinarily, factor the needs of the vulnerable
2 into their emergency planning, and then, by extension,
3 their response.
4 The pandemic is quite interesting in these terms,
5 because of its duration. It's very difficult to engage
6 in social engineering, improve social outcomes during
7 a two-week emergency. But where you've got an emergency
8 that runs over a year or two, you're making a different
9 kind of decision. You're not just pulling operational
10 levers to restore control. You're actually shaping
11 a response over time. And in terms of the mechanics of
12 how government works, it's less simply an operational
13 task and has more of a policy element.
14 So what was described by your expert witnesses is
15 really very interesting and thought provoking about how
16 government introduces the best practice it would apply
17 to policy during the policymaking in normal day-to-day
18 business into emergencies of long duration where
19 vulnerabilities may emerge and there is enough time for
20 a kind of feedback loop: we did this, it didn't work
21 properly, let's redo it again. Which you wouldn't get
22 in a tighter crisis.
23 **MR KEITH:** My Lady, there are no questions posed by the
24 core participants which I have not already addressed in
25 my own examination, or in relation to which you have

1 declined permission. That being so, there are no
2 further questions.
3 **LADY HALLETT:** Thank you very much, in which case we shall
4 break now, I will return at 11.35.
5 Thank you very much indeed for your help,
6 Mr Hargreaves.
7 **THE WITNESS:** Thank you.
8 **(The witness withdrew)**
9 **(11.18 am)**
10 **(A short break)**
11 **(11.35 am)**
12 **LADY HALLETT:** Mr Keith.
13 **MR KEITH:** My Lady, the next witness is
14 Professor Sir Chris Whitty.
15 Sir Chris, if you could be sworn, please.
16 **PROFESSOR SIR CHRIS WHITTY (sworn)**
17 **Questions from LEAD COUNSEL TO THE INQUIRY**
18 **LADY HALLETT:** Please sit down.
19 **MR KEITH:** Sir Chris, thank you for your assistance.
20 My Lady is aware that you have provided a number of
21 witness statements, both to this module and in fact to
22 Module 2. Whilst I ask questions, could you please
23 remember to keep your voice up so that we may hear you
24 properly, and also so that your evidence may be recorded
25 by the stenographer. If I ask you a question which is

1 not clear, please don't refrain from asking me to
2 repeat it.
3 Sir Chris, you are, as is very well known,
4 an infectious disease epidemiology and acute medicine
5 clinician. You are and you have been now for some time
6 the Chief Medical Officer for England.
7 You were appointed on 2 October 2019 as Chief
8 Medical Officer for England and, in essence, that is the
9 Chief Medical Adviser to His Majesty's Government. Is
10 that correct?
11 **A.** **(Witness nods)**
12 **Q.** Was your predecessor Professor Dame Sally Davies and
13 have your deputies been, at one time,
14 Professor Sir Jonathan Van-Tam, until 2022, and
15 Professor Dame Jenny Harries, until 2021, when she
16 became chief executive of the United Kingdom Health
17 Security Agency?
18 **A.** Those are all correct. The one thing just to -- a minor
19 amendment, is that I stopped doing acute medicine when
20 I took up the role of Chief Medical Officer in 2019, but
21 I still do infectious diseases and, indeed, over the
22 Covid period did 12 weeks' rota on the words for Covid
23 over that period. So I saw it firsthand and I can say
24 to the families who are here I saw the extraordinary
25 impact and devastation that had for individuals and the

1 families.
2 Q. Thank you. Before that, before you were appointed Chief
3 Medical Officer, were you the Chief Scientific Adviser
4 for the Department of Health and Social Care between
5 2016 and 2021, so there was an overlap in fact?
6 A. Yes.
7 Q. Were you also formerly head of the National Institute
8 for Health Research, NIHR?
9 A. Yes.
10 Q. I believe that you were interim Government Chief
11 Scientific Adviser between 2017 and 2018?
12 A. Correct.
13 Q. You were the Chief Scientific Adviser at DfID. You were
14 until very recently a member of the executive board of
15 the World Health Organisation, and you remain,
16 I believe, a member of the Department of Health and
17 Social Care's Executive Committee, ExCo.
18 There are, if I may say, too many honorifics,
19 qualifications and fellowships with a huge range of
20 august bodies for me to list them, but you are, by
21 training, a professor of public and international health
22 and you were a professor of public and international
23 health at the London School of Hygiene and Tropical
24 Medicine, and, perhaps primarily, a fellow of the
25 Royal Society, the Academy of Medical Sciences, the

1 Royal College of Physicians and an honorary fellow at
2 a number of other organisations?
3 A. Yes.
4 Q. For the particular purposes of addressing the issue of
5 preparedness, were you involved in the response to many
6 United Kingdom and global medical and wider emergencies?
7 A. I was, over quite a period of time.
8 Q. Were you concerned, therefore, with the response to the
9 HIV emergency, health emergency, to the Ebola emergency,
10 and the emergencies connected to the Zika outbreak
11 abroad and the Novichok poisonings in Salisbury and
12 Amesbury?
13 A. Yes to all of those, and the HIV was as a clinician
14 rather than as a member of government.
15 Q. Thank you.
16 Have you also been at various times a chair or
17 a member of a number of the important advisory disease
18 committees which exist within the United Kingdom?
19 A. Yes.
20 Q. All right. Well, we'll come back to the detail of those
21 in due course.
22 Also, and it's relevant again to this module,
23 together with the Chief Medical Officers for Scotland,
24 Wales and Northern Ireland and the Government Chief
25 Scientific Adviser and the NHS National Medical Director

1 and a number of other people including relevant Deputy
2 Chief Medical Officers in the United Kingdom, did you
3 write what is known as the *Technical report on the*
4 *Covid-19 pandemic in the [United Kingdom]*?
5 A. I did. This was aimed specifically at our successors,
6 so it's in places quite technical, as the title implies,
7 but it is, I hope, helpful to this Inquiry and indeed
8 more generally to lay out some of the scientific and
9 medical issues.
10 Q. So that we may get our bearings, is it a report, a very
11 considerable report, addressing the questions of
12 disparities, research, situational awareness, modelling,
13 testing, contact tracing, NPIs, care homes,
14 pharmaceutical interventions, improvements in the care
15 of Covid and communications. So traversing, in fact,
16 the whole scope of the response to Covid and the
17 preparedness for Covid with which you were directly
18 personally and professionally concerned?
19 A. Yes.
20 Q. All right.
21 I don't propose, Sir Chris, to ask you about matters
22 which more properly fall within the scope of Module 2,
23 so let me make it absolutely plain, there will be no
24 questions today about the government's response to the
25 pandemic. Those are matters for the future.

1 I'd like you instead to focus, please, firstly on
2 some of the structures which play a very important role
3 in the emergency preparedness resilience and response
4 system in the United Kingdom.
5 As the Chief Medical Officer, are you assisted by
6 a body known as the Office of the Chief Medical Officer?
7 If so, what is that?
8 A. So I am and am very fortunate to have a very able but
9 small group, as Dame Sally said in her evidence.
10 Normally this runs as it does at the moment at around
11 12 people, which includes myself and the Deputy Chief
12 Medical Officers, and then some private secretaries and
13 medical -- public health registrars.
14 Q. With the benefit of the hindsight that comes with
15 responding to the Covid pandemic, is there anything that
16 you would wish to say about the size of that office or
17 the degree of assistance or the resources associated
18 with it? Did it stand the test of time in light of the
19 terrible demands of the pandemic?
20 A. My view is that the size, which expanded up to about
21 19 people at peak during the pandemic, was the right one
22 for the job we were asked to do, which was advisory.
23 There were others who helped me with some of my more
24 executive functions because I was still, in the early
25 stages, running the National Institute for Health

1 Research. That was a significant, slightly different
2 body of work. But my general view is a small, very,
3 very good group is easier to provide clear advice to
4 people than a much larger and often more unwieldy group.
5 **Q.** Turning then to some of the other bodies concerned in
6 the EPRR system, is it important to distinguish between
7 those bodies which provide on a permanent basis
8 scientific advice and those bodies which are, to use
9 a terrible modern colloquialism, stood up to deal with
10 the response to civil emergencies? Does that divide
11 exist, and why does it matter?
12 **A.** So that divide does exist. There are a number of bodies
13 which give advice irrespective of whether there's
14 an emergency or not. Some of those are relevant in
15 emergencies, if they happen in their area of work. So,
16 for example, the group NERVTAG, which we may come back
17 to either now or in later modules, I know you've had
18 previous evidence on it, was very important in this
19 emergency and it also runs between emergencies. But
20 there's an apparatus that stands up particularly around
21 SAGE for major emergencies which acts both as a way of
22 funneling information to central government in
23 a coherent way, but also, and I think this is important
24 in the way we think about it, as a co-ordination
25 mechanism for how to prioritise the advice that's given.

1 So I actually think during emergencies there is
2 better co-ordination of scientific advice than there is
3 outwith emergencies, and I think that actually may be
4 a weakness between emergencies.
5 **Q.** In your witness statement, you state that the
6 United Kingdom science advisory system, and we are
7 concerned only now with the particular committees and
8 the particular groups that give specific advice, is
9 a complex one and not perfect but is considered to be
10 one of the stronger ones internationally.
11 Is it your view that whilst changes could be debated
12 and recommended perhaps to some of the individual
13 committees and their remit, their diversity and their
14 constitution, in a general sense there is no systemic
15 weakness in the system by which scientific advice is
16 provided pre-emergency?
17 **A.** I think that there is -- there are no structural
18 problems that I think need to be changed. There can be
19 issues as you say of detail. I'm always quite cautious
20 of changing structures as a way of trying to fix
21 problems. However, I think what this did demonstrate
22 was that whilst the system can be extremely fast-moving
23 during an emergency, I think it is sometimes less well
24 co-ordinated between emergencies, and I think from that
25 some problems actually arose.

1 **Q.** Is that a problem which emanates from the way in which
2 committees may be brought up to speed at great speed in
3 the face of an emergency, and therefore placed under
4 very considerable pressure by contrast to their normal
5 operating procedures?
6 **A.** I think it's more that it is very clear they're
7 operating around a single aim and all feed into that
8 single aim, whereas the danger in between issues -- and
9 I think Dame Sally has raised the issue of, were we
10 imaginative enough, were we radical enough in our
11 thinking, for example, about prevention, I think it is
12 quite difficult to be radical when you've got a very
13 diffuse system, it's much easier to do that, actually,
14 when you've got the whole system operating together. So
15 the SAGE mechanism allowed for much faster
16 decision-making and much more focused and, in my view,
17 more radical thinking than occurred between emergencies.
18 **Q.** But SAGE is of course a response body?
19 **A.** Exactly.
20 **Q.** We will come back to the issue of groupthink, as it's
21 been described, a little later. But in terms, again, of
22 the structures, that is to say the existence of the
23 various committees, putting aside the detail perhaps of
24 their composition and scope, would, in your view, any
25 significant change in the structures lead to

1 an appreciable improvement?
2 **A.** Not in my view. You need to have people who are similar
3 enough that they can have a serious conversation and
4 difficult enough that they can challenge one another and
5 bring different perspectives, and I think the structure
6 is probably a reasonable point between the two extremes.
7 **Q.** Is there any better international system used by other
8 countries which is worth emulating or not?
9 **A.** We've looked around the world. I mean, there are bits
10 of other systems, certainly in the global west and
11 north, which we've learnt from. But I think generally
12 the UK is seen to be a very strong system.
13 I think what we don't probably have as much sight of
14 is, for example, systems in China or some of the other
15 countries in Asia, and I think it is an opportunity to
16 rethink: are there things we could learn from those
17 parts of the world? But certainly in Europe, in
18 North America and other countries we normally deal with,
19 I think most people would see the UK as having a strong
20 system.
21 **Q.** May I ask you about two generic risks that you identify
22 in your second witness statement concerning the personal
23 composition of these advisory groups, that is to say the
24 members of the groups.
25 Firstly, do you identify that going forward there is

1 a growing risk in relation to the availability of the
2 requisitely qualified and expert members to take part in
3 this committee work? Is there a problem developing in
4 relation to the ability of such experts to make
5 themselves available for potentially quite lengthy
6 periods of time?
7 A. I mean, I think we have been extraordinarily lucky in
8 the UK of having a tradition of the best people doing
9 this, and this has happened over very many years.
10 I think there are two potential threats that we need to
11 be very alive to, the first of which is the university
12 system has got more hawkish, if I can put it that way,
13 about recovery of time and what are the people that
14 they're paying spending their time doing. I see this as
15 a very major part of the contribution of science to
16 society, but obviously for individual institutions
17 that's an issue. So that's a kind of mechanistic one.
18 Then I do think that what occurred during Covid,
19 where the level of abuse and, in some cases, threat to
20 people who volunteered their time is an extremely
21 concerning one, and one we should be very firm in saying
22 that the society very much appreciates the work of these
23 people, who put in enormous amounts of time, usually at
24 no recompense.
25 Q. You would no doubt have given some considerable thought

1 to that issue, because of course you were, I'm very
2 sorry to say, a recipient of some of that disgraceful
3 behaviour.
4 Is there anything that can be done other than
5 calling it out and making it absolutely plain that the
6 inevitable consequence of such sort of abuse will be
7 a diminution in the co-operation and assistance that's
8 given by people such as yourself?
9 A. I think the main thing is to make sure that people who
10 do this understand that their work is very thoroughly
11 appreciated by the great majority of the population,
12 which I think it is.
13 Q. Again, still at quite a high level, may I ask you to
14 consider, please, the departmental Chief Scientific
15 Adviser system to which you refer in your witness
16 statement.
17 Is this the system under which, as my Lady has
18 heard, each major government department has or should
19 have in place a senior scientist to provide advice, to
20 co-ordinate with other Chief Medical Officers across
21 government in a cross-governmental way, to give advice
22 to each department, and also to ensure that there is
23 a consistency of approach across government?
24 A. Yes. I think that most of the Chief Scientific
25 Advisers, not absolutely all, are seconded in from

1 academia, either part-time or full-time. The advantage
2 of this is it brings some degree of independence, it
3 brings some degree of external challenge, but it also
4 brings in different expertise, and I think this was seen
5 during Covid. So many of the Chief Scientific Advisers,
6 were doing roles in the Covid response which were
7 relevant to their particular skills, although it wasn't
8 the thing for which they had been brought in. So,
9 for example, Professor Watts, in the Foreign,
10 Commonwealth & Development Office, is a specialist in
11 social -- some aspects of social science, as well as
12 mathematical sciences, she was very influential.
13 Dame Angela McLean, now the Government Chief Scientific
14 Adviser, was then at MoD, the defence department, but
15 she was an academic epidemiologist and modeller of great
16 reknown and so on. So people brought their personal
17 skills alongside their departmental skills, and I think
18 this was a very useful part of our response.
19 Q. Does the close working network between departmental
20 Chief Scientific Advisers in each department allow for
21 rapid transmission of technical information to each
22 department?
23 A. Yes, and it allows for a degree of essentially technical
24 discussion between who know one another and then they
25 can disseminate in their department in the way that is

1 best suited for that department.
2 Q. Does the fact that Chief Scientific Advisers come from
3 different professions and different parts of the
4 scientific world assist in any way in the ability to
5 challenge orthodoxy, to ensure that the thinking is
6 sufficiently lateral and open to challenge?
7 A. I think it helps, but I think we should all acknowledge
8 that the wider you can go in terms of external challenge
9 the better, because science works best when you have
10 external challenge from multiple directions.
11 Q. Again, before we look at SAGE in detail, and again at
12 quite a high level of generality, do you have any views
13 as to whether or not there is sufficient diversity
14 within the scientific world, in terms of the composition
15 of these various committees and advisory groups, to
16 ensure that essentially the advice that's been given to
17 government is sufficiently broad?
18 A. Well, I think you've always got a tension: the more you
19 broaden things out, the wider the range of experiences
20 and skills and diversity of thinking you get, and the
21 more unwieldy the committee becomes. I think what
22 you've got to do is get a balance between those two.
23 What you don't want is everybody going round the table
24 saying a single thing, no ability to challenge because
25 it's too big. So it's getting the balance between those

1 two, but I think on the whole the system works
2 reasonable well. But, the big but is, of course, it
3 also depends on an enormous amount of science
4 underpinning it, and it should depend on people being
5 able to challenge what's said from the external
6 environment as well, because that provides some of the
7 additional challenge into the system.
8 **Q.** Turning then just to four of the particular groups to
9 which you made reference in your witness statement.
10 Firstly, NERVTAG, the New and Emerging Respiratory Virus
11 Threats Advisory Group, of which my Lady has heard much
12 in the last two weeks. Is this an expert committee, in
13 fact, of the DHSC? Is it a committee which advises the
14 Chief Medical Officer and, through you, ministers and
15 the DHSC and other government departments in relation
16 to, as it says on the tin, new and emerging respiratory
17 viral threats?
18 **A.** Correct.
19 **Q.** A point made by Professor Whitworth and Dr Hammer in
20 their report, which I'm sure you've seen, is that one
21 potential weakness with NERVTAG is, as it says, it only
22 considers respiratory viruses and not the whole range of
23 emerging infections. Is there a case for a tweak in the
24 scope of any of these committees or groups, particularly
25 NERVTAG, to ensure that nothing does fall between two

1 stools?
2 **A.** I think there is a potential weakness on this actually.
3 As I laid out in my written witness statement, there are
4 broadly five routes by which infections which could
5 become epidemics or pandemics can go through. NERVTAG
6 covers respiratory but it doesn't cover the others,
7 for example touch or sexual transmission. I mean,
8 you've got to remember that the last very big pandemic
9 we had affecting the UK was HIV, which is completely
10 different, it's a sexually transmitted, intravenously
11 transmitted infection, completely different route of
12 transmission, completely different disease.
13 There was a body called the National Expert Panel on
14 New and Emerging Infections, bit of a mouthful, NEPNEI,
15 which did have that wider role but that was, for reasons
16 I'm not actually sure of, I wasn't involved in this
17 decision, stopped. I was previously chair of it so
18 I knew its work, and --
19 **Q.** You knew it had stopped, presumably?
20 **A.** No, I had ceased to be chair before it stopped, yes, and
21 I think there is an argument for saying we need to cover
22 these other areas because risks do come from multiple
23 directions.
24 **Q.** Did NEPNEI provide expert advice directly to the CMO on
25 the public health risks associated from new and emerging

1 infections generally, so not respiratory viruses?
2 **A.** That was their job.
3 **Q.** Was it in fact disbanded about ten years ago, does that
4 sound about right?
5 **A.** That's about right, yeah.
6 **Q.** One of the points, going back to NERVTAG, made by
7 a number of witnesses, in particular your colleague
8 Professor Sir Jonathan Van-Tam, was that NERVTAG,
9 because it is concerned with new and emerging
10 respiratory viral threats, was in his view and -- and is
11 not in his view asked to predict threats that might
12 emerge in the future, that there is obviously a lack of
13 prospective examination because it's not concerned with,
14 on its -- in terms of its terms of reference, with
15 anything other than a present continuing emerging viral
16 threat.
17 Is that a weakness in the scope?
18 **A.** I think it -- realistically the danger is you can end up
19 with almost infinite numbers of theoretical threats.
20 The sensible thing is to concentrate on threats which
21 may look small at the moment but could expand very
22 significantly, so, for example, MERS virus, another
23 coronavirus, currently has relatively small numbers of
24 cases every year, but it could expand very rapidly. We
25 definitely need to have information about that, just to

1 give an example.
2 I think thinking about theoretical ones is much more
3 difficult, but you do need to understand the range --
4 not you need to, but we all need to understand the range
5 of possible scenarios, ranging from very, very high
6 mortality, very low mortality, different routes of
7 transmission, different forces of transmission,
8 different age structures of disease, and that doesn't --
9 you can't ask a single committee to cover all of that
10 waterfront. What you do need to do is to allow for the
11 possibility that they could come from almost any place.
12 **Q.** Does NERVTAG sit continuously or at least
13 peripatetically, it sits from time to time, to consider
14 constantly new and emerging threats, or does it respond
15 to and act upon specific commissions from the
16 government? So might a government department say of
17 NERVTAG, "Could you please look at this particular
18 issue", or is it open to NERVTAG to raise of its own
19 volition a matter which it believes is of concern or
20 should be of concern to the government?
21 **A.** So certainly -- it's certainly able to. I mean, when
22 I've chaired scientific advisory committees or
23 equivalents, my kind of view has always been about
24 a 80/20 rule, which is if you spend all of your time
25 considering things that only the committee is interested

1 in and the government is not, then you're probably not
2 going to get much traction. Equally, if you're only
3 restricting yourself to the things which the government
4 has raised, you may be missing either important things
5 which the experts spot or, occasionally, issues which
6 are inconvenient to government but need to be aired.
7 So I think that most of the time should be spent on
8 things the government is asked about but a significant
9 minority should be spent on things the government has
10 not asked about, for whatever reason.
11 **Q.** Is the drawing of that difficult dividing line a matter
12 that should, in your view, be left to the expertise and
13 good sense of the members of the group as opposed to the
14 application of some sort of prescriptive system?
15 **A.** Yes, I mean, the number that I made was a made-up number
16 but I'm illustrating the kind of rough divisions I think
17 there should be. This really should be in the hands of
18 the independent chair. They're selected to be one of
19 the experts in the country, they're usually a very
20 senior academic, and they can discuss with
21 the secretariat and say, "This is what I want to do",
22 but my view is there should be some latitude, otherwise
23 the committees can become the creatures of government,
24 which is not the right approach.
25 **Q.** Professor Whitworth and Dr Hammer referred to a second

1 group, the Human Animal Infections and Risk Surveillance
2 group, HAIRS, which is a multi-agency cross-government
3 horizon scanning and risk assessment group with,
4 I think, a number of representatives from across
5 government on it.
6 Is its scope, despite the fact -- well, as it says,
7 animal infections, it considers only potentially
8 zoonotic infections, that is to say animal infections,
9 and not the whole range of emerging infections?
10 **A.** That is correct. But there is a very large overlap, in
11 fact, but again it starts from zoo -- it starts from
12 animal diseases and works out which of those have
13 zoonotic potential, that is to say have the potential to
14 jump from animals to humans. That's really what its
15 principal aim is. It's got a slightly wider aim but
16 that's its principal aim.
17 **Q.** But there is no question, is there, of there being a gap
18 between two stools? Whether or not the infection is
19 zoonotic or otherwise, there is in existence a group or
20 committee which will be looking at the issue of
21 an emerging threat?
22 Sir Chris, could I -- I apologise -- just ask you to
23 keep your answers -- to make your answers a little bit
24 slower. Whilst, if I may say so, your evidence is
25 wonderfully clear, it's very difficult to transcribe.

1 **A.** My enthusiasm is running away with me.
2 **Q.** So my question is whether or not an emerging threat is
3 zoonotic or not, there is at least in existence
4 a committee or a group that will be keeping its eye
5 firmly fixed on the nature of the emerging threat?
6 **A.** There should be, yes.
7 **Q.** Right.
8 The last committee I wanted to ask you about is the
9 Advisory Committee on Dangerous Pathogens, ACDP. This
10 is a DHSC committee. To what extent does that
11 committee, concerned as it is with dangerous pathogens,
12 overlap with those committees that deal with zoonotic
13 and other emerging infections?
14 **A.** So that committee, which I very briefly chaired, again
15 when I was outside government, when I -- sorry -- is
16 principally aimed at infections we know about and which,
17 if they were introduced into a laboratory, for example,
18 could be a risk to the people who are dealing with it,
19 or could be a risk to people in hospital or people who
20 come into contact with someone. They tend to be the
21 diseases that have got very high mortality, so something
22 like Ebola where, untreated, maybe 70% of people who
23 catch it would die. So those very high consequence
24 infections will be the most common, but a variety of
25 other infections which have to be handled particularly

1 carefully in terms of either their clinical or their
2 laboratory management.
3 **Q.** So, standing back, is it your view that the broad range
4 of advice compendiously provided by the various groups
5 and committees is right: there is no significant issue
6 in relation to omission or too great a degree of overlap
7 or of ministers in the government not receiving the
8 advice, in a general sense, that it requires?
9 **A.** I think that in terms of identifying risks I think that
10 the waterfront is quite well covered. There are some
11 gaps which -- but they are not huge ones, in my view.
12 I think in terms of what the response should be, I think
13 that's a much more -- I'm much less certain that that is
14 covered well by the current system.
15 **Q.** Let us then look at that, please. Are you in fact
16 really referring to SAGE, to which you referred earlier,
17 which is the primary response body stood up, to use that
18 phrase, in the event of an emergency to provide,
19 of course, scientific advice on emergencies?
20 **A.** If I may just go back one step from that.
21 **Q.** Please.
22 **A.** You know, I think central to a lot of the debate that
23 you've had over the last several weeks, and in the
24 excellent written statements to the Inquiry, has been
25 the point that we should have had a more imaginative

1 approach to how we would respond to a major pandemic,
2 whether it was influenza, something like influenza, or
3 indeed something else. But this would require quite
4 radical changes in the way people think.
5 Now, I don't think the current committee system,
6 which is excellent, is designed to inject radicalism of
7 that size into the situation. It's very good at
8 responding, it's very good at horizon scanning, in my
9 view, relative to what is realistic.
10 So I think that is potentially the big weakness in
11 the system: how do you inject radicalism into the
12 system, rather than how do you respond to expertise.
13 **Q.** The issue of how to inject radicalism or, to put it
14 another way, how to challenge groupthink effectively, or
15 to put it another way, to increase the diversity of view
16 in a committee, is a different issue, is it not, to the
17 question of whether or not structurally this is
18 an important and valuable committee to have?
19 **A.** Yes, exactly, and my point is simply I think the system
20 is very good at what it does, but we should recognise
21 that there is a gap in the system.
22 **Q.** Could we look firstly, then, at the structure and then
23 we'll return, please, to the groupthink issue or the
24 radicalism issue.
25 You have vast experience of SAGE, because you

1 attended SAGE in your previous life as an interim
2 governmental Chief Scientific Adviser, also as
3 a departmental Chief Scientific Adviser, and of course
4 now currently as the CMO, and I think as an observer for
5 DfID when you were the Chief Scientific Adviser there.
6 Does SAGE sit permanently, or is it brought together
7 in the event of an emergency?
8 **A.** So SAGE is brought together only in an emergency. The
9 way in which it's brought together has changed over the
10 last decade. So it used to be that it would only meet
11 if it was asked to by Cabinet Office because COBR
12 mechanism, which you were hearing about in your last
13 session, was brought together. That's changed now, and
14 that changed actually as a result of the Ebola crisis in
15 West Africa. We recognised that SAGE had to be possible
16 to bring together irrespective of whether a COBR had
17 been called if something looked big enough to need
18 multi-departmental and multi-scientific views.
19 It's called by the Government Chief Scientific
20 Adviser -- I know you're hearing from
21 Sir Patrick Vallance later -- but it also can be
22 requested by other Government Chief Scientific Advisers,
23 in terms of departmental scientific advisers or the CMO.
24 **Q.** Because it's convened by the governmental Chief
25 Scientific Adviser, does that person also chair SAGE in

1 all eventualities but not in the event of a health
2 emergency?
3 **A.** The Government Chief Scientific Adviser will always
4 either chair or co-chair SAGE. If you have a SAGE, it
5 means you've got a very big problem, and therefore that
6 would clearly be a priority for the Government Chief
7 Scientific Adviser of the day, and they might have to
8 delegate it from time to time, but that would be the
9 principle.
10 For health emergencies, there's usually
11 an assumption that the Chief Medical Officer would
12 co-chair, and in previous emergencies I have co-chaired
13 with previous GCSAs where it was seen that my expertise
14 was such that that would be helpful.
15 **Q.** In the event of a health emergency, as of course Covid
16 was, you therefore chaired SAGE along with
17 Sir Patrick Vallance?
18 **A.** Yes. I mean, I think that realistically he chaired most
19 of the time, he is an excellent chair, but I was
20 the co-chair and would stand in for him and would agree
21 the agenda and sign off the minutes.
22 **Q.** The benefit, of course, of having the Chief Medical
23 Officer co-chair SAGE in a health emergency is that the
24 Chief Medical Officer will bring his or her medical,
25 clinical, epidemiological experience, whatever it may

1 be, to the table.
2 To what extent can SAGE call upon the expertise of
3 experts outside the membership of SAGE? So,
4 for example, from some of the other committees and
5 groups to which we've referred, or individual experts
6 and scientists outwith any of those groups.
7 **A.** So SAGE is set up to answer the problem that it was
8 actually originally -- you know, if, for example, you
9 have a volcano, you will bring in the best volcano
10 experts from the UK, and potentially internationally if
11 that's the right thing to do. For the Covid emergency
12 this involved many scientists who were on the expert
13 groups but it also involved other people who were not on
14 those groups but were seen to have national or
15 international expertise.
16 The membership shifts. There's no permanent
17 membership of SAGE. The only person who is permanent in
18 SAGE is the chair, the Government Chief Scientific
19 Adviser. The other members are entirely to deal with
20 the problems that are in front of the committee. This
21 is to make sure you've got the right people in the room
22 but not a large group of people, making it impossible to
23 get to final decisions.
24 **Q.** If, Sir Christopher, the membership shifts per SAGE and
25 if SAGE has the ability to call upon the experience of

1 individual members of that committee with vast
2 professional scientific experience and it can call upon
3 the expertise of the various other committees to which
4 you have referred and it may call upon the advice and
5 assistance of individual experts, why is there an issue
6 about the diversity of opinion or the absence of perhaps
7 sufficient challenge or the absence of necessary
8 radicalism?
9 **A.** Well, I think I would -- here I'd like to clearly
10 separate between during an emergency and the period
11 leading up to an emergency.
12 **Q.** Right.
13 **A.** Actually my view was during an emergency the SAGE
14 mechanism stood up as essentially the conductor of the
15 orchestra. You've got around that lots of expert
16 committees and, feeding into them, many, many
17 scientists, the major academies and so on. So the
18 mechanism can be fast-moving and it can pull science
19 from multiple directions. I actually think it works
20 pretty well. I don't really think, despite what a few
21 people have said, that there was any weakness in the
22 radicalism or change in opinion of SAGE once the
23 emergency was under way. I think where things have --
24 and I'm happy to go through details of this -- where
25 I think there is an issue is between emergencies there

1 is no SAGE and therefore what you have is large numbers
2 of expert committees doing a perfectly good job on their
3 own, but what you don't have is an overall structure and
4 the only situation in which they would end up in
5 a radical place, in my view, is if they were challenged,
6 usually by political leaders, who said, "This is a very
7 big problem, I want you to think really widely about
8 this".
9 **Q.** Or perhaps by an external body or agency or resilience
10 institute or whatever it might be?
11 **A.** Possibly, but let us take, and I think I'm going to give
12 a longer answer, because I think this is so central to
13 all the evidence you've had so far.
14 **Q.** Sir Christopher, could I interrupt you very rudely to
15 say, given the importance of the answer, please keep it
16 as slow as you can make it.
17 **A.** I apologise.
18 The question about should we move beyond the
19 individual components of what were termed, in Covid,
20 NPIs, non-pharmaceutical interventions, rather a clumsy
21 term, essentially meaning social measures, many of which
22 are long-standing, quarantine, individual isolation,
23 closing schools, many of these go back to the
24 Middle Ages or beyond, these are not new ideas.
25 However, the very big new idea was the idea of

1 a lockdown. This is often -- all the NPIs are sometimes
2 called lockdown by some commentators, but I'm talking
3 here very, very specifically about the state saying
4 people have to go home and stay at home except under
5 very limited circumstances. A very radical thing to do.
6 **Q.** Mandatory quarantine?
7 **A.** Mandatory. Really big thing.
8 I would have thought it would be very surprising,
9 without this being requested by a senior politician, or
10 similar, that a scientific committee would venture, in
11 between emergencies, into that kind of extraordinarily
12 major social intervention, with huge economic and social
13 ramifications.
14 So that's my point, is that it is very difficult for
15 the committees to go beyond a certain level unless they
16 are asked to do so externally.
17 **Q.** Of course Module 2 will return to the issue of the
18 merits of mandatory quarantining, and I emphasise that's
19 a very helpful introduction to the topic, but we really
20 can't go further into that now.
21 Coming back to the central point that you make,
22 which is that between emergencies because there is
23 an absence of common aim, a common imperative to address
24 all aspects of the instant emergency, there is a risk
25 that all the various committees will fail to address

1 sufficiently or think deeply enough about the possible
2 ramifications or the consequences or the steps that have
3 to be taken in relation to a prospective future
4 emergency.
5 **A.** That is --
6 **Q.** That is the point about mandatory quarantine?
7 **A.** That is exactly right. If I could just add one
8 important rider to that. The idea that the UK alone is
9 thinking about this of course is incorrect. This is
10 an international scientific effort and the situation we
11 found ourselves going into Covid, the UK was in the
12 middle, in my view, of the mainstream of world
13 scientific opinion, so it wasn't that we were, on our
14 own, isolated in a particular position, we had
15 a position that was identical to virtually all other
16 nations I'm aware of.
17 **Q.** We'll return to this issue later, but you are aware,
18 of course, of -- although it was before your time as
19 CMO -- Exercise Alice, which was the MERS-related
20 exercise. My Lady has heard evidence that amongst the
21 many recommendations and learnings from Exercise Alice
22 were actions relating to the development of a MERS
23 coronavirus, a MERS-CoV serology assay procedure for
24 scaling up capacity, the production of a briefing paper
25 on the South Korean outbreak concerning MERS with

1 details of how to deal with port of entry screening,
2 option plans for using evidence and cost-benefits for
3 quarantine versus self-isolation, so mandatory
4 quarantining/lockdowns versus self-isolation, and the
5 development of plans for community sampling and also for
6 mass contact tracing.
7 So all those issues to which you've referred,
8 Sir Christopher, were all potential ramifications or
9 consequences of a future prospective emergency as
10 at 2016, but they were all flagged up in one way or
11 another -- admittedly not in the highest profile way --
12 in 2016 as a result of Exercise Alice.
13 So why were they not taken further within or perhaps
14 outwith the various committees which were constantly
15 sitting to consider such issues?
16 **A.** So I thought the report on Exercise Alice and the
17 exercise itself actually were very good and very useful.
18 I don't think -- and I also think that it was sensible
19 to do all of the recommendations that were put into it.
20 So I thought they were all sensible. But actually they
21 were incremental re-statements of existing thought. In
22 fact, they weren't a new approach, they were essentially
23 a bringing together and saying we've got to be more
24 systematic about something we were already thinking
25 about, aiming at the kinds of things that were seen with

1 MERS and SARS, which were relatively modest size scale
2 outbreaks compared to Covid, but still very significant
3 infectious outbreaks. So Operation Alice was aimed at
4 that problem, it wasn't aimed at a pandemic problem.
5 I think the other very good report that goes alongside
6 it is Dame Deirdre Hine's report after the pan flu --
7 sorry, the H1N1 2009 flu pandemic. That also has
8 a number of very sensible recommendations.
9 Both of those I think would have helped us, but
10 I don't think either of those would have led to the
11 completely different approach to a pandemic which
12 developed during the first few weeks of Covid.
13 **Q.** MERS is, as it says on the tin, a coronavirus. There
14 was undoubtedly debate about these important steps,
15 important plans, important policies. Were they not --
16 let me start again.
17 If they were not pursued further or at least to full
18 fruition and put into place by way of planning for
19 a pandemic, was that because it wasn't sufficiently
20 recognised that a high-consequence infectious disease,
21 perhaps a viral disease, could have the necessary
22 characteristics and variables that would make it into
23 a full-blown pandemic like an influenza pandemic, or
24 because, administratively, the processes and the
25 workstreams were simply not pursued sufficiently by the

1 government, or both?
2 **A.** I wasn't involved in any of the decisions around this,
3 I think I simply just can't answer that in a useful way.
4 **Q.** All right.
5 You've given evidence about the need for diversity
6 and radicalism and challenge in relation to the standing
7 committee and group structures, but we deliberately
8 don't come on to SAGE, the response body.
9 Without going too far into the issue, because it is
10 for Module 2, but to close off this matter, is there
11 an issue about the diversity of composition of
12 contribution in SAGE in the context of a health
13 emergency? So, to be blunt, is there an issue -- which
14 I'm not asking you to resolve today -- for future
15 consideration about whether or not the outstanding
16 experts, professionals and scientists who were on the
17 committee were sufficiently diverse themselves, perhaps
18 too weighted towards biomedical expertise as opposed to
19 economic and social?
20 **A.** Well, I think that wraps up several quite important
21 issues. Can I take it as two different chunks?
22 **Q.** Please.
23 **A.** The first is the issue about: was there enough diversity
24 in the group? I mean, you know, if you ask that in
25 an objective way, the answer, to almost any group, will

1 be no. But in terms of what is manageable, given that
2 you have to have a committee that covers as much of the
3 ground as possible and has to move very fast -- so just
4 in Covid, we often had to have a meeting that finished
5 half an hour before the COBR meeting or an equivalent,
6 so you have to be able to do things quickly -- there
7 is -- my view is it is a reasonable balance between
8 coherence and challenge.
9 However, there is undoubtedly a lot of benefit from
10 getting external challenge. So the challenge doesn't
11 all have to be within the committee. I think there
12 would be strong arguments for having mechanisms for
13 actually essentially putting an antithesis to the thesis
14 that's put forward by a body like SAGE. People talk
15 about red teams, whatever, there are lots of ways of
16 describing it, but the principles, I think, are
17 perfectly reasonable, actually. But I think that may be
18 a more efficient way to do it than to try and have every
19 single aspect of every opinion represented in the one
20 committee. I think that would be tricky.
21 **Q.** Is that, to take it from another angle, because some or
22 all of you are, as described I think by your colleague
23 Sir Patrick Vallance, licensed dissidents? It is in the
24 nature of being an expert, and of being particularly
25 a scientific expert, that there is a tendency to

1 challenge orthodoxy, it's part of the nature of the job
2 you perform?
3 A. I think that some scientists overemphasise their own
4 unorthodoxy. There is a scientific orthodoxy at any
5 point, and in fact the job of SAGE, and I think this is
6 something which I'm sure will be very central to our
7 discussions in the next module, is not, in my view, to
8 provide radical ideas, it is to say this is the central
9 position of science in the world at this moment in time,
10 accepting the science may move on. So it's not actually
11 designed to be a radical body as such, it's designed to
12 be an expert body. Those two are not necessarily
13 contradictory, but they -- certainly the aim of it is to
14 provide a central view.
15 Q. Right.
16 A. So --
17 Q. You had a second part --
18 A. Yes, so the second part is you asked very specifically
19 on economics, and I think this is a very important
20 question. The problem you've got is that the people
21 around SAGE tables are not best placed to provide
22 challenge to one another or to an economist coming in.
23 If you had two economists on SAGE, you would not be in
24 a situation where SAGE would suddenly become
25 an economically extraordinarily competent body. It

1 would be a competent scientific body with two economists
2 on it. Which does not strike me as actually answering
3 any terrible useful question.
4 The very, very narrow bit where I think that SAGE in
5 the health emergencies can have a role is in health
6 economics, which is a very specific bit of
7 microeconomics which is generally in medical schools,
8 and alongside them rather than to one side. Doctors
9 know how to understand health economics, but that's --
10 the big macroeconomic questions, the fiscal questions
11 which were central to the debates not just in Covid but
12 in most other emergencies I've seen, that requires
13 a completely different skill set, and I don't think SAGE
14 people, including myself, have the competence to assure
15 government that they've considered the economic problem
16 and they can now give a central view on it. I think
17 that would have to be done separately.
18 Q. May I say thank you very much, because that is obviously
19 of great assistance in terms of alerting us to some of
20 the issues which will need to be explored in greater
21 detail in module 2 in the context of the actual response
22 by SAGE to the particular emergency.
23 Can I then come on to the issue of planning
24 assumptions and the issue of the 2011 pandemic influenza
25 strategy -- of course, again, before your time as CMO --

1 and some of the doctrinal thinking which has been open
2 to criticism by a number of witnesses, both in writing
3 and orally before the Inquiry.
4 The 2011 United Kingdom Influenza Pandemic
5 Preparedness Strategy, you yourself say in your witness
6 statement that in November 2018 it was recognised that
7 there was a need to refresh that strategy and the work
8 was to be led by the DHSC with oversight from the Chief
9 Medical Officer and the Deputy Chief Medical Officer.
10 But the work on the update ceased in March 2019 as
11 a result of reasons with which the Inquiry is now very
12 familiar, namely the reallocation of necessary resources
13 or the necessary reallocation of resources towards EU
14 exit preparations.
15 To what extent was it recognised generally, either
16 in the Office of the Chief Medical Officer, although
17 that was before your time, so perhaps in the Office of
18 the Government Chief Scientific Adviser, and the DHSC or
19 the Cabinet Office, that there was a need to refresh the
20 strategy, that it was a single strategy dealing with
21 pandemic influenza and it was by then self-evidently
22 a little out of date, and there was no other strategy
23 for non-influenza pandemic in existence?
24 A. So I'm going to just go into one bit of
25 Sir Humphrey-like language differential. In government,

1 "refresh" generally means update but it doesn't mean any
2 major shift. When you read this document now, with the
3 benefit of having been through the thought processes
4 that unfortunately we've had to be faced with during
5 Covid, it clearly needs a complete re-think. It doesn't
6 need just a refresh. Had there been a refresh, to use
7 that term, which is not one I particularly like but I'm
8 just using the term that was used, it would not, in my
9 view, have significantly changed of its philosophical
10 approach. It might have updated some bits around
11 legislation and bodies and so on, but it would not,
12 I think, have been materially different to what it is
13 now, and I think what it needs is a re-think and I also
14 think alongside it, and I've discussed this with
15 colleagues already, I've said we need to do this, there
16 needs to be a separate equivalent thing for
17 non-influenza pandemic, so I think essentially there
18 need to be two documents.
19 Q. That's a point, of course, which has been put to those
20 who actually are responsible for the drafting of the
21 strategy within the DHSC and the Cabinet Office.
22 On the first point that you make, Sir Christopher,
23 does it follow that even had the refresh been -- and
24 again I baulk at using the word -- carried through, it
25 wouldn't have led to a significant difference in the

1 United Kingdom's ability to prepare for the pandemic
2 that in fact ensued, because it wouldn't have led to the
3 necessary radical change of thinking that would have had
4 a practical impact on our preparedness arrangements?
5 **A.** That is my view.
6 **Q.** Right.
7 Can we come, then, to the doctrinal flaw to which
8 you've just referred in that strategy, the one that
9 might not have been picked up in any event, even had
10 there been a refresh.
11 Would you agree with the following propositions:
12 firstly, that there was in that strategy and generally
13 across government a long-standing bias in behaviour of
14 influenza?
15 **A.** So I -- that statement is true for good reason. I don't
16 think that means that other things were not considered.
17 The reason for this is simply that we've had many more
18 influenza pandemics, anyone who was born after 1950 will
19 have lived through three of them, and therefore we do
20 have to think about influenza separately. I do actually
21 think that is -- in terms of predictable risks, it's the
22 biggest single predictable risk. But what most people
23 think is the most likely thing is something we have not
24 predicted, what WHO calls Disease X. And it's thinking
25 around the ability to respond to the unexpected, the

1 unpredicted, that I think that the separate strand of
2 thinking needs to occur.
3 **Q.** I think the phrase comes from your predecessor,
4 Professor Dame Sally Davies, that there is
5 a long-standing bias. Bias is a state of fact or is
6 a state of affairs. It may well be that there was good
7 reason for that state of affairs insofar as the policy
8 and the guidance and the strategy correctly recognised
9 other risks, it just happened to determine that they
10 were of lesser probability or lesser likelihood, and
11 therefore they received less attention. But there was,
12 was there not, administratively, a general taking of the
13 eye off the ball in terms of focusing on those other
14 risks, less probable, less likely, as they were, and
15 a general trend towards focusing on influenza,
16 disproportionately to the -- with the consequence that
17 other areas, other risks, other matters, were not
18 sufficiently catered for?
19 **A.** I think I would differentiate here between having
20 documents and having thinking. If you think about
21 NERVTAG, which you've already talked about, NERVTAG was
22 explicitly designed to cover non-influenza risks.
23 Certainly my own thinking is not in any way limited to
24 influenza. I think I submitted as evidence a talk
25 I gave in Gresham College in 2018 just to prove it was

1 not a post hoc rationalisation, there have been a number
2 of those, and to make the point that most of what I was
3 talking about was not influenza.
4 So I don't think it would be correct to say that
5 no one was thinking about anything other than influenza.
6 There were only documents about influenza. That's
7 slightly different. And in reality, when I looked at
8 this document at the beginning of the Covid pandemic,
9 I did not feel the document gave me much that was of any
10 great use. So the document and the thinking are, in
11 reality, separate things.
12 **Q.** The question was predicated in fact on this aspect, that
13 was there a tendency administratively to become overly
14 focused on influenza, so in fact it wasn't designed to
15 elicit the answer that there was a bias in terms of your
16 or the expert thinking in this area, but the system and
17 preparedness as a system began to display
18 a long-standing bias, as Professor Dame Sally Davies
19 says in favour of influenza?
20 **A.** I think that is true, but I think this goes back to
21 a general point which I think has been made by a lot of
22 witnesses, that because every pandemic is very different
23 and sometimes massively different from its predecessors,
24 having plans and documents of this sort is actually not
25 generally the most useful way to deal with it. What you

1 need to have is capabilities and flexible capabilities
2 which are backed up by resource sufficient to be able to
3 scale them up. I think in a sense the danger in
4 government is that people feel the document is written
5 and therefore the problem is solved. I absolutely do
6 not think that's the case. I think it's to do with: do
7 you have a range of capabilities properly resourced with
8 people who know how to operate them and have the mandate
9 to do so?
10 **Q.** That brings me on to the doctrinal issues -- well, the
11 flaws, strategic flaws 2 and 3.
12 In the plans, but most notably the risk assessment
13 procedures and policies, was there, in your view,
14 a failure to appreciate properly, firstly, that because
15 of the variables inherent in any respiratory viral
16 disease outbreak, such as levels of transmission, high,
17 or stuttering, or transmission rate, whether short or
18 long incubation periods, whether or not the virus would
19 be asymptomatic or not, there was a failure to
20 appreciate the risk sufficiently of a less likely but no
21 less catastrophic pathogenic outbreak? The plans simply
22 didn't openly address such issues, transmission,
23 incubation period, symptomatic infection.
24 **A.** I don't think it was -- essentially my view is there are
25 two separate issues that were missing. The first, in

1 a way, the one that I think we really absolutely should
2 have done, taken much more seriously, was the capability
3 to scale up. That is useful in virtually everything.
4 The ability -- you know, every pandemic, every epidemic,
5 the ability to diagnose, for example, is essential, and
6 we had a very good capacity to do a very small amount of
7 diagnosis really quickly and we did not have the ability
8 to scale up, and I could repeat that across multiple
9 other domains.
10 Q. I'm going to bring you back, most importantly, to this
11 issue of scaling up and capability?
12 A. Okay, fine, but just to lodge that I think that is very
13 important. Then I think there was a strong intellectual
14 appreciation that you could have multiple other
15 conditions, and if you'd asked any of the excellent
16 public health experts in UKHSA and PHE, as it then was,
17 what are all the different things that could happen,
18 most of them would have said there's a very wide range.
19 What we didn't then do is go down to say: okay,
20 well, what are the building blocks you're going to need
21 for different sorts of pandemic, with different variable
22 levels of both route of transmission and mortality in
23 particular?
24 If I can illustrate that, and I am going to use
25 lockdown, because I think it is so central to the

1 thinking of lots of people who are thinking about this
2 Inquiry, if you look back over the last several
3 pandemics you certainly wouldn't have used it in H1N1
4 in 2009, because it was not a large enough impact on
5 society in any way to justify it --
6 Q. Well, you have just made plain, because it was a mild
7 influenza pandemic?
8 A. Correct. Then, going back to the next one, HIV, a very
9 serious thing, you would never have used it, because it
10 would have not worked at all. That whole route of
11 transmission was different. It wouldn't have worked
12 against plague, it wouldn't have worked against cholera.
13 It might have worked against the H1N1 1918 pandemic
14 possibly, and that might have therefore been justified.
15 But I'm just making the point that actually you have
16 to be extremely adaptable to the problem you deal with,
17 but you also have to say, well, if you go to the top
18 range of mortality, how can we actually get that down
19 and is society prepared to pay the price to get that
20 down. I think that was, in a sense, the leap of
21 imagination, not just the UK but just internationally
22 I think we had not fully made, because the UK position
23 was identical to almost all of our neighbours, to the
24 WHO and so on, it wasn't a uniquely UK position.
25 Q. But, Sir Christopher, your answer, of course, refers

1 quite understandably to capability, to the need to scale
2 up and of course to that foundational doctrinal
3 observation which is that any plan for a pandemic must
4 be able to cater flexibly for unexpected consequences or
5 unexpected pandemics, and obviously mandatory
6 quarantining doesn't always work, it all depends on the
7 nature of transmission of the pathogenic outbreak.
8 But my questions were designed to ask you about
9 whether or not there was a failure in the planning, in
10 the risk assessment process, the actual systems that we
11 have in place in this country to deal with a pandemic,
12 the planning, the EPRR structures. There was no open or
13 extensive consideration of these issues, about
14 transmission and the variable -- inherently variable
15 aspects of a pandemic or -- asymptomatic infection or
16 high transmission rates turning a high-consequence
17 infectious disease into a full blown global pandemic,
18 they're just not apparent on the face of all this
19 planning documentation.
20 A. I think this illustrates a failure in the way we
21 generally operate in government to deal with
22 emergencies, which is to say we need to have a plan for
23 every eventuality and if you can just pull off the plan,
24 you can tick off all the things you've got to do, that's
25 going to work. Problem is -- and pandemics is just one

1 example, but a very, very extreme one, Covid
2 demonstrated this -- actually what nature is going to
3 give you, to talk about the hazards -- and threats are
4 different, hazards -- is going to be completely
5 different every time.
6 So what you need to have is the building blocks of
7 lots of different capabilities and you need to say,
8 "Actually, we don't know what problem we're going to
9 face, but what we do know is we've got the capabilities
10 to face a whole range of different possible outcomes".
11 I think it's this -- the system design is designed to
12 focus in on a plan based around a scenario rather than
13 to, say, multiple capabilities that can be flexed to
14 almost any emergency in biological or a geophysical or
15 whatever space.
16 Q. But, thirdly, there does now need to be, and there is
17 now, a consideration of multiple scenarios in a way
18 which there wasn't formerly in all this planning
19 material following the Royal Academy of Engineering
20 review in particular, which with which you're familiar,
21 which specifically recommended that for each risk
22 a range of scenarios should be generated to explore
23 uncertainty, and possible additional planning
24 requirements. So it's in essence the point you make:
25 a proper plan must have within it the identification of

1 a broader range of scenarios to alert the system that
2 additional planning may be required and additional steps
3 may need to be taken. That was the third strategic
4 error, if you like, wasn't it?
5 **A.** Yes, in my view. Then I think I'd add to that a fourth,
6 which is to expose really clearly to political leaders
7 that there is a choice in terms of resource, and
8 that: here is a one in 50-year event, do you wish to buy
9 the insurance for that one in 50-year event, this is how
10 much it's going to cost.
11 I think that is really central to this, because
12 I think the danger is we respond to a threat, a new
13 perceived threat with a new plan, but no new resource,
14 and that very seldom tends to end in a good way.
15 **Q.** May we park resource at the end of the list. That's
16 obviously a political issue.
17 Focusing -- continuing to focus on the system, is
18 a fourth strategic error that -- and it's one that
19 I know you know that Mr Hancock particularly has made
20 reference in his witness evidence to this Inquiry, is
21 that because the reasonable worst-case scenario approach
22 focused on the worst that could realistically happen,
23 and because everyone's minds were therefore focused on
24 trying to deal with the worst that could realistically
25 happen, insufficient thought was given to in,

1 practice -- until obviously Covid was upon you -- trying
2 to prevent the worst from happening at all?
3 **A.** I half agree with the distinguished previous
4 Secretary of State. I'd certainly agree that we did not
5 give sufficient thought to what we could do to stop in
6 its tracks a pandemic on the scale of Covid or indeed
7 any other pathogen that could realistically go there.
8 I do think, on the other hand, it is sensible to have
9 a plan for if everything fails what are we going to do.
10 We do still need to be able to say, "Let's go to the top
11 of the range, actually we could end up with 750,000
12 people dying, where are we going to bury bodies? Where
13 are we going to ..."
14 These are important -- they may seem morbid but they
15 are practically important planning things, and in this
16 sense I do think a plan is important. But where I would
17 completely agree is that we do need to actually start
18 off, and I think this was brought out in Mr Hunt's
19 evidence yesterday, and also Mr Letwin's, all of them
20 essentially said: we saw this huge problem and we didn't
21 say to the system, "Well, how are we going to stop it?"
22 And actually it is senior ministers who have the
23 capacity to say to the system: actually, are you
24 absolutely right we can't go any better than that? We
25 need to actually address that.

1 So I think this is about the interaction between the
2 political, "We've really got to do something serious
3 here, I want to be absolutely assured we can't do any
4 better", and the scientific and technical, "Okay, well,
5 in response to that challenge, here is your range of
6 options, but they are going to cost something", and you
7 need to understand what that trade-off is and then you
8 can -- and that I think is where we have not been
9 successful.
10 **LADY HALLETT:** Could we just pause, I'm afraid, Mr Keith.
11 I think it may be that it's been --
12 **MR KEITH:** Too much.
13 **LADY HALLETT:** -- quite a morning.
14 **MR KEITH:** I have out of the corner of my eye tried to keep
15 an eye upon the travails of our wonderful stenographer.
16 **THE WITNESS:** I apologise for my fast speaking.
17 **LADY HALLETT:** Sir Chris, as a said to another witness, it's
18 a tendency I have too, so I understand. It's very
19 difficult to change your patterns of speech.
20 Can we break there?
21 **MR KEITH:** My Lady, may I just put one final thought to
22 Sir Christopher?
23 **LADY HALLETT:** Provided you speak slowly.
24 **MR KEITH:** I hope I speak a little slower.
25 Sir Christopher, you have then identified four

1 broad, I would suggest, strategic errors or flaws in the
2 system, none of these are personal, they are all
3 of course to do with the way in which the system readied
4 itself for a prospective pandemic. The fifth is
5 a matter that you touched upon earlier and to which you
6 made reference: was there a general strategic failure to
7 learn from the experiences of certain East Asian
8 countries who had dealt with SARS and MERS, and to learn
9 from their responses to the particular characteristics
10 of those coronaviral outbreaks, the learning to which
11 you referred earlier of course relating to mass testing,
12 mass contact tracing, mass self-isolation, and mandatory
13 quarantine?
14 **A.** Well, I think certainly if we're talking about the
15 pre-pandemic Covid period.
16 **Q.** Yes.
17 **A.** I certainly think that we should do more to learn from
18 approaches which are not the standard European,
19 North American, if I can simplify, approaches to things
20 which tend to dominate a lot of our thinking. So
21 I certainly think we should be communicating as much as
22 we can with other countries, including in
23 South East Asia and East Asia which have outstandingly
24 good scientists, who often come at things with a very
25 different perspective.

1 However, some of the very specific learnings that
2 people raise are, in my view, technically incorrect.
3 I don't want to go through them in great detail, but
4 for example, you know, I've spoken to my colleagues in
5 South Korea about MERS. Their principal problem was
6 an issue of hospital transmission, that's where most of
7 the transmission -- well, the large part of the
8 transmission -- force of transmission came from. What
9 that did though is it made them think they had simply
10 under-invested in, both intellectually and financially,
11 public health, and they did so. They completely changed
12 the way -- they were much more systematic.
13 The same was true in Canada, for example, after
14 SARS: exactly the same issue, a lot of the transmission
15 was in hospitals, the numbers were small but the impact
16 was very substantial, they changed what they did and
17 they re-thought their whole approach and they reinvested
18 in public health.
19 That is a very, very generic learning. It wasn't
20 the "This is a coronavirus and therefore we can learn
21 from a coronavirus". I think -- for a variety of
22 reasons I don't think it's -- probably this is the right
23 place to go into, it's a very, very long chain of logic
24 but it is -- I'm reasonably solid about it -- I think
25 that it was much more the generic "We need to strengthen

1 public health responses to infections and take them very
2 seriously at the earliest possible stage and scale",
3 rather than "These particular learnings we took away
4 from this particular virus".
5 **Q.** So the generic, the systemic improvements rather than
6 specific countermeasures, for example?
7 **A.** Yes, there are some exceptions, but broadly that is my
8 view.
9 **MR KEITH:** All right.
10 My Lady, may we leave it there?
11 **LADY HALLETT:** Certainly. Quarter to, please.
12 **(12.46 pm)**
13 **(A short break)**
14 **(1.45 pm)**
15 **LADY HALLETT:** I'm sorry if there was some confusion about
16 whether I was taking a short break or lunch.
17 **MR KEITH:** My Lady.
18 Professor, may we turn, please, now to the issue of
19 maintaining capability.
20 In your witness statement, you make these points:
21 that as soon as the danger of a pandemic or an epidemic
22 has passed, it's in the nature of things that countries
23 start to dismantle whatever capacity they put into
24 place, probably at great speed and under extreme
25 pressure, and you make the further point that it's

1 simply not possible for any reasonable or proper system
2 to maintain a full standing capacity to deal with
3 a pandemic or prospective pandemic. But also that the
4 risk of a future pandemic is an enduring one, it doesn't
5 go away.
6 So you make the concluding point that, in order to
7 respond in a measured, reasonable, proportionate way to
8 future challenges, there has to be the maintenance of
9 some basic capability that must be scaled up in
10 an emergency.
11 How is that line to be drawn? Where does one draw
12 the line in terms of what those basic capacities are?
13 How can any government have a clear understanding of
14 what capacities it must keep by way of a minimum
15 standing ability?
16 **A.** Well, I think that there are, firstly, a group of
17 technical capacities that we have to keep at
18 a potentially quite low level, but we need to have them.
19 So, for example, we must have people who are what's
20 called entomologists, who look at insect and other
21 vector-borne diseases for humans. They happen rarely,
22 except for things like Lyme, which happen not as
23 an epidemic, but we need to have that capacity because
24 were we to have such an outbreak in the UK, we need to
25 be able to respond to it.

1 So there are specific skills we need to maintain
2 across a whole range of the disciplines.
3 Then we need to have the ability to scale up in the
4 predictable areas, which would include things I've
5 mentioned already, like diagnostic skills, it might
6 include PPE, protective equipment, and a variety of
7 other areas.
8 It's this scaling up which, in my view, was the
9 weakness that was demonstrated during the early phase in
10 Covid, and I laid out a kind of five-stage -- in the
11 witness statement, I'm not going to go through it in
12 full, a five-stage process, but the first three stages
13 were an initial technical response to the small number
14 of early cases, which I think was done well and I think
15 the UK is well set up for, then a scale-up phase, and
16 then the point where the full capacity of the state is
17 in play, which is a political decision essentially.
18 But that scale-up between them needs to be possible
19 and that requires investment. Now, how much investment
20 is a political question, but I think what we need to do
21 is put to political leaders, who absolutely have to make
22 this decision: what is the level of risk that you think
23 we should be insuring for? And this should be explicit.
24 I think we've not necessarily always done that, and
25 said to our political leaders, who speak for society and

1 must have the last word: this much additional risk
2 mitigation, held in some form of another, will reduce
3 the risk of a future pandemic or other emergency, but it
4 will cost this much and do you essentially wish to take
5 that insurance?
6 That I think we have not done and I think we need to
7 be a lot more explicit about this.
8 **Q.** In effect, the choice for future politicians or current
9 or future politicians for society and the public must be
10 plainly identified so that that choice is available to
11 be exercised?
12 **A.** Exactly. It may be exercised through holding dual use
13 facilities, maybe by holding contracts with private
14 sector, a variety of ways it could be done, but it will
15 have some implications and that resource will have to
16 come from somewhere else.
17 **Q.** Of course.
18 **A.** So there will be a choice for people between having an
19 insurance against future events and, for example,
20 investing in immediate emergencies, pressures in the NHS
21 during winter and so on. That is a choice and I think
22 it has to be made explicit.
23 **Q.** The first of the two areas of which you have spoken, the
24 technical disciplines, is it in fact the position that
25 in this country we were blessed and remain blessed by

1 the major scientific capacity, particularly in the area
2 of infectious diseases, which exists? So in terms of
3 the acknowledged experts in the field, the strong
4 academic centres, the expertise in government, the
5 technical capacity in Public Health England and the NHS,
6 now UKHSA, and the basic applied research, our
7 scientific structures were, as these things go,
8 relatively strong?
9 **A.** Yes, I think -- I don't think that's a kind of
10 jingoistic position. I think most international
11 observers would say the UK scientific response,
12 particularly on research but in other areas as well was
13 very strongly by international standards. There are
14 other areas people might be more critical of, but that,
15 I think, is seen to be not perfect by any means but
16 certainly strong by international standards. And it is
17 essential that we keep that, to be clear.
18 **Q.** Was that evident at the time of the pandemic, or at
19 least on the advent of the pandemic, by the speed with
20 which diagnostic testing was able to be developed, by
21 the various studies and the scientific work which was
22 put into place, the SIREN study, the Vivaldi study in
23 relation to care homes, the Covid-19 infection survey,
24 the recovery trials in relation to dexamethasone and so
25 on; on the scientific side of the response to the

1 pandemic, the United Kingdom was in a relatively good
2 position?
3 **A.** Yes, that's my judgment and I don't think that's
4 a particularly controversial judgment.
5 **Q.** So the issue, then, for this Inquiry is the scaling up,
6 the operational and necessarily the political
7 decision-making which has to underpin it for the future?
8 **A.** Exactly.
9 **Q.** Right.
10 Is it important, therefore, to state openly that, as
11 a system, the country must maintain a strong and
12 established clinical public health and biomedical
13 research base so that in the event of the next pandemic
14 that scientific support will continue to be available?
15 **A.** That is absolutely my view, and I think people
16 exaggerate the degree to which we can predict what the
17 next threat will be, and therefore we need to have
18 an ability to make a full spectrum response to a whole
19 variety of different effects.
20 **Q.** That includes, therefore, scientific workforce,
21 scientific research infrastructure, the flexibility,
22 through studies, through proper scientific resource and
23 so on, to be able to respond to the next pandemic?
24 **A.** Exactly.
25 **Q.** All right.

1 Now, finally, just two aspects of your technical
2 report, please. You've covered many of the areas in the
3 course of your evidence, and I'm sure you -- well,
4 you've referred to your technical report already.
5 I want to address two threads in the report.
6 One, firstly, why is data and the provision of data
7 so important to preparedness?
8 **A.** If you think about the decisions that were being taken
9 both early in the pandemic and subsequently, all of them
10 rested on having fast and reliable data, and if you
11 don't have that data and you don't have it from around
12 the country with a representative group of the
13 population, you're essentially driving in the dark, it's
14 very, very difficult to work out what the right
15 decisions are. As I'm sure we will come on to in the
16 next module, this caused us some significant problems in
17 the first part of the response.
18 It also -- the more data you have, the more exact
19 your decisions can be, the nearer, in a sense, to what's
20 the optimal outcome, because you're always trading off
21 different very significant risks between things,
22 political leaders need to be given data, and you can
23 also on that base research studies on which you can then
24 devise the countermeasures, the medical countermeasures
25 which will be the way out of the pandemic in the end.

1 One of the key themes of the technical report and,
2 indeed, a lot of what I've said elsewhere is that you
3 move from societal interventions, which are by
4 definition crude and damaging, but they're all you have
5 initially, because you don't have drugs, you don't have
6 vaccines, you don't have diagnostics, and so on, you
7 move over to a medical intervention, but that depends on
8 research, and research depends on data. So they are
9 linked together.
10 Q. As you observe, the Inquiry in Module 2 will be looking,
11 of course, at the provision of data that was in place on
12 the eve of the pandemic, and what was available to
13 decision-makers when they responded particularly in
14 February and March of 2020.
15 But the point goes beyond that. There had plainly
16 been changes in the supply and provision of data in the
17 United Kingdom. Undoubtedly government processes for
18 the assembly of data have changed and improved as
19 a result of the pandemic.
20 Is therefore the point to be taken that it is vital
21 to ensure that those systems do not degrade in the
22 future, that the higher levels at which data provision
23 is being maintained now must be continued?
24 A. So I think there are two elements to that. I completely
25 agree with the basis of the question. The first is

1 a technical one: do we actually have the ability to
2 collect the data and then to knit it together from
3 different directions to make an overall picture? That's
4 absolutely essential. That's largely a resource and
5 skillset question.
6 Then it is very important that we take the general
7 public with us, whose data this is at the end of the
8 day, to make sure that they feel comfortable that the
9 way that we've brought data together to support
10 decisions, to support medical science, is in line with
11 what they would be expecting from their own data.
12 I think those two have to be kept in balance.
13 But occasionally I think we have allowed ourselves
14 to get overly concerned with the risks of this and
15 therefore not make -- not actually bring together data
16 that would be hugely in the public interest to bring
17 together, both to allow us to provide services now and
18 to provide science that will improve public health and
19 medicine in the future.
20 Q. A second, perhaps even more important, aspect of your
21 technical report, because it comes in chapter 2, is the
22 issue of disparities. Why are disparities in health
23 relevant to the issue of preparedness?
24 The evidence, Sir Christopher, shows that the
25 government systems on preparedness and the policy and

1 the guidance and the structures paid absolutely no
2 regard to disparities in health other than insofar as it
3 was an obvious reflection of the fact that, clinically,
4 some sectors of the population, because of
5 comorbidities, would be worse off in the event of
6 a pandemic.
7 Your report focuses to a very large extent on the
8 need to ensure that disparities in health and in society
9 are addressed. Why must they be addressed in the
10 context of preparedness?
11 A. One of the things that is striking and repeated in every
12 pandemic and epidemic is that people living in areas of
13 disparity suffer most from them. The reasons for that,
14 however, vary. So, you know, the reasons that people in
15 cholera epidemics died in higher numbers is because of
16 the provision of poor water. The reason that people in
17 some of the respiratory pandemics of history died was
18 because they were in crowded housing conditions. And so
19 on.
20 I'm making that point because you both need to think
21 about disparity as a whole, but you also need to think
22 about what the causal pathway is for each route of
23 transmission and for each pandemic as it goes through.
24 But I think there is one final point I would like to
25 make, which is the best way you can deal with reducing

1 the risk of a pandemic to people living in areas of
2 disparity or living with particular risks is to get on
3 top of the pandemic. Essentially that is the most sure
4 way of doing so, and I think we have to always remember
5 that that's the central plank on which everything else
6 is based.
7 Q. Finally, in a particularly self-deprecating manner,
8 Sir Oliver Letwin stated in evidence that politicians
9 were in some significant regards amateurs, and that
10 there was a case for training of ministers and officials
11 in crisis management. Is there anything that you would
12 like to say on that topic?
13 A. I would absolutely not want to venture to suggest any
14 particular training for our political leaders. I think
15 much of what they bring is the ability to ask questions,
16 which, in a sense, people bring because they're new to
17 a field. I think one of the dangers in all areas of
18 expertise is you become snow-blind, you don't realise
19 the obvious question, and actually having political
20 leaders who come in from outside is one of the ways in
21 which they can produce radicalism. I think Sir Oliver,
22 sparing his blushes because he's not here, was a very
23 good example of that. He did, in my view, a superb job,
24 for example, during the West African Ebola crisis in
25 knitting things together, absolutely picked up on all

1 the issues.
2 I think, however, what is helpful is for people to
3 realise the range of capabilities they have at their
4 disposal, and therefore whilst I -- you know, whilst
5 that's entirely optional for certainly political
6 leaders, that's their choice, I do think within
7 government there's sometimes a lack of understanding of
8 science between emergencies.
9 This goes back to this between emergencies and in
10 an emergency. In an emergency everybody is clamouring
11 for science advice. I've seen this in every emergency
12 I've ever seen. They are desperate to get the
13 scientists in the room. Between emergencies you have to
14 kind of elbow your way in. So it's the ability to
15 actually engage all the way through the system between
16 emergencies, that I think is the big risk.
17 People can pick things up very quickly when they
18 need to. A very large proportion of the British
19 population now know a lot more epidemiology than many
20 doctors probably did three years ago. So, you know,
21 people can pick stuff up very quickly when they need to.
22 What I think they need to do is think about the range of
23 issues between emergencies which may, in due course,
24 lead us into problems.
25 **Q.** Between emergencies, Sir Christopher, you are sadly

1 prophets in your own land.
2 **A.** I wouldn't go that far.
3 **MR KEITH:** Thank you very much.
4 My Lady, there are a number of questions under
5 Rule 10 from Covid-19 Bereaved Families for
6 Justice Group.
7 **LADY HALLETT:** Thank you.
8 Ms Munroe.
9 **Questions from MS MUNROE KC**
10 **MS MUNROE:** Thank you, my Lady.
11 Good afternoon, Sir Christopher. My name is
12 Allison Munroe and I ask questions this afternoon on
13 behalf of Covid-19 Bereaved Families for Justice. The
14 questions arise out of a guidance document that you may
15 or may not be familiar with.
16 Sir Mark Walport provided the Inquiry with a draft
17 guidance for SAGE on emerging infections, diseases,
18 which was produced between 2013 and 2017.
19 Perhaps if we could bring that guidance up, please.
20 It's INQ000142139. Thank you.
21 If we go to page 2, we can see there the contents of
22 the document, and then at page 3 -- thank you -- at
23 page 3, the purpose.
24 So:
25 "This document is intended to assist the Government

1 Chief Scientific Adviser and the Scientific Advisory
2 Group for Emergencies (SAGE) to provide timely, relevant
3 scientific advice to the Cabinet Office Briefing Rooms
4 (COBR) in the event of an emergency involving
5 a non-influenza emerging or unidentified infectious
6 disease which might affect the UK."
7 Now, I don't need to take you through the rest of
8 that document for the purposes of the questions, but
9 suffice to say, Sir Christopher, within that document
10 there are definitions of risk, definitions of emergent
11 infectious diseases and, at pages, for reference, 6, 7
12 and 8, the guidance sets out issues in terms of the
13 impact or potential impact of emerging diseases on
14 public or on civil society and on the economy.
15 First question, Sir Christopher -- a rather long
16 introduction -- did you know about this guidance at the
17 time that we're concerned with in this Inquiry?
18 **A.** I didn't recall this guidance during the short period
19 between becoming CMO and the outbreak of the pandemic,
20 but I suspect I may well have contributed in a very --
21 in several previous iterations in my role to the
22 development of this draft guidance. I recognise kind of
23 phrases I probably would have put into it. So I think
24 I am aware broadly, but it's a while since I've seen
25 anything like this, and it's not -- I certainly hadn't

1 seen the final version. In fact I'm not sure there has
2 been a final version of this.
3 **Q.** Yes, because the authorship and the date of the
4 document, I've said, between 2013 and 2017, so, as you
5 said, there are a number of different versions of it,
6 perhaps, iterations of it?
7 **A.** There were two sorts of document, if I can just clarify.
8 **Q.** Please.
9 **A.** There were documents like this, which were to help guide
10 the SAGE process and make it rapidly respond to
11 a problem, and then when I was an interim -- just
12 interim Government Chief Scientific Adviser between
13 Sir Mark Walport, who you heard from yesterday, and
14 Sir Patrick Vallance, who you will hear from
15 subsequently, I helped to add to that something we call
16 golden hour documents, which were documents which
17 allowed someone to deal with the bones of a problem even
18 before SAGE had met, where you actually look at the key
19 issues scientifically so you can actually inform
20 discussions with ministers.
21 **Q.** Yes, because in the guidance, and again we don't need to
22 take you to the document or have it up on the screen,
23 but pages 8, 9 and 10 set out a series of questions for
24 COBR and certain responses or advice that could and
25 should be given.

1 Are you able to tell us, then, Sir Christopher, in
2 terms of this particular guidance, how would it have
3 been used by yourself and what considerations to this
4 guidance would you have given, particularly in terms of
5 informing any pandemic planning and educating frontline
6 workers in health or social care, for example?
7 **A.** So this document, to be clear, had a pretty narrow
8 specific purpose and this was to help guide the set-up
9 for a SAGE were there to be an emergency in this
10 situation. So it was not designed for frontline
11 workers. It wasn't, in fact, designed to have a wider
12 utility. This kind of document was, very narrowly, to
13 help the Government Office for Science to have the most
14 focused and effective first few SAGE meetings.
15 This would be particularly important if the
16 Government Chief Scientific Adviser, for example, was
17 working in an area outside his or her own area of
18 expertise. I think the more they're in their area of
19 expertise, the more they would have felt comfortable, in
20 a sense, setting the agenda themselves.
21 **Q.** But as a guidance document, as its name suggests, it
22 provides you with some advice and perhaps almost
23 a starting point for further discussion and further
24 thinking?
25 **A.** Exactly, it's designed as guidance, but guidance to

1 guide the SAGE meeting, not guidance for the wider
2 generality.
3 **Q.** You've mentioned the golden hour documents. Again,
4 turning back to Sir Mark Walport, who said of this draft
5 guidance that it morphed into the current set of
6 golden hour documents used by GO-Science.
7 Firstly, can you just explain what that is, when you
8 talk about it and when Sir Mark talks about the golden
9 hour documents?
10 **A.** So the slightly clumsy phrasing actually, unfortunately,
11 is from me, because it comes from sort of classic
12 medical emergency procedures, where you say there is
13 a golden hour in which you can intervene very rapidly
14 and in that time you can have a very big impact. The
15 lacuna, the gap that I perceived and others perceived
16 was there was a period between the point an emergency
17 arose and a point a SAGE had met, when a Government
18 Chief Scientific Adviser, departmental Chief Scientific
19 Adviser, CMO or whatever, would be asked legitimate and
20 important questions by political leaders and others, to
21 which they would have to give answers at that time, but
22 in advance of the SAGE.
23 So the idea of it was to give basically a kind of
24 crash course in a subject, let us say a major
25 earthquake, so that someone could actually go to their

1 first meetings with some degree of confidence that they
2 had the various areas covered.
3 **Q.** Thank you.
4 In addition, how were these golden hour documents
5 used within your specific role as Chief Medical Officer?
6 Is there anything else that you want to say about that
7 and how you would use it?
8 **A.** No, except I think to pay tribute to the SAGE
9 secretariat from GO-Science who not only managed the
10 SAGE meetings, but essentially provided the horizon
11 scanning and the apparatus that underpins what the
12 Government Chief Scientific Adviser can do in
13 an emergency, particularly in the earliest stages.
14 **Q.** Thank you.
15 Sir Christopher, my next question is about emerging
16 infectious diseases. Am I right in saying that
17 high-consequence infectious diseases fall within the
18 emerging infectious disease category on the National
19 Risk Register? So, for example, Ebola, SARS, MERS,
20 avian flu are all examples of high-consequence
21 infectious diseases, HCIDs?
22 **A.** Some high-consequence infectious diseases are emerging
23 diseases, a few are not, and many emerging diseases are
24 not high-consequence infectious diseases, so they're not
25 synonymous, but there is a lot of overlap in some of the

1 more severe ones like the ones you mention.
2 **Q.** So my question is this, Sir Christopher, in the
3 guidance, and this is at page 5, it says that
4 an emerging infectious disease could potentially become
5 pandemic, and that must be correct, mustn't it?
6 **A.** Very rarely.
7 **Q.** Very rarely. The author then goes on, or authors rather
8 go on at page 6 of the guidance to outline, firstly, the
9 most likely scenario and then the reasonable worst-case
10 scenario.
11 If we could perhaps have the document back up and go
12 to page 6 to look at what's actually said there.
13 **(Pause)**
14 So just looking at that box at the top of page 6,
15 Sir Christopher, are you familiar with what's written
16 there?
17 **A.** I am.
18 **Q.** Yes. So they're starting -- again, it's a starting
19 point for thinking and discussion in this document,
20 looking at scenarios and what potential action could
21 potentially be taken, and also looking at behavioural
22 aspects as well.
23 So you would accept, would you not, that in relation
24 to emerging infectious diseases such as SARS, or
25 a SARS-like disease, that was the "most likely

1 scenario"?
2 A. Within the narrow, narrowish definition of emerging
3 infectious diseases that were important enough that they
4 could have an impact on UK. That's a lot of caveats.
5 Because -- but in that environment, something like SARS
6 would be a very good example. But if I can -- just to
7 explain why I've made that distinction, another emerging
8 infectious disease of very considerable significance was
9 Zika virus. We considered this roughly over this time
10 period. We thought this was a very serious emerging
11 infectious disease but because the mosquito species that
12 could pass this on are not able to maintain themselves
13 for long periods in the UK, at least at this point in
14 time, we thought this was a significant risk globally,
15 in this particular case in Brazil, and this was in
16 an Olympic year, but it was not a significant risk in
17 the UK, nor was it likely to become so.
18 It is quite important when you look at a risk or
19 a hazard that you make a judgment: is this a risk or
20 a hazard in one place or is this a risk or a hazard
21 that's likely to come to the UK? This was an example
22 where actually the risk or -- the risk in this case was
23 not likely to come to the UK and we made an important
24 professional judgment we did not need to go beyond
25 a certain point in our planning on this because that

1 would have been inappropriate given the relatively low
2 risk, in fact almost zero risk, of a significant
3 epidemic of this infection in the UK.
4 Q. Well, my final question is about where the emphasis lay
5 in UK planning. And just to put this in context, with
6 HCIDs there would need to be, in terms of the response,
7 an enhanced response?
8 A. There needs to be quite a specific response which
9 notice -- is based on the fact that these infections can
10 have a very significant mortality if someone catches
11 them, in terms of high numbers.
12 Q. In your evidence earlier this afternoon, it was just
13 after 12.30, I think, you were discussing the
14 long-standing bias for pandemic flu planning, and you
15 said:
16 "I think that's true, having documents and plans are
17 separate things, you need to have capabilities backed up
18 by resources with capabilities to scale up."
19 Now, with HCIDs, and I think this again, hopefully
20 you'll agree with this, in terms of airborne HCIDs and
21 responding to them, there have been some exercises such
22 as an Ebola exercise, wasn't there?
23 A. Yes, I mean, Ebola, just to be clear, is actually
24 a touch-based disease, it's not airborne or respiratory
25 by route. That's an important point. So were I sitting

1 next to someone who had Ebola, I would be much less
2 concerned than if it was an airborne or respiratory
3 infection.
4 Q. Well, as an HCID --
5 A. It is an HCID, yes.
6 Q. So there was an Ebola preparedness surge capacity
7 exercise, wasn't there?
8 A. If you tell me so, I'm sure that is true. I can't
9 recall it but I'm sure that is true.
10 Q. Again, we don't need to bring it up, but for reference
11 it is in the documents at INQ000090428.
12 The outcome of that surge capacity exercise for this
13 HCID showed that there wasn't, in fact, capacity to
14 surge, it was a small amount of five cases, which would
15 result in the loss of 80 infectious beds. So even on
16 a small scale, for HCIDs, it was going to be difficult,
17 wasn't it, to scale up and --
18 A. So the way that I would conceptualise this, if I may, is
19 that you have two extremely specialist centres in
20 the UK, one in London, one in Newcastle, which can
21 manage the most infectious and dangerous cases,
22 including diseases we may never have come across before.
23 Around that there is a larger group of centres that are
24 specialist in HCIDs which are, in a sense, still dealing
25 with very high risk infections but are a slightly lower

1 level of risk. But if you ran out of beds with the
2 first two, then you would move into the next area round.
3 Then around that are a group of specialist infectious
4 disease -- what's called negative pressure rooms, where
5 the air is sucked into the room, and that's a much
6 larger number but these are still specialist beds. Then
7 around that is side rooms which are not specialist or
8 don't have the right equipment.
9 What you would do in an emergency is essentially you
10 go out from the centre. If you had an HCID that was
11 expanding in numbers, at a certain point you'd then move
12 into what's called cohorting, where you take over
13 an entire ward -- and we did this during Covid -- and
14 you say everyone on this ward is going to have this
15 disease and no one who hasn't got this disease goes on
16 to this ward.
17 So there is a kind of -- there's a mechanism for
18 scaling out. Each one of those is at a slightly lower
19 level of expertise and at a slightly lower level of
20 protection, potentially, maybe the first two are very
21 high levels of expertise, but in all of those cases you
22 always have to see there is an opportunity to scale.
23 This is one of the things we have come back to
24 repeatedly: you have to have plans to scale and you have
25 to work out how you're going to do it.

1 **LADY HALLETT:** We're going to have to leave it there, I am
2 afraid, Ms Munroe, we've got an awful lot to get through
3 this afternoon.
4 **MS MUNROE:** My Lady, yes, I think, in fact, Sir Christopher
5 has answered my last question, about scaling out, yes.
6 **LADY HALLETT:** Thank you very much.
7 **MS MUNROE:** Thank you very much, my Lady.
8 Thank you, Sir Christopher.
9 **MR KEITH:** My Lady, that concludes the evidence of
10 Sir Christopher Whitty.
11 **LADY HALLETT:** Thank you very much indeed, Sir Christopher,
12 extremely grateful for your help.
13 I was astonished and sorry to hear about the abuse
14 of you and other colleagues. It's wrong for so many
15 reasons, but I do know how distressing it can be, so
16 I hope that people will think twice, but of course they
17 never do, do they, before --
18 **THE WITNESS:** Thank you, my Lady.
19 **LADY HALLETT:** -- committing themselves to distressing acts
20 unnecessarily. There are so many different ways to
21 express different opinions, why do we have to have
22 personal abuse?
23 **THE WITNESS:** Thank you.
24 **LADY HALLETT:** Thank you so much.
25 **THE WITNESS:** Thank you very much.

1 **(The witness withdrew)**
2 **LADY HALLETT:** Ms Blackwell.
3 **MS BLACKWELL:** My Lady, may I call Sir Patrick Vallance,
4 please.
5 **SIR PATRICK VALLANCE (affirmed)**
6 **Questions from COUNSEL TO THE INQUIRY**
7 **MS BLACKWELL:** Thank you very much, Sir Patrick.
8 And thank you for all of the assistance that you've
9 so far given to this Inquiry, and for agreeing to come
10 and give evidence today. I know that you will be called
11 to give evidence later on as well, and you know, as we
12 have made clear, the permutations and the limits of the
13 evidence that we're going to ask you to give today. Our
14 timescale runs back ten years from the onset of the
15 pandemic, and so I'm not going to ask you about
16 decisions that were taken during the course of the
17 outbreak.
18 Please speak up, please speak slowly, and speak into
19 the microphones so that the stenographer can hear you
20 for the transcript.
21 I'm going to begin by setting out your
22 qualifications and career history so far as it's
23 relevant to this Inquiry.
24 You trained as a medical doctor and practised as
25 a general physician in the NHS in various hospitals in

1 London, and you undertook research in cardiovascular
2 disease first at St George's Hospital Medical School and
3 later at University College London, where you were
4 appointed first as a senior lecturer and then
5 professor of clinical pharmacology and medicine in 1995.
6 You led the Division of Medicine at UCL from 2002 to
7 2006, and during your time you were a consultant
8 physician at the UCL hospitals.
9 From 2006 until 2018 you worked for GlaxoSmithKline
10 initially as global head of drug discovery, and
11 from 2012 as global head of research and development,
12 where you oversaw the discovery and development of many
13 medicines, including antibiotics, anti-HIV drugs, cancer
14 treatments and drugs for asthma.
15 You are an elected fellow of the Royal College of
16 Physicians, the Academy of Medical Sciences and the
17 Royal Society, and an honorary fellow of the Royal
18 Academy of Engineering.
19 From April of 2018 until March of this year you held
20 the post of Government Chief Scientific Adviser.
21 It's really, Sir Patrick, in that role that we want
22 your assistance at this stage in the Inquiry.
23 One of the benefits of giving evidence after
24 Sir Mark Walport and the last witness,
25 Professor Sir Chris Whitty, is that a lot of the

1 explanatory evidence of your role as Government Chief
2 Scientific Adviser, and indeed explanatory evidence of
3 some of the scientific advisory groups, has already been
4 received by my Lady, but I would like to touch upon some
5 common features of the evidence that both of those
6 witnesses have recently given.
7 In terms of your role as Government Chief Scientific
8 Adviser, can you tell us, please, Sir Patrick, what you
9 feel you brought to the role, any changes that you made,
10 improvements that were brought to bear during your time
11 in that role, and also tell us how you saw your role
12 fitting in with the departmental scientific advisers and
13 whether or not that part of the system is something that
14 could be improved?
15 **A.** Well, thank you very much, and I'm very grateful to be
16 given the opportunity to contribute to this Inquiry,
17 which is obviously important for the future resilience
18 of the country.
19 When I came to the role, I took advice, before
20 I came to it, from a number of people, and I came to the
21 conclusion that getting the science system in government
22 truly embedded as part of government in an everyday
23 sense was important. In other words, it shouldn't be
24 something that sits off to one side that you just turn
25 to when you think you've got a specific scientific

1 problem, but it should be that science actually is
2 embedded in everyday thinking and policymaking, and
3 therefore having high quality science advice systems
4 would be a crucial part of that.
5 Part of that links to the need for every department
6 to have a Chief Scientific Adviser.
7 **Q.** Yes.
8 **A.** Those advisers sit in departments, they need to be part
9 of the everyday activity and the policy and operational
10 discussions taking place in those departments, so that
11 they can bring in science and science advice to areas
12 which perhaps a policymaker who's not from a scientific
13 background wouldn't even think that science technology,
14 innovation or engineering might have a part to play.
15 So one of the things that I set out to do was to
16 look at the science capability across government and
17 improve that system, at the initial suggestion and in
18 discussion I had with Sir Jeremy Heywood, who was then
19 the Cabinet Secretary. That project was undertaken with
20 the Treasury and it was called a Science Capability
21 Review, or *Realising our ambition through science*, and
22 the idea was to try and get more structure into the
23 system so that we moved away from individual scientists
24 being able to contribute if somebody happened to ask
25 them to one where actually there was an established

1 process and system to allow advice to be given on
2 a regular basis.
3 So I think part of my approach came from the fact
4 that I had run a very big organisation across the world
5 and therefore worried about things like making these
6 things systematic.
7 **Q.** You brought that into force in November of 2019, didn't
8 you?
9 **A.** Yes, that was when the report was published.
10 **Q.** Right.
11 I suppose a connected issue would be the danger
12 of -- and this is relevant, I think, not only to the
13 scientific advisers within departments, but also members
14 of some of the scientific advisory groups, which we're
15 going to come on to in a moment -- the danger of people
16 moving positions and losing the experience and the
17 knowledge from those positions.
18 How do you say that the best way is to capture that
19 and to maintain that level of knowledge within the
20 roles?
21 **A.** It is a very big problem in government, people moving
22 around and experience and knowledge being lost, and
23 ensuring that you have proper departmental structural
24 systems for institutional knowledge management is
25 important, and to make sure that institutional memory

1 can be captured.
2 So one of the things that we spent quite a lot of
3 time on is trying to make sure that that institutional
4 memory is in place, that there are mechanisms that don't
5 rely on particular individuals in order for this to
6 happen.
7 **Q.** Yes.
8 **A.** As an example, which -- it may be a trivial example but
9 it's an important one, I think, are things like papers.
10 It's one thing to have a paper that has a date when it
11 was created, it's quite a different one to say, actually
12 I have a paper which it says when this paper has to be
13 reviewed.
14 **Q.** Right.
15 **A.** I think that's really, really important that have dates
16 by which you say, "This must have been reviewed by
17 whatever, otherwise it's no longer a valid document".
18 So I think there are process things like that which need
19 to be in place in order to ensure institutional memory
20 and continuity.
21 **Q.** We'll come on to it in a moment, but you will be aware
22 of the evidence given this morning by Sir Chris Whitty
23 about the UK Influenza Pandemic Preparedness
24 Strategy 2011 which was not given any sort of refresh or
25 review in the time that passed between its

1 implementation and the pandemic hitting and the fact
2 that, in Sir Chris Whitty's view, it didn't need
3 a refresh, it needed an overhaul, that perhaps if that
4 document had had within it a date by which it had to be
5 properly and fundamentally reviewed, then that might
6 have happened?
7 **A.** Well, it seems to me that is good practice, to, if you
8 like, have a sell-by date on these things by which you
9 must have looked at it and -- and you can't just roll it
10 over, you have to have taken an action to have looked at
11 it and say, "I agree this is still extant", or, "No,
12 this needs to be changed".
13 **Q.** Thank you.
14 One of the issues we discussed with Sir Mark Walport
15 yesterday was the important difference between
16 scientific advice, policy advice and political
17 decision-making, and the fact that the role of
18 a Government Chief Scientific Adviser is not to provide
19 policy advice or to make decisions but to give the
20 scientific advice that is requested.
21 Is there an important distinction between those
22 three aspects of the roles?
23 **A.** Very important. And I don't think it's just to give the
24 science advice that's been requested, it's also the
25 science advice that needs to be given, because if you

1 just wait to be asked it again goes back to the paradigm
2 that assumes that the people asking know what the
3 science advice needs to be.
4 So I think science advice is to pull evidence
5 together, and by the way evidence of course changes.
6 The whole nature of science is that it is continuously
7 changing and updating itself and it is self-correcting.
8 So one of the very important differences between what
9 happens in science, where scientists actually quite like
10 it when they discover that something they thought before
11 was true isn't true, or isn't exactly as they thought it
12 was, that is an exciting thing, that of course is not
13 universally liked in other parts of the world, it's
14 often seen as a U-turn.
15 **Q.** Or in other professions, I was thinking about the legal
16 profession, actually, yes.
17 **A.** Well, I can't comment on that.
18 So I think science advice is about bringing the
19 evidence together and I've laid out four things that I
20 think are important. Is the evidence base adequate?
21 And if not what are you going to do about it?
22 The second is: has the evidence base and your advice
23 been understood including the uncertainties associated
24 with it and what might change those uncertainties.
25 That's a very important part of this, because those

1 uncertainties would change.
2 The third, and I think this is often misunderstood
3 particularly outside government, is: has the advice --
4 is the evidence being presented in a way that's relevant
5 to policy? Because as a scientist you might often be
6 very excited by your latest discovery, it doesn't mean
7 it's relevant to policies. You have to frame things in
8 a way that is sensible and usable by policymakers.
9 The fourth, which I think is often forgotten, is:
10 can the science be used to monitor the effects of any
11 policy choice? The policy choice is not the end of the
12 process, it should then be monitored to see whether it's
13 having the effect that you thought it might have.
14 **Q.** One issue that Sir Mark raised yesterday in his
15 evidence, and he described it as a two-way street, is
16 the fact that traditionally perhaps, or historically,
17 there has not been as much -- "interaction" is perhaps
18 not the best word to use, but there hasn't been
19 an appetite on behalf of the scientists to raise matters
20 which have not been requested by the government
21 department. So there has been a reactive rather than
22 a proactive involvement on behalf of the scientific
23 advisory groups.
24 Do you recognise that and, if that is a problem, how
25 do we, going forwards, ensure that the scientists are

1 confident enough to raise things off their own bat?
2 **A.** Well, I read some of the witness statements from some of
3 the committees --
4 **Q.** Yes.
5 **A.** -- these are all Department of Health committees, and
6 it's worth remembering that the GCSA role goes across
7 every department, in every area of science, so it's
8 not -- it just happens that I'm a doctor, it's not that
9 the GCSA role is a medical one, or, indeed, has any
10 particular focus on DHSC, but I read those comments and
11 I saw that in some of the committees they were in fully
12 response mode according to the witness statements.
13 I don't think that's correct. I completely concur with
14 what Chris said, and actually if you look at the code of
15 practice for science advisory committees, which is
16 a document that we submitted, it says clearly that it
17 should be a mix of response mode, ie things that the
18 department wishes to know, and things that the experts
19 wish to say or wish to look at.
20 I think that is important and it's one of the
21 reasons why, if we turn to the Chief Scientific Advisers
22 or indeed the GCSA role, they are fixed-term, relatively
23 short, so three plus two for a Chief Scientific Adviser,
24 five for a GCSA, and they come from outside government,
25 because you're bringing an outside-in perspective, and

1 it's not a sort of long-term career plan to be part of
2 it, so you don't have the same sorts of pressures and
3 career requirements and decisions that a civil servant
4 might normally have.
5 I think that is important because it is about
6 challenge as well as support and information provision.
7 **Q.** Thank you.
8 Staying for a moment on the topic of improvements,
9 you told us in your witness statement, paragraph 49,
10 that you desired a high level of transparency in terms
11 of, in particular, the workings of SAGE, and tell us,
12 please, Sir Patrick, why you think that's important and
13 how we can ensure that that is something that's taken
14 forwards?
15 **A.** Well, I believe that science advice in government,
16 particularly reports, I don't mean every single
17 discussion that's taken place, but scientific reports
18 and outputs should be made public. I think that's
19 beneficial for everybody. It's beneficial for
20 policymakers actually. It's often not seen as that, but
21 it is beneficial, because it means the evidence base on
22 which a policy is going to be formed is there for
23 scrutiny, is there for comment, is there for challenge,
24 and actually is often there for people to say: okay,
25 I get that now, I can see why you've made that policy

1 choice, given the evidence that you have.
2 So I think the science advice should be public, by
3 default. There will be times when ministers need
4 a reasonable length of time to consider it as they're
5 formulating policy. That is a reasonable and fair
6 thing. But I think in principle the science advice,
7 unless it's national security related, should become
8 public.
9 I think one of the things we learnt early during the
10 pandemic -- prior to the pandemic the minutes and output
11 from SAGE only were published at the end of the process
12 of SAGE activation, and quite early on I was keen to try
13 and get the papers out as soon as we could. It took
14 longer than it should have done for that to happen, and
15 that is, I think, a regret, and one that if you have the
16 processes sorted out in advance should not be a problem
17 in the future. In other words, you should get those
18 papers out as quickly as you can.
19 It's part of normal scientific practice and it's the
20 way in which science progresses, which is for other
21 people to look at it and say, "Ah, you might have got
22 that a little bit wrong", or, "That may be a little bit
23 different".
24 **Q.** What needs to happen, then, in order for going forwards
25 the -- well, is it a change of policy or is it a change

1 of thinking, or is it the fact that somebody simply
2 needs to write down a series of rules which are followed
3 in the event of another pandemic? What needs to change?
4 **A.** Two things, and the first is the rules need to be laid
5 out and that's been done.
6 **Q.** That has been done?
7 **A.** That principle of the SAGE papers will be published as
8 soon as possible, particularly the minutes. The papers
9 are a bit more complicated because they come from
10 academics and others who have control over those, so
11 putting a timeline on that is a bit more difficult, and
12 what you don't want to do, in my opinion, is to say,
13 "Everything you give us is going to be in the public
14 domain in 24 hours", because they then won't give you
15 anything until it's 100% complete, and that would be
16 a mistake.
17 **Q.** Yes, understandably.
18 **A.** So I think that's one thing, and the second is the
19 Government Office for Science needed to have a process
20 for getting papers out on to the website, properly
21 searchable and constructed, and that's been sorted out.
22 So I think both problems, actually, I see no reason why
23 this can't be the norm going forward.
24 **Q.** Thank you.
25 **A.** Except in national security situations.

1 **Q.** Yes, of course, where different factors apply.
2 **A.** Yes.
3 **Q.** Please could we have on screen the SAGE checkpoint
4 review which is at INQ000062443, and if we go to page 4,
5 thank you, and could we highlight paragraph 22.
6 First of all, Sir Patrick, can you explain to us
7 what the SAGE checkpoint review is?
8 **A.** This was the initial review that I asked for in early
9 2020, May 2020 --
10 **Q.** Yes.
11 **A.** -- from Sir Adrian Smith to come in and speak to
12 a number of people in SAGE and other parts of government
13 to try and find out what we were doing right, what we
14 were doing wrong, and how we might change it as we were
15 going along, recognising that we were in for a long haul
16 on this and we wanted to get as much information and
17 feedback as we could.
18 **Q.** Thank you. We can see here "Science versus operational
19 questions":
20 "Across policy customers and SAGE participants,
21 there was consensus that the line between science advice
22 and advice on operational issues had sometimes become
23 blurred. This led to SAGE sometimes being asked to
24 advise on matters that were more operational in scope,
25 for example, in relation to environmental transmission

1 and the science behind mitigating risks."
2 Now, I don't want to ask you about what took place
3 during the course of the pandemic, but just to ask you
4 to explain whether, in your view, there is a problem
5 about scientists being drawn into providing advice
6 outside of their level of expertise and, if there is,
7 how we can plan so that that doesn't happen in the
8 future?
9 **A.** So some scientists in government are there to provide
10 operational science advice, and that's particularly true
11 in the public sector research establishments, and it
12 would be true, for example, in what was Public Health
13 England scientists, they are there to provide
14 operational science advice and, indeed, to
15 operationalise science, so that is entirely appropriate.
16 I think what's important, though, is where it is
17 advice, so it's either from the Chief Scientific Adviser
18 or from SAGE or from other committees, that the evidence
19 and the advice is separated from the policy conclusions,
20 which must be up to those who have to formulate policy
21 to put in place.
22 There is a bit about training and understanding that
23 needs to take place in that, and there's also a bit
24 about the recipient of that, because there were several
25 occasions when people would want science advice on

1 things that were simply not possible to give that
2 science advice on because they were too granular, too
3 specific, too detailed, and I think that's a process of
4 learning. It got better, actually, during the pandemic,
5 and I don't want to stray too much into what happened,
6 but there was one thing which was important, which was
7 an educational process of those commissioning science to
8 try and help them understand what were appropriate
9 science questions to ask and which ones just were not
10 going to be answerable.
11 **Q.** All right, thank you. We can take that down, please.
12 In terms of being better prepared, planning for both
13 those risks which we are able to anticipate and those
14 which we're not able to anticipate, but having in place
15 good systems, flexible systems that are able to cope
16 with the unexpected, you talk at paragraph 46 in your
17 witness statement of something called "rules of the
18 road". What do you mean by that and how can that help?
19 **A.** Well, the rules of the road concept came up during the
20 production of the 100 Days Mission, which was a G7
21 project, and that was about trying to get vaccines,
22 therapeutics and diagnostics in play within 100 days of
23 identifying a potential pandemic threat being declared.
24 I'll come back to that perhaps later, but the point here
25 is that we said, well, there are some things that you

1 don't need to wait and find out what the infection is or
2 what the problem is before you can establish what you're
3 going to need to do.
4 So, for example, in the 100 Days Mission it was on
5 things like sharing samples across borders, it was about
6 sharing data without having to go and renegotiate at the
7 beginning, it was about rapid finance mechanisms to
8 allow things to be done quickly.
9 These things should swing into action immediately
10 without having to worry about going through permissions
11 and processes and devise things in the heat of the
12 pandemic.
13 So the rules of the road concept is to identify the
14 generic issues that you know are going to be there, they
15 might be legal, they might be ethical, they might be
16 political, they might be social, and just say: can we
17 please clear those so that we can activate them
18 immediately without having to then re-design it or
19 negotiate in the middle of a pandemic.
20 **Q.** All right. I know that my Lady has given provisional
21 permission for Bereaved Families for Justice to ask
22 questions on the issues of data and the topics of how
23 that might be improved going towards, but in terms of
24 data collection and data usage, is the rule of the road
25 that certainly there can be procedures put in place

1 now --
2 **A.** Yes.
3 **Q.** -- that are capable of being adapted to lots of
4 different situations when they arise?
5 **A.** Yes, and I've argued, and I think it remains important,
6 that for every risk on the national security risk
7 register we should -- government should go through and
8 ask: what are the data that you know you're going to
9 need? Because it's going to give you information. Who
10 owns those data, or in other words where do they sit in
11 the organisations? How might those flow somewhere in
12 the state of an emergency and where do they flow? How
13 do you make them interoperable and who is going to
14 analyse them?
15 Those questions are simple questions that can
16 actually be looked at in advance and will throw up,
17 I think, blocks that we know exist and can be unblocked
18 during non-emergency times, and it's very true for
19 pandemics and it's equally true for other national risks
20 as well, I believe.
21 **Q.** Thank you.
22 What is your view of the interaction between your
23 role and that of the scientific advisers within the
24 devolved administrations? Is it historically a good
25 relationship? Is it a close relationship? Can it be,

1 in your opinion, improved at all?
2 **A.** Well, I have a very good relationship with the Chief
3 Scientific Advisers in Scotland and Wales and
4 increasingly now in Northern Ireland where they've now
5 got somebody who is at least standing in for that role,
6 and I work with the permanent secretaries of the
7 devolved administrations to make sure that they know
8 that they do need to have a Government Chief Scientific
9 Adviser and have been on the appointments panels for
10 those roles.
11 The system obviously is a bit different in the
12 devolved administrations in that, unlike for the
13 United Kingdom government, where we've got a Chief
14 Scientific Adviser in every department, that's not the
15 case in the devolved administrations, but each -- apart
16 from Northern Ireland at the moment -- does have
17 an overall Government Chief Scientific Adviser, and that
18 person is the one that I interact with most, for obvious
19 reasons, because they have a job which covers the
20 government more broadly in the devolved administrations,
21 and I meet with them -- or met with them, I should say,
22 I'm no longer in post -- met with them on a regular
23 basis, as I did with departmental CSAs, and also we
24 agreed it was useful to have a regular meeting of just
25 the devolveds and me so we could talk about things that

1 were specific to devolved administrations that we might
2 pick up together as a group, and I think that's -- that
3 worked pretty well actually in terms of day-to-day
4 non-emergency situation for interacting with the chief
5 advisers.
6 **Q.** I suppose one of the benefits of that is that when
7 something like the pandemic hits you have already forged
8 relationships with those individuals and there is
9 a level of trust amongst you which, were you not
10 concentrating on making sure that there was joined-up
11 thinking between all of the roles, then that
12 relationship wouldn't be there?
13 **A.** Personal relationships are always important in these
14 things, and that was a crucial one to get right, and
15 they also -- and the thing I really like about the way
16 that CSA network has evolved is that sub-groups
17 spontaneously form, so they form to say: actually we now
18 know we as a group of three or four need to go away and
19 do a piece of work.
20 That's what happened with the devolved
21 administration Chief Scientific Advisers as well,
22 they've done that and formed a group.
23 I think there is a specific question, and I know
24 it's come up in some of the witness statements, about
25 not the overall Government Chief Scientific Advisers but

1 the individual departmental Chief Scientific Advisers in
2 the devolved administrations, particularly in health.
3 And I have to say one of the unexpected consequences of
4 getting a very functioning CSA network going is that
5 everyone wants to join it, and not everybody can,
6 because it will become overwhelmed, and the reason that
7 we've stuck with a single Government Chief Scientific
8 Adviser from each of the devolved administrations is (a)
9 they are the people who then can connect their own CSAs
10 in those nations and (b) it allows for, for example, the
11 health CSAs from the four nations to join up as a group,
12 and I believe they've now done that, they've joined up
13 as a group. I think it would be inappropriate to start
14 having all of those people in the overall scientific
15 network, otherwise it's going to become very skewed by
16 health, and topics we discussed ranged from
17 cyber security to climate to biodiversity to marine laws
18 and so on. So, I mean, there are all sorts of areas
19 which are far away from pandemics and health.
20 **Q.** Thank you.
21 Before we move away to deal with the role of the
22 Government Chief Scientific Adviser in relation to the
23 national risk assessment, I just want to ask you about
24 a final matter which I know you have a certain level of
25 passion about, and that's the prospect of an academic

1 centre for pandemic preparedness.
2 Why do you think that that is a good idea?
3 **A.** Well, I think it's very, very important that we have
4 a thriving research base, and Sir Chris mentioned that
5 in his evidence, and there's something about bringing
6 together a critical mass of people who are concerned
7 with the same overall problem, of pandemic, which
8 I think is going to provide the challenge and the
9 independence and the foresight into the system. So I'm
10 an enthusiastic proponent of the idea of creating
11 a centre for pandemic preparedness.
12 There are many different models that people are
13 looking at. Personally I would favour something that
14 was a sort of hub and spoke model, where you had
15 somewhere where there was a physical base but then you
16 had many other universities involved, and that is
17 a place where many different disciplines could then come
18 together, and actually that is a place where I think
19 things like economics could also be considered alongside
20 epidemiology and other areas, because it would begin to
21 provide an insight into how you might think about the
22 sort of difficult trade-offs that occur there.
23 So I think concentrating on properly funded, well
24 structured pandemic preparedness centre would be
25 an advantageous thing for the UK and would be

1 an important part of how you think about introducing
2 really informed integrated challenge into the system.
3 **Q.** Would that also have the capacity to soak up behavioural
4 science, something along those lines? And as
5 a connected question, do you think that behavioural
6 science demands a place on a full-time advisory board?
7 Because we know from the evidence of Sir Mark Walport
8 yesterday that SPI-B was stood up for the pandemic but
9 has since been stood down again.
10 **A.** A few things on this. First of all, I mean, any centre
11 for pandemic preparedness shouldn't just soak up
12 behavioural science; behaviour and social science should
13 be an absolutely integral part of it, and that's the
14 whole point, it should be a multidisciplinary thing.
15 It's not one where I think everyone is spending 100% of
16 their time working on pandemics, and that's the beauty
17 of it, it would allow an academic who's a specialist in
18 one thing to say "I want 10% of my time to be spent in
19 this", and in doing so you would create a critical mass.
20 So I think it's fundamental.
21 I think it's worth noting that I think every
22 exercise that's referred to in the documents had
23 a behavioural scientist present at it.
24 **Q.** Yes.
25 **A.** So there has been quite good representation.

1 SPI-B, which was set up, I believe, initially, as
2 the name suggests, for pandemic influenza behavioural
3 science, was set up by DHSC and stood down, and we
4 reactivated it quickly during Covid. I'm not sure SPI-B
5 is necessarily what you would have for ongoing
6 behavioural science input to other things, and we
7 recently within the last year set up a behavioural and
8 social science for emergencies group, headed by one of
9 the CSAs who is a social scientist, Jennifer Rubin, with
10 the idea that that group would look across national
11 emergencies and ask: what is the social science evidence
12 base that's likely to be required in different
13 emergencies? How could you commission research to try
14 and get that sorted out? And what needs to be done both
15 inside and outside government to try and get that right?
16 So I strongly support the emergence of that group.
17 **Q.** Thank you.
18 **LADY HALLETT:** Ms Blackwell, I think if that's convenient --
19 **MS BLACKWELL:** Yes, of course.
20 **LADY HALLETT:** -- I think we're getting signals.
21 **MS BLACKWELL:** Right. Thank you. We'll break then for ...
22 **LADY HALLETT:** We'll be back at 3.05.
23 **MS BLACKWELL:** Thank you, my Lady.
24 **LADY HALLETT:** Sorry to break off, Sir Patrick.
25 **(2.51 pm)**

1 **(A short break)**
2 **(3.05 pm)**
3 **LADY HALLETT:** Yes, Ms Blackwell.
4 **MS BLACKWELL:** Thank you, my Lady.
5 Sir Patrick, what is the role of the Government
6 Chief Scientific Adviser in relation to the creation of
7 the national risk assessment, please?
8 **A.** So the national risk assessment is done department by
9 department, so there's a lead government department for
10 each of the areas, and therefore the construction of the
11 content is done inside a department and the challenge
12 process for the specific risk is done inside the
13 department.
14 The role of the Government Chief Scientific Adviser
15 is to look across at the methodology and ask: are there
16 some anomalies or things that need to be changed in
17 order to get the appropriate consistency across? Or
18 indeed other areas where we think that there's a need
19 for different types of approaches given different types
20 of risk.
21 So maybe as an example -- obviously my first
22 experience of one of these was soon after I arrived, and
23 most of it was in train by the time I arrived, but at
24 the end of it, having pulled together the CSAs to say:
25 are you all involved in what's going on in your

1 departments? Because they should be. Not all of them
2 were, so I had to sort of make sure that they knew what
3 was going on and they were actually linking in their --
4 inside the department with the resilience teams, and
5 then to pull together the CSAs to say, when we look
6 across, are there things that that we're now --
7 **(Alarm)**
8 **Q.** Sorry, Sir Patrick, please continue.
9 **A.** Are there things that we're pulling up as anomalies or
10 difficulties. So I think after the 2019 risk assessment
11 I wrote to the Civil Contingencies Secretariat and said
12 there are a few things that we picked up, one of them
13 was reasonable worst-case scenarios, which we said there
14 doesn't seem to be a clear consistent way of doing this
15 across departments, and I think what was needed was more
16 of a sort of workshopping approach in departments to
17 really stress test what they were putting forward as
18 their reasonable worst-case scenarios.
19 A second --
20 **Q.** I'm sorry to interrupt you. Is that the correspondence
21 that you had with Katharine Hammond?
22 **A.** Yes. Yes, who was head of the CCS.
23 **Q.** Yes, thank you very much. Sorry.
24 **A.** Sorry.
25 **Q.** Please continue.

1 **A.** The second was around interdependencies and concurrent
2 risks where we thought that looking at everything
3 completely separately doesn't allow you to look at that
4 properly.
5 A third area was that we felt that there ought to be
6 a way of not only looking at expert challenge, in
7 a departmental sense, but then to look at expert
8 challenge across the whole thing, and that might require
9 external and different types of groups to do that, so we
10 suggested that that could happen and the CSA network
11 could help provide names and support that process.
12 The final thing was that I felt that ministers
13 needed to really understand what risks it was that they
14 were living with. You know, what was it that they were
15 actually agreeing to when they did this.
16 Now, the process for actually approving the National
17 Security Risk Assessment is through the National
18 Security Council, and the National Security Council then
19 goes to ministers and ministers sign it off. So that's
20 really the role of the GCSA, is that sort of
21 methodological look-across to make sure that there are
22 improvements.
23 That feedback led to the commissioning of the
24 Royal Academy of Engineering to produce what I think is
25 a very good report which outlines some areas that could

1 definitely be improved on.
2 **Q.** Yes. Just pausing and dealing with the report, that was
3 commissioned in January of 2021.
4 **A.** Yes.
5 **Q.** Within that report is a recommendation that a spectrum
6 of scenarios are considered. We'll come to that in
7 a moment. But just remaining with the 2019 national
8 risk assessment, the Inquiry has already heard evidence
9 and looked at the assessment as it related to pandemic
10 influenza, and the reasonable worst-case scenario
11 involved up to 800,000 deaths.
12 My Lady, a very eagle-eyed member of the public has
13 been in contact with the Inquiry to say that when I was
14 examining the former Prime Minister David Cameron
15 earlier this week, I referred to 800 deaths rather than
16 800,000 deaths, so can I please make it clear that it
17 was 800,000 deaths. Thankfully, I don't think it misled
18 Mr Cameron --
19 **LADY HALLETT:** It didn't mislead me either.
20 **MS BLACKWELL:** Good, I'm glad to hear that.
21 Sir Chris Whitty earlier today was asked about the
22 potential problem with the reasonable worst-case
23 scenario system, in that it encourages people to look at
24 the situation once that reasonable worst-case scenario
25 has happened, and ignores the prior stage of prevention.

1 Do you acknowledge that problem, and if it is
2 a problem, what's the solution?
3 **A.** I'm not sure -- well, I absolutely acknowledge that
4 that's the reality, that there is less attention paid on
5 that than there should be. I don't know if it's the
6 reasonable worst-case scenario that makes that happen or
7 not, I just can't comment on that. But I do think, and
8 that was in my letter to Katharine and, as I say, went
9 to the foundation of why the academy of engineering was
10 asked to look at this, was scenarios are important and
11 looking at different approaches to the reasonable
12 worst-case scenario is quite an important thing, because
13 if you don't have consistency -- and it's worth
14 reflecting that, of course, the risk assessment process
15 has a mixture of likelihood and impact --
16 **Q.** Yes.
17 **A.** -- which I think is problematic because you then
18 multiply those two things to end up in a position, and
19 the reason I think that's difficult is that people then
20 associate funding with where you end up on that.
21 **Q.** How so?
22 **A.** Well, because the higher your joint score, the easier it
23 is to use that as a lever to try and ask Treasury,
24 therefore you need more funding. And that may not be
25 an appropriate way to view this at all.

1 So I think impact is incredibly important, and
2 I fully endorse the suggestion of the academy of
3 engineering that impact is the thing that should be
4 focused on. It's worth knowing the likelihood, but in
5 the end events are binary, they either happen or they
6 don't happen.
7 **Q.** Yes. You will remember the evidence of Sir Mark Walport
8 earlier this week who talked, I think, of -- and also
9 Sir Oliver Letwin -- who spoke of the black swan event,
10 that incident that is not particularly likely but when
11 it happens it is catastrophic, and that those risks
12 shouldn't be missed?
13 **A.** I think that's right. I mean, what you then do about
14 those risks and how much effort and money you want to
15 put on it is a ministerial decision.
16 **Q.** Yes.
17 **A.** It's important in that context, actually, that a lot of
18 this -- and I say this in my statement -- there are some
19 analogies with preparing for pandemic and other risk,
20 but I'll stick with pandemics, to the question of
21 whether you want an army or not. You need an army in
22 a country and you don't turn round after 20 years and
23 say, "What a waste of money that was, we haven't had
24 a war". I think it's the same thing. You know, which
25 are the risks you want to make sure that you are

1 properly enabled to deal with?
2 I agree with the point that Sir Chris made, this is
3 about capabilities, it's not about trying to end up with
4 highly specific responses in the back pocket all ready
5 for every single eventuality. That's not possible. But
6 there are generic capabilities which are important
7 across the piece.
8 **Q.** He spoke also of flexible capabilities backed up by
9 resources so that, if necessary, scaling up is capable
10 of happening at short notice?
11 **A.** I think scaling up is really, really important. And
12 I want to raise a couple of points which I don't think
13 have been raised.
14 One is that industry is really important, and so one
15 of the resilience features for a country is which
16 industries you've got that will enable you to do it. So
17 we were fortunate in some areas, such as vaccines and
18 pharmaceuticals, that we've got a big sector that was
19 able to contribute to the scaling up. I mean, making
20 a vaccine isn't just what you do in the laboratories,
21 the ability to turn it into millions and millions of
22 doses. We do not have a diagnostics industry of any
23 scale in the UK, which made scaling up of diagnostics
24 much more difficult. And Germany has a big diagnostics
25 industry and did very well on that.

1 So I think as part of resilience planning it's quite
2 important to look at the question of industrial base in
3 the country as well and ask what needs to be done to
4 make sure that the industrial base is in a position and
5 is properly linked into the processes and the relevant
6 organisations.
7 **Q.** In terms of vaccines, then, using that by way of
8 an example, Dame Kate Bingham has expressed her concern
9 that since the pandemic has slowed down and we've come
10 out of the emergency phase, if I can use that
11 expression, the vaccines taskforce has been stood down.
12 Do you think that that is a problem? Do you think that
13 there should be an ongoing capability in terms of
14 vaccine production? And, if so, is that simply
15 a political matter or is that something which science
16 can help with?
17 **A.** Well, I started the vaccines taskforce and brought Kate
18 in for a very specific reason, which is we had a very
19 clear need to get things done in a very direct way, and
20 she did it brilliantly. But that need was obviously not
21 the same as the need now.
22 **Q.** Yes.
23 **A.** So I don't think that the model we set up for the
24 vaccines taskforce in 2020 is one that you necessarily
25 need now. But is there a need for a focus on vaccines

1 for resilience? Absolutely.
2 So at the beginning of 2020, when we started looking
3 at vaccines in January 2020, it was obvious that the
4 industrial vaccine base in the UK had pretty much gone.
5 There was still research but the industrial base.
6 I don't think that was an active decision, it was
7 what I'll call benign neglect, with a very significant
8 consequence. So that had to be reactivated quickly as
9 a part of that.
10 I think the focus on vaccines then needs to be
11 embedded in what you do in everyday practice, and this
12 is part of the 100 Days Mission principle. Don't dream
13 that you can have a vaccine factory sitting there
14 waiting for a pandemic. It's going to be staffed by
15 people who don't know how to make vaccines. You need
16 everyday activities that you can then scale quickly.
17 That, I think, is a part of resilience that needs to be
18 thought through very carefully: what are the everyday
19 things?
20 So for diagnostics, if I take that as an example,
21 the more the NHS use routine near patient rapid
22 diagnostics, the more you have an industry, the more
23 you're able to scale that for pandemic preparedness.
24 **Q.** Is it a political decision to ask: well, does the
25 country want the insurance of having a standing

1 capability in terms of the strong scientific advice that
2 Sir Chris Whitty spoke of being incredibly good, by
3 international standards, in terms of having a scalable
4 vaccine development, in terms of other types of medical
5 procedures and interventions that might be required in
6 the event of a pandemic? Is that insurance policy
7 something in your view, Sir Patrick, that really needs
8 to be grappled with at a political level?
9 **A.** Yes, it's a political question. And it's an important
10 one that also links to behaviours and culture, which
11 I think Sir Oliver Letwin touched on.
12 If I give a very specific example, when we set up
13 the vaccines taskforce, it was very, very possible, even
14 likely, that it would fail, and at the end of it
15 of course it was a great success and the National Audit
16 Office wrote a report saying what a great success it
17 was. If it had failed, the National Audit Office,
18 I suspect, would have written a report saying what
19 an outrageous waste of public money the whole thing was,
20 and yet both things were totally possible. So there is
21 an inherent reluctance to spend money in things which
22 then might fail and look like a disastrous misuse of
23 public money.
24 So I think we need to be much more explicit about
25 why spending public money is important for certain

1 things, even if that then turns out not to be what's
2 needed or used. In fact it's picked up in the Hine
3 report in relation to the 2009 pandemic as well.
4 **Q.** I think it follows from the evidence that you've given
5 to the Inquiry today that you would also agree with
6 Sir Chris Whitty on this topic: that although it's
7 important to have up-to-date and relevant documents such
8 as the Influenza Pandemic Preparedness Strategy, and
9 perhaps even have a strategy along the same lines for
10 emerging infectious diseases, documentation only takes
11 you so far, and what has been set out by both of you
12 about the flexible capabilities in practical aspects of
13 preparedness is really where the importance lies?
14 **A.** Very, very important. I think Whitehall loves a report
15 and a letter, and it's about moving from that to
16 a practical, "What's the plan to actually do something
17 about this?" Which is incredibly important. It
18 requires ministerial oversight and drive to make things
19 happen, and very often requires very clear single point
20 of accountability, otherwise things get diffuse and
21 don't happen.
22 **Q.** Yes, thank you.
23 Finally I would just like to ask you about the
24 importance of identifying those with health inequalities
25 in the planning and preparation for pandemics and the

1 like. How can that best be done, given that, as
2 Sir Chris Whitty explained earlier today, one has to
3 perhaps consider the causal pathway of a pandemic to
4 identify who it's heading for most forcefully?
5 **A.** I mean, there is a terrible, terrible truth, and it's
6 something that we all need to reflect on, which is that
7 all pandemics feed off inequality and drive inequality.
8 I mean, that's the way they behave. That is a tragedy
9 that needs to be understood and is relevant, of course,
10 to the many people who suffered during Covid. That
11 needs to be built into the thinking, the thought
12 process, right at the outset.
13 Of course the issues of inequality are very broad
14 and highly political across all sorts of areas, but the
15 fact is it is what drives problems in pandemics, and
16 therefore one needs to be extremely aware of that at the
17 beginning, and one of the things when I look back at the
18 science advice -- we did pick up on it but I would like
19 it to be embedded right from day one, it needs to be one
20 of those questions on the first SAGE, you know: what are
21 the issues around inequality that you should be thinking
22 about now? In terms of science advice. Others need to
23 think about it in terms of operational planning.
24 It's relevant also to your question about
25 behavioural science. I mean, one of the big questions

1 is around communication, engagement with marginalised
2 communities, and that needs to be thought about in
3 advance.
4 I hope it's one of the things that the behavioural
5 and social science group for emergencies will be
6 thinking about now as they think about what research and
7 other things can be put in place now that could help
8 inform people.
9 **MS BLACKWELL:** Thank you, Sir Patrick.
10 My Lady, as I have already indicated, provisional
11 permission has been given to Covid-19 Bereaved Families
12 for Justice to ask questions on the issue of data. May
13 that be done, please?
14 **LADY HALLETT:** Certainly. Thank you.
15 **MS BLACKWELL:** Thank you.
16 **Questions from MS STONE**
17 **MS STONE:** Thank you, my Lady.
18 Good afternoon, Sir Patrick. I ask questions on
19 behalf of Covid-19 Bereaved Families for Justice, which
20 represents families across the UK.
21 As has already been prefigured, I want to ask you
22 a few questions, if I may, about data, and I think I can
23 take it shortly, because you have already touched on
24 this in your evidence.
25 Sir Chris Whitty described the importance of data in

1 this context this afternoon and I take it that you would
2 agree with his characterisation of the importance of
3 data? I can see that you're nodding, Sir Patrick.
4 **A.** I mean, completely, and it's in my statement --
5 **Q.** It is.
6 **A.** -- as to how crucial it is.
7 **Q.** Would you agree that that importance that we've just
8 agreed on of the data in pandemic response was something
9 that was well known in the scientific community prior to
10 Covid-19's emergence?
11 **A.** Yeah, I don't think you would have found anybody who's
12 said data is not going to be relevant --
13 **Q.** Yes.
14 **A.** -- to any response. So I think, yes, data is important,
15 and I think it's well understood across government that
16 data are important for decision-making.
17 **Q.** Yes.
18 Now, we understand from your statement, and again
19 Sir Chris Whitty touched on this, that issues with data
20 led to significant problems in the early stages of the
21 pandemic, didn't they?
22 **A.** There was a paucity of data, which meant -- and I say
23 that in my statement -- that on many occasions it meant
24 that you were flying more blind than you would wish to.
25 **Q.** Those are questions for another module, but the

1 fundamental point is that being able to gather basic
2 data, such as how many people are in hospital, how many
3 people are in intensive care, that was necessary, wasn't
4 it, to understand the spread of the disease and to
5 evaluate which individuals might be most at risk from
6 the disease? Would you agree with that?
7 **A.** Yes.
8 **Q.** Now --
9 **A.** And just one other thing, if I may?
10 **Q.** Yes.
11 **A.** I think the ONS survey that we got in place was another
12 way of doing that, and it would be very, very important
13 to get those things set up early.
14 **Q.** Yes, and I think you say in your statement that systems
15 were put in place during the course of the response to
16 the pandemic but some of those had to be started from
17 scratch, I think is the phrase that you use, and that's
18 clearly not the situation that anyone would wish for;
19 would that be right?
20 **A.** Correct.
21 **Q.** Now, you've told us this afternoon, Sir Patrick, about
22 the simple questions that, in your view, need to be
23 asked about data. So just to recap, they are: what are
24 the data we need? Who owns them? How can they be
25 collected? How can they be shared? Are the systems for

1 doing that sharing interoperable, so do they speak to
2 one another? Who is going to analyse the data?
3 Have I summarised those accurately?
4 **A.** Yes.
5 **Q.** Thank you.
6 Now, could we describe that, those collection of
7 questions, as a data strategy?
8 **A.** Very high level. I'm sure there are data experts who
9 would want to add much more to that, but I think that in
10 principle those are the components.
11 **Q.** Yes. As you've said, those are areas, each of those
12 questions should be considered and resolved in advance
13 of an emergency?
14 **A.** Yes.
15 **Q.** That strategy as I've called it, and perhaps you
16 wouldn't, but those collection of questions, that
17 consideration of the importance of data, wasn't in place
18 before Covid-19 to address a pandemic, was it?
19 **A.** I don't think it can have been, because that was not how
20 it worked, and so I don't think the practicalities -- so
21 it's interesting, because I think if you'd asked people,
22 "Is that what you need?" before the pandemic everyone
23 would have said, "Yes, and I'm sure that's fine". The
24 reality was it wasn't fine and there weren't systems
25 that allowed that to happen. So practically,

1 operationally, that was not in place.
2 **Q.** It should have been, shouldn't it, Sir Patrick, given
3 what was known about the importance of data in this
4 context?
5 **A.** Well, I think it should have been for all sorts of
6 reasons, including it's very important for running
7 healthcare systems and so on. So I think in general it
8 was an important set. I think some of the
9 interoperability with other datasets perhaps it wasn't
10 so obvious that that needed to be in place at the
11 beginning, and perhaps there wasn't the driving need to
12 have that in place at the beginning, but I think the
13 basic bits, yes, you would expect that to be in place.
14 **Q.** The core fundamental bits of health data --
15 **A.** Yes.
16 **Q.** -- those should have been in place beforehand?
17 **A.** Yes.
18 **Q.** Just finally on this, Sir Patrick, if I may, you told us
19 this afternoon, I think, that you've argued that these
20 questions should be addressed for each risk on the
21 National Risk Register; is that right?
22 **A.** Yes, I suggested to be practical that they should take
23 the top ten or 15 and do it there to make sure that we
24 knew how to do it and then work through the rest.
25 **Q.** Yes. Can you tell us what action was taken in respect

1 of the argument that you made prior to you leaving your
2 position?
3 **A.** Well, I know it's been understood and that people accept
4 that this is what needs to be done, there is now --
5 something called the National Situation Centre has been
6 put in place in central government, which is a big data
7 centre to be able to analyse data and input data from
8 many different sources, and there are data scientists in
9 that group as well. So that is a very, very good start
10 to this.
11 I also know that the chief statistician,
12 Ian Diamond, and I spoke about this a lot, and he is
13 looking at which data systems and flows can be used to
14 get this right. So I think there is action against it
15 in terms of a capability level. I don't think it's gone
16 down to risk by risk yet.
17 **MS STONE:** Yes. Thank you, Sir Patrick.
18 Thank you, my Lady.
19 **LADY HALLETT:** Thank you very much.
20 **MS BLACKWELL:** My Lady, that completes
21 Sir Patrick Vallance's evidence.
22 **LADY HALLETT:** Thank you very much indeed, Sir Patrick, you
23 have been extremely helpful, as indeed was obviously
24 your close colleague, Sir Chris Whitty. Thank you both
25 very much indeed.

1 **THE WITNESS:** Thank you.
2 **(The witness withdrew)**
3 **MS BLACKWELL:** My Lady, I'm being asked to invite you to
4 take a five-minute break whilst we arrange things for
5 the next witness, please.
6 **LADY HALLETT:** Certainly. I'll be back in five minutes.
7 **MS BLACKWELL:** Thank you.
8 **(3.30 pm)**
9 **(A short break)**
10 **(3.35 pm)**
11 **MS BLACKWELL:** My Lady, the next witness and indeed this
12 week's final witness is Dr Jim McMenamin. May he be
13 sworn, please.
14 **(Alarm)**
15 **MS BLACKWELL:** Oh dear. I'm so sorry.
16 **LADY HALLETT:** I don't think you were meant to give
17 evidence.
18 **MS BLACKWELL:** Let's try again.
19 **DR JIM McMENAMIN (sworn)**
20 **Questions from COUNSEL TO THE INQUIRY**
21 **MS BLACKWELL:** Thank you.
22 Dr McMenamin, thank you for the assistance that you
23 have given to the Inquiry so far. You've provided
24 a witness statement, and I know that you are familiar
25 with the corporate witness statement as well from Public

1 Health Scotland, and thank you for coming to give your
2 evidence to the Inquiry today.
3 Please keep your voice up, speak into the microphone
4 so that the stenographer can hear you for the
5 transcript. If you need a break at any time, just ask.
6 I'm going to begin by setting out your career
7 history so far as it's relevant to the Inquiry.
8 You are a medical doctor with a master's in public
9 health and honorary clinical senior lecturer at the
10 School of Health & Wellbeing at the University of
11 Glasgow.
12 You were appointed as a consultant epidemiologist to
13 the Scottish Centre for Infection and Environmental
14 Health in 2003.
15 You were then interim clinical director and
16 strategic lead for the respiratory viral team within
17 HPS, and you are now the head of Infections Service and
18 the strategic incident director for Covid-19 at Public
19 Health Scotland.
20 Is that all right?
21 **A.** Thank you, and one extra thing, that I was the chair for
22 the three years of the National Incident Management Team
23 in Scotland.
24 **Q.** Thank you. For the three years involving Covid-19?
25 **A.** That's correct.

1 **Q.** Thank you very much.
2 Well, it's your evidence prior to that that we're
3 interested in today in Module 1, and I'm going to begin,
4 if I may, by using you to set out the history and
5 structure of Scotland's public health bodies.
6 As you tell us in your statement, Dr McMenamin,
7 Public Health Scotland works to protect and improve the
8 health of people in Scotland and to reduce health
9 inequalities. It became a legal entity on 7 December of
10 2019 and came into operation on 1 April 2020, and we'll
11 come back to that in a moment. But that means that in
12 relation to the time to which this module relates, the
13 national leadership for protecting the Scottish public
14 from infectious diseases and environmental hazards was
15 the remit of Health Protection Scotland, or HPS, which
16 was part of the NHS National Services Scotland; is that
17 right?
18 **A.** Yes, that's correct.
19 **Q.** HPS led on preparing for high-consequence infectious
20 diseases, epidemics and pandemics, and National Services
21 Scotland led on preparation for general civil
22 emergencies and whole-system civil emergencies; is that
23 right?
24 **A.** Yes, that's correct.
25 **Q.** Thank you.

1 You explain in your witness statement that Public
2 Health Scotland brought together three legacy bodies,
3 Health Protection Scotland, Information Services
4 Division, and NHS Health Scotland; so taking those three
5 bodies in turn, if we may.
6 HPS can trace its history back to 1969 and the
7 creation of the Communicable Diseases (Scotland) Unit,
8 which was a specialist unit tasked with conducting
9 surveillance of communicable infections; is that right?
10 **A.** Yes.
11 **Q.** Yes, and the Communicable Diseases (Scotland) Unit then
12 evolved, absorbing and expanding its remit to include
13 helping protect the public from non-infectious
14 environmental threats to health, and at one point the
15 unit was renamed the Scottish Centre for Infection and
16 Environmental Health, and it then became Health
17 Protection Scotland in 2005.
18 That's a whistle-stop tour of the history of public
19 health in Scotland.
20 But Health Protection Scotland was responsible for
21 providing health information, together with the
22 Information Services Division, and National Health
23 Service Health Scotland was Scotland's national health
24 improvement agency.
25 We have additional information about this in the

1 Public Health Scotland corporate statement, my Lady,
2 explaining that the work of National Health Scotland
3 focused on what could be done to improve public health
4 in Scotland and to reduce what was seen as unfair and
5 avoidable health inequalities.
6 Is that work still very much in progress?
7 **A.** Certainly very much so, it's at the centre of everything
8 that our organisation Public Health Scotland has been
9 set up to address.
10 **Q.** Thank you.
11 Public Health Scotland was created through the
12 programme of public health reform that began, in 2015,
13 with the public health review and, as we've already made
14 mention, was delivered up to and including 2020 through
15 the public health reform programme.
16 Are you able, please, Dr McMenamin, to explain why
17 it was concluded that Public Health Scotland ought to be
18 created and was created when that happened?
19 **A.** Thank you.
20 Over time there had certainly been a very
21 significant number of infection challenges and
22 information challenges in the community, from the
23 perspective of inequalities. Earlier in proceedings
24 we've heard testimony from experts on just what the
25 impact has been of those inequalities.

1 The purposeful bringing together of the three
2 organisations was to try and put inequalities at the
3 centre of everything that we do, to improve healthy
4 wellbeing in the population, and that that very
5 purposeful attempt then was to bring together the
6 relative strengths of each of those organisations to try
7 and assist in that process. If you like, to have some
8 synergy between each of those to make sure that nothing
9 was falling between the stones.
10 **Q.** So do you see there being a benefit of having a single
11 unified public health agency?
12 **A.** Very much so.
13 **Q.** What about the timing of it, Dr McMenamin? Why was
14 Public Health Scotland made operational in April of
15 2020, given as we know that that was really a month or
16 two after the Covid-19 pandemic had hit?
17 **A.** It's certainly unfortunate timing, but nonetheless
18 something which had been well scheduled and was very
19 supported by all of the territorial NHS boards and the
20 other boards in Scotland and by Scottish Government, and
21 also by COSLA, because this new organisation was to be
22 one in which it was jointly sponsored by the chief
23 officers of each of the local authorities and by
24 Scottish Government. So this signalled approach where
25 we were going to be coming into being became part of the

1 legal framework in December 2019, and then we came into
2 being on that April 2020.
3 **Q.** Right.
4 **A.** That was a smooth -- as smooth as we could make it --
5 transition where our NSS, National Services Scotland,
6 colleagues assisted us all the way through and, as we
7 became this new organisation, rather than the 100 or so
8 people that we might have had at the start of this to
9 try and deal with things, we now had access to more than
10 1,000 personnel to be able to help us in dealing with
11 that.
12 **Q.** So in terms of the timing of it, it was something that
13 had been in the planning for several years.
14 You mentioned COSLA, that's the Convention of
15 Scottish Local Authorities, isn't it? What was the
16 rationale for and the effect of Public Health Scotland's
17 accountability to both national and local government?
18 **A.** Well, this again was a new bit of innovative thinking
19 where we were trying to ensure that no matter what we
20 did it was to enable the health of the population at
21 a local level, to be best assisted within the combined
22 efforts of the new organisation.
23 **Q.** Right, thank you.
24 Some questions now about funding. You tell us in
25 your witness statement that Public Health Scotland's

1 opening budget and staffing levels were, in your view,
2 not sufficient for the organisation to be able to
3 deliver health protection in a response that was
4 required when the pandemic hit.
5 Does that remain your view, and explain to us,
6 please, Dr McMenamin, why you hold that view?
7 **A.** Yes. In this instance, the particular thrust that we
8 had here was that we had to have a funding that was
9 adequate, but flexible. How do we make sure that any
10 ringfencing that we have didn't get in the way of what
11 we needed to do within the new organisation? Now,
12 I understand that financial rules and regulations are
13 essential within our National Health Service
14 organisation to make sure that we demonstrate value for
15 money in everything that we do --
16 **Q.** Yes.
17 **A.** -- but nonetheless it becomes important that we're able
18 to have flexibility in how we can best utilise that
19 funding available to us.
20 But there's one important caveat to that, that for
21 that funding -- which was, you know, you will see from
22 our statement submissions, was funding in a pre-pandemic
23 setting -- was something which was felt to be adequate
24 for a pandemic as we move into that, that flexibility
25 that we then would like to have is something which

1 becomes much, much more attractive to allow a speed of
2 response.
3 **Q.** Yes. Thank you.
4 May we have on screen, please, INQ000101052. This
5 is a document that we can see from the bottom right-hand
6 corner was created in December of 2006, and it's Health
7 Protection Scotland's health protection framework for
8 the response to an influenza pandemic in Scotland.
9 We can see from the first two paragraphs that this
10 is indeed a document devoted to pandemic influenza
11 rather than any other type of pandemic.
12 Dr McMenamin, why did this framework focus only on
13 influenza as opposed to any other type of pandemic, and
14 how, if you can explain to us, did that in any way
15 hamper the situation?
16 **A.** This document was produced before what has been called
17 the swine flu pandemic of 2009.
18 **Q.** Yes, 2009, yes.
19 **A.** It was, at the time, what we could say was the likeliest
20 issue to come and challenge us. So from that
21 perspective, it was very deliberately focused on
22 a response to pandemic influenza in which we, on a UK
23 basis, were working collaboratively to deal with that.
24 **Q.** All right.
25 Let's look, please, if we can at page 7 of this

1 document, and we can see that the aims of the health
2 protection framework is to provide a tactical framework
3 for health protection response, to put the health
4 protection framework for the response to an influenza
5 pandemic in Scotland in the context of the overarching
6 national arrangements laid out in the UK health
7 departments' influenza pandemic contingency plan, the
8 Health Protection Agency pandemic influenza plan and the
9 HPS emergency response plan.
10 Just pausing there, this of course pre-dated the
11 United Kingdom influenza pandemic strategy which we know
12 was created in 2011, and the Inquiry has heard from
13 several sources that, despite certainly best efforts at
14 a time close to the pandemic hitting, it was never
15 updated.
16 Are you able to tell us whether this older document,
17 created as it was in 2006, was ever updated to attempt
18 to give more timely advice to Scotland on pandemic
19 influenza?
20 **A.** Thank you.
21 It was never updated, but the reason why that was
22 never updated was that, as you've outlined, we then had
23 a pandemic of swine influenza. There was a UK
24 discussion about how we would best learn the lessons and
25 adopt recommendations from the learning lessons that we

1 collectively had. That meant that there was
2 a deliberate attempt to have a co-ordinated UK approach
3 to how we deal with things.
4 **Q.** Right.
5 **A.** And although at the time that we did ask our
6 Scottish Government colleagues about whether they would
7 like this to be revisited, the clear indication that we
8 had at the time was that we would be using a UK approach
9 to deal with this.
10 **Q.** Right. So moving ahead from 2006, swine flu hits in
11 2009, the UK government commissioned the Hine review,
12 which indeed led to the strategy being created in 2011.
13 Once that was in place, did the UK strategy replace this
14 older document, or did they sit alongside each other?
15 **A.** That's right, it replaced things, because we were then
16 working to a UK approach that was co-ordinated.
17 **Q.** Thank you.
18 Can we take that down, please, and replace it with
19 document INQ000147859, which is an interim report from
20 the Health Protection Stocktake Working Group. We see
21 that the date of that is July of 2011.
22 Do you know as a matter of fact whether or not this
23 came into force before or after the UK strategy?
24 **A.** I'm not quite sure because of the relative dates of when
25 things were produced. I can't recall whether the

1 reports were synchronous or not.
2 **Q.** This was a working group established to examine the
3 arrangements put in place in 2005, which I think had led
4 to the 2006 strategy that we've just looked at, and to
5 ensure that they were still fit for purpose; is that
6 right?
7 **A.** Yes.
8 **Q.** And this interim report contains a series of
9 recommendations. Could we go to page 46, please.
10 Thank you. We can move through this quite quickly, but
11 the recommendations relate firstly to capacity and
12 resilience -- if we can scroll down, please -- roles and
13 responsibilities, priorities and outcomes, governance,
14 and consistency. Thank you.
15 This was an interim report. The final report which
16 we can put up, please, at INQ000147828. Thank you. Can
17 we go to page 44, please. Thank you very much. It sets
18 out -- in fact can we go up to the previous page so that
19 we can see what the columns ... there we are.
20 On the left-hand side I think we have the
21 recommendations set out, and then the next column along,
22 going from left to right, we can see whether the
23 recommendation has made it into the final report from
24 the interim report.
25 At the bottom, at number 34, page 42, we can see:

1 "Interchange should be arranged between staff of HPS
2 and NHS boards and other activities considered to
3 strengthen relationships and engender mutual respect and
4 to help soften existing boundaries. This should include
5 a wide range of activities including joint learning
6 sessions; joint training and web-based initiatives."
7 If we move across we only see that that
8 recommendation was in the interim report, but then in
9 the right-hand column we have these words:
10 "MHPN, with the support of NHS boards and HPS ..."
11 Can you explain to us firstly, if you know, why this
12 recommendation didn't make it into the final report, and
13 what is meant by the bodies in the final column?
14 **A.** Perhaps in reverse order.
15 **Q.** Okay.
16 **A.** The MHPN I guess here is a managed health protection
17 network. What ultimately came out of that was the
18 Scottish Health Protection Network, an obligant network
19 of stakeholders coming together who were mutually
20 working with each other, including local authorities, to
21 ensure that we had addressed all of the challenges
22 presented within health protection.
23 **Q.** So Managed Health Protection Network, yes, and that --
24 this tells us that that organisation was working with
25 the support of the NHS boards and HPS.

1 So does that mean that, because those systems were
2 already in place, that recommendation didn't need to be
3 taken forward to the final report? Is that how it
4 worked?
5 A. Well, for many of these things, that we were taking them
6 beyond that --
7 Q. Right.
8 A. -- because, as I just suggested, that local authorities
9 were now to become part and parcel of what we were
10 trying to do, to make sure that local delivery was
11 addressed.
12 Q. Thank you.
13 Can we go to page 44, please, and highlight the
14 entry under "Roles and responsibilities". Here we can
15 see:
16 "There is a need to improve communication between
17 HPS and NHS boards. Interchange should be arranged
18 between staff in both directions, and other activities
19 considered to strengthen relationships and engender
20 mutual respect and to help soften existing boundaries.
21 This should include a wide range of activities including
22 joint learning sessions, joint training and web-based
23 initiatives."
24 We can see on the right-hand side the assessment is
25 that:

1 "The [Managed Health Protection Network] is
2 of course designed to help achieve a sense of
3 integration between all parts of a service and should
4 therefore be expected to serve a function of improving
5 relationships and communication. However, our
6 recommendation on interchange and other activities
7 should stand."
8 So this is how it appears in the table.
9 Is the impression being created, Dr McMenamin, that
10 there was a difficulty perceived in terms of
11 relationships between these bodies and, if so, how was
12 that manifesting itself and what was the proposed
13 solution in order to engender better relationships?
14 A. I think that the principal thing here that we were
15 trying to address was a levelling up --
16 Q. Right.
17 A. -- to try and ensure that experience at a national level
18 and at a local level was interchangeable, that we could
19 then see and learn from each other. The Scottish Health
20 Protection Network began to have that purpose by having
21 that sharing of learning and experience across all of
22 the health protection functions within Scotland.
23 Q. And would you say that, following on from this final
24 report, things did begin to improve?
25 A. I think that it's certainly true that they were much

1 improved as a consequence of the success of the Scottish
2 Health Protection Network. That's not to say there are
3 not continuing issues that we have had further effort to
4 try and overcome.
5 Q. All right, thank you very much. We can take that down
6 now.
7 Concentrating for a moment on the wider programme of
8 health protection reform in Scotland, you tell us in
9 your witness statement that the creation of Public
10 Health Scotland was indeed part of a wider programme of
11 public health reform, and you go on to note that HPS
12 colleagues, yourself included, advocated throughout the
13 reform period for recognition of the importance of
14 actions to protect the public from outbreaks of
15 communicable disease and incidents involving
16 non-communicable environmental hazards to public health.
17 Why was HPS required to advocate in that way?
18 A. I can offer you two potential answers to that, one which
19 is a corporate one, and perhaps one a personal one.
20 Q. Well, please do.
21 A. So from a corporate perspective, I think that what was
22 important here was that we were trying to ensure that
23 there was health protection having its place at a table
24 when the key objectives that were then listed were not
25 immediately ones that jumped out saying health

1 protection was at the centre of things. We had
2 a further discussion on an ongoing basis about this, and
3 that health protection we were assured was at the centre
4 of everything that we were doing.
5 On a personal note, that I can see that, yes, that
6 was important that we continued to advocate for clinical
7 and scientific leadership for health protection being
8 important because we were mindful of the importance of
9 instance outbreaks and, regrettably, pandemics.
10 Q. All right, thank you.
11 May we look briefly, please, at INQ000102990,
12 because moving forwards -- thank you very much -- this
13 is the 2015 review of public health in Scotland. It
14 was, as we can see, strengthening the function and
15 refocusing action for a healthier Scotland, it had as
16 its basis.
17 Can you provide a summary of this document, please?
18 We can see that at the bottom, although it's headed
19 2015, it was actually produced finally in February of
20 2016.
21 A. Yes.
22 Q. Tell us what this is about, please, Dr McMenamin.
23 A. So here, and coming back to our central rationale for
24 what we were trying to do, it was important that we were
25 trying to put health inequalities at the centre of

1 everything that we were doing. You've heard already
2 testimony from Bambra and Marmot about the stalling in
3 life expectancy as one indicator of the health of the
4 population. This was then occurring against this
5 backdrop where we were very aware of the need to try and
6 come together to address those health inequalities and
7 hopefully to then have an increase in the healthy life
8 expectancy of individuals.
9 **Q.** All right.
10 Was there anything within this review about the
11 involvement of public health in terms of laboratories?
12 **A.** Yes, this is -- and it's important, I think, here that
13 there is an important distinction that I have to offer
14 about what you may have already heard in testimony
15 about, for the Health Protection Agency --
16 **Q.** Yes.
17 **A.** -- for Public Health England, and then the UK Health
18 Security Agency. Unlike the situation for all of those
19 successor organisations, Public Health Scotland's role
20 in the laboratory services management was in
21 a commissioning role only.
22 **Q.** Right.
23 **A.** So our opportunity then to have a great effort and
24 discourse about that was certainly not something that
25 was addressed in the main by this kind of document.

1 **Q.** What role did HPS, and then later PHS, play in
2 commissioning national microbiological reference
3 laboratories? What role did it play?
4 **A.** So right up until the end of the time period for which
5 we are discussing, this pre-pandemic --
6 **Q.** Yes.
7 **A.** -- period, our role was limited in the main to this
8 commissioning role for the national laboratories that
9 would be doing reference work. That's unlike the
10 situation then where much of the routine work might be
11 offered through either a combination of UKHSA
12 laboratories in England and the NHS service
13 laboratories.
14 **Q.** Is it correct that the sponsors, the Scottish Government
15 and the Convention of Scottish Local Authorities, or
16 COSLA, were engaged in developing an annual operation
17 plan for PHS?
18 **A.** Yes, and we've continued -- and I know it goes beyond
19 the timeframe of the examination today --
20 **Q.** Yes.
21 **A.** -- but we're certainly very much encouraged by the
22 ongoing work which has developed following on from the
23 beginning of the pandemic, and that we are currently
24 involved in for some of the commissioning work, going
25 beyond that into what is the needs assessment that we

1 have for laboratory services across all of Scotland.
2 **Q.** Thank you.
3 I would like to ask you now about the provision of
4 expert advice to the Scottish and the United Kingdom
5 government and the extent of HPS's involvement in
6 scientific advisory groups such as NERVTAG and SAGE.
7 What was the role of the Scottish public health
8 service in the NERVTAG advisory group? Was it a member,
9 to start off with?
10 **A.** So NERVTAG -- and I'm sure that you've heard already
11 quite a bit about this -- is an organisation which has
12 been set up which has taken through a robust appointment
13 process experts in individual areas. It just so happens
14 that I was successful in application to that on
15 a personal basis --
16 **Q.** Right.
17 **A.** -- rather than it being Public Health Scotland which are
18 represented --
19 **Q.** Yes.
20 **A.** -- at that type of meeting.
21 **Q.** Right, okay. And were there other representatives from
22 other devolved nations also present when you were there?
23 **A.** At its inception -- and it's changed over time -- then
24 it's certainly been important to have opportunity for
25 other colleagues to be co-opted into that process, and

1 Professor Peter Horby in the most recent past then has
2 been instrumental in trying to ensure that, dependent on
3 the setting that we're considering, that there's
4 an appropriate scientific representation across the
5 whole of the country.
6 **Q.** Right.
7 In terms of the subject matter that NERVTAG
8 considered during your time there, do you have a view as
9 to whether or not that was more limited than it might
10 have been? And, if it was, were there other aspects
11 that you think as an organisation, as an advisory group,
12 they would have benefitted from including in the matters
13 that they considered and discussed?
14 **A.** Yeah, I'm very much struck by both the testimony that
15 I've heard from witnesses here but also from looking at
16 the witness statements that have been provided both by
17 Wendy Barclay and by Peter Horby.
18 **Q.** Yes.
19 **A.** They give a good account, I think, of, that there is
20 always this balance, a balance about: we have set
21 questions that we're trying to address, because the
22 government of the day have key things that they would
23 like us to address, but that the scientific curiosity of
24 many of these individuals in the same room is
25 extraordinary, that these experts are often bringing

1 complex issues that they have noted would be important
2 for the group to begin to consider, and there's
3 opportunity through that network to then encourage one
4 or other of the administrations or the
5 Department of Health to then put that down as
6 a significant item for discussion at a next meeting.
7 **Q.** Yes. You may be aware of the evidence given earlier
8 today by Sir Chris Whitty on this subject; he landed on
9 an arbitrary percentage of 80/20.
10 **A.** 80/20.
11 **Q.** Yes. But that, I think, accords with the evidence that
12 you've just given --
13 **A.** Yes.
14 **Q.** -- that there needs to be a two-way street, which is
15 another phrase taken from Sir Mark Walport's evidence.
16 **A.** Absolutely. I don't quite know what the percentage is,
17 and as an epidemiologist you'd probably get an hour
18 discourse from me about that. But, yes, I agree.
19 **Q.** All right, thank you very much.
20 We know from your witness statement that you also
21 sat on SAGE representing HPS, as it then was, PHS as is
22 now is, and tell us about your time there, please,
23 Dr McMenamin, and whether you think that there are
24 improvements that can be made in terms of the way that
25 that advisory group conducts itself.

1 **A.** My time as an observer in all of the proceedings,
2 getting to as many of those as I possibly could, along
3 with many colleagues, was it was an extraordinary
4 examination, forensically at times, of the key
5 challenges presented of the day. Those individuals who
6 were coming, who were giving of their time freely, were
7 truly incredible and I have nothing but respect for
8 everything that they were able to say and do.
9 My role there was limited, perhaps, if there were
10 key things that we were providing either as validation
11 of observations that were occurring south of the border
12 or in the other administrations, or for the first time
13 being able to present interesting observations,
14 particularly in the early days of the estimation of
15 vaccine effectiveness, where we were able to say, using
16 the EVE collaboration data that had been set up as
17 a consequence of the hibernation projects set up after
18 the swine flu pandemic, important observations there
19 about early insight to what we might see in the
20 population, an early light of a path potentially out of
21 the lockdowns and social restrictions that we had in the
22 population.
23 **Q.** Whilst you were present at SAGE meetings, were you
24 convinced that there were mechanisms in place to promote
25 challenge and to ensure a range of views, as we've just

1 discussed is so important in these advisory groups?
2 **A.** Yeah, I think that all of the SAGE meetings were ably
3 led by either of Sir Patrick Vallance or Chris Whitty or
4 others who might be deputising on the day. There were
5 great opportunities for colleagues to be able to say
6 without reservation what their own views were about
7 particular challenges, and to challenge mindset about
8 any key things that were being discussed.
9 **Q.** Thank you.
10 A different topic, now. I'd like to ask you about
11 HPS's status as a Category 2 responder under the Civil
12 Contingencies Act of 2004.
13 What is your view of it being assessed as
14 a Category 2 responder? Do you think there is merit in
15 its categorisation being raised to a Category 1
16 responder, or do you foresee difficulties if that were
17 to happen?
18 **A.** If I may, if I can present two things there.
19 **Q.** Yes, please.
20 **A.** Both a corporate thing and a personal thing.
21 From a corporate perspective, I can see that it is
22 really important that we have a Category 1 response
23 labelling, because we are at the heart of the assessment
24 of risk, we are important in all of that.
25 On a personal basis, I can't understand why our

1 organisation should not be designated as a Category 1 on
2 the basis of the guidance and response function that we
3 have in supporting major incidents and pandemics.
4 **Q.** Becoming a Category 1 responder carries with it
5 additional responsibilities and duties. Do you
6 consider, Dr McMenamin, that Public Health Scotland is
7 able to provide those and is the right organisation
8 dealing with public health to be able to carry out those
9 additional duties and responsibilities?
10 **A.** Absolutely, with one caveat, and that is obviously
11 resource.
12 **Q.** Funding, yes. All right, thank you.
13 Finally I'd like to take you through a series of
14 scenario testing exercises and to ask your expert
15 opinion on what you think worked well and what might be
16 capable of being improved.
17 There are some names here that the Inquiry has not
18 yet heard about, because they are Scottish specific.
19 One back in April of 2009, an exercise called
20 Cauld Craw. What was that all about, Dr McMenamin?
21 **A.** So, as you might imagine, it would be something to do
22 with a crow or the likes. Of course that avian
23 influenza and influenza immediately spring to mind, and
24 that's exactly what it was about.
25 **Q.** All right.

1 You note in your statement that the plans for this
2 exercise were in fact overtaken by the swine flu
3 pandemic and although it was well planned, the tabletop
4 exercise itself did not take place. Was it rescheduled?
5 A. I beg your pardon?
6 Q. Was it rescheduled?
7 A. Which, sorry?
8 Q. Cauld Craw.
9 A. Yeah, I think that it was not rescheduled, particularly
10 because we suddenly had a natural event that was
11 presenting not too long afterwards with the swine
12 influenza pandemic. So my understanding, at least of my
13 own recollection, or of others at the time was that we
14 had a natural challenge that immediately followed.
15 Q. Yes. Do you know whether any of the preparations for
16 the exercise were able to be drawn upon when swine flu
17 hit?
18 A. Certainly much of the constant evolution of thinking
19 that we had in any of our preparedness was to address
20 many aspects of what were to be covered by that kind of
21 exercise. In particular, for the avian influenza
22 database that ultimately became what you will I'm sure
23 hear more about this the response to Module 2 with the
24 first few 100s approach that we had for gathering clear,
25 concise information about the first cases of any new

1 infection.
2 Q. Also known as FF100, isn't it?
3 A. Yes.
4 Q. The next exercise on my list is Castle Rock in September
5 of 2010. I'm not going to ask you about the details of
6 that because it simulated a chemical, biological,
7 radiological and nuclear incident, so far from the topic
8 of this Inquiry.
9 A. Yes.
10 Q. But I would like to ask you about the fact that this was
11 an exercise led by both the UK and Scottish governments.
12 Do you have a view as to how well a joint operation
13 such as that -- and we're going to come in a moment to
14 talk about Exercise Cygnus -- but how something created
15 by governments in two separate nations are capable of
16 providing benefit to both of those nations? Is that
17 something that you would promote, or do you think that
18 the Scottish-only exercises, designed and focused as
19 they were on Scotland, are better in the long run?
20 A. I think the truth of it is that you need to have both.
21 We need to have that local exercise capability to see
22 what we can focus on. What sometimes is forgotten is
23 every exercise can only focus on a few key things, it
24 can't necessarily encompass everything. So having that
25 opportunity to focus on that local issue becomes really

1 important, particularly for the local authorities who
2 might be dealing with that.
3 Whereas on a UK basis, having an understanding about
4 how to relate to each of those constituent parts of the
5 UK, where we will get key information from becomes
6 important.
7 And one important thing that I should say about that
8 is that for some aspects of environmental public health,
9 Scotland is entirely reliant through a service-level
10 agreement with the Health Protection Agency, Public
11 Health England and the UK Health Security Agency, and
12 that's reserved issues like radio, nuclear issues,
13 et cetera.
14 Q. Thank you.
15 Silver Swan took place over the latter part of 2015
16 and its aim was to assess the preparedness and response
17 of Scotland's local and national arrangements for
18 an influenza pandemic over a prolonged period.
19 This, I'm going to describe it as a rather
20 successful exercise, focused on four areas: health and
21 social care, excess deaths, business continuity and
22 overall strategic co-ordination nationally. But of
23 importance you say in your witness statement was what
24 came out of that exercise concerning PPE.
25 Tell us about that, please, Dr McMenamin.

1 A. So inevitably there are key things that come out of
2 every exercise. You hope that you're challenging
3 perceptions, identifying issues, in the expectation that
4 you'll be able to address them in subsequent work.
5 Part of our organisation at the time within Health
6 Protection Scotland was our Antimicrobial Resistance and
7 Healthcare Associated Infection team, that's shorthanded
8 to ARHAI. It's with much personal regret and
9 corporately regret that we saw this part of our
10 organisation didn't come with us into Public Health
11 Scotland, it remained within National Services Scotland.
12 It was, however, the most painless divorce, I'm sure, of
13 medical and nursing teams --
14 Q. That's good to hear.
15 A. -- because we continued, and continue to this day, to
16 work very closely with our ARHAI colleagues who were
17 an essential part of the pandemic response.
18 The reason why I'm focusing on that as background
19 first is that it's this ARHAI team who have become
20 pivotal to us in addressing everything to do with
21 personal protection equipment, and although I can offer
22 my own understanding of that from representing Public
23 Health Scotland and HPS at the time, it might well be
24 that a separate issue that you may wish to consider
25 asking our ARHAI colleagues who remain within National

1 Services Scotland.
2 The question that you asked, though, was: what
3 happened? The key thing that we can see is that there
4 are issues of interpreting what the safe use of personal
5 protection equipment should be within the NHS. That
6 becomes really important for us to make sure that we can
7 have all of that sharing with the infection prevention
8 and control teams in any of our hospital or secondary
9 care settings, but also across the NHS estate.
10 That key learning was something that continues to be
11 part of our discussions on an ongoing basis, including
12 what we do for high-consequence infectious disease, and
13 that our ARHAI colleagues are right up the middle of all
14 of that.
15 Q. The fact that the provision of PPE and the stockpiling
16 of it and the use of it across the whole of the health
17 system in Scotland had been raised in the latter part of
18 2015 must have meant that, by the time Exercise Cygnus
19 took part in October of 2016, that knowledge and those
20 concerns could be carried forwards. Because you I think
21 personally attended Exercise Cygnus, did you not, on
22 behalf of HPS? And we know that the aim of that
23 exercise was to assess preparedness and response across
24 the whole of the United Kingdom for pandemic influenza.
25 Did you in fact take to Exercise Cygnus the information

1 and the knowledge that you had gained through
2 Silver Swan?
3 A. Yes, indeed, not just me but many of my colleagues who
4 were joining on behalf of either Health Protection
5 Scotland or other parts of the NHS in Scotland.
6 Q. And how did you find Exercise Cygnus? It was a huge
7 undertaking, wasn't it? This Inquiry has heard that it
8 involved 950 participants. As a matter of interest, did
9 you travel down to England in order to attend, or were
10 you attending remotely from Scotland? How did it work?
11 A. My memory of that was attending remotely, I think, for
12 that particular one.
13 Q. Right. We know it took place over the course of
14 two days and that the initial scenario was that the
15 influenza pandemic had just hit and then the further day
16 was some time beyond that, once systems had been up and
17 running for some time.
18 When you came away from Exercise Cygnus, did you
19 believe that public health in Scotland was well prepared
20 for the outbreak of a pandemic influenza, or did you
21 appreciate that there were significant lessons that had
22 been learned and preparations that needed to be put into
23 place in order to get that level of preparation to
24 an acceptable degree?
25 A. I think the latter. Despite any great work by any

1 number of very industrious colleagues working in the
2 background, my own team included, but yes, there
3 continued to be very significant things that we needed
4 to continue to work on.
5 Q. What actions did Public Health Scotland take away from
6 Cygnus and are you able to tell us whether or not, by
7 using a couple of examples, those were carried through
8 and indeed were in place by the time the pandemic hit?
9 A. Earlier I spoke about the Scottish Health Protection
10 Network being used as an important vehicle to make sure
11 that we and all of our colleagues then were sharing our
12 own experience and learning. I think that the key thing
13 that we were then coming back to was for personal
14 protection equipment, as you've already highlighted, it
15 is an essential bit of what we needed to do, and our
16 ARHAI colleagues in particular were very, very focused
17 on this, but also some other thinking then about
18 high-consequence infectious disease and what we should
19 be doing about that.
20 You may or may not know that Scotland does not have
21 a high-consequence infectious disease unit. We rely
22 then on, and through service level agreements, the
23 excellent service that's offered through colleagues in
24 England, where we then have to transfer patients that
25 might require that high-consequence infectious disease

1 management.
2 That's part of our reignited discussion that we're
3 having north of the border currently about what should
4 be the case in the new world that we are living in,
5 where we are learning as much as we can about pandemic
6 preparedness for the future.
7 Q. And do you believe, either personally or corporately,
8 that Scotland should have its own HCID system?
9 A. I think certainly at the moment corporately that we wish
10 to see what the balance is. We understand that
11 of course there should be value for money in everything
12 that we do. Is there a good enough case in this
13 instance that there should be? My own personal
14 perspective is that I'll be influenced by our infectious
15 disease clinicians -- you spoke to just one of those
16 earlier in the day with Professor Sir Chris Whitty --
17 south of the border, but it will be important that we
18 have a view expressed by all of those colleagues about
19 whether it would be important to have that capability
20 locally or whether we continue to rely on the good grace
21 of our UK colleagues to support us.
22 **MS BLACKWELL:** Thank you, Dr McMenamin.
23 Would you excuse my back, please, my Lady?
24 **(Pause)**
25 Thank you. My Lady, I can confirm there were no

1 Rule 10 requests in relation to this witness, and so
2 that completes Dr McMenamin's evidence.
3 **LADY HALLETT:** Just one question from me, Dr.
4 You mentioned in your witness statement that you
5 were doing a lessons learned report, and it would be
6 available by April 2023; was it available by April 2023?
7 **A.** My Lady, my apologies, my understanding is that it was
8 near completion but it's not yet completed. I can
9 certainly ask my colleagues in the background and try
10 and make that available as soon as possible.
11 **LADY HALLETT:** That would really helpful, thank you very
12 much indeed.
13 Well, thank you. I'm sorry we've kept you so long,
14 I hope it hasn't mucked up your arrangements for
15 returning home.
16 **THE WITNESS:** Not at all.
17 **(The witness withdrew)**
18 **LADY HALLETT:** Very well, we'll finish there today, and I am
19 sitting again at 10.30 on Monday.
20 **MS BLACKWELL:** Thank you, my Lady.
21 **LADY HALLETT:** Thank you all very much indeed.
22 **(4.30 pm)**
23 **(The hearing adjourned until 10.30 am**
24 **on Monday, 26 June 2023)**
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