Monday, 22 January 2024

(10.00 am)

LADY HALLETT: Good morning.

MR DAWSON: Good morning.

LADY HALLETT: I'm grateful everyone's managed to get through. By the looks of our public gallery, not that many of our normal attendees are present, but I'm grateful for everybody else who has obviously made a huge effort to get through.

MR DAWSON: There is one minor preliminary matter, my Lady, that I was just intending to deal with. This week your Ladyship will hear evidence from a number of medical and scientific witnesses. Your Ladyship will, however, not hear evidence from former Chief Medical Officer for Scotland, Dr Catherine Calderwood, who has been excused participation due to ill health.

The first witness this morning is Caroline Lamb. The questioning will be done by my learned friend Ms Arlidge.

LADY HALLETT: Thank you.

MS CAROLINE LAMB (affirmed)

Questions from COUNSEL TO THE INQUIRY

MS ARLIDGE: My Lady.

You are Caroline Lamb?

A. I am.

Q. You've provided the Inquiry with a number of witness statements in various guises in respect of your role at the directorate of health and social care. I'm going to have to take you to them all very briefly at this moment in time.

So if we first turn to your own personal statement, or your individual statement, that is INQ000315534. Hopefully that's familiar to you.

A. It is, yes.

Q. On page 12 is your signature and statement of truth. Are you happy that that statement remains true?

A. Yes, happy with that.

Q. There are also -- there's a statement INQ000215470, and this sets out details about the roles of various directorate subgroups within the directorate. Again, are you content that that remains true and honest to the best of your knowledge and belief?

A. I am, yeah.

Q. We then have an addendum statement dated 10 November 2023, INQ000343900.

A. Yep.

Q. Again --

A. Content.

Q. And INQ000215488.

A. Yes, correct.

Q. INQ000346089 deals with care homes.

A. Yep, correct.

Q. And finally, INQ000372948.

A. Yeah.

Q. They're all familiar?

A. They are.

Q. They're all what you were expecting to come up on the screen?

A. Absolutely.

Q. Now, you gave evidence in Module 1, so --

A. I did.

Q. -- you'll remember we have a stenographer who is providing a live transcript and provides a transcript at the end of the day, so I'd just ask you to keep your voice up and remember that a nod doesn't reflect on the transcript so easily.

You are currently Director-General Health and Social Care and the chief executive of NHS Scotland; is that right?

A. That's correct.

Q. And you started your role in Scottish Government as director of digital and service engagement at that directorate in December 2019?

A. That's correct.

Q. You then moved on to, in that role, expanded into

various things that were Covid-related specifically. We'll come to those in a moment. But in January 2021, you became Director-General and chief executive of NHS Scotland; is that right?

A. That's correct.

Q. So taking the first year of your role, from about -- we'll be discussing various of these roles in more detail during the course of your evidence, but from about mid-March 2020 until early May 2020, were you the delivery director for intensive care capacity expansion?

A. That's correct, yes.

Q. Thereafter did you become involved in the contact tracing system development in Scotland?

A. Yes, I did, I led the delivery of contact tracing.

Q. And then after, from August 2020, you moved on to be delivery director for the vaccination programme; is that right?

A. That's correct.

Q. Then 2021, as we've just discovered, you became chief executive of NHS Scotland. Just for clarity's sake, is it right you're not a clinician or a doctor?

A. That's correct.

Q. You're a leader in bringing things together rather than providing clinical advice --

A. Absolutely, yes.

Q. -- is that fair?

Just in terms of the sort of provision of advice to Scottish Government and to ministers, the witness statement -- one of the corporate witness statements, INQ000215470, sets out how ministers -- how advice is provided to ministers in the following terms. It's paragraphs 39 to 40.

I won't take you through the whole thing, don't worry, I won't read it all out, but effectively policy papers are drawn up by -- within the directorate, passed to Chief Medical Officer, for example, their team, to look at it from clinical perspective, and bringing together no doubt a number of threads within a policy paper that is going up to ministers; is that right?

A. Yes, that's correct, yeah.

Q. In terms of the commissioning of that advice, is that something that the directorate itself says "Ministers need to know about this particular point, we're going to produce a policy paper", or is it ministers coming to the directorate and saying "We want to do this, can you give us a policy paper"?

A. It could be either. So it could be us, officials within the DG, putting advice up to ministers on something that they needed to be aware of. It could be ministers asking for additional advice relating to something that

we'd already put up. Or it could be ministers asking us for advice in relation to, as you said, an intervention or a policy that they wished to pursue.

Q. When that policy paper is provided, it goes to Cabinet via the CMO; is that right?

A. So --

Q. In most cases?

A. During the Covid -- during the period of the Covid pandemic, there were many papers going to Cabinet, so it would depend on the content of that. But there would be -- the Chief Medical Officer, the CMO, certainly attended Cabinet meetings, and was there to provide advice on the papers that were going, not all of which would have been coming from the CMO, or indeed from officials within the DG Health and Social Care, they would come from across government.

Q. And were the policy papers on the whole or entirely consensus papers or were they range of options and balance -- and disputed ...

A. Again, they could be both, so you will have heard about the four harms group that was set up in order to try to look at the impact of policy interventions in the Covid pandemic from a range of different perspectives, and that group was very much set up to enable discussion amongst officials from different perspectives in order

to provide sort of holistic and comprehensive advice to ministers. So there would be disagreements within those areas, particularly about the relative balance between responding to each one of those -- each one of those four harms. But the mechanisms for pulling together the advice were designed to try to enable us to provide the most comprehensive advice to ministers possible, and that would often include options for ministers to make decisions on.

Q. You've mentioned the four harms, so if we move to the four harms just briefly at this point. When you became Director-General, is it right that you at that point became a member of the four harms group, so you were attending those meetings?

A. That's correct, yes.

Q. And that group, the Inquiry's heard evidence, had been meeting since October 2020, so two or three months before you joined.

What sort of briefing were you given to explain what the purpose of that group was, as effectively a late joiner?

A. So I was already aware of the work of the four harms group because I was a member of the DG before I became Director-General. So I was aware that we would often discuss on our daily directors' calls what were the

topics that were going to be discussed at the four harms, what was the evidence that we were pulling together, particularly around harms 1 and 2, which were the health-related harms that were a particular focus obviously for people in the DG Health and Social Care. So I don't think I really needed briefing about the purpose of the four harms, I was already well aware of it. And even before that four harms structure was formally established I think we were already trying to look across to other colleagues across Scottish Government in terms of recognising that, whilst obviously there was a very significant health impact of the Covid pandemic, that wasn't the only impact.

Q. As you just identified, harms 1 and 2 obviously of primary relevance and importance to your group, to your directorate. Professor Cairney last week gave evidence that his impression of the four harms group was it was about -- it was a statement of the problem, it wasn't a statement of the solution. So it was reminding those involved in decision-making of the balance, the trade-offs that existed, as you say, in terms of one intervention leading to harms in another area.

Was that something that you had a similar impression, as someone who was contributing yourself within that group?

A. My impression was that the four harms group was bringing together not just officials and clinicians from within the DG Health and Social Care, and indeed colleagues from the wider system through the National Incident Management Team, but also colleagues with an interest in the social impacts and the economic impacts, and I suppose there was very much that recognition of trying to understand what the impact was across all those four areas.

I think potentially it was simpler in the -- particular in the early days of the pandemic to understand the health-related harms than it was to understand the social and economic-related harms, and therefore, you know, maybe there was more of a focus on just trying to understand what those social and economic harms were.

But it was absolutely about trying to provide advice to ministers that set out the broad context and enabled them to make the choices with advice around what some of the other impacts would be as well as just the health impacts.

Q. And in your role, did you -- was it your role to advocate for the -- harms 1 and 2, or to take part in that balancing exercise yourself in terms of providing advice to the ministers?

A. So I think my role and the role of colleagues within the DG was very much to present the evidence that we had, which changed at different stages of the pandemic, to be really clear about what was -- what -- the impact around harm 1, so, you know, be really clear about the numbers that we had in hospital and intensive care, the people -- the rate of Covid in the community, but also about the knock-on impact on harm 2.

Now, whilst we are, of course, extremely passionate about health and social care services and providing those services for the people of Scotland, I think our role was really to very much present that evidence and to be really clear about the impact in relation to harms 1 and 2 rather than particularly advocating for those harms as opposed to other harms that were undoubtedly occurring as well.

Q. Because some might say trying to delineate between different harms broadly is not quite as straightforward as: this number of people dying from Covid, this number of people have Covid, this number of people aren't able to access cancer treatment this week; because effectively they all link in with each other, don't they?

A. Absolutely. I think that was both one of the -- that was why the four harms was such a valuable forum to try

to actually -- for us as officials but also in presenting our advice to ministers, to be really clear about all the different aspects and all the different harms that were occurring. So I think that was really valuable. But yes, it's undoubtedly challenging, because there are judgement calls and balances to be made about -- and, as I say, I think probably particularly in the early stages the data and evidence that we had was more -- was more relevant to harms 1 and 2 than it was to harms 3 and 4.

Q. And to what extent did you sort of liaise with colleagues in different departments with different harms to hand, for instance? So, for instance, harm 2, the broader health consequences.

A. Yep.

Q. You've got the direct broader health consequences of someone not being treated for cancer or the like at a particular moment in time. But that inevitably has an economic effect or a societal effect as well, doesn't it, because firstly, from an NHS Scotland point of view, those costs are being pushed down the line and it's more expensive to treat people who are sicker in the future? And those people who are sick may not be able to go to work so much, so there's an economic impact.

So how did you in your role and your team's role

seek to advance those sorts of interconnected elements within the four harms strategy?

A. So I think we were -- we probably started off in the early days being most concerned about harm 1 and about protecting, absolutely protecting people from Covid, and then as we sought to re-mobilise health services and to try to get back to a position where people were able to get screening appointments, for example, we were also, I think, hugely conscious of the backlogs that were building up and, as you've rightly pointed out, the fact that that ill health doesn't go away and it gets more difficult to treat.

And equally I think we were also conscious of the economic impact in terms of the number of people who were economically active in society, but also what that means for people as well. So we have -- I gave evidence in Module 1 about our focus on health inequalities and on the -- all the factors that contribute towards good overall health that actually have nothing to do with health and social care systems, it's all about whether people are able to get good employment, get good housing, whether they're able to live in a good environment. So I think to characterise us as being narrowly focused on harms 1 and 2 doesn't take into account the fact that we have been -- had a commitment

for many years towards trying to improve health inequalities, and critical to that is having, as I've said, good jobs, good housing, good education. So I think we're always mindful of those other factors as well.

Q. Over the course of your time on the group, did you find that there was a shift in focus, in terms of the group, the ministers' approach to balancing the four harms?

A. I think that the shift in focus also related to the progression of the pandemic and where the pandemic was at any one point and, you know, again, as you'll be aware, that went through peaks and troughs, so with -- through the first wave and then into new waves and new variants. But I think there was absolutely an understanding of the impact that the pandemic and the measures that would be taken to control the pandemic were having on other aspects of social life and economy as well.

Q. We move on to another element of your role in the first year of your time as a Directorate. From January 2020 to January 2021, Test & Protect steering group membership.

A. Yep.

Q. I think you joined -- you were chairman of the Test & Protect steering group from the outset; is that right?

A. So my recollection is that I first got involved in Test & Protect in probably mid-March, early April -- no, sorry, let me correct myself there.

I think Scotland launched the Test & Protect strategy on 5 May, and that's the point at which I was appointed delivery director for the contact tracing element of Test & Protect. Prior to that, I'd been, first of all, involved in ramping up our digital approach, and particularly the video conferencing near me that enabled online consultations, and then, as you said earlier, in the work around expanding ICU. But my engagement in Test & Protect really started formally from, I think it was actually 5 May.

Q. So is it the case that you were involved with the Test & Protect for the app and the contact tracing we'll come on to in a moment, rather than the setting up of the strategy about testing itself in the early stages of the pandemic?

A. Yeah, that's correct. My role was very much on the delivery side, to make sure that our strategy could be put into practice and delivered.

Q. There were various different testing groups or committees set up to deal with testing and strategising about ramping up testing capacity and the like. The Inquiry has a statement from David Crossman, who was

Chief Scientist for Health. We don't need to bring it up on screen, but for reference and for the transcript, that's INQ000273976.

Now, he was involved in something called SABoT(?), and that was about testing strategies, making sure that people were physically getting the testing samples and the mechanisms as well as the operation -- so the operationalisation of things as well as the strategy.

Did that interact with your steering group on Test & Protect?

A. Yeah, so the group that David Crossman chaired was a subgroup of the Covid-19 Advisory Group, and it was very much looking at the scientific, the technical evidence around different sorts of testing, and then using that to help inform our strategy around where we would prioritise our testing capacity, and then, yes, you know, how that would actually be delivered. And to bear in mind that that involved not just having the capacity in labs to actually perform the tests, but having the capacity to take samples from people, whether it's in the community or in hospital setting or whatever.

So, yeah, there was absolutely a feed-through. I think the way that generally happened was from the group that Professor Crossman chaired feeding through

into policy advice to ministers that became our testing strategies which then got operationalised through the Test & Protect strategy. Initially focused around testing but then extending into contact tracing as we had the capacity, the testing capacity to be able to do that.

Q. In your roles -- I appreciate you weren't on the SABoT, for instance, and you were in the operationalisation of the contact tracing, but to what extent were the numbers of tests literally available core to the strategy in terms of contact tracing, in terms of Test & Protect going forwards? How did that change over the course of the first three or four months, say?

A. So that was absolutely fundamental to being -- the number of test -- having availability of tests and having a reduced amount of community transmission was really important to being able to build a sustainable contact tracing system, so -- to -- to get into contact tracing at scale, which is what we did from the announcement of the strategy to -- it was launched I think about 28 May, we launched the Test & Protect, so the "protect" bit being the contact tracing and support to isolate element. It was important that we were confident that we had enough testing capacity then so that people who were able to get tested and to confirm

whether they were in fact Covid-positive so that we were then able to kick off the mechanisms to trace their contacts and provide them with appropriate advice.

Q. And at the start of the pandemic, to what extent did Scotland have its own testing capacity or was it reliant upon external, private labs?

A. So to a very, very -- very small extent. Clearly at the very start of the pandemic then, first of all, an appropriate test had to be developed. In the early, very early days, we were reliant on sending tests down to, I think it's Colindale. We then took measures to develop, I think as soon as a test was available, took measures to develop capacity. Originally we had capacity in Edinburgh and Glasgow. I think it was about 350 tests a day. We extended that into Dundee and then worked really hard to build our NHS Scotland capacity alongside also engaging with UK Government around the set-up of the Lighthouse labs.

Q. Because there is effectively a need to get ahead of the game for two reasons. Or many reasons but let's look at two here. One, because the whole world is about to want to get into testing, so, in terms of capacity, you have to be ahead of the game to ensure you have enough materials and enough capacity in that regard, don't you? And then, secondly, in order -- you have to get ahead of

the game in order to physically have the number of tests to make sure that you're putting the swabs where you need to put the swabs and tracing outbreaks?

A. Yeah.

Q. Do you agree with both of those?

A. Yeah, so I'd agree with both of those statements. I think that having the actual technology to be able to do the testing was important, but also then having the facilities, the people on the ground to actually be able to carry out the sampling, yeah, absolutely, particularly taking swabs, yes.

Q. The Inquiry heard evidence last week that there was some concerns expressed by some of your colleagues -- Derek Grieve in the public health side of things -- that there was insufficient urgency amongst some departments and some members of Scottish Government about ramping up the response to the threat posed by the pandemic.

Was the limited number of tests in February/March a result of that, in your view, or at least contributed to by that?

A. So I wouldn't -- I don't think so. I think that we were -- certainly given that our focus originally was on NHS Scotland and working with NHS Scotland to ramp up tests, absolutely NHS Scotland was very, very acutely concerned to get those tests ramped up. I'm not sure

exactly what the context is of that statement from Derek, but my -- my impression could be that that might be about the way in which Scottish Government was able to pivot to support the huge amount -- the huge volume of extra work that was involved within the DG Health and Social Care to produce the advice, to produce -- you know, to support delivery organisations to get all of this set up, but I'm --

Q. Because something like this requires good funding, good focus, a concerted effort from multiple different departments and individuals, and lots of cogs in the wheel to get things moving at the earliest possibility -- possible time?

A. Yes, it absolutely does. I think that I -- you know, I said in my opening statement at Module 1 just how grateful I am to everybody who worked across Health and Social Care, in the DG, and in health boards and social care organisations, but, you know, people really went the extra mile to pull together -- local authority colleagues as well -- in terms of providing -- you know, identifying locations for testing sites, identifying locations that would help us to get people who maybe would find it more difficult to travel to some of the bigger sites. It was an enormous team effort, yes.

Q. And in terms of your role in Test & Protect, were you

involved in discussions about prioritising those limited tests at the beginning?

A. I wasn't directly involved in the discussions around prioritisation so I -- you know, I was aware of the approach that was being taken, which was very much around prioritising, first of all, being able to treat people and be able to know who had Covid-19, and then move progressively towards protecting the vulnerable, and then out into trying to break chains of transmission. But I wasn't directly involved at that point in those -- in the provision of that advice or the co-ordination of that advice.

Q. Was that advice that came from SABoT or your directorate?

A. So it was a -- SABoT was providing advice and that advice was then corralled through the clinicians within particularly the Chief Medical Officer, Chief Nursing Officer and others within the DG.

Q. And in terms of that corralling of that advice, who was making the decisions or advising about who to prioritise for testing, for instance?

A. So the advice around prioritisation came from clinicians, and was also, I suppose, you know, linked with advice from officials around how many tests we had, how quickly we expected to be able to ramp up that

testing capacity, what was the likely demand for testing in each of those groups, so -- and then -- but -- and the decisions around the apps, the prioritisation was -- that advice then went to ministers and ministers made the decisions around the prioritisation.

Q. In terms of sort of sections of society who could have been prioritised, or balancing all of those things into the mix, to what extent is it effectively determined by which clinician is shouting the loudest in those circumstances rather than a broader analysis? So, for instance -- it's in the title of your directorate, you've got health and social care.

A. Yeah.

Q. So to what extent is there someone in the room advocating for social care to have greater prioritisation in testing capacity usage?

A. So my recollection of the conversations at the time around testing and then, when I was more directly involved in the delivery of the vaccination programme, around, you know, how we approached our role out of the vaccination programme, was that absolutely our Chief Nurse particularly was a huge advocate for social care and for doing as much as we could to protect vulnerable. And actually some of the early decisions that were made around the prioritisation of our testing capacity as we

started to ramp it up -- but we were nowhere near the numbers of daily tests that we had later in the pandemic -- some of the early decisions were around, first of all, around testing -- testing people before they -- who were being discharged from hospitals to care homes.

Q. The Inquiry heard last week about various studies, for example, that have been gone into, the effect or otherwise of testing before release into care homes. But if we take it back a few months in the piece, say, lots of -- there were lots of deaths in care homes from the very earliest stages of the pandemic, weren't there?

A. Yes.

Q. And the majority of deaths in the first wave were in care homes; is that right?

A. Yes, I believe that's correct, yep.

Q. So in terms of -- and of course even from the very beginning everyone was conscious that some demographics were more vulnerable to either very serious consequences or death as a result of Covid infection, and age was a significant factor in that.

So with the social care hat of the DHSC element, some might say that department is in the best position to understand the number of patients being discharged from hospitals into care homes, for example, because

you've got the hospital side of things and the social care side of things. You can understand how many patients are being discharged from hospitals into care in the community, and you can work out how many patients are coming into hospital with Covid from care homes or care -- or who were receiving care in the community. And all of that would be useful information, wouldn't it, to consider the risk profiles and to look at whether that particular cohort required prioritisation of testing?

A. So what I would say to that is I don't think that we had the -- we didn't have as good data as we would have liked to have, particularly in those early days. So whilst we have good data on who's in hospital, that doesn't necessarily extend to knowing where they've come from. And we were -- we did not have great data on exactly who was in care homes.

Q. Should you have --

A. We took measures to improve that really quickly, but we had to put that in place.

LADY HALLETT: But going back to Ms Arlidge's question, you would have had the data on people going from hospital to care homes, wouldn't you?

A. We would have data on people being discharged from hospitals, but not necessarily what setting they were

being discharged to.

MS ARLIDGE: Would that not be considered of central importance in circumstances where patients were being discharged with -- because if there's Covid in people who are sick or exposing people to people who have been in hospital with Covid, is that not a key fundamental marker to understand where there is risk at its highest?

A. So I absolutely agree that we did not have as good a quality data around the social care, the whole of the adult social care sector, at the beginning of the beginning, as we would have liked, and I think that reflects the fact that whilst Scottish Government and Scottish ministers are responsible for NHS Scotland and for healthcare in Scotland, the statutory responsibility for adult social care sits with local government and it is a much more fragmented system than the way in which we provide healthcare services.

We worked extremely hard to try to improve the data that we had around care homes and around adult social care more broadly. In the first instance that we did that setting up the safety huddle tool which was designed not only to give better information at both a national and a local -- by "local" in this context I mean NHS board level -- but also to gather information around things like, for example, infection prevention

and control measures, staff absences within those homes, because there are -- I think some of the research that's been done since the start of the pandemic would demonstrate that there are -- there were a number of factors that influenced the extremely tragic death rate in care homes, and one of those was around admissions from hospitals, but actually there was a much stronger correlation in the Public Health Scotland report around the size of the care home, which probably linked to the, you know -- and links as well, sorry, to the prevalence of Covid in the local community.

Q. What consideration, therefore, was in -- particularly in circumstances where you didn't have the data that you would have liked, that -- care homes are effectively a completely different kettle of fish than discharging into ordinary -- you know, in a normal circumstance -- because in a care home there is inevitable need for close contact with patients, lots of care home residents simply wouldn't be in a position to function without that sort of care, some of the residents wouldn't be able to understand why social distancing or PPE was required, and all that sort of thing. So having all of the particular features of a care home, at what point did your directorate sort of say "Well, hang on a minute, this is a perfect storm potentially brewing"

and what efforts were made to do something about it?

A. Yeah. So I think first of all we absolutely recognise that the nature of a care home, as you've described, with people requiring, you know, very close intimate contact from staff, the sort of quite closed nature of the community, did present a heightened risk.

We -- in I think it was middle of March, so around 12 March, Health Protection Scotland issued some guidance on infection prevention and control specifically aimed at care homes. We already had the National Infection Prevention and Control Manual, which dates back to 2012, and that contained relevant -- information that's relevant to care homes, but didn't articulate, that didn't give example -- worked examples for care home settings.

So Health Protection Scotland, HPS, issued guidance on the 12th, that was followed up on 13 March, by our Chief Medical Officer and Chief Nursing Officer writing -- issuing further guidance, which was to sort of extend into the more clinical zone, so not just about infection prevention and control, but also things around restrictions on visiting and isolation, and isolation for people who were admitted either with symptoms or even were already in the care home with symptoms, and other factors.

That was then -- I think that guidance was then updated again at the end of March, and again later on, probably April or May, and the Cabinet Secretary made her announcement about testing on discharge in mid-April.

So there was a huge focus around what needed to be done to try to support care homes, to keep their residents safe, to support them around infection prevention and control and really good procedures around that and other things, and you'll also be aware that the Cabinet Secretary asked directors of public health in NHS boards to convene multidisciplinary groups to ensure that support was provided to care homes.

Q. But by the time this guidance starts coming in, people are already dying at a high rate in care homes, aren't they?

A. So the first guidance was issued on 12 March, which was, you know, I -- it wasn't -- it wasn't that there was no guidance there before, there was guidance there in the National Infection Prevention Manual, which had been in place since 2012, the health and social care pandemic flu plan was clear about the additional risks in care home-like environments for elderly people and the increased infection prevention and control measures that need to be followed. But I think that wasn't there was

guidance and, you know, worked examples that were relevant to -- more relevant to care homes. And I think as well that -- maybe that what we hadn't fully taken account of was the number of care homes, the range of -- whether, you know, public sector, private sector, voluntary sector, the number of employers and, therefore, the additional challenges of making sure that staff are actually aware of the guidance and trained in it.

Q. Moving on to the Test & Protect hat that you wore, as it were.

A. Yep.

Q. 7 May 2020, the Scottish Government announced that they've managed to get to 3,500 tests a day and they're trying to ramp it up to 8,000 tests by mid-May. How many tests did you need at that sort of time in order to make Test & Protect -- we'll go on to exactly what that means -- a functioning system?

A. I'm sorry, I can't recall the actual modelling that was done around that. What I do recall is that during May and as -- no doubt as a consequence of the national lockdown, the rates of Covid reduced quite substantially. In fact when we first launched contact tracing for Test & Protect on 28 May, case numbers were very low.

Q. Perhaps a simple question.
A. Yeah.
Q. The Inquiry's heard evidence that the principle is test, trace, isolate.
A. Yeah.
Q. Sometimes it's called "test and trace". Why was it called Test & Protect in Scotland?
A. I'm not sure I can give you a direct answer to that. It started off -- the policy was described as "test, trace, isolate, support", so TTIS, and maybe Test & Protect was just thought to be a bit snappier in terms of communicating the public the intention, because the intention was to test people both in order to protect them and protect the rest of society. Now, behind that, absolutely, there were four pillars, one was testing -- testing, contract tracing, isolated -- isolating and -- and providing people with support for isolation. So in terms of the delivery of the programme we were working across all those -- all those aspects, but I think Test & Protect was just designed to be a name for the programme that the public could relate to and that they would engage with and -- and, you know, be part of.
LADY HALLETT: One could ask: why is it called Test and Trace in England?
MS ARLIDGE: Test & Protect is announced on 6 May 2020,

contact tracing goes live two days later.
A. Yeah.
Q. Prior to that, presumably there's quite a lot of employing contact tracers, because at this stage, to be clear, this is not the app that --
A. Yeah.
Q. So this is someone tests positive and someone has to give them a ring and say "Where have you been in the past five days?" Is that the position?
A. Yes, yeah, that's absolutely correct. Contact tracing was based on people phoning up. So they would speak to -- somebody tested positive, they would get a phone call, they would be asked to talk through their contacts. So you're right, yeah.
Q. So inherently kind of reliant on (a) the memory of the person who has tested positive, sometimes in circumstances where they might be quite unwell with their Covid infection; it relies upon the honesty of that person; and it relies upon the ability of the contact tracer to properly take someone through their story. Is that fair?
A. Yes, I think that's fair, yeah.
Q. So what training did contact tracers, for instance, have to undergo and how long did that take to set up?
A. Yeah, so we started -- the way in which we approached

contact tracing in Scotland was to build on the existing local health protection teams in our NHS boards, so we looked to scale up those teams, but to augment that with a national contact tracing capacity that could be used to support local systems where they were experiencing peaks in infection, and also that increasingly became an approach where the local health protection teams who had the sort of more detailed knowledge locally would deal with the highest risk cases from the highest risk settings, and the national team would deal with the, you know, more straightforward risks.

So in terms of training, public health, we worked with Public Health Scotland to develop the core scripts for contact tracing, we worked with NHS Education for Scotland, who are our education board, to put in place training packages. As you say, all of that stood up -- stood up really, really quickly. So we went through a process -- we also stood up the actual contact tracing system itself to enable all of that to be -- to be logged. And it was important to us to have that as a national system so that it would be public for the national contact tracing facility to actually step in and support -- support board, because everybody was working off the same -- off the same system.

So the education and training packages were put in

place during the course of May. The -- when contact tracing first launched, a lot of boards had -- because we were still -- we were -- not all NHS services were operating, so a lot of boards re-deployed existing members of staff into their health protection teams to provide that additional support. It was an online, an internet-enabled service, so it didn't mean people had to be sitting in a call centre, they could work remotely, which was, again, incredibly helpful in terms of getting that set up.
Q. Going back, taking that in stages, you say that was basically happening in May?
A. Yeah.
Q. Lockdown comes 23 March. It's known that pandemics, whichever kind of pandemic, testing, tracing, isolating contacts is a key part to try and get on top of the spread of a virus. Why was contact tracing only stepped up in May and not on the agenda getting things moving three months earlier?
A. So it absolutely was on the agenda. So it absolutely was on the agenda, and we were talking about it from, I think, April, early April, possibly earlier, but my -- I'm speaking here very much from my experience, so I was brought into the process on about 5 May. At that point, Public Health Scotland had already been working up the,

you know, what were all the different workstreams that needed -- were needed, so, you know, the thinking on that was already well advanced. I think it was a combination of getting to the point where we would have the testing capacity available. And also, again, my understanding is that contact tracing, you know, WHO would indicate that there is a level of transmission within the community at which contact tracing is not really viable and not the best use of resources. So we had to get back to having a lower level of transmission in the community, and then be ready to launch that -- launch the process, which we were.

Q. So it goes live on 28 May. About a month later, on 21 June, I think leaflets are sent out to the public sort of explaining what it's all intended -- sort of why it's happening and sort of giving more detail. Was it being found that people were simply not understanding the principle of Test & Protect?

A. I'm sorry, but I can't recall the reason why those leaflets were sent, what I do recall is that from the first few weeks of operation of the Test & Protect system, there were, as I've said before, extremely low case numbers. And, whilst that might be a really good way to test a brand new system, actually in terms of that wider public knowledge of that, maybe it probably

meant that there wasn't a huge amount of activity going on for the first couple of weeks.

Q. Fast forward a bit longer to when it moves from contact tracers and then moves into producing an app?

A. Yeah.

Q. So 10 September, I think, is when the Protect Scotland app goes live. It's -- again, just so we're clear, this is sort of the "ping" --

A. Yes.

Q. -- "pingdemic" and all of the things that were in the press at the time, designed to work on phones to physically locate you next to someone and so trace contacts in that --

A. Yes, that's correct, yeah.

Q. Did the human contact tracing then come to an end at that point?

A. No, it didn't. We very much regarded the app as being an additional tool in the tool box around contact tracing, and it was, you know, very much there to, you know, support people to look after themselves as well in terms of, you know, knowing that they'd been in contact with somebody.

So, no, the human contact tracing continued and we also continued to develop our digital approaches to contact tracing, which included being able to send

digital forms to people for them to fill in with their contact details.

Q. And the app launches on the 10th, within 24 hours 600,000 people have downloaded it, and within a week I think it's -- about a week, there are 100 people that are told to self-isolate. What studies were going on to make sure that it was actually working?

A. I'm sorry, I'm not sure I can answer that. By the time we got to that point, I was actually working on the vaccination programme, so my recollection -- obviously I was aware of the app being developed and my digital directorate would have been very involved -- would have been very involved in that, but I'd need to refer you elsewhere for details around --

Q. You may, therefore, not be able to help with the next question, but I'm going to ask it anyway --

A. Okay.

Q. -- and if you can't help us, say so.

11 November it's been announced that there has been a coding error in the app and so the estimation is about half of those testing positive, their contacts aren't being traced properly, so there's a chunk of people who have just gone missing under the app. Do you have any insight into that? Can you recall that?

A. I can't -- I can't specifically recall that. What --

I guess what I would say is that the fact that we still had the physical contact tracing capacity in place -- so we were -- at no point were we relying just on the app.

Q. I think the next day, so 12 November, there was an announcement that it was felt that something like 8% or three and a half thousand people had not been traced by contact tracers since the beginning of July. So that combination of the app perhaps not working so well or something going wrong in the coding and the contact tracers not making contact with three and a half thousand people does suggest, doesn't it, that there were people falling through the gaps, and that inevitably led to infections that -- because people weren't isolating because they didn't know they had to?

A. So I absolutely accept that, and I do recall, you know, our concerns about the -- when the contact tracing centres were making multiple calls to people who were contacts but had not been able to -- had not been able to trace them, had not been able to speak to them. So yeah, there were issues around -- and particularly as, you know, life got a bit more back to normal and people had more contacts.

Q. And as life got back to normal and sort of more people moving around as well, we hear the phrase regularly, the virus doesn't respect borders, but it's right, isn't it,

that Protect Scotland was a different app to the app that was in England, and so if people were crossing the borders or contacting people from England or vice versa that app wouldn't necessarily pick up those contacts; is that right?

A. So it was a different app, we took a different approach to information governance around the development of the app. I think we worked pretty hard with the other UK nations to try to make sure that they were compatible, but, I'm sorry, I don't know the detail of the extent to which they were compatible or not.

Q. Again, because you had moved on to different roles, it may be that you're not able to help so much in terms of the Status app, so that was the -- I appreciate you were involved in vaccines at the time, so it may be that you've got some oversight of this. But in September 2021, so some time later, there's the COVID Status app is produced or set out, and that's effectively the vaccine passport; is that right?

A. Yeah, that's what it came to be called, yeah.

Q. Colloquially called the vaccine passport. And that was released at a time when infections were getting higher and higher in Scotland, September 2021, hit by the Omicron wave.

Was there a risk or did it occur that the vaccine

made everyone "Oh, look, I've got a vaccine, you know, this is my passport to freedom" in circumstances where society is opening up, but infections are climbing rapidly?

A. I think you'd probably need to ask a clinician for a view on the extent to which maybe that -- or a behavioural -- I think that it was the case that I think one of the reasons, one of the -- part of the thinking behind having the vaccine Status app was to, absolutely, to encourage people to take up vaccination because that was, you know, our single route towards protecting -- protecting people better.

Q. Can we now move to a completely different area.

A. Okay.

Q. Shielding and the involvement of your department in shielding broadly, not in a clinical sense at all, but in terms of the impact of shielding on decision-making by ministers in Scotland.

So a shielding programme is implemented in mid-March 2020. When was shielding first on the agenda, as it were, in the department?

A. I think there were discussions from quite early on as it became clear that the threat that we were facing from the pandemic about how we could protect the most vulnerable, so ... aware of conversations particularly

around, you know, the CMO, the CNO and then the four CMOs -- in my understanding four CMOs worked together to develop the list, the definition list of those who were felt to be most vulnerable to the virus. We worked with Public Health Scotland, with colleagues in local authorities to try to come up with as complete a list as possible, and clinicians locally had the ability to add to that list. So if they felt that -- you know, if a general practitioner felt that they had somebody who wasn't on the list but should be, then they could add those on to the list.

So it was -- formed part of our discussion from a pretty early stage, both in relation to identifying and categorising that shielding list, but also then what were we going to put in place to support those people.

Q. And again, sort of expanding into the social care side of the DHSC title, you've got people who are clinically extremely vulnerable as a result of their pre-existing conditions or treatment that they're undergoing, but you've also got people who are vulnerable because of health conditions that wouldn't necessarily make them more vulnerable to the virus but are unable to access society in a result of things like lockdown and the like, and perhaps feel more vulnerable, whether or not they are in the clinically extremely vulnerable list.

So practicality in sort of shielding policy and ensuring access for people, the Inquiry heard last week that effectively a two-tier approach to shielding developed almost accidentally, because highest-risk list were given access to services with a priority for online delivery slots and prescription deliveries and that sort of thing, but people who were not at the highest risk under the clinically vulnerable analysis but still vulnerable as a result of, for instance, their disability, meant that they were in a second tier, they didn't have that priority access and they didn't have the -- they were reliant still on other people to assist them and give rise to greater risk for them.

So was there any thought put to the fact that people might be de-prioritised under the shielding, because of the overly -- not necessarily overfocused but the focus on shielding necessarily meant that services might be being removed or made harder to access to others?

A. So I suppose to respond to that in a couple of ways. Firstly, I don't think there was any -- ever any intention or to somehow sort of ration support that was available and to focus that at the clinically vulnerable group. Our local authorities worked through their local resilience partnerships and through -- using their -- I can't remember precisely what they call them, but

their lists of the most vulnerable people that they would use in relation to other, you know, civil emergencies, et cetera. They worked, I think, really hard, as did many voluntary organisations and others. So I think that, you know, the shielding list was very much about those who were clinically vulnerable, but there were other support mechanisms that, you know -- like I say, I know -- I don't know the direct details but I know local authority colleagues worked really hard to put in place around people who weren't clinically vulnerable but would be vulnerable for other reasons.

Q. To what extent did things like the data issues that we've already covered cause problems in making sure that those vulnerable -- not the clinically extremely vulnerable, the vulnerable people -- didn't fall -- or did that lead to them falling through the gaps?

A. I don't think I could answer that one, because that will depend on how good the data was that was held at a local, local authority level and that may well differ from one authority to the other.

Q. You spoke earlier about the recognition of inequalities and -- inequalities in health, inequalities in socioeconomic status and the like.

In one of the corporate statements, INQ000215470, paragraph 46, you say that the advice was based -- CMO's

advice was based on what was considered best for Scotland having regard to health status of Scottish population and its characteristics, noted that it's an older population than the average UK -- it's all right, you don't need to go through it line by line -- and multimorbidities, more multimorbidities. So greater vulnerabilities, greater risks, different socioeconomic risks, different ethnic group risks than in the UK as a whole.

You say in that statement that:

"Where there was a divergence of approach to NPIs in Scotland compared with other UK nations, this was driven by differences in the Scottish population and other factors. Advice was given solely on what was genuinely considered to be appropriate for Scotland. Where it was possible to achieve consistency with the other UK nations, that was desirable, but it was not always possible."

Why wasn't it always possible?

A. So, I think that, for two things. One, you referred to the different characteristics of a Scottish population, and I think as a result of those characteristics (older population, more multimorbidities), we were inclined probably to be more cautious, because of the nature of that population. I think the second area is, you know,

there are also things that are just different. So, for example, school terms are different in Scotland than in England. So, you know, so there were some things around decisions around schools that just needed to be different because we have a different system.

Q. The Inquiry has been provided with various papers in this regard, a presentation from -- again, it doesn't need to come up, but just for the transcript -- Scottish Government's Communities Analysis Division, which is the *"Impact of Covid-19 on Equality Groups: Disability analysis"*, was undertaken in October 2020, and there was a report from the Scottish Government titled *"Coronavirus ... impact on equality (research)"*, September 2020. So there's research being undertaken about the unequal impact of the virus and the underlying inequalities.

What concrete measures were being put in place to combat those inequalities in the second and third waves of the pandemic when, looking back and -- because you see these reports, so what are those reports being operationalised into, in order to protect those who are more vulnerable for the various inequality reasons?

A. I would say that, look, the key aspect of that was in relation to the vaccination programme, with vaccinations being the thing that we could most positively do to

protect everybody, and we -- the vaccination programme had its own separate workstream around equalities, and that was all about trying to ensure that we didn't just -- you know, it wasn't good enough just to hit the standard level of take-up for vaccinations, we needed to push it as hard as possible and we needed to try to ensure that we removed as many barriers as possible in relation to people from different communities, whether they be ethnic minority communities, whether they be Gypsy and traveller communities, whether they be some of our more socially disadvantaged communities, in ensuring that vaccination was easily available and that people were supported to get vaccinations.

The testing, our approach to testing also developed in relation to, you know, understanding some of those inequality impacts, again with mobile testing units with very local testing units and again trying to ensure that as far as possible we were reaching every corner of Scottish society.

Q. Because some communities might be less likely to come forward for tests and some communities might be less willing to come forward for vaccinations?

A. Yeah. That's absolutely right.

Q. Turning then to NHS capacity in Scotland. At the start of 2020 you were involved in ICU capacity development,

but I want to look at it in two stages, very briefly: there's the ICU -- develop ICU capacity and then there's broader NHS capacity issues, both of which I think fall within your pile of things that you have to get through on a daily basis.

It's an often repeated comment, both in this Inquiry and in broader circumstances, that the lockdown was to prevent -- to stop the NHS being overwhelmed, and there was ICU -- that relates to both ICU capacity in terms of just simply not having enough ventilators, et cetera, if the virus became -- if everyone needed a ventilator --

A. Yeah.

Q. -- there simply weren't enough ventilators to go around. Equally, not everyone needed a ventilator, but needed a bed and varying levels of clinical assistance in hospital settings.

In the first three months, so when you were looking at ICU capacity, what was being done in the non-ICU capacity expansion plans?

A. So in terms of the non-ICU capacity, I think two things. First of all, recognising that we had -- we have the physical infrastructure that we have, we were concerned obviously about the number of beds but actually probably more concerned about the people to staff those beds as well, particularly when, you know, healthcare workers

are not immune from becoming ill with Covid as well. So that is why we were focused on really trying to preserve the capacity that we had in the NHS for the people who would be -- who would most need it. So we knew that we needed to obviously support people with Covid but on top of that retain the capacity to deal with emergency unscheduled care and also to keep cancer treatments, for example, going. So as a result of that we stood down a lot of our elective capacity, so the -- a lot of the planned care didn't happen during that period, in order to protect that capacity and to enable us to -- enable the NHS boards to deploy staff who would maybe normally be involved in elective care to be able to staff both ICU and to provide extra capacity in emergency and unscheduled care as well. There was also the Louisa Jordan development as well.

Q. We'll talk about Louisa Jordan in a moment.

Capacity is effectively multifactorial, isn't it?

A. Yeah.

Q. It's having physical beds, it's having ventilators, it's having the staff, sufficiently trained stuff to man the ventilators, to treat patients. It's having enough people to, you know, repair the ventilators and to clean them and to do all of the backroom efforts as well.

But presumably some of those factors are an awful

lot easier to predict and manage than others, because, as you say, doctors and nurses and staff get sick themselves. So when you talk about expanding ICU capacity and indeed just general NHS capacity, how do you bring in extra sort of human capacity as the pandemic progresses?

A. Yeah. Yeah, so what we did in relation to that was we -- essentially we issued a call to people who were, you know, recent retired, people who maybe had been working in the healthcare professions and weren't any longer. The regulators, the GMC, the Nursing and Midwifery Council supported all UK governments in terms of being able to get people back onto the register. We had -- one of our health boards supported us to set up a portal which enabled people to register their interest and desire to come back and support NHS Scotland. Not just NHS Scotland but also social care as well. And through those portals, NHS boards were able to -- and social care organisations would be able to identify people who were able and willing to come back into the system of support. So we did track new staff in the early stages of the pandemic. We also brought students. So final year students, medical students and nursing and AHP students, came into the wards to work as well.

Q. So you stepped up that capacity in the early stages

by -- and by closing down wards, as you've already said, and closing down electives.

A. Yeah.

Q. That occurs sort of fairly early on in matters, and when everyone is in sort of crisis mode, I suppose is the way of putting it. But the capacity issues continue for some time, don't they, because -- if we have up, please, INQ000274150.

Which is a slide that we looked at last week with the statisticians. So I'm not going to take you through the statistics in that way.

It's page 15, please.

What we see here is the number of patient -- or per capita rates of Covid-19 patients in hospital. So we see the peaks of the early pandemic, when capacity is being increased. We'll ignore the change in methodology for this purpose, we don't need to get into that.

October 2020, there's the second wave, as it were. And then what I want to look at is effectively the third wave, the October 2021 peaks that we see there. Because I'll come on in a moment to what that looked like on the ground, but we see, don't we, that in Scotland in that period from sort of September 2021 onwards there is a large part of the time when there are more patients per capita in hospital in Scotland than there are in the

UK with Covid. So there is all of a sudden higher rates of Covid in hospitals in Scotland -- not all of a sudden, but for quite a sustained period, at the back end, second half or back end of 2021.

If we therefore can have up, please -- and before we do, I appreciate of course that this is only to deal with Covid patients. There's a whole load of other patients that require treatment at the same time for different things. So this doesn't tell us how full the hospitals are, it tells us that there are more people in hospital with Covid than elsewhere in the country.

So if I take you, please, to INQ000360218, it's a series of -- I'll take them very briefly, I was just going to say. We've got problems in capacity in terms of ambulances not being able to -- so ambulance service is stretched to breaking point, we see that in that article, and they have problems with not being able to -- so the ambulance service themselves are struggling, but equally one of the problems that is attributed to that is they can't offload their patients in hospital because A&E wards are -- A&E is stretched past capacity.

Is that fair?

A. Yes, absolutely, the system was under -- that's about the time the Omicron wave hit Scotland and you see from

the earlier graph that Scotland had a much more severe increase in that period than England. I think England then sort of caught up with us around Christmas time, but essentially we went into winter earlier than we have gone into winter previously, in terms of pressures.

Q. It meant various very drastic steps had to be taken in hospitals, so non-urgent operations were cancelled, I think, in a number of trusts, the public was asked only to ring 999 in circumstances of immediate life-threatening emergency, and subsequently the military were drafted in to assist with things like ambulance driving; is that right?

A. So if I just say, we had already -- through Covid, we had introduced a reform of urgent and unscheduled care, so we were already trying to ensure that people who maybe didn't need urgent care were effectively triaged through our NHS 24, our 111 service, and therefore kept away from the front door of our hospitals. We also had a significant extra investment going into the Scottish Ambulance Service, which -- as I say, unfortunately Omicron hit us a bit before we would normally expect to get into winter pressures. But yes, it was an extremely difficult period. It wasn't -- it wasn't consistent across the whole of Scotland, so I think Omicron tended to focus across the central belt of Scotland. But our

systems were, had been trying to get back a bit more into business as usual, so hospitals were very full, hence the difficulty with offloading ambulances, yeah.

Q. And the Royal College of Emergency Medicine I think in September said "We need more beds, we need a thousand more beds in order to try to get us over this issue". Were those beds forthcoming?

A. The approach that we've taken to increasing capacity in NHS Scotland is to focus that capacity on where people need it. So with the -- I suppose, the mantra behind that being about we only want people to be in hospital if they absolutely need to be in hospital, so we have focused a lot on what we can do to support people not to turn up to the front door in the first place, either through being triaged in 111 or the ambulance service, who do an amazing job of actually seeing and treating people rather than conveying them to hospital. We've also worked on Hospital at Home, so in response to your question, Hospital at Home provides that level of service to people in their own homes rather than in hospital. And I can't recall exactly what capacity we're at on there, but it's something like the equivalent of three district general hospitals. So we have increased capacity, but we've not always done it in the acute hospital --

Q. And the acute hospital settings were being overwhelmed for -- not blanket across Scotland --

A. That's correct.

Q. -- but there were a number of trusts who were on critical footings in October 2021 --

A. Yes, there were periods --

Q. -- and were not able to provide the service as a result of multifactorial issues, but Covid being part of that 18 months into pandemic; that's right, isn't it?

A. So, absolutely, Covid is part of that. There is a new infectious pathogen in our system that we didn't have before. We were also coping with the impact of the first waves of Covid, and particularly seeing that people who were presenting particularly at A&E were sicker than they had been previously. So what impacts on hospital occupancy is also the length of time that people spend in hospital, and we have seen that occupancy rise, so people spending slightly longer in hospital. Which is partly a factor of that demographic of people being older, frailer, more multimorbidity, but no doubt Covid's had an impact as well.

Q. Were lessons simply not learned in the first two waves such that by the third wave, when you had those warnings, the capacity simply hadn't been increased sufficiently?

A. So I think lessons were absolutely, absolutely were learned. Omicron I think did -- the severity of the Omicron wave and -- and the time it took, which -- it hit earlier than we were expecting it.

MS ARLIDGE: My Lady, is that a convenient moment?

LADY HALLETT: Yes, of course. 11.35, please.

MS ARLIDGE: Thank you very much, my Lady.

(11.21 am)

(A short break)

(11.35 am)

LADY HALLETT: Ms Arlidge.

MS ARLIDGE: Thank you, my Lady.

Just before the break we were talking about capacity. I just want to touch very briefly on the Louisa Jordan, if I may. 20 April 2020, Louisa Jordan was opened in Glasgow SEC. This was -- I think, had 300 beds as an initial capacity, with the option of scaling it up.

In terms of the -- I appreciate you weren't in that particular post at the time -- but in terms of actual use of Louisa Jordan, what was it -- what was the hospital in fact used for?

A. So fortunately we never had to use it in relation to sort of, you know, overflow because other facilities were unable to cope. What we did use it for, NHS

used as a vaccination centre but it was part of releasing the SEC to get back to business as usual, particularly in advance of hosting COP26.

Q. The issues of capacity we were talking about just before the break, was ever thought given to recommissioning it or doing something similar in order to assist with the overwhelming of the NHS in the later half of 2021?

A. I think -- just relate to my earlier question, I think in terms of the issues that we have around managing hospital capacity, the focus there needs to be on making sure that we've only got the people in hospital who need to be in hospital so ensuring that once people are ready to be discharged they are discharged, so we do still have challenges around delayed discharges. And building more out of hospital capacity as well, particularly through Hospital at Home.

Q. Another topic very, very briefly. Nosocomial infections.

A. Yeah.

Q. The Inquiry of course is, will be looking at healthcare in more detail in future modules, so this is very much a sort of narrow issue in terms of Scottish Government decision-making in this regard.

There was a review group established in May 2020, wasn't there, to look into nosocomial infections? Why

Greater Glasgow and Clyde used it for outpatient clinics once we started to get back a bit more to business as usual, and then it was used intensively as a vaccination centre as well.

Q. How was it staffed, in light of what you said earlier about the ability to bring in staff and --

A. So when NHS Greater Glasgow and Clyde were using it for outpatients, that was NHS Greater Glasgow and Clyde staff who were deployed, and obviously it was a site that was away from areas where people with Covid were being treated.

Q. When it was being set up, how was it intended that --

A. Oh, how was it intended? My apologies --

Q. No, no, I was going to come --

A. Yeah, my apologies.

It was intended that we would use the -- use some of the staff that we were getting through the -- through the portal but that -- also that we would use staff from within our other boards, and again that might have been redeploying them away from what might have been their original duties, given that we weren't undertaking planned care at that point.

Q. Why was the decision taken to decommission Louisa Jordan in April 2021?

A. I think the main reason -- so at that point it was being

was it formed then?

A. I think it was formed then -- so we already have in place processes, advisory groups around nosocomial infection. I think that particular group was put in place to bring some additional capacity into that, into that work.

Q. Because in, as the pandemic progressed, people were still getting Covid in hospital settings, despite the fact that infection control and the like were -- would be better there than anywhere else, or should be better there than anywhere else in the community; that's right, isn't it?

A. Yes, that's correct, and I think there's a role for everybody working in health and social care to stay vigilant around infection prevention and control. We launched a campaign around -- I think it's called "It's kind to remind", which was about just remembering that infection prevention and control is just as important in the non-patient-facing areas in hospitals as the patient-facing areas.

So, you know, we spent a lot of time trying to ensure that people understand and are able to comply with infection prevention and control. But it is something that, not just Covid but for other infections people absolutely need to stay alert to.

Q. The Inquiry has evidence, and there has been evidence heard elsewhere about, and again this is something that will obviously be covered in more detail in future modules, it arises in this regard out of evidence given last week by Dr Jim Elder-Woodward and the concerns in the disabled community, DPOs in particular, in relation to access to treatment and DNACPR, so do not attempt cardiopulmonary resuscitation.

The Inquiry has heard evidence and seen evidence that one of the health boards in Scotland published a Covid triage document online for a period which set out sort of how patients would be triaged in terms of accessing healthcare. Can you comment on that?

A. I'm sorry, I can't, I haven't seen that document.

Q. Okay.

I want to take you back -- not back, but ... you say in your statement, paragraph -- or page 11, INQ000315534, page 11, paragraph 35, you're talking about ramping up infrastructure and ensuring that there is infrastructure in place in the course of a future pandemic or in terms of testing, vaccine -- necessary infrastructure at the time had to be largely built from scratch, and I think what you're saying here is: make sure it doesn't have to be built from scratch again, keep the structures in place, to some extent?

A. Yeah. Absolutely.

Q. You then say at paragraph 37 of your statement that:

"Better management of any future pandemic, regardless of the particular characteristics of that pandemic, will rely on the ability to ramp up key public health infrastructure."

You then say:

"Much of this has already been stood down as a result of the withdrawal of UK Government funding."

But it's right, isn't it, that the way funding works, Scotland gets a block grant for health, and Scottish ministers determine, decide as part of their role how that funding is allocated, don't they?

A. That's correct. I think my -- but I think we also have to pay attention to the fact that during the Covid pandemic there was additional funding made available specifically for areas such as testing and the Lighthouse labs, et cetera.

LADY HALLETT: Sorry to interrupt. I thought the block grant was block grant generally and then the Scottish Government decided. I think your question said a block grant for health.

MS ARLIDGE: Sorry.

Funding is allocated in a block, and it is allocated by Scottish Government to whatever areas they choose to

allocate it to. So whilst you say that this has been stood down as a result of UK funding withdrawal, some of this infrastructure, what steps have been taken within your directorate and more broadly to maintain the level of capacity that you think is appropriate?

A. So I'm sure you will have seen evidence that Scotland's established a Standing Committee on Pandemic Preparedness, and that has issued its draft report. It's due to issue its final report this year. That is looking at the establishment of a Scottish centre for pandemic preparedness or planning, I can't remember exactly what it's due to be called.

I think in terms of what we have done so far is we have tried to, as economically as possible, maintain the sort of core capacity to be able to ramp up, but a lot of that is around some of our digital capacity, some of our data flows.

But the fact remains that were we to need to go back to sort of mass population level testing again, then that is something that would need to be funded on a four nations basis.

Q. But it doesn't preclude the infrastructure remaining in place --

A. It --

Q. -- so it is not a question of going back to zero?

A. I think you can keep some of the infrastructure in place but it would still require significant additional investment to ramp that up and get it going.

Q. A ramping up phase.

MS ARLIDGE: My Lady, have you got any questions?

LADY HALLETT: No, I have no questions, thank you very much. Forgive me. **(Pause)**.

Thank you very much indeed, Ms Lamb, for all your help for the second time. I'll try not to call on you too often but I can't guarantee there won't be another --

THE WITNESS: Yes, I expect we'll be meeting again.

LADY HALLETT: Thank you very much indeed.

(The witness withdrew)

MS ARLIDGE: I'm grateful, my Lady. We now play a bit of musical chairs in the bench.

(Pause)

MR DAWSON: My Lady, the next witness is Professor Sir Gregor Smith.

PROFESSOR SIR GREGOR SMITH (affirmed)

Questions from LEAD COUNSEL TO THE INQUIRY for MODULE 2A

MR DAWSON: You are Professor Sir Gregor Smith?

A. I am.

Q. I was planning on addressing you as Professor Smith, would that be appropriate?

A. Absolutely fine, thank you.
Q. You have helpfully provided a statement to the Inquiry, Professor Smith, which is under reference INQ000273978. Is that your statement there?
A. It is.
Q. You're familiar with the statement, and have had the opportunity to go through it in advance of giving evidence?
A. I have, yes.
Q. Has the content of this statement remained true and accurate as far as you're concerned?
A. As far as I'm aware, yes.
Q. Thank you.
You are currently the Chief Medical Officer for Scotland; is that correct?
A. That's correct.
Q. And you originally trained as a general practitioner?
A. I did, yes.
Q. You were formerly a medical director for primary care, I believe, in NHS Lanarkshire?
A. That's correct.
Q. And you began working for Scottish Government as a medical adviser in primary care in 2012?
A. That would be correct, yes.
Q. I think there was an element of your work at that time

that was the particular focus of your initial engagement relating to the Scottish GP contract; is that correct?
A. So during that initial period within Scottish Government up to 2015, I was a senior medical adviser in primary care, and part of the remit there was involved in the development of a new GP contract in Scotland.
Q. Thank you. You were appointed Deputy Chief Medical Officer of Scotland in 2015.
A. That's correct.
Q. You were appointed interim Chief Medical Officer on 5 April 2020?
A. That's correct.
Q. You were appointed to that role at the point when the previous Chief Medical Officer, Dr Catherine Calderwood, resigned?
A. Yes.
Q. And you subsequently became the Chief Medical Officer for Scotland on 23 December 2020?
A. That's correct.
Q. Could you please give us a broad outline of the roles of both the Chief Medical Officer and the Deputy Chief Medical Officer, the latter being the role that you held at the beginning of the pandemic?
A. So in relation to specifically to the pandemic, the Chief Medical Officer was the principal independent

clinical adviser to Scottish ministers and to officials. The role of the Chief Medical Officer in relation to the pandemic was to try to collate as much evidence as was possible about that emerging threat which had been identified relating to a novel coronavirus disease emerging in China at that point in time.
And the DCMO, the Deputy Chief Medical Officer's role was to support the Chief Medical Officer in doing that, but also at that time a large part of my role was to take care of a lot of the other business that related to the office and to try to keep that business as usual, properly going(?).
Q. Thank you.
There is another prominent role within the advisory structure of the Scottish Government called the National Clinical Director; is that correct?
A. That's correct.
Q. That post was held during the course of the pandemic by Professor Jason Leitch?
A. That's correct.
Q. I believe that role to be a unique role when comparing the advisory structures in the United Kingdom. Could you please explain broadly how it is that the duties of the holder of that role fit in with the duties you've just explained, in particular focusing on the beginning

of the pandemic.
A. Professor Leitch will be able to give you a much broader assessment of how his role worked at that point in time. From my perspective, the National Clinical Director's role has always been complementary to that of the Chief Medical Officer, but focused on a slightly different remit.
The National Clinical Director's remit has been broadly facing the NHS within Scotland rather than public health, up until that point, and at that early part of the pandemic response I am unaware as to the full extent of the National Clinical Director's involvement in discussions with the CMO at that point in time.
Q. Right, I understand.
A. My understanding is that the National Clinical Director was very focused on preparation of the NHS.
Q. Right.
Given that you subsequently became the interim Chief Medical Officer, and then Chief Medical Officer towards the end of 2020, can you broadly explain for her Ladyship how it was that those roles developed as the pandemic went on and the requirements from medical advisers perhaps changed?
A. It was very clear to me that the scale of the threat and

the response that was required to that threat required much more capacity clinically within Scottish Government advisory circles that we had at that point in time, so I recruited additional staff when I took over in April 2020, but I also sought to involve the skills that the National Clinical Director and, indeed, the Chief Nursing Officer, the third part of the senior clinician triumvirate which existed within those advisory structures, to try to make sure that they were very much more involved than perhaps they previously had been in sharing the advisory duties. That involved not only linking back to how we became involved with ministers in providing that advice, but also how we engaged with the public as well in relation to that advice.

Q. Thank you.

Would it be correct to say that the ultimate role of the Chief Medical Officer is to provide medical advice to the Scottish ministers to help them inform their decisions?

A. Ultimately I think that's correct, yes.

Q. Although, as you've already helpfully explained, the Chief Medical Officer will draw on a lot of advisory systems and no doubt also on the Deputy Chief Medical Officer and National Clinical Director and others, the ultimate responsibility for that provision of medical

advice to ministers sits with the CMO?

A. Ultimately the CMO's responsibility is to offer that advice to ministers, from which they can then base decisions.

Q. Thank you.

We'll hear some evidence later today from Professor Sheila Rowan, who is, as I understand it, a professor of physics and astronomy at University of Glasgow. She performed the role of Chief Scientific Adviser to the Scottish Government, at least for the early part of the pandemic before another person took that role over. We also know that there's another post called Chief Scientist (Health), and I understand that that role was held predominantly during the pandemic by Professor David Crossman. Have I got at least all the personalities correct in the --

A. The personalities you've described there are absolutely correct.

Q. Thank you.

As far as scientific advice is concerned, is it correct to say that the Chief Medical Officer ultimately also provides advice to the Scottish Government on scientific matters, in particular insofar as they related to the pandemic, including in relation to the role of the things like vaccine, the efficacy and

availability of testing, the efficacy and availability of PPE and the like?

A. Yes, the Chief Medical Officer helps to co-ordinate that advice from a variety of specialist advisers; you've mentioned some of them there, the Chief Scientific Adviser for Government is one. An important one -- which again, going back to an earlier point that you made in terms of how we utilise all the assets within the team that we have, was the chief scientific officer for health.

Professor Crossman was a very able individual, who I thought was -- could contribute much more than he had been able to contribute up until that point. And we used them specifically in relation to some of those questions that you've posed there in terms of the research and scientific basis for particular approaches such as testing.

Q. So just to try to make sure we have the structures correctly, the CMO works within the CMO department or directorate; is that correct?

A. So the way that this works is the CMO Directorate is a unique directorate within Scottish Government. It's unique in some ways because it sits slightly to the side of other directors. What I mean by that is it has an independence which perhaps other parts of government

don't quite have. I think a really important aspect of the role is that independent clinical and scientific advice that comes through the office. But within that directorate, there are a number of clinical advisers that I am the line manager to and responsible for, one of whom is the chief scientific officer for health, we have already mentioned, another of whom, another really important figure in all of this, the Chief Pharmaceutical Officer as well, who is able to provide additional information and advice in relation to therapeutics.

Q. The Chief Scientist, as I understand it, effectively sits structurally in a different part of the Scottish Government, not under the ambit of the directorate of health and social care but of another directorate, I think it's the economy directorate; is that correct?

A. I think that is correct, yes, economy.

Q. For present purposes it's in a different part of the Scottish Government.

And is it correct to say that the post that Professor Crossman held was, to a degree, a bridge between the scientific side and the health side, in that he was Chief Scientist (Health) and therefore would have informed advice from both the Chief Scientific Officer and the Chief Medical Officer?

A. I would say that's a very good way of describing the role of the Chief Scientific Officer in health, a bridge between many different parts of government, particularly in that research field. And an important aspect of research, of course, is to link back to other aspects of government such as economy and learning as well and to be able to bridge some of the kind of joint ambitions that the government would have in those areas.

Q. You've described the importance of the independence of the Chief Medical Officer's department, but from an administrative perspective it struck us that these arrangements are perhaps slightly complex. Was it, to any extent, a matter which caused difficulty in accessing the right people, making the most and best informed decisions, that these structures existed somewhat in different parts of the Scottish Government, or did you not find that in your role?

A. I can very honestly say to you that I did not find that in my role, and that actually access to other parts of government, access to getting the right staff was never an issue.

Q. Thank you.

You sat on a number of advisory groups and attended a large number of meetings during the course of the pandemic in your three roles, including SAGE, the

SAGE is a good example. In the early part of the pandemic, as the Scottish Government began to receive invites to attend SAGE meetings, I attended SAGE as an observer to proceedings. My role there was to take account of the information and discussion that was being relayed over the course of those meetings and, where it was necessary to try to kind of ask questions on behalf of the Scottish Government, to signal those. You -- generally they had to be signalled in advance of the meeting. Latterly, whilst DCMO, there were other mechanisms put in place to try to signal questions to the committee during its operation.

But that observer status during that period was essentially as an information gathering mission.

Q. To stay on the UK level, what about NERVTAG?

A. Yeah, I didn't sit on NERVTAG at all. NERVTAG is a very technical committee, it's generally staffed by people with expertise, deep expertise in infectious diseases and epidemiology. We had a representative on NERVTAG from other sources within Scotland who were able to feed back when it was relevant and appropriate for them to do so.

Q. Indeed, we heard from Dr Jim McMenamin on Friday, for example, who sat on that.

A. And Dr McMenamin is one of the unsung heroes in terms of

four nations chief medical and scientific officers group -- could you just say "yes" if that's correct, rather than --

A. Yes.

Q. Thank you.

The scientific influenza group on modelling, SPI-M?

A. Yes -- no.

Q. No. The Scientific Pandemic Insights Group on Behaviours, SPI-B?

A. No.

Q. The Joint Committee on Vaccination and Immunisation, JCVI?

A. No.

Q. The Joint t Biosecurity Centre, JBC?

A. The JBC technical board.

Q. The group that we've heard of before under the acronym NERVTAG?

A. No.

Q. The UK Health Security Agency?

A. The UK Health Security Agency board.

Q. And you did sit on the Scottish Covid Advisory Group when it was formed?

A. Yes.

Q. What was your role when attending these groups?

A. So particularly in -- if we start off with SAGE, I think

the approach that was taken in Scotland, a man who I have enormous respect for.

Q. Thank you.

You also sat on the four nations chief medical and scientific officers group. Could you explain your role in that group?

A. The chief medical officers group -- so I -- I suspect that the group that you're alluding to is the JBC technical board, which was staffed full of CMOs and the chief scientific officers, and this was a board which was examining some of the technical parameters under which JBC would develop data or information for use. A good example of that might be the data that was developed and the approach that was taken in terms of assessing risk of other countries as -- of other countries at the borders with the UK and people returning or travelling to those countries. So we gave advice on some of the parameters which data would be useful technically to assess that.

Q. Thank you.

We'll hear more, I think, later in the week, about the precise circumstances in which the Scottish Covid Advisory Group came together from other witnesses. But as far as your role on that group was concerned, what was your role? In particular, was this a group that

reported effectively or offered its advice ultimately to Scottish ministers through you?

A. The group operated in a way whereby advice that came from that group was provided to me and to the Scottish ministers, and it was set up to -- and it was set up in a way to try to allow a greater interrogation of the data and the evidence that they were considering. So whilst I was a member of the group, its extreme usefulness was -- was an ability to be able to actually get into discussion with members of the group in a deep way at times. Sometimes that would be through the chair, sometimes that would be by attending the meetings himself and being able to kind of, in a two-way mechanism, being able to both relay information that I was party to but also hear the discussion and interrogate the discussion which was going on within that group as well.

The advice that advisory group was able to provide to us was incredibly useful. Much of it was based on the same evidence which was being considered in other places, but the ability to be able to kind of have that discussion in -- first-hand with those people was incredibly valuable.

Q. Thank you.

LADY HALLETT: Professor, if you could slow down a bit,

I'm afraid you're falling into the same trap the rest of us fall into.

MR DAWSON: Professor, there is a stenographer, obviously, who is attempting to keep up with your very useful evidence, so if we could just try to take it as slowly as we possibly can. I'm often admonished for the same thing, I have to say.

You have given some helpful evidence about the structures through which medical advice was able to be provided to the Scottish Government during the course of the pandemic and more generally. The Inquiry has already heard evidence about the structures which existed at UK Government level, and the key individuals involved, not least Professor Whitty, and Sir Patrick Vallance. These were individuals who, we've heard evidence, came from, in Professor Whitty's case, a public health background; is that correct?

A. I think Professor Whitty's background is both in public health and infectious diseases.

Q. Indeed. And I think the Inquiry has also heard evidence in the previous module that Sir Patrick Vallance came from -- he's a -- as I understand it, a clinical pharmacologist who had experience of working within an industry relating to development of pharmaceuticals and the like. Also an element that was very relevant to the

pandemic response; is that correct?

A. Yes.

Q. In Scotland, the three main individuals whom we've looked at who provided medical advice to the government came from different medical backgrounds; is that correct?

A. Yes, we all came from different specialities.

Q. You've already helpfully told us that you came from a general practice background and worked through various government jobs. Dr Calderwood, I think, came from an obstetrics and gynaecology background; is that correct?

A. That's correct.

Q. And Professor Jason Leitch was originally trained in dentistry --

A. That's correct.

Q. -- before taking qualifications in public health at various university institutions after that?

A. That's correct, as far as I know.

Q. Would it be fair to say that, given the particular requirements and difficulties faced in the pandemic itself, that the background and experience which you and your two colleagues were able to bring to bear to providing scientific advice meant that you required more perhaps than the UK Government advisers to translate the

advice of others more expert than you in the matter?

A. I don't think that's correct, no. I had been working in population health and public health since probably 2006, in various leadership roles, between managed clinical networks to medical director roles, to subsequently ten years of experience within Scottish Government working at population health level as well. So I don't think it's correct to say that.

But what I will say is that the information and the knowledge which was used over the course of that response necessarily came from a wide group of very specialist people, both within the health protection community and the infectious disease community, and their input was incredibly valuable.

Q. But ultimately, as you have I think accepted and explained, the ultimate role as far as providing advice to the Scottish ministers are concerned falls to the Chief Medical Officer, and neither you nor Dr Calderwood were, like Professor Whitty, experts in public health and infectious diseases in that way?

A. My core speciality wasn't public health but I would still regard myself as having expertise in population health and public health.

Q. I should say, Professor, I mean no disrespect at all in that regard, but the reason I ask the question is

because during the course of the pandemic it was often part of commentary of people who were wondering whether they had to continue to adhere to restrictions that the medical advisers who would appear perhaps didn't have the same level of expertise as the UK Government medical advisers. Was consideration given in the public communications strategy at least to the need to try to win the confidence of the public in order to try to maintain compliance and these particular comments, rather than criticisms, that were sometimes made?

A. So those comments that you have singled out there, I don't particularly recognise as being something which was an issue which was raised at all. What was important was that credible and authentic clinical leaders were able to discuss with the public the requirement to undertake the very significant ask that we made of them, and to try to explain in very simple terms as to why that was the case.

I think it's something that we did in Scotland very well. Certainly judging by the feedback that we had through some of the polling. Public confidence in that messaging was very, very high, and we saw really quite significant compliance from the public in relation to taking, as I say, those just quite incredible steps that we asked of them, to try and keep people safe. So

I don't accept that the background speciality that I have as a GP had any influence on that whatsoever at all.

Q. Thank you. You've referred to some polling as regards the communications strategy about which the Inquiry has already heard some evidence. Professor Paul Cairney, professor of political science, looked at this issue in an expert capacity and suggested to the Inquiry last week during his evidence that it was important to maintain a distinction between when people indicate a satisfaction with the way in which information is being presented as opposed to the possibility that may not necessarily indicate an understanding and hence compliance with it. Is that a distinction that you recognise?

A. I would be really interested in reading more about what he says there, and I think that we observed both a high degree of compliance and satisfaction with what was asked of the public.

Q. Thank you.

The phrase "following the science" is one which one hears often in connection with the pandemic and was used by a number of politicians to describe their response. Do you think that this is an accurate description of how policy decisions and ultimately strategy in fighting the

virus were made within Scottish Government?

A. I'm not quite sure where that phrase originated from, but it's one that certainly became quite commonly used over the course of the pandemic response, certainly in the media.

What I observed was a thirst for information and knowledge from those who were making decisions and they looked to science to try to provide that information and knowledge, so that they could try to make sense of the decisions that they were being asked to take. And what I found was a very receptive group of decision-makers who understood the limitations of some of the evidence and the science that was being presented to them, but also made great efforts to try to actually get under the bonnet and understand the science itself so that they weren't wholly reliant on just people explaining it to them.

Q. What was it that gave you the impression that decision-makers ultimately understood the science itself?

A. The questions they asked me.

Q. Could you give some examples, perhaps, of the broad questions --

A. So the questions which began to be asked in relation to aspects of the response, whether that be modelling,

whether that be transmission dynamics, whether that be even rudimentary epidemiology such as understanding of the R rate, over the course of that, even the early part of the response, the questions that came from those decision-makers began to become very insightful into not just information that was given to them but for the logical next steps that flowed from that as well.

Q. Thank you.

Given the complexity of the information, some of which we've seen presented in documents such as, for example, the SGoRR sitreps with which you'll be familiar, do you think that there were stages of the pandemic in which politicians did follow the science in Scotland --

A. Yes.

Q. We'll get on to the precision in a moment, I just want to finish the question. Were there times where you felt that they did follow the science and can you specify for us what time periods you think that might apply to?

A. One of the things which was very evident over the course of the discussion with senior officials and with ministers was an appreciation of what science could offer in terms of informing how to respond to the threat of the coronavirus. Some of that was about understanding the epidemiology and how it was likely to

transmit through populations, and therefore shaped the type of response that was going to be required to reduce transmission. Some of that was about the clinical response that was going to be needed in order to treat people who had become infected with coronavirus.

There was a process by which we used that science and started to begin to integrate other fields of science into what, strictly speaking, would be health and public health research, and begin to integrate research from other areas such as behavioural science, how people might respond to a particular ask, how people might be feeling in terms of the degree of threat that they were facing. And the four harms process which subsequently became part of the way that we handled the pandemic in Scotland tried to take evidence from government advisers across four different aspects of harms that we'd identified and -- and use science and research from those areas, evidence from those areas, to try to integrate a response that was balanced in terms of its approach and recognised the various harms that both the coronavirus itself would cause to the population but also the potential for the response to cause as well.

Q. Thank you.

You said, I think, that certain scientific

disciplines were introduced into the analysis as time went on.

A. Yeah.

Q. You referred in particular to behavioural science. When was it that these -- was it at the advent of the four harms strategy that these different scientific disciplines were brought to bear?

A. I would -- I would recall it as far back as the March 2020 that some of these responses were beginning to be -- become much more clearly integrated into the response. Understanding particularly in terms of the degree of the ask of the population how they might respond to that. And even at the very early stages of forming the C-19 Advisory Group, we made sure that we had representation from behavioural scientists on that group, which was further strengthened later on in 2020, I think.

Q. Does it mean that decisions before around the formation of the Covid-19 Advisory Group were not informed by this wide range of scientific disciplines?

A. I think that at the earlier stages of the response there was less emphasis given on the behavioural aspects of the response than perhaps there were by the time that we had reached some of the major decisions in March 2020. However, there was perhaps a greater reliance in those

earlier stages of the type of advice which was coming from groups such as SPI-B, which had been set up as part of the SAGE infrastructure to look specifically at the behavioural response.

Q. Would it be fair to say that the logic of the position in introducing behavioural science around about the time of the formation of the Scottish Covid-19 Advisory Group was that it was important that there was a local consideration of the way in which Scottish people would react to restrictions which had not previously featured in the analysis?

A. I think that that was a helpful part of their involvement. I think that there was also insights which were developed from other places as well, and my observation would be that many of the political decision-makers who were present at that time were very good, in fact some were exceptional, at judging both the mood and response of the population.

Q. How did they go about doing that? Was it the polling that you've referred to, or something else?

A. I think some of the information came from polling, some of the information came from their own personal insights and discussions with both constituents and the many groups which they were in contact with.

Q. Was it ever part of -- or if it was, when was it part of

the Scottish Government's approach to the fight against the virus that no death from coronavirus was acceptable?

A. It's not particularly a phrase that I recognise. Certainly from a clinical perspective there was a deep realisation that tragic though it is, and it was an absolutely tragedy for some families, that it was almost inevitable, given the scale of the threat which was faced by a novel virus in a population that had no immunity to it, it was likely that there were going to be deaths. And what we sought to try to do was to try to limit the harm as far as we possibly could, to limit not only deaths as far as we could but also the other harms which arose as a consequence of illness from Covid-19 as well. We shouldn't forget that Covid-19's a disease which not only causes the risk of death, but also has long-term effects for many, many people as well.

Q. Indeed.

So to put my question in the context of the four harms strategy, which you've helpfully referred to, was it -- and again if it was, when was it -- part of the Scottish Government's strategy to prioritise harm 1, which was, we recall from previous evidence, Covid-related harm, as opposed to the other harms?

A. As far back as I can remember it was the priority to try

to reduce the direct harms which were being caused by Covid, that had been identified as certainly the most significant and pressing urgent threat to the nation, and there was a recognition that actually, left unchecked, the harms that the virus could cause would be far greater in the scale than the harms which would arise from some of the other four harms which have been identified. And by prioritising the direct harms, by reducing the displacement effect on the health services, and by trying to control and indeed suppress the growth of the virus, then that would actually allow the best chance to be able to reduce the harms in the other three areas as well.

Q. Thank you.

Was it the case -- we know that the four harms group eventually formed in October 2020, though the four harms strategy, the framework had been laid out in April, over that period before October, was it the case that the priority remained harm 1 over the other harms?

A. During that period that you're describing there from -- probably from April through to October, it certainly appeared to be the case that harm 1 and harm 2 were given a significant degree of priority during that period. It was recognised that in the initial response there was a great deal of displacement in terms of other

health need within the population, and during that period we started to try to recover aspects of the NHS at the same time to be able to try to address some of that unmet need that there was in the population as well. But it certainly was my view that during that period those two harms were given priority over the other two areas, though it has to be said that some of the responses during that time were still tempered by the recognition of potential harms in those other areas as well.

Q. And given the priority which you say was given to harms 1 and 2 over that period, when you were providing medical advice -- if one might describe that as the policy of the government at that stage -- did you tailor your advice to that policy?

A. The advice that I gave at that time was advice that was designed to reduce the harms in harm 1 and harm 2 as much as possible. It was for other advisers to give advice in relation to harms 3 and 4. It was the integration of the advice from a range of advisers which then allowed the policy to be developed and for decisions to be made by ministers.

But my priority, and I saw very clearly my priority was to give advice solely on the benefit to reducing harm 1 and harm 2.

Q. Those being harms related to health, broadly speaking?

A. Yes.

Q. You mentioned there the integration. To what extent were you afforded the opportunity to discuss and compare and contrast and integrate your views on harms 1 and 2 with the other advisers you've described as being more responsible for harms 3 and 4?

A. So very early on in the pandemic response, myself and the Chief Scientific Adviser had discussion about what we recognised was perhaps a benefit, in forming a whole new group for the chief advisers from different parts of government. Prior to the pandemic response, certainly didn't seem that these chief advisers met on any kind of regular basis. But I saw and I think the Chief Scientific Adviser very clearly saw benefit as well in trying to bring people together in a forum that allowed us to consider a variety of types of evidence to look to see the broader impacts on society. That was a good forum for being able to discuss some of these impacts and really to gain a better and broader understanding of the impacts that we were beginning to see across different aspects of society.

It had always been recognised right from the beginning of the SAGE discussions that any response to try to control this pandemic was likely to have broader

harms than simply the direct harms that we saw from the virus itself. So recognising then and understanding what those type of harms were likely to be and then trying to risk manage those, to mitigate and reduce the level of harm which we were seeing in those other areas, was an important part of that response.

And we should remember that ultimately any harm which befalls as a consequence of either social or economic detriment to the population also has a detrimental public health effect as well. If not in the short term, then it can perhaps be felt in the medium to longer term. So there was a benefit to being able to try to reduce those harms as much as possible, mitigate impacts, on a public health basis as well.

Q. So that was the theory; is that right?

A. That's the theory.

Q. The Inquiry's heard a considerable body of evidence, which might be summarised in an expression used by someone who appeared in the opening video that we played. He said that when Scotland tried to emerge from the pandemic, emerge from the lockdown in the period, I think, that we were talking about, he said "Nobody took a look around to work out whom we had left behind". The way one might interpret that is that there continued to be a significant focus on harm 1 for too lengthy

a period, and that the other harms, the harms caused by the countermeasures, broadly speaking, were not given sufficient attention over that period.

Would that be a criticism which you would recognise as regards the practical impact rather than just as regards the theory?

A. It is -- it is a criticism, it is a story that I've heard from accounts of beforehand. Being part of those discussions when the variety of harms that we were seeing across the country were being considered, the way that that advice was then taken by decision-makers I think reflected where their perception of the greatest risk to the country existed. And ultimately any prioritisation of any harm over another probably reflected the risk thresholds of those decision-makers.

Q. The four harms group did not meet till October 2020; is that correct?

A. It did not meet on a formal basis in that time, but there were many discussions before that.

Q. By October 2020 Scotland had started to become overwhelmed by harm 1 again, hadn't it?

A. What we saw in, starting generally from the early autumn period, was first of all significant outbreaks and clusters developing across the country. Largely inevitable as we still had a largely immune -- sorry,

a largely naive population in terms of immunity. And we saw more and more clusters developing over that early autumn period so that by the time we got to that kind of late autumn, early winter period, cases were certainly significant again, and there was a significant concern from a health protection perspective that if that wasn't -- that wasn't controlled, if that wasn't reduced, and if we didn't manage to achieve lower case numbers and control over the prevailing R number in Scotland, and then entering that winter period, it was only likely to increase.

Q. We saw in some statistical evidence that the cases in Scotland started to rise significantly, I think from around August?

A. Yeah.

Q. And I think there is subsequent evidence from scientific study that suggests that that was in large part connected to people bringing the virus back from being away in continental Europe, in particular Spain?

A. I agree.

Q. Yes. What I'm suggesting to you, as regards the strategy, is that although the theory had been laid out in the framework in April, the fact that a committee had not met till October, a time at which Scotland had started, by circumstance, to become overwhelmed again by

harm 1, the virus having returned, did this mean -- was this the reason why people, like the gentleman said, were left behind and the other harms were not properly integrated into the response?

A. What I saw in that period that you're describing between April and October was regular discussion in relation to the four harms and how they were integrated together. So the fact that a committee did not meet during that time shouldn't -- it shouldn't being understood that there wasn't a great deal of discussion about how you balance those harms in that --

Q. A great deal of discussion perhaps, Professor, but perhaps little effect?

A. I would think that you would probably observe that from the submissions which were made to kind of Cabinet, for instance, during that period that there was consideration of those four harms in that period as well.

Q. Could I turn to another subject, please. What was your understanding of your responsibilities with regard to the use of informal communications in the three posts that you held during the course of the pandemic as an employee, as I understand it, of the Scottish Government?

A. So informal communications, as I've outlined in my

statement, have been used, when in a wave, largely for -- to raise situational awareness, to kind of direct people towards particular pieces of information, to convey information about particular meetings which were taking place, which were used to try to arrange, in some cases, discussions or agreement around about particular situations.

The -- you will see from some of the groups which have been submitted and that I was a part of, I have described that whilst these meetings are -- that way of communication was useful for that purpose, that any information which was particularly pertinent or any decisions should be captured and put into email form.

Q. I think it's correct to say that evidence has been given during the previous week that it's not just a question of decisions being captured in that way, I think in order to put them on what's called the corporate record, but that discussions engaged -- in which individuals engaged in the pandemic response also required to be recorded that way. Is that not correct?

A. Pertinent information, yes. And I think you'll see from one of the conversations within -- and the advice I give to participants in one of the charts, that that's how it should be captured.

Q. Could we look at INQ000334433, please.

This comes from a WhatsApp group chat, I understand, called "CMO weekly call", and I'm particularly interested in going to this particular passage, which is from July of 2021. This is a conversation between yourself and Graham Ellis, in which he comments:

"Hope this isn't FOI able?"

You say to him:

"Delete at the end of every day...."

And he laughs and puts his thumb up at that.

Was it your practice to delete messages at the end of every day?

A. Scottish Government advice in relation to this was not to retain information for longer than it was necessary, was to make sure that any information which was pertinent, as I say, any information, particularly discussions, which ended up in a decision was captured in -- within the corporate systems. So my practice was to make sure that any information which was important in that way was then captured in email form on the system, was formally recorded so that it was an auditable trail. And I think you will see evidence of my approach to this within the conversations and within other conversations, that I exhort other members of those conversations to do the same. And -- but my practice was, when information was -- had been no longer useful, it shouldn't be

retained.

Q. My question was whether you deleted your messages at the end of every day?

A. If not at the end of every day then certainly on a frequent basis, I deleted information which was no longer needed to be kept.

Q. But your position is that, as far as you're concerned, you would have, before doing so, on a daily basis extracted pertinent information from the exchanges, sent them on to the corporate record by email, and that those emails would then have recorded the information that was within the message before you deleted it?

A. So any important decisions that were taken wouldn't be a verbatim account of a conversation but it would be the essence of any decision or any approach which should be taken on any information that had been given.

Generally what I found was that the information systems like this were used to convey information about exchanges which were either already beginning on emails or information which was being passed on through emails. Documents were being passed on in that way.

Q. You referred again in your answer there to decisions, so does pertinent information, as far as you're concerned, mean information which demonstrates that a decision has been taken?

A. The most important information which was -- was about definitive information, which may include a decision. So once perhaps a consensus has been achieved, what that consensus was.

Q. I took from what you were saying a moment ago that there was a -- someone had informed you that there was a need or impetus towards not retaining too much information, and that that was an important part of your thinking in this regard. And of course organisations like the Scottish Government can't keep every piece of paper and every document or every WhatsApp message. Where did the impression of that being the impetus which should be an important part of decision-making in this regard come from?

A. So there was advice given to Scottish Government employees which specifically dealt with informal messaging and the need to delete on a regular basis any information which was not relevant.

Q. Can you remember in particular which advice? Because there were a number that you were relying upon.

A. I think this was advice which was -- the one I recall was perhaps on the Saltire website which had been given out towards --

Q. There was one which was issued on the Saltire website in April 2020. Was that perhaps --

A. It would be towards the beginning --

Q. Yes, we looked at that with Ms Fraser on Friday, but that would be the one that would have --

A. That would be one, but there was also advice which was given and reminders which were given in discussions with the then Director-General, who again reminded us that official business shouldn't be done within these mediums and that there should be regular deletion, partly for security purposes, from that medium as well, and that it shouldn't be seen as a secure medium.

Q. At that time, just to be clear for the personalities again, the Director-General was Mr Wright?

A. It wasn't at that stage. I don't recall that instruction coming from Mr Wright. I might be mistaken, but I think it came from Ms Grahame(?).

Q. Thank you.

Could I move on to a separate area, please. Obviously as I've said at the beginning of today, the Inquiry will not be hearing from your predecessor in the post as Chief Medical Officer.

We are, of course, very interested in exploring matters pertaining to the early period of the pandemic at which time, as you've helpfully explained, you were Deputy Chief Medical Officer.

My understanding from your statement and from

notebooks which you've helpfully provided is that you attended certain meetings at around that time, although, as you have set out, you also had considerable responsibilities for parts of the NHS that were not directly related to Covid at that time.

So would it be fair to say that there is a certain degree of limitation on what you can do to help us with the events of the period up till you becoming interim -- Chief Medical Officer, but that of course, as you have done in your statement, you will help us as best you possibly can with your recollections of events?

A. I think that's fair to say. I think that during that period I did have involvement and I participated in many meetings, even during that period, including incident management teams, including many of the SAGE meetings. I had quite a degree of involvement over that period. Where I had less involvement and where I may be able to help you less is in the direct discussions and the way that advice was conveyed to decision-makers.

Q. I think you say in your statement that Dr Calderwood undertook the majority of engagement with Scottish ministers and senior officials around that period. Did you have conversations with Dr Calderwood, as her deputy, about the emerging information, the strategy and ultimately what advice she would be providing to

ministers?

A. We spoke on a regular basis in relation to the emerging advice, and we didn't speak just as much in terms of how she would relay that advice, of what advice was provided to ministers. There were a couple of occasions where I was able to kind of have direct discussion with ministers myself during that period, but that was probably by March that I would be involved in that way.

Q. Would it be -- we obviously, as I say, have had some access to some of your diary entries, including references to some of the SAGE meetings you attended. Would it be correct to characterise them, as you said earlier, as you being there very much in an observer role -- it looks very much like you're trying to extract as much information as you possibly can, your notes are quite full -- and then perhaps take it back to feed into the decision-making system in Scotland; would that be a correct characterisation?

A. I think that's a very correct characterisation. My role was as an observer at SAGE, was to try to glean as much information as possible. Perhaps there was a slight element of frustration that I couldn't participate in any deeper sense and perhaps at that stage we were still to see the full usefulness of SAGE in terms of being able to actually become involved in the discussion at

that point.

Q. Well, that was precisely the issue I wanted to hone in on, was the frustration. You mentioned, I think, earlier that when attending SAGE, representatives or officials like yourselves and others who would be there had an opportunity to ask questions but they had to be submitted in advance, was that something --

A. That's correct.

Q. How long did that carry on for, that practice?

A. That practice probably carried on through the February and March period that I was involved there, but I think from that point onwards, probably late March, it became a much more integrated approach and it became much more -- much easier to be able to actually get involved in discussion and ask questions within the body of the meeting.

There was one occasion in particular where -- most of the SAGE meetings were attended remotely, and at that time this was before really we had any of the platforms which enabled video meetings, it was mostly done using kind of dialled in telephones. The ability to be able to communicate in that environment was, I think, difficult, and on one occasion at least I remember travelling to London specifically to attend a meeting in person just so that I could try to glean more

information but also have discussion with people who were there --

Q. Just to be clear, the remoteness element you were talking about there, did that relate to the period before things got better towards the end of March, or was that the period after?

A. That would probably be -- so the remote -- the remoteness element would be during the initial stages of SAGE, particularly February and early March.

Q. But as far as the input or the output, if you like, from -- for Scotland generally at that stage, you mentioned feeling a degree of frustration at your inability to explore things. Could you expand a little further? What were the effects of your inability to engage in the way that you would have wanted?

A. So, the impact of that inability to be able to explore during the course of the meeting meant that you then had to -- rather than be able to deal with a particular line of inquiry or interest at the time you had to chase down someone afterwards to try to find out more information. It expanded on the amount of work which was necessary to try to get a sense of an answer to your question. And ...

Q. What were the sorts of Scottish-specific, I assume, issues that you were wishing to raise, and you were

having this difficulty in doing so, around that time?
A. So they were many and varied. And I wouldn't characterise them as being particularly Scottish-specific, I think that these were just general epidemiology questions which you wanted to ask or particular clarifications about what data or modelling was suggesting, and these were -- these were not issues which were, as I say, generally specific to a kind of Scottish situation, these were about the wider virus itself.
Q. Thank you very much.
LADY HALLETT: Were there any other people from Scotland on SAGE at the time you were on it?
A. Yes, there was representation there. Again, Jim McMenamin was one of the --
LADY HALLETT: I was going to say I thought there were others.
A. Yeah, and we used to compare notes afterwards, after a meeting, just to make sure that our understanding was broadly similar in terms of the approach. But, as I say, having the observer status at that point in time did feed a little bit of frustration.
That was corrected, though, and I should emphasise that that was corrected.
MR DAWSON: Yes, it was corrected, I think you say, towards

the end of March. Thank you.
If that's an appropriate moment, my Lady?
LADY HALLETT: Certainly.
MR DAWSON: Thank you.
LADY HALLETT: I shall return at 1.45.
(12.45 pm)
(The short adjournment)
(1.45 pm)
LADY HALLETT: Mr Dawson.
MR DAWSON: Thank you, my Lady.
Professor Smith, before the break we were discussing some of the information that was available in the early part of the pandemic about the emerging threat, and I'd like to stay in that area, if that's possible.
Could we have a look, please, at INQ000273978. I'm looking at paragraph 241.
And you were asked some questions about some early email exchanges between Professor Mark Woolhouse, who is an epidemiologist at Edinburgh University, who was in contact in January, and from then on with your predecessor, Dr Calderwood, and you say there that:
"I was aware that Professor Mark Woolhouse had contacted the CMO (Dr Calderwood) and had seen a content of an email which provided his view of a potential scenario. I was also aware that the CMO arranged to

discuss this further with Professor Woolhouse and though I do not know the content of those discussions, I recall her taking these assessments, alongside information she was receiving from elsewhere, with a particularly significant gravity."
If I could just take you to an email chain and see if this is the chain, it's INQ000352450. If we go to page 7 of this document, please, this is a series of emails all in a chain -- sorry, page 6. Yes. We could just go to the page before that to see the top of the email.
So this is the first email in the chain, the earliest chronologically. If we go slightly above that, yes, we see this is an email from Mark Woolhouse -- sorry, a bit further down, please, to the email below that. Yes. The one dated 21 January. No, further towards the end.
(Pause)
So you can -- this is an email -- I'm looking at the email from Mark Woolhouse. You can see there there's one -- from the top part of the screen -- dated 21 January from Professor Woolhouse to your predecessor. Although that's the CMO address, that was to Dr Calderwood, I think.
Is this an email do you think you would have seen or

would have known about from discussions? This is the first in the chain which starts to intimate some of the concerns that Professor Woolhouse had at that time.
A. So I certainly recognise the tone of the email, even from the read-through that I --
Q. This wasn't to you, so I just want to be clear that it may be possible that the details are -- you're not entirely au fait with.
A. I know from this communication and from other communications from Professor Woolhouse around about that time that he did have significant concerns in relation to the potential threat that this virus could cause, even at that time, and the degree of uncertainty that still existed around about the potential that it did have.
Q. Yes. Just to be clear, he's a witness who has appeared on a number of occasions in the Inquiry already, Professor Woolhouse is a consultant epidemiologist based in the Usher Institute at Edinburgh University?
A. That's right, yes.
Q. If we could have a look at the email, at the bottom page that you can see there, at the top passage, he says:
"The obvious concern (increased by yesterday's not unexpected announcement of human-to-human transmission) is that this become a pandemic, and therefore will

affect Scotland. This is not yet certain, but in my judgement it is likely, certainly sufficiently likely that we should be prepared for the eventuality. Other colleagues share this view."

There are some instructive parallels with the H1N1 pandemic in 2009-10. Indeed, one possibility is that this could turn out to be quite similar in some key respects: a widespread epidemic fuelled by mild cases but with mortality among vulnerable patients."

So at that stage, as you say, Professor Woolhouse's position in intimating his concerns to Dr Calderwood is that there are still some uncertainties about the position, but that he considers that a threat to Scotland is sufficiently likely; yes?

A. That's certainly my reading of his email and also the discussions that I was privy to at that time with Professor Woolhouse.

Q. And I think what he has -- a piece of factual information, if you like, rather than assessment or opinion, is that evidence had arisen the previous day of human-to-human transmission, that's referred to in the email?

A. So that was at the stage where it was just becoming evident that there were -- rather than transmission from an animal source to human, that there were -- there was

now evidence of distinct human-to-human transmission, ie the virus had now been able to evolve to an extent that it had the potential to certainly cause at the very least an outbreak, if not an epidemic or even a pandemic, in human form.

Q. Thank you for that. What I'm trying to highlight is that the evidence of human-to-human transmission is very significant in trying to work out the potential threat, isn't that right?

A. That is correct.

Q. Thank you.

He also, and it's fair to say that this is much more at the state of possibility rather than likelihood, says that this could be an epidemic fuelled by mild cases, with mortality amongst vulnerable patients like the H1N1 threat had been.

Would this tend to suggest, if the epidemic were to be fuelled by mild cases, that testing, though an important part of trying to contain the virus, may miss cases as mild patients may not report for -- to undergo a test?

A. One of the key considerations at this stage would have been to what degree can viral substance be obtained in order to develop tests which would identify with sufficient confidence that the virus itself could be

identified, particularly if there were mild cases which could mimic many other diseases.

Q. And in this email he also raises the possibility of the severity of any ultimate epidemic in Scotland, were it to arrive; is that correct?

A. So I recall both within -- I can read within this email, but I also recall within other correspondence from Mark that he rose that it had the potential to do that, but again emphasised within each of those that there was great uncertainty about that.

Q. Yes. It is fair to say that there's a degree of uncertainty; certain things are expressed at the level of likelihood and others at the level of possibility.

What I would be interested in knowing is what the response was within your office, if you like, on behalf of Dr Calderwood, and indeed what advice was provided to ministers to put this on their radar, if you like?

A. I would love to be able to answer that question for you with the degree of detail that I suspect you're looking for, but I'm afraid that I wasn't sufficiently close to those discussions that you speak about, what there existed between Dr Calderwood and ministers, to be able to give you that with any kind of clarity. What I do recall from the conversations with Dr Calderwood was the concern that she had that she was using this information

from Professor Woolhouse to corroborate information which was coming from other sources and to try to gain a -- a kind of -- a sense, a better all round picture of exactly the degree of threat.

I think she commits, in this email chain, to kind of taking that in to further discussion with other CMOs, where again it was recognised that there was a threat here which was certainly emerging, and that that threat was at that stage being fully assessed through the NERVTAG, which is the appropriate committee for assessing the threat from emerging respiratory viruses.

Q. Whilst it might be entirely understandable, as you were not the CMO at the time, that you're not across the detail of precisely what might have been said to ministers, are you at least aware of whether conversations took place with ministers about this threat at this time, by --

A. I'm aware --

Q. -- Dr Calderwood or others?

A. I'm aware of the intention that she had, but I'm not aware of the timing of any of those conversations, I'm afraid. I'm afraid I would be speculating on those.

Q. So she intended to convey it but you don't know whether she did convey these matters, either generally or specifically?

A. What I recall from the discussions was her concern and the discussions that she initiated across government with fellow health and social care directors and the regular dialogue which she was having, even at that time, with ministers, particularly the Cabinet Secretary, in relation to the degree of threat. But what was said in those conversations I'm afraid I don't know.

Q. Are you aware of any information or advice being communicated around this period about the possibility of asymptomatic transmission?

A. There's a great deal of uncertainty about asymptomatic infection and asymptomatic transmission, two separate things and which need to be taken as two very separate entities.

Certainly by the stage that we were getting towards the end of January we recognised that it was possible that there was asymptomatic infection. What was very unclear at that stage was whether that asymptomatic infection could actually lead to asymptomatic transmission. And even six months later, in July, we still had opinion from the WHO where they were still stating at that point that further research was needed to establish whether there was asymptomatic transmission or not. But asymptomatic infection certainly was

considered a possibility at that stage.

Q. Are you aware of any advice being tendered to any ministers around this time, by Dr Calderwood or others, about the possibility of asymptomatic or mildly symptomatic transmission?

A. I am not aware of any discussion in relation to that at all, I wasn't privy to that.

Q. These are potentially very, very significant revelations being made by Professor Woolhouse; is that not correct?

A. These are concerns which have been raised by Professor Woolhouse, which were being raised in a variety of different areas. You know, Professor Woolhouse had taken the time to express his concerns directly to the CMO, but I am aware that very similar concerns were beginning to be spoken about amongst other epidemiologists at that point in time, in fact were being reported through some of the discussion, even in the early stages of SAGE and NERVTAG, that this virus had the potential to be an incredibly significant development.

Q. Given that significance, if advice had been tendered by the Chief Medical Officer at that time, Dr Calderwood, or others, would that not have been done in writing?

A. I -- I think you're asking me to speculate on something that which I can't answer.

Q. But you're aware of the systems which existed for providing advice to ministers at that time?

A. I'm aware that sometimes that advice was given directly in conversations and sometimes that advice was given in written form.

Q. So over this period, it's at least possible that advice could have been tendered by Dr Calderwood to the First Minister or the Cabinet Secretary for Health and Sport orally about the matters contained within this email?

A. It is feasible that that could be happened, but, as I say, you're asking me to speculate on something which I was not directly involved in and I'm afraid I can't give you an accurate answer to that.

Q. In the email Professor Woolhouse points out, again on the second page, just below the passage we looked at before, he says:

"Such an epidemic would be difficult to track. As in 2009-2010 what would be needed is an integrated surveillance set up that combines clinical surveillance, genomic surveillance, and serological surveillance. (The latter requiring an appropriate test; we and, I am sure, many others are working on this already). This should be unexceptionable. My reasons for writing now is to emphasise that, that based on experience of

2009-10, that systems needs to be put in place in advance of the arrival of the virus, so the sooner the better. If we wait until after the virus has arrived then we will miss information of public health value and our efforts to prevent [or] control the epidemic will be compromised."

So the general message that Professor Woolhouse at least is trying to convey is that his experience of dealing with epidemics, pandemics of this nature is that one needs to act decisively and quickly otherwise it will be too late?

A. Yeah, I mean, I think everything that Professor Woolhouse says there is ... is straight out of the health protection playbook. It's surveillance being a particularly important part of identifying the possibility of cases. To do that you can either try to identify them through clinical means, which is a syndrome of symptoms which are so specific and sensitive to that illness that they're easy to pick up clinically, or a testing infrastructure which allows the disease to be identified by laboratory means. In this case, because the symptoms were relatively non-specific, it relies largely on the -- particularly at this time of the year, when there's so many respiratory viruses circulating, it relies on the development of -- the

identification of material to be able to develop a test which can then be used and deployed at scale to be able to identify the virus.

Q. When did a test become available to Scotland?

A. I don't recall the first available date, but the first instances of us being able to test were led by our NHS laboratories, with two regional laboratories in Glasgow and Edinburgh being able to offer approximately 300 or so tests a day between them in order that we try to identify those.

Q. I think you're referring there to facilities that were opened up in March in order to provide tests, but what I was wanting to know is: obviously one has to go through a process of genomic sequencing which leads to a test. That test needs to be put together and then it gets scaled up. When was the test first available, do you remember?

A. I don't recall the exact date when the test was first available. I recall in the very early stages, when the first potential cases were identified, testing at that time was so limited that samples had to be transported through special procedures to reference laboratories, public health laboratories. I think there's perhaps only one in the United Kingdom who was able to operate the test at that time.

LADY HALLETT: Sorry, could I just ask a question? Could I go back to the email where Professor Woolhouse intervened? He raised the possibility of a very serious threat to Scotland, and by the sounds of it this resonated with both you and your predecessor as CMO, because you'd heard similar concerns elsewhere. What I don't understand at the moment, Professor, and I'm not sure if you're the one to answer or whether it should be your predecessor, but why didn't the CMO talk to you, her deputy, about this potentially serious threat to the country?

A. She did, my Lady.

LADY HALLETT: She did?

A. She spoke to me on a regular basis about it, and we discussed Professor Woolhouse's advice and we discussed both his advice in the context of advice that she was already receiving from other people and from other committees at that point in time as well. So it shouldn't be misunderstood that this was happening in a vacuum at all, this was happening in a way where information was being developed from a variety of different sources. What I am unable to say is --

LADY HALLETT: What she then said?

A. -- is the timing and the exact nature of what she said to others.

LADY HALLETT: Right. Sorry, I misunderstood.

MR DAWSON: Thank you, my Lady. So the position is that you were party to discussions, so you know about the discussions, and you've outlined some of the content of those, but you weren't privy to the actions which Dr Calderwood might have taken as a result of those discussions and these concerns. I think you mentioned that in your evidence earlier, that that was broadly your --

A. I would love to be able to expand on the detail of that, but I think those questions are best directed to Dr Calderwood.

Q. Is it the case that the types of surveillance systems which Professor Woolhouse was urging ought to be set up as soon as possible to try to get ahead of the virus started to be set up from this point or not?

A. The type of surveillance systems that Professor Woolhouse refers to, as I say, they can be done in two ways. They can be done by symptom surveillance, syndrome surveillance, we still have the mechanisms to be able do that. At that point in time, though, it was at the time of the year with high circulating levels of respiratory virus, so symptom surveillance would have added relatively little information in terms of the specificity of the threat

that was presented to the country.

Q. But that's not, I think, what Professor Woolhouse was suggesting.

A. The second mechanism at which you could have done that would have been to set up a kind of laboratory surveillance mechanism. Now, that relies on the development of tests which are then scaled to a sufficient level that you're able to use and deploy that testing in that way, and unfortunately that takes time.

Q. But there are even -- what I think is being urged here, Professor Woolhouse recognises that work is being done on a test, what he seems to be suggesting is that the systems which would go around the test once it becomes available could be put into place such that when a test does become available, those systems are ready to start the scaling up process that you've talked about. Was action taken at this time to put those systems in place?

A. So there are recognised surveillance mechanisms across the UK then Scotland and elsewhere in the UK whereby that type of surveillance was already used through GP practices, what we call sentinel surveillance. And once a test was available in sufficient numbers to be able to do that, people who presented with symptoms which may have been suggestive of the disease could have

been tested for it in order to identify them.

The deployment of that test into that environment is probably a simpler process than the development of the test to get to sufficient scale that you have got sufficient capacity in the testing in the laboratories to be able to test in that manner. And that takes -- that's probably the real limiting step in terms of the approach here.

Q. It's been suggested by reference to a notebook provided by a civil servant called Mr Grieve, whom you will know, that around this period, although he was attending various meetings, I think perhaps some of the ones you were attending as well, of committees, that there was a general lack of awareness within the department of -- the directorate, sorry, of health and social care, and indeed more widely within Scottish Government, as to the urgency of the threat.

Would you accept that that was indeed the position, and would you accept that that is in stark contrast to what is being urged by Professor Woolhouse?

A. I am surprised to hear that, because certainly the conversations that I was party to during that time, particularly in late January and early February, was that this was a very urgent threat which had been identified and which people really needed to turn their

attention to.

And I think the evidence of what I saw at that time was that certainly health and social care directors were very focused upon this. I can't comment on other parts of government as to how significantly they took the threat, but my recollection, my observation from that time, was that health and social care directors were incredibly worried about the potential that this threat had. And let me assure you that Dr Calderwood left people in no doubt that that was the case. In the conversations that I was party to with fellow directors, it was very clear that she saw this as something which needed to be prioritised.

Q. But you can speak directly, I think, to conversations to focus, you've mentioned, to worry, but not to action?

A. The implication behind my remarks there is that action would then be taken in terms of getting organised and preparing, and at that stage --

Q. What action was taken to prepare? Action not worry, conversation or focus.

A. So one of the earliest aspects of this that I remember was ensuring that we had briefing mechanisms to make sure that situational awareness of the degree of threat was understood by aspects of the health service, that within -- proper links were established between

departments in Scotland and the rest of the UK to make sure that information was being shared between them, that Scotland was able to kind of -- to be part of any moves to kind of deploy testing as it became available at that stage. As I say, first of all through the NHS laboratory system, then gradually, as it was recognised, just the degree of capacity that would be required, how other laboratory systems could come in and assist the NHS in that testing as well.

So a whole series of things which began to take place in order to try to prepare health and social care for what was likely to come ahead. And in the meantime to try to identify when there were cases, potential cases in Scotland, so that the right health protection measures could be taken around about them.

Q. It would have been predictable at this stage that if something of the nature of the threat which Professor Woolhouse was setting out were to become reality, there would be a number of logistical things that would be necessary to put in place to try to protect not only potential victims but also the healthcare staff that would be required in hospitals and in social care settings against the virus so that they could adequately deliver care to those who were sick. What steps were taken over this period to try to secure

greater supplies of personal protective equipment for those people?

A. I don't recall specifically how that was approached, I wasn't directly involved in much of that stuff, although there were points in time when I was asked to communicate with the system, I think probably towards late February, early March, about the use of some of the equipment. But that was overseen by a particular unit of health and social care called "health resilience", and I'm afraid I wasn't directly involved in their work there.

Q. Thank you.

You mentioned earlier some difficulties which you had experienced with regard to getting access to information which you were, I think, primarily, and understandably, deriving from SAGE and NERVTAG at that stage. Was the type of information that you were trying to get the type of information that Professor Woolhouse was giving you on a plate?

A. No.

Q. Why?

A. No.

Q. What was the information you were having difficulty in getting?

A. The type of information which I was trying to glean more

information about was the timing of interventions in particular, to try to understand from SAGE and the scientists who were engaged there, their best advice as to when particular approaches should be implemented in order to have their effect. And it seemed, particularly through the conversations in the early part of March, that it was at that stage less clear as to when some of those interventions should be brought into play.

Q. Okay, let's explore that a little more. Are we talking about here what one might call non-pharmaceutical interventions?

A. Yes, we're talking about the NPIs here, and --

Q. Yes, we have been through an explanation of what that is and the various forms that might take.

So you mentioned that you had been seeking advice about the NPIs and when they might be used profitably, in early March. Had you sought information about that before that point?

A. The -- so the -- in terms of the NPIs before that point, there was still much discussion about how NPIs should be used and what -- whether non-pharmaceutical interventions could be used in isolation or whether they needed to be used in, if you like, baskets or bundles of different approaches together. So much of the discussion through SAGE, particularly through the

modelling groups, with much of it coming from SPI-M, was actually how would you achieve the desired effect.

Once you began to understand the transmission rate particularly of the virus and the R values that were associated with it, how you would begin to slow that down to the extent that the NPIs could actually have the desired effect, or whether that was using one or two NPIs in isolation, or whether in fact it needed a much broader approach to try to reduce the scale of infection at that point in time. There then became the question as to when was the best point in time to try to deploy those NPIs, and a great deal of discussion through that group as to what the likely impacts of deploying those NPIs, either in isolation or collectively, would have both in halting the virus at that stage but also potentially simply saving up more impact and trouble with a bigger wave once those were released at a later stage. There was still some uncertainty through the modelling as to what the impacts would be.

Q. I think if I heard your evidence correctly that you mentioned some difficulty in ascertaining information about the best timing in early March. Could you expand on that a little? What was the difficulty that you experienced?

A. So what we heard at that stage was a lot of discussion

which was about at what point and what would be the triggers for the deployment of societal measures which would be deeply unpleasant for society to experience and which we would need the significant support of the population in order for them to be effective and to be able to sustain those for a period long enough that they would continue to have their effect.

You mentioned earlier the role of behavioural science at that stage, and behavioural science was an important feature of the discussions at that point in time, when many papers were fed in from SPI-B as to what we might expect in terms of a response from the population to a variety of different approaches.

But what I wasn't clear on at that stage yet and which -- what I didn't see from SAGE was formal advice as to really what the trigger might be for deploying those either singular or multiple interventions, and how we should watch for that.

Eventually it settled, as you know from papers which you'll have seen. And there was a variety of triggers which were suggested. Most of the data that we were using at that point, of course, was unfortunately of lagged data, it was health outcome data such as either hospital admission, ICU admission or even the possibility of the number of deaths that we were likely

to see. But that lagged data was one of the things which was suggested and proposed as a trigger event for the institution of those type of measures.

Q. What was your understanding of the role of behavioural fatigue in the advice and discussion that was taking place around that period?

A. So behavioural fatigue was something which was acknowledged. I remember discussions at SAGE at the possibility that the deployment of particularly severe restrictions on everyday life might lead in some parts of the population to behaviours and fatigue in terms of compliance with those measures, which could actually cause a wave to develop which would be, at that stage, fairly significant in terms of the impact on the population.

Q. So was it the case that you were under the impression that advice had been received from experts, including from SPI-B, relating to behavioural fatigue and that it should play a role in determining when and if a lockdown should be imposed?

A. I would characterise advice on behavioural fatigue as one of many aspects which were considered in the round in terms of the timing for the deployment --

Q. But did you understand that SPI-B had given such advice?

A. I understood that SPI-B had raised concerns that

behavioural fatigue may be a consideration in terms of the approach. What at that stage was unclear was whether fear of the impact of the virus and the impact of that on the population, the impact of that fear in the population would outweigh the fatigue that they may experience.

Q. I think you also mentioned a moment ago that there was some consideration around this time that the possibility of a bigger wave of the virus was playing some part in the consideration about the timing of the imposition of restrictions or ultimately a lockdown. What was your understanding of the position in that regard? How important was that a factor?

A. I recall discussions through SAGE where what I heard recounted were concerns through some of the models which had been developed that actually by reducing the initial impact and mitigating that, if measures were not sustained for a long enough time then the release of those measures, either through non-compliance or because of the harm it was causing to other parts of socioeconomic infrastructure within the country, would release an even bigger wave of infection amongst a population that was still immune naive to a virus which was likely to circulate very quickly. A lot of the initial discussion centred upon how long would it be

necessary for those measures to stay in place and would it be necessary to have some degree of braking, if you like, from spread on a periodic basis until either sufficient therapeutics were available to intervene or a vaccine was available to try to give the population protection.

Q. Evidence emerged of growing infection in Italy in late February, I think. Do you recall that?

A. I do, yes.

Q. Scotland's international rugby team played rugby in Rome on 22 February, and the international women's team had been due to play in Legnano just outside Milan in the Lombardy region the 23rd, that match having been cancelled due to local concerns about Covid. Do you recall the Chief Medical Officer or anyone in the department of which you were part being asked to give any advice about the advisability of that match continuing given concerns about infection rates in that very part of Italy?

A. I guess in the -- that's -- all I can speak for is that I wasn't approached for advice myself. That's all I was --

Q. If such advice had been provided, would it have been provided in writing?

A. I would -- in a situation like that there may have been

verbal advice given, there may have been written advice given, but I can only speak from my own experience in relation that rugby match, in that I wasn't asked to provide advice in relation to that.

Q. Would it have been the sort of thing on which advice would have been useful? Given the fact that you were accessing information via SAGE and NERVTAG about these emerging international cases, would it have been useful for that to have been communicated, whether it was or not, in decision-making about whether that match should have been allowed to go ahead?

A. So my own view is that the whole question of international travel at that point in time is something which I think would have been very important to have a very risk-averse position in relation to at that stage.

Q. A further international rugby match took place in Scotland, between Scotland and France, on 8 March. France, as I understand it, was the first country in Europe to have a death from coronavirus, and on the day of the match France reduced the number of people allowed at mass gatherings to 1,000, and I understand around 67,000 people attended the match at Murrayfield on 8 March. Again, are you aware of any advice having been tendered to Scottish Government by the Chief Medical

Officer or your directorate about the advisability of that match being allowed to proceed on Scottish soil?

A. Again, I can only speak from my perspective, and I was neither approached nor did I give advice in relation to that rugby match.

Q. And again, would one have expected that advice, if given, to have been provided in writing?

A. Again, I think I have to say that that advice may have been given in writing but it may also have been given verbally. I'm afraid I don't know whether that was sought or given.

Q. Thank you.

Could I ask to have INQ000371227 put up on the screen, please. I'm looking at page 77.

(Pause)

Excuse me just one second.

(Pause)

Sorry, I'm looking, as it appears, at the top left corner where it says "CMO CALL", just focus in on that. No, the top left-hand corner, "CMO CALL".

We think that this entry comes from 16 March 20 -- this is from your handwritten notebook, Professor. We think it comes from 16 March, where it says:

"WHO -- general view that WHO been unhelpful; Test Test Test being a particular example of

misrepresentation."

Is that -- could you explain what it is that you felt had been a misrepresentation of the "test, test, test" message?

A. So testing was an incredibly important aspect of the response and testing had to be ramped up really as quickly as we possibly could, both in terms of the infrastructure to be able to conduct testing but also during that period, while the capacity for testing was available, was to use it in a prioritised way, and it was the view of the CMOs that testing at that stage was most important in identifying people for clinical purposes to know whether they had Covid or not, to differentiate it from other forms of illness which may need treatment, but also then to isolate them in a way that tried to reduce that transmission to other people as well. And testing should be prioritised in that sense in order -- whilst the capacity to test was increasing. And WHO certainly viewed testing as being very important, but perhaps in the messaging around about testing they were not perhaps as nuanced in their messaging in terms of how it should be used.

Q. Right. So that was what you considered to be a misrepresentation?

A. Yep. Testing -- there was a strong clinical view, not

just held by the CMOs but held across the profession, that testing was incredibly important to -- so that when faced with a patient who had the potential to have Covid in front of them, first and foremost we had the ability to be able to determine whether it was Covid or whether it was another treatable disease. And then of course if it was Covid that takes you down a whole pathway of treatment which necessitates a different -- a wholly different approach both in terms of isolation, contact tracing, et cetera.

Q. Was what was unhelpful about the WHO's message that although it set out a clear priority that testing was necessary to try to combat this disease, that Scotland was simply not practically ready to undertake that testing? Was that what was unhelpful about this message?

A. One of the things that I think was misrepresented here by WHO in those early stages was actually the difficulties in trying to increase the capacity sufficiently quickly to develop a testing at scale.

Q. So they were saying "You should test, test, test", and Scotland said "We couldn't, couldn't, couldn't"?

A. I think that is perhaps a characterisation which is unfair. I think Scotland recognised the need for testing, and great efforts were made by the teams

involved to try to increase the capacity around testing as quickly as possible. That involved using not only the NHS laboratory infrastructure but also in linking with other public health laboratory infrastructure and university infrastructure to try to kind of develop sufficient number of tests across the country using all means possible.

You'll recall that at this particular stage there were all sorts of difficulties with even getting the testing reagents from around the world and procuring testing reagents that were necessary. But what I witnessed was incredible efforts from the teams involved in testing to try to make sure that Scotland and the UK were positioned as importantly as possible. I don't think anyone ever underestimated the importance of testing, but it certainly wasn't easy for these teams in developing it at that time. And I think one of the -- one of the major lessons which certainly I would want to see carried through following this, and I'm very glad it's been captured within the report of the Standing Committee on Pandemic Preparedness, is to make sure that we've got an infrastructure which is sufficiently agile enough, particularly around about testing, and a public health reference laboratory testing infrastructure would, for me, be ideal for it to

be able to turn its attention to emerging threats as they were identified in a way which was different from our experience in February and March of 2020.

Q. So for future pandemic preparedness, you think it's extremely important that the infrastructure is maintained to enable all of the testing that's required to be put into action as quickly as possible?

A. That's one of the major pieces of learning that I would certainly want to single out from this, is that there are particular parts of infrastructure which were put in place that, whilst we could never maintain at the levels that existed during the height of the pandemic, certainly need to be there in a way where we could pivot in as agile a way as possible --

Q. So one might say the core of that existing infrastructure needs to be maintained for future pandemics?

A. And some of that might be laboratory space and some of that might be laboratory expertise and resource in individuals, but I do think that it's really important that as a country we have a laboratory system which is preserved and invested in in the coming years. But that's one of the things I would like to see --

Q. I have one other question about testing but before we go off what's on the screen, just at the same point there

you make a note relating -- I think it says:
"SAGE -- masks
"-- likely to recommend."
Was it your understanding at that stage that SAGE was likely to recommend something to do with face masks? Is that what that's referring to?
A. Yeah, at this stage it was very unclear just exactly how advice was going to be developed around about masks and coverings, face coverings, noting that there's a distinction between the two. And eventually the recommendation from SAGE was that it was face coverings rather than face masks. But I think those are two separate items which you see on screen there, the two dashes.
Q. I see. So they were discussing masks but they were likely to recommend something else?
A. You know, with the passage of time I can't speak with accuracy as to exactly what that annotated comment means, but I do remember there being discussion in SAGE in relation to -- and debate as to whether face masks or face coverings were likely to be the preferred option.
Q. Right.
Just on testing again, could I take you, please, to -- we mentioned Professor Crossman earlier, to his statement, which is INQ000273976. I'm looking at

paragraph 10.
Professor Crossman played a significant role in the testing side of things; is that correct?
A. He did.
Q. Yes, thank you. He says there:
"From January until around the middle of March 2020, I was not involved in pandemic management. I could see that individuals with governmental advisory function in the other nations were having some role in pandemic response and I was aware that some strategies were emerging for example in testing for [I think it's meant to be SARS-CoV-2] infection. I was not formally asked to expand my role but it was the absence of a SARS-CoV-2 testing strategy in Scotland when there was one in England and Wales that caused me to contact Catherine Calderwood (then CMO) and bring this to her attention as I was concerned that without the ability to test for the causative agent the pandemic would be unmanageable. At that stage I offered my services to the CMO to help with the response. The CMO responded that it would be helpful to have a strategy but if I was going to do this it needed to be done quickly.
I responded and delivered the first strategy with a civil servant (Mary Stewart ...) by the 28th March and this seemed to establish me as a useful adviser to the

Scottish Government's response ..."
Could it be taken from that, do you think, that the Scottish Government had no strategy for testing until Professor Crossman helpfully offered his services?
A. I think that could be one reading of what Professor Crossman has said in his statement.
Q. If that were the case, would that be a fair reflection of the reality?
A. I think at that stage the Scottish approach to testing was very much mirroring those which were happening in other the UK nations in terms of the prioritisation of testing. However, I think what Professor Crossman and his colleagues did very successfully was to take what was a rather informal approach and to formalise that within a written strategy so that people could be very clear as to how testing was going to be developed and prioritised for different purposes.
Q. I think he describes it as the absence of a testing strategy. That doesn't tend to suggest that there was one at all.
A. I think you would have to ask Professor Crossman in greater detail, but what I would take from that is that there wasn't a written strategy.
Q. Thank you.
LADY HALLETT: Except he contrasts it with the position in

England and Wales where there was one, and you said that Scotland was then mirroring the rest of the UK.
A. That was my recollection of it, was that the discussion there that certainly happened in clinical circles at that point in time was that Scotland was taking a similar approach to other countries in the UK, but there was no written strategy that backed that up.
LADY HALLETT: Well, we'll check with Professor Crossman.
MR DAWSON: Thank you.
Moving on to a slightly different area but in the same time period, we've heard some evidence already from Dr McMenamin and Professor Phin about the well known Nike conference. I only want to focus with you on one aspect of that.
Could we go to INQ000225995, please.
This is an exchange concerning this very thing. It mentions you, I think, having some involvement. Do you recall discussion around this early period to do with the -- what should be said about concerns that were arising around the Nike conference at this time?
A. Yeah, I mean, I recall coming into this at a kind of latter stage. I think by this point in time the first cases had already been identified and an incident management team was up and running in relation to it, and my recollection is that the CMO fed into that

process. I came into it, as I say, at probably a later stage when there was beginning to be a little bit of concern as to what was being said --

Q. I think broadly what this is showing is this is the chief of staff of the First Minister, Nicola Sturgeon, looking for some advice about what should be said around it, because I think you've identified by this point, which is towards the beginning of March, there had been some efforts in connection with this event to try to --

A. Yeah.

Q. -- we heard from Dr McMenamin -- to try to trace cases and to try to work out what was going on.

A. Yeah.

Q. I think he described those as local efforts to try to deal with the situation.

There was, I think it fair to say, a question mark as to whether this should be publicised in particular. If we go back to page 1, please, I think we see Dr Calderwood's response, relating to this. She suggests towards the bottom that her "strong advice would be not to say anything here specifically" and that "naming the conference risks breaching patient confidentiality as a delegate list will be available".

So it seems that the chief of staff on behalf of the First Minister had been seeking some guidance, and that

there is a medical aspect to this in Dr Calderwood's view which connects to patient confidentiality and that her view is that, as a result of that, this shouldn't be released publicly, what has happened and what is going on to try and control it.

What was the issue about patient confidentiality, in the sense that could information not have been released with any patient details completely anonymised in order to keep the public informed about this potential significant threat?

A. There was a great deal of concern in those early stages about the welfare for people who had been identified as having Covid-19 and a process, a well recognised process in outbreak management, which we call deductive disclosure which is about managing the tension that exists between not giving information which could lead to the deductive disclosure or identification of a person associated with that outbreak and fulfilling legitimate public interest in terms of public messaging and transparency about any outbreak as well. And that is a tension that exists not just in relation to the response which we saw during Covid terms but it exists with every public health health protection response which exists and a real fear amongst clinicians that inadvertently by issuing particular types of advice

actually you remove a patient's right to confidentiality in the illness which they might be experiencing.

So Dr Calderwood's concerns here are something which we see and encounter regularly when managing outbreaks across the country. And different clinicians will have different levels of risk tolerance in order to that, and I know that Dr Calderwood in particular was very against any circumstances whereby she may be responsible for the release of confidential patient information, and a particularly high level of -- a high risk threshold in relation to that.

I think when you speak to other clinicians they might have different levels of risk tolerance in relation to that. My own view in this case was that, and it's probably recorded in some of the email systems, I suspect, is that whilst it was really important to maintain patient confidentiality at all times, that there was -- in this case there was an interest, a legitimate public interest that meant that some information, some form of information --

Q. That's precisely what I was getting at.

A. -- could be released. But it had to be very, very carefully thought through, the implications of that, so as not -- particularly when there's such small numbers at this early stage of the outbreak being identified.

Another word on the Nike conference, if I can, because I think it's really important that when we're speaking about the Nike conference we commend and recognise the efforts of the health protection teams that were involved in dealing with this conference, because their actions at that point in time probably -- well, we now know from the evidence from the genomic sampling --

Q. We went through that, although your tribute is --

A. Yeah, handled this outbreak so thoroughly that actually we were able to -- there was no further examples of that lineage, that lineage died out in Scotland as a consequence.

Q. There were though, I think, in the same report, between 290 and 310 other incursions of Covid into Scotland over this period.

A. I think this is really important to understand, when you look at the way Covid was introduced to Scotland, and this is not just in the period probably February and March of 2020 but also later on that summer when international travel began to open up, what we saw the evidence for, particularly through this relatively new discipline of genomic sampling, which was a wonderful innovation used extensively during the early part of this response to understand transmission dynamics of the

virus, but what we saw was that, as you say, there were several hundred incursions of the virus of different types across Scotland at that point in time. So rather than, if you like, a ground zero which occurred in Scotland, actually that multiple seeding through international travel that there was at that event made it very difficult to control the virus in those early stages.

Q. Dr McMenamin when we discussed this on Friday was at pains to -- I'd suggested to him that perhaps a number of these strains had come from Spain and he was at pains to say that it came from a number of the major European countries, including Italy and France. And of course the Scotland rugby teams, international rugby teams, played rugby in Italy in late February, didn't they, or one of them did?

A. And many people from Scotland visited for skiing in those kind of areas as well. And -- and, you know, international tourism being as it is just now, there will always be a risk that as infection of one sort of another begins to show itself globally, is that there will be further and further incursions as a consequence of that.

Q. Equally, a number of people from France came to Scotland to watch Scotland play France on 8 March as well?

A. And as you say, there were tourists come to Scotland, and Scottish people visit other countries for a number of different reasons.

Q. But those events were predictable and might have been able to have been controlled?

A. I think that those are events that, with the benefit of hindsight, you're right, they could have had an impact, but the degree to which they've had an impact is, at this stage, I'm afraid --

Q. Whether it's necessary to rely on hindsight will be a matter for your Ladyship in due course. But as regards this very matter, I wonder if I could take you to your witness statement INQ000273978, to page 71, paragraph 280, where you give us some useful information about an important event. You're talking here about the first person to test positive for Covid in Scotland and you say:

"The first person to test positive for Covid-19 in Scotland was on 1 March 2020. This person was a returning traveller. Subsequently, the first person to test positive through evidence of community transmission (ie no exposure to known contact or returning traveller) was 11 March 2020. This was significant because it implied that Covid-19 was already spreading within communities and so the geographic element of the case

definition was removed. It also heralded the move to delay phase of the response."

Furthermore -- so this gives some background -- I understand on 13 March, an announcement was made by your predecessor -- we can take that down, thank you -- an announcement was made by your predecessor about the first death in Scotland from Covid, and what was said at that time by Dr Calderwood was:

"I am saddened to report that a patient in Scotland who has tested positive for Coronavirus has died in hospital. I offer my deepest sympathy to their friends and family at this difficult time.

"The patient, who was being treated by Lothian Health Board was an older person who had underlying health conditions. No further information will be available to protect patient confidentiality."

It was subsequently suggested in the press that the person who had died was in fact a Frenchman who had attended the Scotland rugby game. That does not feature in the analysis given by Dr Calderwood. Is it your understanding that that is in fact correct and why did that not appear in Dr Calderwood's announcement?

A. I have to say to you I have no knowledge of that whatsoever.

Q. I'd like to ask you some questions, please, about the

circumstances in which you came to take on the post initially of interim CMO and subsequently as CMO in December.

Could I just ask you, before we get into the detail of that, why was it that you were appointed interim CMO for such a lengthy period and then took over as the full CMO, if you like, and did that have any practical significance at all?

A. So the reason I was interim CMO for, oh, that must have been approximately six months or so, was partly because I was managing a pandemic at that point in time and the appointments process to an office such as the CMO is a fairly rigorous one and one which is overseen by civil service commissioners, so it's a competitive process through -- with different stages, and I think in order to make sure that both -- usually the appointment of a CMO is a process which takes several months from the point of identification of potential candidates, through advertisement, through to assessment centres which people participate in, and then interview. And, as I say, subsequently it was decided that sufficient stabilisation had occurred within the system by late 2020 that that process could be begun, and still at that point it probably took three to four months from advertisement through to appointment.

Q. But to all intents and purposes, am I correct in thinking you performed the role of the CMO, whether you were interim --

A. So the role of -- I guess it's important to point out at this stage that I wasn't the first interim CMO that Scotland has had, there have been instances before, from the handing of one CMO to the next, whether an interim has been appointed. In fact before Dr Calderwood took office --

Q. What I'm trying to get at, Professor Smith, is I just want to know whether from 5 April 2020, irrespective of the title and the various procedures, which I understand need to be followed, you were the principal medical adviser to the Scottish Government on matters relating to --

A. So it was exactly the same.

Q. Thank you.

You were asked in your statement whether the resignation of Dr Calderwood had had an effect on Scotland's response. You've already told us that she had been a pivotal figure, understandably, in the response up till that point. You say in your statement that:

"The resignation of Dr Calderwood did not affect Scotland's pandemic response and [that] the CMOD

continued to provide advice to policy colleagues and the Scottish Cabinet."

In light of what you have already told us about the significance of her response, are you seriously suggesting this had little or no impact?

A. The biggest impact I had was in the workload for the rest of the directorate at that point in time. We suddenly found ourselves with an important trusted colleague who was no longer available there, who had developed relationships with ministers, and if there was any detrimental aspect of it at that point in time was that I -- during that immediate period, it was about building relationships with those ministers in order that I could provide them with advice that they were seeking from me. Over the latter course of March, my time with ministers began to increase a little bit. I had conversations with the former First Minister on several occasions, I knew the Cabinet Secretary for Health well at that stage as well. And so by that point in time I was able to slip into the role without too much detriment.

You'll recall that in that period the course was already set in terms of the approach, and it was -- it was very much about being able to kind of give advice, develop advice as new evidence was coming in at that

point in time.

Q. Is it correct to say that Dr Calderwood had a particularly close relationship, as you said, with the former First Minister, Ms Sturgeon, and the Cabinet Secretary for Health and Sport, Ms Freeman?

A. I think my observation would be that she had a good relationship with the former First Minister and with the Cabinet Secretary, and indeed with other ministers that she had contact with as well. She was an important figure and she was trusted, I think, by them.

Q. You presumably required to build a relationship, as you've described, with those two important figures in the pandemic response?

A. I believe that I had a trusted relationship and benefitted from a lot of contact with the Cabinet Secretary before that point in time, but I didn't have quite the level of contact or relationship that Dr Calderwood had with the former First Minister.

Q. I think you suggested a moment ago that the course for the Covid response had already been set by that point. Did that mean that you inherited a plan that had been devised by someone else?

A. At that point of time we were, ultimately I would have thought, two weeks into what later became known as lockdown. Much of the discussion was about what impact

was that lockdown having and how was it stabilising the drastic situation that we saw across the country, and we began to turn our attention at that stage to: if it was beginning to stabilise, then for how long did those drastic measures that we all experienced have to stay in place for and how would we begin to kind of gradually over time reduce that in as safe a way as possible?

Q. At the very moment of her resignation, a few days before on 1 April, Scotland's confirmed cases of Covid-19 had passed 2,000, with 76 deaths in hospital that day, the Scottish Government had just announced its ambition to deliver 3,500 tests by the end of the month, construction had just started on the SEC in Glasgow to become the NHS Louisa Jordan, and the day after her resignation the Coronavirus Act was introduced, gaining Royal Assent on 31 March.

In light of these very, very important developments with regard to the strategy, it's true to say, isn't it, that this was the worst moment that one could possibly find for Dr Calderwood to depart the scene?

A. In the management of a pandemic, particularly in the early management of a pandemic, I don't think there was any good time to lose an adviser, particularly an adviser who has built that level of trust and relationships across the system. So I don't think that

there is any good time at all.
Q. Is it correct to say that there were attempts made within the Scottish Government to keep Dr Calderwood in post despite the events which led to her resignation?
A. I wouldn't be party to that, I wouldn't know.
Q. Do you know when it was that the Scottish Government became aware of the matters which led to her resignation compared to when it was that she eventually resigned?
A. I can only tell you when I became aware, and I became aware on the Saturday evening, which I think would be April 4, perhaps.
Q. I think that's right. I checked this earlier. I think April 5, the day of her resignation, she resigned late in the evening, that was a Sunday, so I think you're absolutely right.
A. So I think it would be late afternoon, early evening on the -- on Saturday the 4th that I became --
Q. The reason I ask is that there are -- I won't go into the detail, but that you will no doubt remember that obviously this was a difficult time for you and the rest of your team to have to take over responsibility, and there is some mention in some messages of the focus on Dr Calderwood being slightly difficult for the team, who was trying to keep the show on the road, understandably, and that there is a suggestion in those messages that --

you refer to "the team who have been giving advice over the course of the week". It tends to suggest, therefore, that perhaps the focus on having to deal with Dr Calderwood, in a more pastoral sense, which is also suggested, had been going on for some time before her resignation, through the course of that week, which then culminated on Sunday the 5th?
A. No, that's an incorrect interpretation of that.
Q. Okay, thank you. But your first intimation of it was on the Saturday?
A. Yeah.
Q. Thank you.

I've asked you some questions already about your role on the Scottish Covid Advisory Group. One matter which has come up in our analysis of the group's minutes is that you did not attend the third meeting, which took place on 2 April 2020, the fourth meeting on 6 April 2020, the fifth meeting on 9 April 2020, the sixth meeting on 13 April 2020, nor the seventh on 16 April, nor the eighth on 20 April.

You mentioned a moment ago the importance of creating relationships with your ministerial and indeed other civil service colleagues. Why was it that you failed to attend these meetings?
A. Because I would have had duties or priorities that sat

elsewhere at that point in time. And I already knew many of the personalities who were involved in that group, I had established relationships with them, the chair in particular I had a very trusted relationship with, and we were able to use that trusted relationship to provide advice back and forward and for me to be able to get a full recount of the meeting from. And whenever I wasn't able to attend a meeting itself I had one of my deputies delegating for me at that meeting. But really the relationships were already largely established with members of that group.
Q. Although no doubt these very eminent professionals were very well known to you, in this specific context, the context of a new group being set up to provide advice through you to ministers, which had been set up originally under the auspices of your predecessor, was it not very significant -- was it not very important for you to attend these initial meetings to try to set up the way in which the group was going to function and to establish those relationships in that particular context?
A. That type of information was conveyed through the conversations that I had with the chair at that point in time. Unfortunately it just wasn't possible for me to be everywhere at once and there were many, many calls on

my time at that point in time, which just -- I couldn't be in two places at the one time.
Q. Thank you.

I'd like to ask you some questions -- we've covered this area with a number of other witnesses including Dr McMenamin and Professor Phin -- about the position with regard to the Chief Medical Officer's office and the minimisation of infections within care homes.

We've looked in some detail, and I won't take you to all the detail, Professor, with other witnesses, including Dr McMenamin particularly, at the report that was done by PHS in this regard which came out in October 2020, which helpfully sets out the pieces of published guidance that emanated from PHS with regard to the management of infection in care homes, and we've looked at the particulars of that, which I don't intend to take you to.

What I would be interested to know is the extent to which the Chief Medical Officer's office, because this was before you became Chief Medical Officer, was involved in the compilation and publication of the advices -- of the guidance that emanated principally from PHS on 13 March and then later in the month, I think the 26th was the other date.
A. So I don't recall any involvement. There was a separate

structure which was set up to provide advice through that to develop that guidance. I know that Public Health Scotland and some advisers within Scottish Government worked closely together in relation to that guidance but I didn't have any direct involvement in that.

Q. Right.

We've heard evidence or we have evidence that there were a number of versions of the guidance created, I think two were ultimately issued, but a number of versions existed. It creates an impression of a slightly chaotic picture in terms of the allocation of responsibilities for who is meant to put together and compile this guidance, whether it's a government CMO type of exercise or whether it's PHS or both.

Do you have any recollection of that characterisation being an accurate one over that period?

A. As I say, I wasn't directly involved, so I couldn't even comment as to how many iterations there were.

Q. Thank you, but there were other individuals effectively from within your directorate who were engaged in that process, along with Dr McMenamin and others?

A. There were other government clinical advisers. Whether they were within the directorate or not at that stage I cannot recall.

Q. We've heard evidence as regards this care home situation that there is a kind of cultural issue which exists within Scottish Government as regards its healthcare provision, that there is an instinct to look after hospitals and then to look after care homes, and, last, to look after those who are in residential care in their own homes. Is that a cultural issue which you recognise to any extent, and in particular relating to this very significant period?

A. So I have to say to you that I don't recognise that as being a scenario which I ever saw play out, certainly in my presence. I think that there was -- in the conversations that I recall from that period, there was general concern about the potential for the spread of infection in any closed setting, and I would put it as broadly as that. So I would also include in that not just hospitals, care homes, residential homes, but also prisons, places like that, where -- any closed setting where actually there was a population who may be at greater risk and that the virus could spread within. And we'd already seen some of that play out in other countries, particularly Italy at that time, about the potential for them.

Q. Ms Lamb, who you will know, who gave evidence earlier, suggested that in this regard, as Dr McMenamin and

Professor Phin had suggested, there was a need as regards testing for there to be a degree of prioritisation amongst groups who might be tested. Ms Lamb gave evidence to the effect that that prioritisation was a matter on which advice was given by the Chief Medical Officer or the Chief Medical Officer's directorate. Do you have any knowledge of that advice and the basis upon which it was given as regards who should receive tests by way of priority over other groups?

A. So the only prioritisation that I recall at that point in time, particularly in those early stages, was that testing, where it was available, should be particularly prioritised for those with a clinical need, so to determine what illness they had, whether it was Covid or not, whether it was another treatable illness and how those patients should be managed. Beyond that as a first priority I wouldn't be able to comment.

MR DAWSON: Thank you for that.

My Lady, if that's a convenient moment, I'd be happy to break.

LADY HALLETT: Certainly.

MR DAWSON: Thank you.

LADY HALLETT: I shall return at 3.15.

(2.58 pm)

(A short break)

(3.15 pm)

LADY HALLETT: Mr Dawson.

MR DAWSON: Thank you, my Lady.

Could I start by returning to an area we were looking at earlier and ask a question I forgot to ask you. You were giving some evidence about your involvement, albeit limited, in the advice that was provided to Scottish Government over the initial few months before the first lockdown, and you told us of course that the principal adviser in that regard was the Chief Medical Officer, Dr Calderwood, and you were not privy to a lot of the discussions, but you certainly discussed matters with her as her deputy. Would that be broadly correct?

A. Yes.

Q. I was interested to know whether, at that time, your understanding was that the Scottish Government had the legal power to impose restrictions on members of Scottish society or whether in having these discussions and providing advice you were under the impression that that legal power was something they did not have, which would later, of course, come through the Coronavirus Act. What was your understanding of the position?

A. So what I recall from that time is that there was -- there was discussion between policy teams at that point to what extent Scotland had both the powers and the capabilities to support the population should an event like that begin to happen. I probably became more privy towards those conversations during the period of March than earlier than that. But as we were exploring what the possible responses could be, from the output of SAGE, it was becoming more and more evident that actually Scotland, although they had the powers to be able to kind of take that course of action, one of the difficulties in doing that was to be able to identify particularly the financial support for people -- to support them during that period.

Q. The reason I ask is, of course, if one were in the position of Dr Calderwood at the time, giving advice about what options might exist, and you weren't privy to the precise advice that was given, it would be important to know, would it not, what the range of legal options actually were, because you might wish to suggest something which simply couldn't be done and therefore it would be a waste of time, whereas if the impression was that you did have the legal power to impose restrictions in the nature of a lockdown or something short of a lockdown, that would inform the matters on which

advice from a medical perspective might be tendered, isn't that right?

A. So within that context, I guess it's understanding what powers were immediately available at that point in time and what powers could be developed through emergency legislation, and my understanding is that those areas were explored. But, as I say, not being privy to those conversations directly, I can't give you --

Q. Of course we take your evidence in regard with that caveat, as I set out at the beginning.

To return then to where we were, which was discussing again an area you had a certain amount of involvement in, which was care homes, could I take you to INQ000371227. This, again, is one of your notebooks. Page 45, and I'm looking ...

(Pause)

Yes, it's on the left-hand side there, you make a note -- we think, from the previous entry, that this is dated -- you can see on the right-hand side, there, there's an entry of March -- this is 2020 -- on the left-hand side -- we think this is dated 23 March 2020. So this shows some level of involvement or information that you have in the care homes issue at that time and you've written:

"CNOD view -- if move to opening care homes to

admissions when positive cases, it'll need additional staff to care ... for isolated patients and use associated IPC processes."

Should that be CMOD?

A. No. CNOD --

Q. The Chief Nursing Officer --

A. So this looks -- in this case, it's information that I have jotted down that has been provided by potentially the Chief Nursing Officer or one of her staff in relation to their view who -- the Chief Nursing Officer's directorate is the lead directorate for infection prevention and control measures, and really was -- provided significant clinical input into the development of approach to care homes.

Q. Well, can you tell us what you understand this to mean as being the CNOD view, rather than me suggesting to you what it ...

A. What I read from this short passage which I've written down here which says -- I suspect has been jotted down from a meeting at some point -- that if admissions to care homes are contemplated when there are already positive cases within that care home, then we need to almost separate streams of staff, additional staff, just to look after the isolated patients and to take care of the infection prevention and control processes. I think

these were ideas which were being bandied about round about capacity rather than any kind of definitive position in relation --

Q. Yes, I understand the context, but this seems to contemplate the possibility that there will be positive cases in care homes; yes?

A. I think it was always recognised that there would be the potential for positive cases in care homes. I think that we realised that it was -- with ingress and egress from care homes, just with staff, with visitors, with other sorts, that it was always a possibility that someone could take infection into that environment, or it could come from other sources as well.

Q. Are you aware of the particular issue, I think, highlighted, as the Chief Nursing Officer Directorate is pointing out, that if positive cases did get into care homes then it would need additional staff in order to care for the isolated patients, because there would need to be a degree of isolation and -- with various processes, infection control I think processes? Was anything done to try to address the fact that additional staff in care homes would be needed as had been highlighted, as far as you're aware, over this period?

A. I'm afraid I wouldn't be able to answer that question. I think that's a question for people who were more

closely involved in that work.
Q. Thank you very much.
If I could go on to some -- a different area. I would like to ask you some -- broadly some questions about various parts of the strategy for the Scottish Government's fight against coronavirus and the various different phases that it went through.
Could I go to your statement, please, to paragraph 506 and page 126.
It's INQ000273978, paragraph 506, please, page 126. Thank you.
This is a section of your lengthy report in which you are telling us -- it's a broad reflection, although in a particular context, about the differences in approach which emerged between the -- in particular the UK Government's response and the Scottish Government response. We heard some evidence about specific meetings around about the beginning to middle of May from Mr Thomson be the other day, leading to a COBR meeting which took place on 10 May, which he identified as being effectively a point at which you could recognise a significant -- he didn't like the word "divergence", but divergence in the approaches.
You are comparing and contrasting, I think, here, at a general level the reasons why you think that those

differences emerged and you say:
"It is my view that the differences in approach between UK nations were in part influenced by clinical and demographic considerations (Scotland has an older population, with greater levels of multimorbidity and therefore greater risk of harm from Covid-19) and in part by national tolerance of risk and harm in each of the four harm domains. This national tolerance of risk, in my view, is not as simple as saying Scottish Government's tolerance of risk, as population polling and attitude surveys were used extensively alongside other sources of information to inform that understanding more fully."
There is a consistent theme amongst the evidence in written form given to this Inquiry about this issue, that Scotland had a different tolerance to risk, and I'd like to explore that with you a little bit.
First of all, there seemed to be two major components of what you're saying here, is that there were clinical and demographic reasons why a different tolerance might be applied, and I'll ask you about that in a moment, but there was also some additional factor, which you describe as there being some different national tolerance of risk, which I think you're suggesting is evidenced by polling and attitudes

surveys.
Can you tell us, please, precisely where it is that this "national tolerance of risk", and the impression of it, in particular around this time, from May onwards, where that emanates from, as it seems to be a rather abstract concept which is hard to grasp hold of.
A. I agree that the whole concept of risk is sometimes difficult to grasp, and I guess the starting point for this is to understand --
Q. Just to be clear, Professor, it's more the national tolerance element I'm interested in.
A. But I think that the concept of risk is also difficult to grasp in this context as well.
I think perhaps I'd best start with the clinical aspects of this, if I may, and that's to explain why I think this is important, because Scotland does have an older population than other parts of the UK, and we knew even by this stage that it was very clear that older groups of people were at greater risk from the effects of the coronavirus. But not only is it an older population but it's a sicker population, and it's a sicker population for many reasons, but the development of what we call multimorbidity -- that is the people having multiple medical conditions, chronic medical conditions that impact on their health -- is

more evident in Scotland than in other parts, and not only is it more evident but it also tends to occur at a slightly earlier age. And a lot of that is influenced by the health inequalities that we see across the nation as well. So, again, a piece of -- strong piece of learning is about -- one of the ways to make a country more resilient against any pandemic is to improve the general health of the population, but particularly those who experience inequalities.
Q. Is it correct to say, Professor -- we've heard quite a lot of evidence about the health inequalities, and some specific characteristics of that, as well as the fact that Scotland has an older population and particularly from our statistical witnesses. You are saying here, I think, that the different approach taken from May onwards was driven in part by the different morbidity levels, the health inequalities. Was it the case that Scotland had greater health inequalities, worse wealth and an older population throughout the pandemic?
A. So we had worse health and greater inequalities leading into the pandemic --
Q. Yes.
A. -- which was perpetuated through the pandemic.
Q. Yes.

A. So what it does is it places our population at a much greater risk --
Q. Yes, I understand. What I'm trying to establish is whether these factors remained a constant such that Scotland had these factors to take into account which were not as great a factor in other nations of the United Kingdom; is that correct?
A. So, yes, and one of the reasons for spending some time just to explain this is because I think that that begins to -- you begin to explain and understand why the risk thresholds in Scotland was perhaps set slightly higher, because of the perceived additional risk to the population because of these increasing burden -- or increased burden of disease that existed within the population.
Q. Was it your advice to the Scottish Government, based on these considerations, in May 2020 that it ought to ease the lockdown more slowly, thereby diverging from the UK Government's approach, because of this higher level of multimorbidity and the older population?
A. So my advice, you'll recall, at that point in time, would be taken in the context of the four harms, which was already established at that point, so --
Q. But as far as the harms you covered.
A. But my advice in terms of the health-related harms was

isn't that right?
A. It is.
Q. From summer 2021, when infection rates were the highest in the UK due to the Delta wave, and no lockdown took place, these considerations were also part of the picture?
A. It is.
Q. And in late --
A. What we should recall --
Q. Sorry.
A. If I may, what we should recall is that risk is dynamic, and over that period which you are describing with a we saw, very importantly, was also the introduction of additional therapeutic interventions and, most importantly, a vaccination programme which began to reduce the level of direct risk from the virus as a consequence. So it is not true -- whilst the risk -- or whilst the burden of disease and the elderliness of the population was a fairly constant during that time, the degree of risk that they faced was altered and influenced by the therapeutics and the vaccine which came into play at that time.
Q. This difference remained in late 2021 into 2022 when the infection rates in Scotland were the highest in the UK due to Delta and Omicron, and no national lockdown took

that -- was that actually the risk to the Scottish population was greater because of the demographics and the burden of disease that existed within the country.
Q. The Scottish population had these different characteristics at the time of the first lockdown, but no earlier restrictions were imposed; isn't that correct?
A. That is correct.
Q. They had -- the Scottish population had these characteristics in the summer of 2020 when the borders were opened to allow tourists to go to Spain and return, eventually causing these older sicker people considerable harm, isn't that right?
A. That is correct.
Q. At the time of the circuit-breaker lockdowns in Wales and Northern Ireland and England between September and November 2020, when no Scottish national lockdown occurred, these factors also existed?
A. These factors existed throughout that time. The Scottish population has continually, as I say, demonstrated that it's been a little bit older than other parts of the UK and has this heavier burden of disease.
Q. These factors existed when Scotland went into its second lockdown, no earlier than England's second lockdown,

place; is that not right?
A. As I explained, risk is dynamic.
Q. But these factors still existed at that time?
A. The elderliness of the population and the burden of disease, which by that point was influenced -- the risk associated with them was influenced by the protective nature of the vaccines and also the therapeutics that were available.
Q. How were you able to measure the level of protection that was given by the vaccines over those later periods?
A. So the type of protection which the vaccine offered was monitored through what was, I think, one of the most important developments in terms of data over the course of the pandemic response: what became known as the EAVE II platform. Led by the Usher Institute in Edinburgh but really a kind of a collaboration between a number of institutes, including Public Health Scotland and Strathclyde University as well. But really the data which they were able to produce looking at the degree of risk to the population from a variety of different sources, whether that be new variants or the protection which was offered by the vaccine, became an incredibly important part of the information which was used to kind of associate risk within the country.
Q. What we're trying to do here is work out why it is that

Scotland took the same approach at certain times but a different approach in May 2020. You've introduced the concept of the vaccines offering a protection and the EAVE II study, again which we've heard about from other witnesses, but that protection was afforded to the people in the other nations of the UK equally, wasn't it?

A. It was, yes.

Q. So that was a factor, as regards to the comparison, which was consistent, although the inconsistent factor remained Scotland's multimorbidity and elderly population?

A. So again -- just to emphasise again, risk is dynamic. Over that point in time we would see the same level -- risk is dynamic in other countries as well, but if there is an approach to risk within this country it would be influenced by the confidence that the protections that the population was having from these other sources was going to have the desired effect and could replace some of the non-pharmaceutical interventions which were in play.

Q. Thank you.

The second component, you've taken them quite rightly, I think, the other way around, with the clinical and demographic considerations first, but I was

also interested in trying to explore with you what you mean by what appears to be the other component of the decision-making process, which is the national tolerance of risk and harm, which I think you are suggesting is demonstrable through population polling and attitudes surveys. If I may say so, Professor, that seems like a rather unscientific concept. Could you help us with that?

A. Yeah, what we saw was the level of fear and anxiety through some of polling and attitudes survey was really quite significant and fear of the virus in particular was evident through that. We also heard it very clearly and strongly from many public groups as well who were expressing concern. There was, I think it's fair to say, a real anxiety, concern, particularly for those who had been identified as the highest risk groups, so the group which, at the beginning of the pandemic, would have been known as the shielding group, but those at greatest risk. There was a particular anxiety that they would be left behind and that some of their needs would not be particularly catered for. And I heard some very compelling stories from some of those people in groups when either they wrote to me or spoke to me about their experience as well.

And so all of that begins to create an impression

that actually the Scottish -- there was a significant aspect of the Scottish public that was very cautious and fearful in their approach and was perhaps more risk-averse than we were seeing in other places, and I think that was reflected in attitudes of some of the decision-makers as well.

Q. Was that not the case then at the other times that I've mentioned when Scotland didn't take greater restrictions? So, for example, you mentioned the shielding category. Was it not the case that people who were shielding were concerned about the virus when cases started to rise in August 2020 at exactly the same time that the shielding restrictions were lifted on 1 August by the Scottish Government?

A. And I think what we saw there was increasing confidence that actually the level of harm which was likely to be experienced by anyone had dropped to a level because of -- although case levels were rising at that point, they were still at a very, very low level compared to before.

Q. But in essence, whether people in the public's attitude to risk was one thing or another is not really the most important thing to weigh in the balance, is it, it's what the science tells you about what the risk is. And of course members of the public didn't get the SGoRR

sitrep with all of its information in it. So whether people have a certain attitude, what your job is to give advice as to how they should be protected, whatever their attitude was; isn't that right?

A. Which I continued to do, but I didn't make decisions --

Q. Of course.

A. -- (inaudible), andso the -- whilst the advice that I may have given during that time remained fairly constant, and -- it was always influenced for the decision-makers by advice which was coming from other areas of government and particularly took into account the impact on the other harms.

Q. I see. So in the period where one might say there is a closer alignment after having been a period of divergence, to use the phrase Mr Thomson doesn't like, over, say, May to August, one sees these phenomena such as shielding being lifted across the United Kingdom on 1 August, that's a common thing that happens, and then from then on the various things that happen tend to suggest that Scotland's restrictions are either less than or equal to the rest of the UK. In that period, is your position that you continued to give advice that one needed to be focused in particular on the first harm but decision-makers made decisions with more regard to the other harms?

A. So my role was consistent during that time. As we've explored before, my role was to give the best advice that I could in terms of preventing harm 1 and harm 2 and that advice had to be taken and integrated into the advice that was being received from other parts of the government as well and other advisers within government, and I think what we can see in the decision-making there is a changing approach to the relative importance of each one of those harms, as time went on.

We should remember that whilst the harms relating to Covid changed over time as well, because of the influence of vaccines and therapeutics, the harms which people suffered economically also changed over time as well. So whilst some people might be able to cope, albeit with difficulty, with a short period of economic instability and difficulty, the longer that that goes on the greater the impact that that has as well. So the whole concept of risk, whether we're talking about health harms, whether we're talking about the society harms or whether we're talking about the economic harms, none of that is static and constant. That is all dynamic.

Q. Thank you.

You mentioned earlier, I think, somewhat in passing, the position with regard to borders. I was interested

to the JBC before, and they produced really helpful evidence packs where they would be examining the information that was available in relation to certain countries and either their levels of infection, hospitalisation, or the emergence of potential variants within those, and I would be involved in giving advice to ministers with teams from both health policy but also from travel policy, in relation to those countries, and participated in ministerial calls across the four nations in relation to that as well. And again I think what you see in terms of the occasional divergence of the -- and it didn't happen terribly often, but occasionally, there was a divergence in approach between the four UK nations where risk appetite probably influenced the -- how quickly the response was made.

Q. But if the evidence base was the same, what was the reason why these divergences started to occur?

A. I can only assume that in the decision-makers and perhaps even in the advice that was given, that is -- the tolerance for risk was greater in some countries than others. Certainly from my perspective I was always very, very aware and cognisant of the evidence that had been produced about the multiple incursions that there had been both in the early part of the pandemic but then

to know -- we heard some information, again from Mr Thomson, helpfully, about the way in which borders were controlled and although he insisted that the distinction was not a blurry one, there was a slight complexity with regard to the way that borders were operated because borders were a reserved matter for the purposes of immigration and nationality but, as far as the pandemic was concerned, it was a devolved matter because the control of borders pertain to a matter of public health, which of course, as you know, is a devolved matter.

When there were significant and frequent changes to the rules about which countries -- what the countries were from which people would be allowed to enter Scotland or vice versa, over the period in particular for a period in 2020 and again in 2021, when advice was being tendered in this regard, was advice sought from you about whether you thought countries were too risky or not, or was advice sought from elsewhere? Because there were divergences in the approach, but our understanding from other evidence we heard last week is that the evidence base as to what the risk was in any given country was the same as between Scotland and the United Kingdom.

A. So the evidence was produced by the JBC, we've referred

again in the late summer of 2020 and which had caused rising cases from some countries with greater levels of infection than we had. And whilst I think it would have been impossible to kind of keep infection out of this country completely from other sources, because of a reliance on goods coming in from other countries, my view was that where there was clear evidence of an increased risk in a particular country, and the ability for that country to then amplify what was already happening here, is that we should take action against that.

Q. Okay, thank you.

I'd like to go briefly to something I think we'll cover with other witnesses but upon which you make a very helpful -- that's the concept of zero Covid around this time. This is the -- this is a fairly well known concept that around the time, I think probably the summer of 2020 --

A. Yeah.

Q. -- the cases had come very significantly down in Scotland and the narrative, certainly from the Scottish Government, is that that is associated with this strategy of easing the lockdown more slowly, which was successful in that it got cases down to a much lower level, and there was -- there were a number of

statements made, including by the First Minister, and indeed by other academics who were involved in advising the government, that zero Covid elimination was a feasible option and was indeed a laudable goal.

One of the things that we have struggled with is whether this was actually ever a policy. It may be a matter of semantics, but in your witness statement at paragraph 479 you helpfully say that your position on the matter is that:

"In my view it would have been impossible to achieve a 'Zero COVID' strategy without strict controls of every land, sea and air border alongside quarantine and high levels of co-operation of the public in adhering to restrictions in place. Regional co-operation in trying to achieve this aim (and most likely a wider degree of co-operation than UK nations alone) may have made this slightly more likely, but with a high dependency on these borders for essential goods and materials it would have been very difficult even with this."

So, for the reasons we were just exploring to an extent, and I assume also the land border with England is a part of this, your view was that although elimination as an ultimate goal was a good thing, because it would mean suppression of the virus down to low levels at the very least, elimination was not

something that could ever have been achieved; is that right, broadly?

A. So I think "elimination" was used as a term sometimes colloquially rather than scientifically, and certainly from a scientific perspective --

Q. Yes.

A. -- looking at epidemiology, I didn't think that elimination of the virus was a feasible option. However, if it led to an approach which tried to keep the numbers as low as possible, then I think that that was something which was useful --

Q. Yes?

A. -- and something which was worth pursuing.

Zero Covid, as far as I'm concerned, was never a formal policy of the Scottish Government, but keeping the cases and the harm which was caused by those cases to as low a level as possible was something which we've stated in many documents. If we touch upon the environment, the circumstances that would have been necessary to achieve zero Covid, I really do think that it would have been almost impossible for Scotland to be able to achieve that as a country by itself. Even on a UK level I think that that would have been a very difficult thing to try and achieve, despite the fact we're an island nation, but perhaps because we're

an island nation and are so reliant on things coming from outside. But with greater level of regional co-operation, and probably at a European level, I do believe that we could have sustained lower levels of Covid, perhaps not eliminated but certainly got very close to that, and dealt with sporadic cases much as we do with other diseases such as measles.

Q. Was your view on the matter, which I have set out and you've helpfully added to, a matter on which you provided advice to the First Minister and other ministers at that time?

A. It was a discussion that we had on a regular basis.

Q. Yes, that was your position?

A. And I think it was well recognised that that was my position, and I wrote one or two pieces on it, some of which appeared in popular media as well.

Q. Was there an appreciation at that time that the use of the concept of "zero Covid" or "elimination" in public pronouncements may as other witnesses, including Professor Stephen Reicher, are suggesting (their evidence to the Inquiry), create the impression amongst the public that, effectively, "Covid is over and we can go about our business as normal"?

A. I'm not sure that the public would ever have believed that that was ever a possibility at that stage in time,

given the kind of feeling of anxiety that existed within the general population, and I think everybody certainly that I knew of was constantly watching both the UK and international picture to see where the next threat might arrive from. But I do think it was useful in terms of achieving a collective response from society with an aim to try to reduce the harm as much as possible across society.

It touches upon the point that Mr Reicher has spoken about on several occasions, which is actually appealing to the altruistic nature of humans and that collective societal response, and I think one of the things that it was helpful in doing in that respect was actually giving them an aim round about which we could try to coalesce.

Q. But it was a scientifically unachievable aim, isn't that right?

A. I think that elimination, as it's defined scientifically, is something which would have been almost impossible to achieve.

Q. Thank you.

I'd like to ask you about some brief questions, I hope, about the slightly later period. Obviously as we've discussed, evidence suggested, which we've analysed with statisticians, that cases started to go up in August. We have talked about the reasons for that.

On 7 September the First Minister announced that there would be a slowing down of the easing of restrictions because of this, and consideration was given, in light of advice that had been tendered by SAGE, about which we are already heard evidence in Module 2, that there might be, by the time of September, a circuit-breaker or firebreak lockdown to try to break this increasing trend.

In around -- on 18 September, you submitted an advice paper along with the Chief Nursing Officer and Professor Leitch, the National Clinical Director, which can be found at INQ000326427. I'm looking at page 4, paragraphs 21 and 22.

So this was an example of a situation in which you appear to be providing written advice, but along with your colleagues, who are providing a sort of joint opinion, if you like.

Just as we're getting that up, this was a suggestion, this was effectively -- you were looking at various options, various things that you might do, and the conclusion I think is reasonably expressed in these paragraphs whereyou say:

"However, we do not believe that these measures are sufficient."

You've listed a whole load of potential measures

immediately before that in a bullet point list.

"Therefore, we recommend that we introduce a general 'stay at home' order for 14 days from 12 October. We fully acknowledge the seriousness of this and we have discussed at some length whether we could recommend a less stringent 'fire break'. Ministers will decide whether there should be specific exceptions from a four harms ..."

Could we just have that back down to the original thing, and over the page:

"... perspective; from a public health perspective, to have the fire break effect, we require the most decisive action."

Could I take you to another document, please, which is INQ000326426. I'm looking on page 1 at paragraph 6. This is an advice again by the three of you which was issued, it appears, later that very same day where you say:

"We remain of the view that a 'fire break' amounting to a general stay at home order may be required to be implemented quickly if our recommended measures do not have the desired effect. We do not propose at this stage a planned 'fire break' during the October school holidays but such a step may be required. With or without a 'fire break' we may have to consider

tightening travel restrictions further during that period to reduce circulation of virus."

So it looks like an advice was given that there should be a firebreak and then later on a shorter advice was tendered the same day by the same three people which moves the position slightly. We're interested in exploring with you why it was that the advice that was being tendered had changed in that apparently significant fashion over the course of that day?

A. So the only reason that that might have happened is in terms of drafting and the strength of the recommendation that all three advisers were content with. It's the only way that I could assume that that would happen.

Q. It does look like there's a significant change. You say there's decisive action, quite forceful, and you recognise that it might be resisted, I think, and then your position becomes that you're no longer recommending within the course of it. So it's not just a tweak. So are you saying that the first advice didn't reflect your opinion and the second advice did, or what happened over the course of --

A. What I'm saying is that it appears that in that -- if that is the order, I actually don't know -- I don't particularly remember this submission that went up, but occasionally the process of drafting those submissions

would be drafted by other people and we would comment on them, on the language that was used, and if we were unhappy at the language that was used in them we would change them.

Q. So you changed it from --

A. -- that reflected our position on them.

Q. So you changed it from "You should have a firebreak lockdown" to "You should not have a firebreak lockdown"?

A. I don't think that's what it says.

Q. Well, what is the change?

A. It says --

Q. "We do not" --

A. -- "school holidays". So it's the timing of it rather than whether it might be necessary.

Q. Are you suggesting it continued to be the position that there should be a firebreak lockdown?

A. But such a state may be required.

Q. But not at that time?

A. But not immediately at that time.

Q. But decisive action had been required, in accordance with the previous advice?

A. So, as I say, I'd -- the only reason that that may have been included would have been in the drafting of the submission from whichever source, which clearly the three advisers have not agreed to.

LADY HALLETT: So did the first advice go to ministers?
A. It doesn't seem so. I wouldn't have thought so.
LADY HALLETT: So the first advice is drafted and you say that somebody, one of your number, decided that they didn't like the advice as it was drafted. What was your opinion? Did you recommend a firebreak at that stage or didn't you?
A. So what I recall at that stage was that it was -- I don't remember the exact dates, but I remember the discussions around about we were heading towards requiring some sort of firmer action and the timing of that firmer action was to be determined, some of it was determined by the modelling and there was still hope that the October school holidays might influence and bring down things naturally. We very often found that during periods when schools were not in session is that that influenced ...
LADY HALLETT: Did you advise a firebreak or was it one of your colleagues who advised a firebreak in the first advice?
A. I ... I have to say to you that I don't know where that first advice came from. So what I'm saying to you is I can only assume that that's how it's been drafted and that it has been altered when the three chief advisers have looked at it.

The process of drafting submissions was very often done by policy officials who interpreted our position and -- from -- just in the conversations that we had.
LADY HALLETT: You can't interpret "We say we need a firebreak now". That's not interpretation, Professor, is it? That's straightforward. Either that's what they understood you were saying. It's not an interpretation, it's quite a dramatic change.
A. It's the only way that I can think that that has happened, but ...
LADY HALLETT: Sorry for interrupting, Mr Dawson.
MR DAWSON: Not at all.
This is potentially quite complicated, this, but what we did was we looked at the advice and then we compared and contrasted what the advice was with what we thought the actual outcome was, and this was quite an interesting illustration where you then go on to tell us, in this advice, having said "We now" -- well, "We do not [I should say] recommend a firebreak lockdown", that various things should in fact happen to try to reduce R below zero, strengthen FACTS, et cetera, et cetera.
So we did a comparison here, I won't go through the detail of it obviously, but as a broad proposition what appears then to happen is that in this list -- which goes on a bit further than one can see there and over

the page -- some of the things which you recommend with your colleagues should be done are accepted and some are not, and it's -- the basic question is: in circumstances where, having come to the view that there should not be a firebreak lockdown by this point, and then having come up with what I assume is quite a carefully planned series of things to try and work out, well, what's the best thing, where is the virus coming from, what do we need to do, and in the circumstances where what eventually happens is some of them are accepted and some of them are not, in these sorts of circumstances, would you ever have the opportunity, having tendered this written advice, to discuss with the ultimate decision-makers which bits they really should keep in and which bits they should jettison?
Of course they are, as you have said on a number of occasions taking into account a number of different factors and harms, but to what extent is there a system whereby in that list you're able to say to them, "But if you're going to do anything, you absolutely have to do that; but if you're going to not do that, that's okay, that's not going to make much difference"?
Because it seemed to us to be slightly odd that some of the things are accepted and some are not without, as far as we can tell from the paperwork, any further

discussion about what the most important elements from a harm 1 perspective actually are.
A. So there are probably two things I would want to kind of emphasise in this. The first of all is that there's a full realisation that the role of an adviser, whether it be a health adviser, an economic adviser or so forth is simply that: it's to provide advice, and that that advice is received and acted upon according to how the decision-maker wants, so that's the first aspect.
The second aspect was my experience, whenever one of these submissions was sent to the decision-makers, to the ministers, to speak about, they would -- they would then organise a call, either in person or at the very least using a video platform to discuss the advice that was contained within it, and there would then be a back and forwards in relation, just as you describe, about what were the particularly important elements of it, or to explore some of the reasoning behind the proposal in further detail; and that was a process which we became very used to, all the way through the pandemic, but very, very regularly a submission such as this would then provoke a kind of call of some sort or a meeting of some sort to discuss the advice further.
Q. Did that happen on this occasion?
A. I don't recall any occasions when it didn't happen.

Q. There's no document -- this is very clearly set out as to what your position was. We're not aware of there being any documentation we've seen about that process, so you're saying that's an oral process or a meeting takes place and --

A. Yeah, it was an oral process, yep.

Q. Right. Because, for example, just to look at these things, for example, the "Strengthen FACTS" message, we think that did happen, but "limit unnecessary domestic and foreign travel" didn't.

So other things like non-essential car sharing did come in, but restricting non-essential travel to 30 miles limit did not.

Other measures that did not included a message to underline the seriousness of the situation, protecting the NHS, preserving care; that did not happen.

So would you have sat down with the decision-maker and gone through every element to make sure that they were pushing the emphasis on the right parts? And how does the public know what that process involved?

A. So I don't remember the particular conversation that relates to this paper, because there were so many conversations which happened which were similar to this, but generally what it would involve is looking at the proposals which were contained within the submission and

walking through them as to what we thought that they would achieve, and again taking into account the advice from other parts of government as well as to what potential harms they might cause as well.

I think I have to convey that this was all part of that four harms approach we were looking at, the impacts on society as a whole rather than simply just as a health impact.

Q. Thank you.

So moving into a different later period, I would just like to ask you broadly about one, really, area. We've seen in the evidence that from around August 2021 -- sorry, from around July 2021, there was a significant increase in cases in Scotland, I think associated with the Delta variant, and that because the Omicron variant then arrived towards the end of the year and then quickly became the dominant stream, effectively Scottish infection cases remained very high over that period.

We have also explored that over that third wave period there was very nearly as much mortality in Scotland -- despite the impression that Omicron is a less virulent strain of Covid -- as there had been in both waves 1 and 2, there was roughly 5,000 deaths in the first, 5,000 in the second and about 4,000 in the

third.

Over that period, that period might be said to be characterised by very much less stringent restrictions, the main protection, it would appear, against the virus being the vaccine, as you have said earlier, and in particular the vaccine passport system, although it had a different name in Scotland, that was what Ms Lamb told us it subsequently became known as.

Over that period, given your predominant responsibility for providing advice on harms 1 and 2, to what extent were you providing advice that more needed to be done to address harm 1, greater restrictions needed to be applied, and that the vaccine and the vaccine passport were clearly not protecting the people of Scotland?

A. So during that period one of the most important things was, as you say, was that we had a greater level of protection from both vaccine and therapeutics, so there were multiple medications that we could now use to treat people who had become ill, and the vaccine was proving that it was able to offer particular protection against the most severe consequences of Covid, particularly against mortality and serious illness.

What it was able to do less well was to reduce transmission, although it did have an impact on

transmission as well. And in terms of the vaccine certification or passport, as it became known as, whilst I was supportive generally of the approach, I would have preferred to have seen a slightly more stringent approach which was deployed in relation to it, and I gave advice that actually vaccination by itself wasn't sufficient to render an environment safe, and that -- but that vaccination plus testing in combination would certainly give an additional degree of protection.

Q. So were there measures that you suggested should be imposed, further restrictions, over that period that were not?

A. I don't recall the specific detail, but I remember during that period there were times when I would have been more content if a stronger position had been adopted to protect some of the environments where we knew that transmission was likely to take place. So by that point it was very well established that indoor places with poor ventilation where people were coming together were likely to be places where transmission was much more likely to occur, and if we were going to kind of use vaccine certification in that environment also testing at the same time as relying on vaccination would have given an additional degree of protection.

Q. But there wasn't that level of testing; is that what

you're suggesting?
A. Yeah.
Q. So given your responsibility in that position, you would have provided advice that that was necessary?
A. I recall doing that.
Q. Thank you.

Could I just ask you one final question, it's about one of the helpful lessons learned and recommendations that you've set out. In paragraph 720 of the report, you talk about:

"This pandemic, in common with many others, reflected and in many cases exacerbated existing inequalities. Research on where the disparities were, what their causes were and how best to reduce them needed to begin from the outset of the pandemic. A wide range of qualitative and quantitative research methods were needed to understand disparities. Continual dialogue with local communities was important in understanding risks and vulnerabilities, and to co-design effective responses at a hyper-local level that might not be picked up in larger, national data sets or research."

So I think here you're addressing a theme about which we have heard a considerable amount of evidence.

Is it correct to say that you're accepting there

that there wasn't enough done to understand the way in which the pandemic was exacerbating existing inequalities, and that that is a matter which not only could have been done better during the pandemic but must be done better in future?
A. So the whole issue of health inequalities is one which I think is worth exploring in quite a bit of detail, because just in terms of lessons learned, one of the most important things that we as a nation could do in order to prepare ourselves for the inevitable next pandemic which we face is to raise the health of all the population, to make it a much more health resilient nation and population in terms of meeting whichever disease comes to us in pandemic form in the future.

Now, to do that we need to understand the nature of health inequalities and we need to prioritise action against health inequalities that exists within our society. So both during the pandemic and outside the pandemic, spending as much time and research as possible to understand the impact on people's lives of those inequalities that they face and how that impacts on their health is something which I think is incredibly important. We see it in society even before the pandemic came, is that health inequalities were stark. I see a renewed focus since the pandemic in terms of

trying to address some of those health inequalities and we should be very, very clear that the way that we address those is not through a healthcare-related model but actually is through a kind of cross-government, all-society approach in terms of what we understand by inequality across society. And if we can do that, if we can improve both the economic and social capital of communities, that leads to a kind of better level of health within all these communities, I think that we'll be in a far stronger position to be able to meet Disease X when it appears in the next pandemic.
Q. That's a very laudable aim, if I may say so, Professor, but is your position that that did not happen sufficiently during the pandemic?
A. I think attempts were made to do that, and it was often very difficult to get the right data and information to understand exactly how it impacted on particular communities. I think changes were made during the course of the pandemic which helped us to understand better. I think it's worth singling out the huge efforts which were made, albeit slower than I think people would have liked to have seen it, to understand the impact on particular BAME communities and those who had lived with disabilities of one sort or another. I think although strides were made during the course of

the pandemic to understand that better, preparing ourselves so that we've got much better data resources that relate to some of these communities and characteristics is going to be really important for us to --
Q. Were those data sources at least lacking in the pandemic?
A. I think they were lacking at the beginning of the pandemic, yes. I think they were developed over the course of the pandemic, but certainly at the beginning I don't think they were as strong as they subsequently became.
MR DAWSON: Thank you very much. Excuse me just one second.

Those are my questions, and there are no core participant questions, as I understand it.
LADY HALLETT: Thank you very much indeed, Professor. Thank you for your help and for being here virtually all day.
THE WITNESS: Thank you.

(The witness withdrew)

MR DAWSON: The next witness is Professor Sheila Rowan, and my learned friend Ms Arlidge will be asking the questions.
LADY HALLETT: More musical chairs.

PROFESSOR SHEILA ROWAN (affirmed)

Questions from COUNSEL TO THE INQUIRY

LADY HALLETT: Sorry you have been kept waiting for so long.

THE WITNESS: It's okay.

MS ARLIDGE: You're Professor Sheila Rowan?

A. I am.

Q. I'm going to ask you, please -- sorry, I'm not going to ask you to turn to it. I'm going to ask for your witness statement dated 14 November. Someone's already ahead of me. It's INQ000274012. Hopefully that comes up on your screen.

A. It does.

Q. Is that a familiar document to you?

A. It is.

Q. You, between 2016 and June 2021, were the Chief Scientific Adviser to the Scottish Government; is that correct?

A. That's correct.

Q. And you were -- your successor in that role was Julie Fitzpatrick from the date of you leaving.

I should say, my Lady, that there is a witness statement from Ms Fitzpatrick, Professor Fitzpatrick, which is INQ000352847. I'm not going to bring it up on screen, but that's for reference.

You were seconded, Professor Rowan, from the

University of Glasgow for three days a week to carry out the Chief Scientific Adviser role for Scottish Government; is that right?

A. That's correct.

Q. You hold the chair of, I think still do, natural philosophy at that university?

A. I do.

Q. And in fact during your time of secondment you remained an employee of the University of Glasgow rather than an employee of the Scottish Government; is that right?

A. That's correct, yes.

Q. Just in terms of clarifying the position, is it right that your role -- it's not a criticism -- as chair of philosophy doesn't have any direct relevance in terms of scientific knowledge about the pandemic, for instance?

A. So, my professional background is that indeed I'm a professor of physics. However, I would add that I bring with that 20 years of experience in working in and leading interdisciplinary teams to solve difficult scientific challenges and, importantly for the CSA role, a very wide range of professional networks across all scientific areas.

Q. Because your role is to bring together, as the Chief Scientific Adviser, is to bring in knowledge from different sources and act as a sort of central

figurehead point to bring those matters together; is that right?

A. Yes, as Chief Scientific Adviser one of the prerequisites for the role is to be able to access scientific expertise across all domains in science, so coming in with a very wide network of contacts enables ministers and officials to use the CSA across cross-cutting science areas.

Q. And it's about effectively knowing the right people to ask the right questions of, at the right time, because of your expertise in that cross-cutting role?

A. Absolutely, utilising those wide networks.

Q. And presumably those wide networks are across the research world, it's not simply limited to, for instance, the University of Glasgow or whichever university you happen to be employed with at that particular time?

A. No, indeed, they're very wide networks. They cross, as I say, all scientific disciplines, certainly not institution specific nor discipline specific, so a very, very wide range of areas.

Q. And it's not a dissimilar role in that respect to the Chief Scientific Adviser in Westminster, in terms of -- the Inquiry's already heard evidence about his particular expertise, but that was simply he happened to

be that person in the role at that particular time, he's not appointed to be the scientific adviser who gives all of the advice about everything, he brings that thing together, he brings that data together and the expertise together; so in that respect your role is not dissimilar from the UK Chief Scientific Adviser?

A. So there are both similarities and differences to the role, and the similarities are certainly -- and I think this is quite important -- that there is no requirement for either of the UK Government Chief Science Adviser or the Scottish Government Chief Science Adviser to come from a particular discipline. They can be from any discipline, and in both nations historically have come from a wide variety of backgrounds.

Q. You mentioned the cross-cutting role that you play. By that do you mean that it's part of your role to have eyes on the science across Scottish Government and across the country and your areas of science across the system, rather than focusing and drilling into one specific area every day?

A. So it's about being there to be a resource who can be consulted on any particular science area and then knowing where to access the expertise to draw out the evidence, to draw out the information such that government can use that.

Q. Now, one difference is you -- your secondment is three days a week.
A. Yeah.
Q. It was three days a week. Was that the case throughout the pandemic as well as in normal times?
A. So, it was formally the case throughout the pandemic, although obviously during that time I prioritised matters for Scottish Government and reorganised my time accordingly. So although that was formally the case, I did during that time spend more time on pandemic matters than other things.
Q. Because the reality is that it was a fast-moving situation and --
A. Yeah.
Q. -- asking the right questions at the right time of the right people was no doubt a full-time job?
A. Correct. It was of course a fast-moving time, and I prioritised my efforts accordingly.
Q. Your role as the Chief Scientific Adviser sat, at the time of your role, I understand, within the directorate for education, communities and justice, and then subsequently the director education and justice; is that right?
A. That's correct.
Q. It was subsequently, I think, transferred to the

directorate of economy. Do you have any insight into why the role sat where it did and why it was moved?
A. So I think there's a certain -- so I don't know, first of all, the reasons why the CSA role or who made the decision to position it in Education and Justice during my tenure, that was a decision made before I took up the role. I would say there's a certain logic to having it there in that it's adjacent to the higher education and science part of Scottish Government. Understandably that science and research area is one in which the CSA has interest. But I don't know if there are specific reasons for why it was there, nor why it was moved.
Q. When you took up the role -- dealing very briefly, appreciating you took up the role in 2016 -- but when you took up the role at that time, I think you say in your statement that the post had been vacant for about 18 months beforehand; is that right?
A. That's correct.
Q. I think you accept that, as a result, that did mean there were gaps in the advisory system that existed and was set up. Of course by the time the pandemic came along you'd been in post for some time. You've set up, I think, a scientific advisory -- advice framework as well to sort of -- is that -- is it right to say that it's sort of codifying how science should be accessed

across Scottish Government?
A. That's so. When I took up the role, I did indeed work with colleagues in my support team, and indeed reached out across to government to understand its scientific advisory needs, and together we put together as framework, as you say, which gave a guide to the principles that policy officials can use to access scientific advice in government.
Q. Because if there's already a source of science within government, for instance, there's already a scientist dealing with a particular issue, it probably doesn't require so much outside engagement or outside research if there's already a framework in place, but equally there will be elements that are not covered by, effectively, embedded scientists in various departments?
A. That's right. So what the principles of that framework say are: if there is a domain specific need and there is a domain expert, a topic expert in Scottish Government, they would be a good first port of call to refer to. In addition to that, they also say, quite clearly, where there is no expert in an area in Scottish Government, you can use the CSA to help source scientific advice based on the cross-cutting nature of the CSA role and its ability to reach out widely across topic areas.
Q. In doing so, was part of your role to advise on the

right questions to ask when people were coming to you for: where do I go and ask this question? Was it also part and parcel of the role to help formulate the questions that were being put?
A. I would say less to help formulate the questions being put, but to help people understand what a constructive question looks like in terms of scientific advice, so that they could get useful answers back.
Q. And then did your role also involve interpreting the answers that came back as necessary?
A. Can I check, do you mean answers back ...?
Q. So when the questions had been given to whichever adviser, whichever scientist, whichever group --
A. Sure.
Q. -- and a paper comes back, were you involved in the interpretation, assisting in the interpretation of that paper where necessary?
A. When necessary, again, that -- and specifically during the pandemic, I would say as CSA I had two key roles, one of which was indeed in attending SAGE, potentially being a point of contact between the Scottish system and SAGE, in terms of SAGE advice and how that might feed into the Scottish system and have the Scottish lines applied to it, and the other one was again the ability to, if needed, identify who an expert might be to help.

Q. Turning to sort of more specific experience of the pandemic and your role therein, we learn from your witness statement, paragraph 36 on page 11, that you were brought into the room, as it were, in terms of Covid-19, January 2020, as a result of that SAGE meeting in January 2022 -- sorry, 22 January 2020. Too many 2s. And you attended that meeting, you were invited to that meeting, as CSA for Scotland?

A. No, that's not correct. So the meeting on 22 January 2020 was a precautionary SAGE meeting with a very small, limited number of attendees, and that pre-dated my attendance at SAGE.

Q. So is it right, then, to say that you went to the first formal SAGE meeting, as it were, rather than the precautionary SAGE meeting?

A. No, there were a series of SAGE meetings between January, throughout February, March onwards, and the first SAGE meeting at which I was a formal attendee was in April.

Q. Why the gap?

A. Sure. So, as we've discussed, the role of -- the framework for science advice in Scottish Government indicates that when there is a topic relevant need -- in this case, associated with the pandemic, that would be for public health advice, medical and clinical advice --

the first port of call, the person who would take the lead on that advice would be the Chief Medical Officer, not the Chief Scientific Adviser. So I did have a role during that time, but it was not to lead on the public health advice.

Q. Did that run the risk, at least, of you not having sufficient eyes across that cross-cutting element in the early days of the pandemic in terms of emerging knowledge and the fast-moving pace and the various threads that had to be pulled together?

A. So I would say no, what -- the way the system works is that the SAGE advice formally comes to the Chief Scientific Adviser, as I was then, and my office, so we're sighted on each of the SAGE minutes, the minutes formed the advice, so that sight was there, and my role was to ensure that those were passed quickly to SGoRR, the Scottish Government Resilience Room, who have the formal responsibility of co-ordinating emergency response, so that they could access the relevant topic experts, which in this case, as I say, would be the Chief Medical Officer and colleagues in Health Resilience.

So -- and during that time, the predominant need was for public health advice during the January, February, March period. I would say, having seen and indeed

reviewed the SAGE minutes, it was only by sort of March and then into April that it became clear that the scale and kind of response needed was going to be wider than strictly public health, virology, epidemiology, and that wider expertise could be needed, and that's the point at which I started to attend SAGE.

Q. So March/April time was the first time that the sort of cross-cutting element of your role came to the fore; is that fair?

A. That's correct. And, again, to help understand that, if you look at the SAGE attendees, I think in April Professor Cath Noakes started as a SAGE attendee, she's a mechanical engineer. That's a topic that might not naturally come to mind when considering pandemic response, but the recognition was surfacing that wider expertise, cross-cutting expertise could well be important in the response, and so that's where my role can serve.

Q. Because Professor Noakes was a mechanical engineer, was talking about like aerosolisation or the risk of particles and what -- how matters -- how the virus might be spread through the air, and obviously others were talking about how the virus might be spread through touchpoints and the like, and that brings together -- that's a good example, is it, of a mechanical engineer

being able to look at it from a slightly different angle, perhaps?

A. Bring her expertise in fluid dynamics in the built environment, in the engineering of buildings, to bring that expertise to bear, and she played an important role.

Q. When you became more involved in the cross-cutting role, March/April time, what discussions were you having, both at that time and before that, with the then Chief Medical Officer about the focus, what could be brought to bear from other aspects in Scottish Government away from just the pure CMO approach?

A. So I would say up until March/April the response was very focused on, you know, clinical, medical, epidemiological needs, and so I did discuss with the then CMO, Catherine Calderwood, the expertise that she wished to draw on in putting together the Covid-19 Advisory Group, which through its terms of reference is constituted -- it's still mostly in that response space, because that was still, the primary need was the public health response and associated areas, but she requested that I attend the, and was a member of the Covid-19 Advisory Group, and that brought that ability to reach out further if needed. But the terms of reference of that group were still mostly in the public health area;

I performed the link to wider expertise.
Q. And when -- I think in your statement, paragraph 24, you talk about this being set up even before the pandemic, but you also had this -- had CSA, four nations CSA discussions and meetings and ... when did they start to ramp up in the context of pandemic matters?
A. So the CSAs met weekly actually throughout the entire tenure of my time as CSA, so that pre-dated anything to do with the pandemic, and those particular four nations CSA meetings -- so that's the CSAs of the UK Government departments, plus the UK Government CSA, plus the -- me as the Scottish, and also the Welsh CSA -- the topic of those meetings was wide. That's the ability to have cross-cutting discussions, not actually necessarily about pandemic response, those could be about cross-cutting topics. So they were not focused on developing advice for the pandemic.
The CSAs could receive updates on the progress of the pandemic, but they served a different purpose, and I would say were extremely effective in building and maintaining contacts between the CSAs across, again, a wide range of backgrounds and formed one of the networks of expertise that we could all access.
Q. In terms of -- so you spoke about SCAG, and setting that up, and your role in that. You attended SCAG, didn't

you?
A. I did.
Q. And you then also attended a series of subgroups. The Inquiry's heard and will hear, continue to hear, lots of evidence about SCAG more broadly. So what I would like to do right now is very briefly drill down into some of the detail of the subgroups that you were on.
A. Sure.
Q. You were on the education and children's Issues subgroup?
A. That's correct.
Q. And you were also on the university and colleges subgroup?
A. That's correct, very briefly. It formed only shortly before I came to the end of my time as CSA.
Q. That's exactly the sort of question I was going to come to. It formed May 2021, somewhere around then. The Inquiry has heard and will no doubt continue to hear evidence about issues surrounding university students in late 2020 and the concern that the return of students to university and close quarters in university halls of residence and the like were driving pandemic figures in late 2020 as the term returned, students returned to school -- to university.

If the universities subgroup wasn't set up until May 2021, who was giving advice to the Scottish Government about those sorts of very specific but quite high profile matters that were feeding into Scottish Government decision-making?
A. So I think it's an important point to realise that SAGE performs an advisory role for the whole of the UK, and throughout the pandemic SAGE remained the core source of scientific advice for all of the nations. The Scottish Government Covid Advisory Group was not re-doing SAGE's work, not duplicating SAGE's work, it was simply applying a Scottish lens to the advice that was coming from SAGE and adding in local information to help advise Scottish Government. So even without the formation of an education -- universities and further education subgroup, SAGE could provide a core source of scientific advice for all the nations.
Q. So what then prompted the subgroup to be set up in May 2021?
A. So I'm afraid the setting up of the subgroup would really be a matter for the CMO to answer, because each of these subgroups, when they formed, fed in through the Scottish Government Covid Advisory Group to then provide a source of advice for the CMO.
Q. You also attended the schools and education group, so

were you the only person to be on all three -- attending SCAG main -- the main SCAG and those two subgroups?
A. No, I think Professor Carol Tannahill, who chaired the education subgroup, and I think subsequently originally the university subgroup, also then attended the main Scottish Government Covid Advisory Group to maintain links between those entities. I was, however, the only attendee on the education and children's subgroup who also attended SAGE.
Q. So, again, was this an example of your cross-cutting function as well and the links that you can build up in your role?
A. Exactly. So, again, this is an area where the CSA can act to perform a role in linking different science areas, in attending SAGE, then be able to help that subgroup access the underlying evidence from SAGE, or indeed elsewhere in my network, to inform the discussions of the subject experts on that group.
Q. A different element of your cross-cutting role, I think, the chiefs group from May 20 -- from mid-2020.
If we can have your statement up, please, at page 3. It might even be page 4, because it's paragraph 10.13, my apologies.
(Pause)
We can do it without the statement, don't worry.

There comes a point in mid-2020 --
A. Yeah.
Q. -- when you say it was recognised that there was no -- although there were all these different groups available, what there wasn't necessarily was a single area or single forum for the Scottish Government advisers to collectively come together and communicate each of their own individual expertise in a small group setting. Is that right?
A. That's correct.
Q. And is that what sort of prompted the institution of what's known as the chiefs group?
A. Yes. So there were fora in which combinations of the chief advisers would be present, be understanding the different roles that one another were performing and discuss that. There was no forum, no one forum where all the chief advisers met and could share information about ongoing commissions, take a strategic look at what future advice might be needed, and then collectively have that understanding of what one another were doing.
So, you know, science advice certainly was proceeding strongly. I would say the most useful role of that group was simply information sharing so that each adviser then could go off and do their own job.
Q. Was there a concern or potential concern that

effectively, because different groups were meeting separately, that there was a risk that information might fall between the gaps, as it were, because of the fast-moving nature of the pandemic?
A. So I'd no reason to believe that anything was falling between the gaps. However, you can always make things better, and so putting that group in place just put in place an additional forum in which we could all be sighted on one another's activity, and the utility of that exercise was such that I believe some form of that group continues.
Q. If we just very briefly have up on screen INQ000321345, I think this is the original proposal, as it were, for setting up the chiefs group.
A. So this is a document that I have not seen in preparation.
Q. I'm not going to ask you any detail of the granularity about it, and I can apologise -- I apologise for that.
Can I just -- if we look at page 3, this is, I think, sort of summing up what you've just said in many ways, but paragraph 10: bringing together small body of groups of advisers to lead the forward planning to ensure that advice can be delivered, liaising with colleagues in the government as appropriate, and this would help to identify where new thematic sectoral

subgroups should be established and advise on their membership.
Is it right that, as time moved on, this ended up -- instead of it being a body that the idea of ministers coming to the group and sort of commissioning further advice, commissioning further investigations or studies or policy papers to be provided, is it right that in fact what happened in reality was it just gave a more focal point, a visibility? I think you say in your statement that it created a sort of -- it helped to increase the visibility of the sources of information across Scottish Government, rather than being a direct sort of advisory body in itself; is that fair?
A. So the group could have been commissioned to directly provide advice to ministers. It did not, in my time, operate in that way. As I've said, essentially it allowed internal visibility and information sharing of the activities of the different chief advisers with one another.
Q. Would it have improved the group, would it have improved access to information across government had it had more of a commissioning -- had more involved in the role that it could have had?
A. So I'm afraid that that's a question I don't have the insight to answer for you.

MS ARLIDGE: Fair enough. Then I have nothing further for you. Let me just bend over and see if there's anything.
My Lady, do you have anything further?
LADY HALLETT: Thank you very much, Ms Arlidge.
Thank you very much, Professor. I hope you have a safe journey back to Glasgow. I hope the trains are running again, are they?
THE WITNESS: I hope so too.
(The witness withdrew)
LADY HALLETT: Thank you very much. 10 o'clock tomorrow, please.
MS ARLIDGE: I'm grateful, thank you, my Lady.
(4.40 pm)
(The hearing adjourned until 10 am on Tuesday, 23 January 2024)

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