Wednesday, 6 November 2024

(10.00 am)

LADY HALLETT: Yes.

MS PRICE: Good morning, my Lady. May I please call Dr Phin, who will take the oath.

DR NICHOLAS FULTON PHIN (sworn)

Questions from COUNSEL TO THE INQUIRY

MS PRICE: Could you give us your full name please, Doctor.

A. Nicholas Fulton Finn.

Q. You have contributed to two witness statements provided on behalf of Public Health Scotland for the purposes of Module 3 of the Inquiry, the first dated 27 November 2023, and the second dated 21 May of this year.

I'm going to be asking you today about matters covered in the first of those statements. The reference for which is INQ000401271.

Just so that everyone understands the reason for that, is it right that although you contributed to the second statement, the detail of the hospital capacity data collected by the Scottish Intensive Care Society Audit Group, which is covered in that statement, is not something you're able to speak to because it falls out your knowledge and expertise?

A. I can -- if it would help I can give some brief

background and insight but if it's the detail that may be required, I wouldn't be able to do that.

Q. I understand. Thank you.

In terms of the statement we'll be focusing on, that first statement dated 27 November 2023, I understand you have a copy of that in front of you and you're familiar with its contents?

A. Yes, that's right.

Q. I'd like to start, please with your professional background and relevant roles you held during the pandemic. Could you summarise briefly, please, your qualifications and professional background prior to the pandemic first of all?

A. Yes, I qualified as a doctor at Glasgow University back in '81. I worked in public health as a registrar and a trainee. I then for a period was a Director of Public Health in two health authorities in England and Wales. I moved into the Health Protection Agency in 2002 as a consultant, first locally with Cheshire and Merseyside, and then in 2007 I moved to Colindale which is the Centre for Infectious Disease Surveillance with the Health Protection Agency.

For a period, for about three, three-and-a-half years I was the interim director of the Centre for Infectious Disease Surveillance before being

appointed as deputy director for the National Infection Service within PHE, later UKHSA.

I was interim director during the 2009 pandemic and was interim director, along with Susan Hopkins in the current pandemic from January 2020 through till December 2020. I then moved to take up a position in Scotland as Director of Public Health Science with Public Health Scotland and I've been in that role since.

Q. Moving, please, to the creation of Public Health Scotland. Public Health Scotland was launched on 1 April 2020, is that right?

A. That's right.

Q. Could you explain briefly, please, the background to the creation of Public Health Scotland and broadly speaking its role and responsibilities?

A. Public Health Scotland came into being in 2020 following a number of years of consultation about how we could improve the focus for public health within Scotland.

As a consequence of various consultations, and papers, it was felt that bringing together the health improvement element which consisted then of Health Scotland and one of the national boards and the divisions within National Services Scotland which was health protection and data and digital, bringing these things together would create a better focus, if you

like, for public health and allow us to look at public health in a much wider context.

The mission of Public Health Scotland is to create a Scotland where everybody thrives and that is our primary goal in the work that we do.

Q. The November 2023 PHS statement addresses the impact of the timing of PHS' launch, in particular at paragraphs 13.1.1 and 13.2. The statement describes responding to the pandemic whilst establishing a new national public health organisation for Scotland as a uniquely and highly challenging scenario. Could you explain, please, what particular challenges this gave rise to?

A. There are probably two or three. The first one, we were having to create new systems because obviously our governance structures had changed, our management structures had changed so we were creating new managerial systems, we had new finance systems, we had HR issues that needed to be resolved. We needed to look at the structures of this new division because part of the element was about how we bring together the three elements that existed prior to April 2020, and use that to provide something which was more cohesive which addressed the sort of wider issues.

So there was that aspect to it.

We also had to deal with the fact that we were

having to respond, in a fairly major way, to the pandemic threat which meant that something had to give and as a consequence the focus was, by and large, on responding to the pandemic. But these were big challenges and they've had to subsequently be dealt with in the aftermath of the pandemic.

Q. To your knowledge, and appreciating you joined PHS at a later stage, did these challenges have any impact on the ability of PHS to contribute to the healthcare response to the pandemic for example in relation to the provision of relevant data to the Scottish Government?

A. I think one of the things that the creation of Public Health Scotland did was actually create greater resilience in the system. So as an organisation with much larger staffing numbers we were able to draw on staff from different areas to bolster up, to support the efforts. I would say that actually the creation of Public Health Scotland enabled greater resilience and in fact helped the response. One could argue that, you know, over a number of years health protection services have not had the investment that perhaps would have been accorded it but we were able during 2020 to go out and recruit additional staff to make sure that we were able to deliver what I think we saw were essential services during the pandemic.

Q. PHS brought together three legacy bodies and you've referred to those in brief already. But just to be clear, where they fell, the first of those was NHS Health Scotland which was a national health board, is that right?

A. That's correct.

Q. Health Protection Scotland was the second?

A. That's correct.

Q. And the Information Services Division, the last two both being components in the public health and intelligence strategic business unit, which itself was part of the national health board NHS National Services Scotland?

A. Yes.

Q. Did I summarise that correctly?

A. Yes.

Q. Is it also right that all staff and functions from the legacy bodies transferred across to PHS with two exceptions, one relates to corporate services staff who moved from NHS Health Scotland to NHS NSS and the other exception being the Antimicrobial Resistance and Healthcare-Associated Infection function and staff which had been part of the Health Protection Scotland and that remained with the NHS NSS rather than transferring over to PHS; is that, again, a correct summary?

A. Yes, it is.

Q. In terms of the ARHAI exception, could we have on screen, please, paragraph 1.1.7 of the November statement, and it's on the screen for us now. Starting four lines down, please:

"Prior to 1st April 2020, PHS legacy organisation HPS had a role in Infection Prevention and Control when it encompassed ARHAI. This ceased on 1 April 2020 when ARHAI remained within NSS. Professional collaboration between PHS and ARHAI continued throughout the pandemic which is discussed in more detail below. PHS's role in providing advice, guidance and expertise to prevention infection in healthcare settings has been limited since April 2020."

We'll come on in due course to look at how PHS collaborated with ARHAI on guidance but put simply, is it right that IPC guidance for healthcare settings was never one of PHS's responsibilities because of the ARHAI transfer exception?

A. That's correct, as of 1 April that responsibility remained with ARHAI and the focus was solely on ARHAI for IPC in healthcare settings.

Q. That document can come down now, thank you.

In terms of PHS's role in the Scottish Covid-19 response plan and arrangements, the PHS statement at

paragraph 1.4.3 describes four response programmes and three enabling programmes in place in June 2020. One of the response programmes was clinical response and guidance, is that right?

A. Yes, that's correct.

Q. Although for reasons we've just touched on, this did not include IPC guidance for healthcare settings, and one of the enabling programmes was data and analytics?

A. Yes, that's right.

Q. Did this role flow from PHS being the main provider of official health and social care statistics for NHS Scotland?

A. That's correct.

Q. The placing of the NHS in Scotland on an emergency footing is dealt with at paragraph 2.2.1 of the November statement and it is explained that this lasted from 17 March 2020 to 30 April 2022. Is that right?

A. Yes, that's right.

Q. This impacted on PHS's operational autonomy?

A. Yes.

Q. In particular in relation to public health advice, is it right that the lead role for the offer of public health advice transferred from Health Protection Scotland, later Public Health Scotland, to Scottish ministers?

A. Yes, that's right.

Q. And this meant, for example, that while PHS continued to offer the Scottish Government advice on the wording of relevant guidance documents, the Scottish Government was under no obligation to accept that wording?
A. Yes.
Q. Were there ever times when the Scottish Government declined to follow PHS advice on matters relevant to the healthcare response to Covid-19?
A. The healthcare response would by and large fall outside our remit. The healthcare provision in Scotland is devolved to boards of which there are 14, and those boards take responsibility for the delivery of healthcare in Scotland, and it's slightly different to England where there is NHS England which has oversight by and large of many of the activities of the health service in England. Therefore, what we would be doing is working very closely with the boards to make sure that any guidance that was issued incorporated their views but ultimately that advice would come from Scottish Government.
Q. PHS sat on the Scottish Government Four Harms Advisory Group, is that right?
A. Yes.
Q. Although you personally did not join that group until April 2020?

A. Correct. I think it was later than that. April 2020 I hadn't moved to --
Q. I'm sorry, if I said April 2020 I meant April 2022.
A. Yes.
Q. Forgive me, if that was my error.

Was that one of the forums for PHS to provide strategic advice on managing both the direct and indirect harms to health caused by the pandemic?
A. It was one of the forums, yes.
Q. In what other ways and through what other forums was this advice provided?
A. We were party to the -- the committee that was formed around giving Covid advice which was led by -- sorry, I can't recall his name. It was led by a senior academic and this tried to co-ordinate advice from both academics, clinical colleagues and Public Health Scotland and that was in addition to the four harms.
Q. PHS also sat on the Covid-19 Nosocomial Review Group, is that right?
A. Yes.
Q. Did you yourself ever sit on that group?
A. No, I didn't.
Q. At paragraph 3.3.17 of the November statement it is said that PHS supported consideration of transmission risk in hospitals through expertise and evidence from a public

health and health protection perspective. Was ARHAI also represented on that group?
A. I believe so.
Q. To what extent in principle, understanding that you yourself were not involved, would PHS have questioned the views of ARHAI on Covid transmission in a hospital setting?
A. I wasn't around, as you mentioned, and I'm afraid I'd be unable to comment on exactly the advice that was given at that point.
Q. Moving, please, to the extent to which PHS was responsible for Covid-19 relevant guidance for healthcare settings. Could we have on screen, please, paragraph 3.4.15 of the statement. And the statement here says this:

"When PHS was formed on 1st April 2020 and ARHAI remained within NSS, guidance documents that had been published previously that included content relating to IPC became jointly owned and maintained by PHS and ARHAI. ARHAI was responsible for the IPC content and for providing healthcare IPC support to local HPTs. PHS was responsible for the wider health protection content within the guidance and outbreak management support for HPTs. While this statement focusses on healthcare settings, where ARHAI led on IPC advice and

guidance, it should be noted that PHS led on IPC measures in non-healthcare settings."

The statement goes on, in the next paragraph, to identify three categories of guidance after 1 April 2020:

"Health protection guidance developed and maintained by PHS.

"Health and social care IPC guidance developed and maintained by ARHAI.

"Joint outbreak management and IPC guidance developed and maintained in collaboration between PHS and ARHAI."

Just taking an example of health protection guidance which was issued by Public Health Scotland for secondary care settings, could we have on screen, please, INQ000189278, and looking at the first page we can see there this is a December 2020 document, Covid-19 Guidance for Secondary Care Settings. Did you personally have any involvement in advising on the content of this or other similar guidance for healthcare settings?
A. No, I didn't. That pre-dated my role in Public Health Scotland.
Q. Going to the top of page 5, please, this is an explanation of the scope of the guidance and the

target audience, and it says:

"This guidance is to support those working in secondary care settings (eg hospitals) with general public health measures required to manage the spread of COVID-19. This guidance covers key issues for secondary care for a health protection perspective.

"This should be read together with the IPC addendum on secondary care."

The contents table is on page 4, and we see a fairly wide range of topics covered, including key public health measures to prevent the spread of Covid-19, testing for Covid-19. And then we see there's a section on "Infection prevention and control in secondary care settings", section 7. Could we go to that section, please, it's page 17. And paragraph 7.1 says under "Infection prevention and control and PPE":

"Staff in secondary care settings should refer to the COVID-19 IPC addendum within the National Infection Prevention and Control Manual ... for all IPC guidance relating to care and provision in the secondary care setting."

Was this generally how the division of responsibility between PHS and ARHAI was dealt with in PHS guidance for healthcare settings, that is, by way of a cross-reference in the health protection guidance to

the ARHAI-produced IPC guidance for healthcare settings?

A. That's correct. A decision was taken fairly early on by Scottish Government that Public Health Scotland should continue to use the Health Protection Scotland brand in its documentation and that meant that -- and that was because it was a trusted name, people were familiar with it, knew where to go, they knew how to access it. Therefore, I think it's quite nicely described in the previous slide that you put up where you described the three areas that ARHAI took responsibility, we took responsibility and then where there was joint responsibility.

So, yes, there were -- they were published on the Public Health Scotland website under the Health Protection Scotland name but they were jointly developed with ARHAI, with ARHAI taking responsibility for the IPC aspects in healthcare.

I think it's important to realise that ARHAI's remit is defined because it's part of the NHS Assure, which is for healthcare-associated infection. That does leave a gap when it comes to community settings which is why in that document we describe the role of Health Protection Scotland in taking the principles that were developed for the healthcare setting, and adapting and trying to use them in those wider settings. This is

something that's being discussed at the moment to make sure that this gap is addressed, and we're in active discussion with ARHAI, and indeed with Scottish Government about how we address this going forward.

But during that pandemic, it was addressed because of the close working relationships that had been developed over many years with staff in ARHAI, and those continued throughout the Covid pandemic.

LADY HALLETT: Dr Phin, forgive me interrupting. The structure seems unnecessarily confusing for somebody on the outside.

A. It was not our sort of primary way of putting across, but we had to reflect the fact that there was a shift in responsibilities and we were directed to use the Health Protection Scotland logo and name in any guidance that we used.

MS PRICE: Did this approach to Covid-19 guidance for healthcare settings which follows from the structural separation of ARHAI from PHS on its creation, create a risk that there would be gaps overlap or duplication in the guidance being issued to healthcare settings?

A. One of the things that we worked -- well, I understand people worked very actively on was making sure and ensuring there was no duplication, there were no gaps.

And again, I refer back to the relations that had been built up over many years when ARHAI was part of Health Protection Scotland. Those relations continued through into 2020 and beyond, and as my colleague Dr McMenamin said in the last Covid inquiry it was one of the most amicable divorces that he'd ever heard of, so those working relationships ensured that any duplication or gaps were not missed.

Q. That document can come down now, thank you.

Particularly during the transition period, are you aware of there having been any confusion over who was doing what in relation to IPC guidance for healthcare settings?

A. No, I wasn't aware.

Q. Did the separation of ARHAI from PHS have any impact on the ability of PHS to fulfil its guidance responsibilities?

A. Clearly about a third of the health protection staff were involved in ARHAI, which covered not just healthcare-acquired infection but antimicrobial resistance and aspects of animal disease. If you lose a third of your staff that will have an impact potentially on your ability to respond. However, I go back to the point that there were well, strong relationships established and we put aside any sort of

managerial structures to ensure that we worked very closely together and overcame any sort of issues that may have arisen.

Q. Turning, please, to PHS's role in the relation to the collection and provision of Covid-19 data to relevant healthcare settings.

Could we have on screen, please, page 44 of the November statement, paragraph 4.5.1, and the last bullet point here, and the context is the structures and processes that were most critical for the provision of this data, and this is provision of data about healthcare settings to the Scottish Government and other partners:

"PHS hosted a daily morning huddle with participation from PHS, Scottish Government and other partners to review daily trends in case numbers, hospital impact, Intensive Care Unit ... cases and deaths to capture occasional data quality issues before officially sharing with Scottish Government more widely to inform the Scottish Government's daily press conferences. For this daily meeting, the RTE team would produce an overview of the data and identify any concerns in trends or issues of note."

NHS hospital admissions data is dealt with over the page, towards the bottom, paragraph 4.5.4. And it

says:

"Timely NHS hospital admissions data was also vital. This was obtained through the RAPID reporting system and Intensive Care Unit ... data provided through the Scottish Intensive Care Society Audit Group ... and, in particular in the early phase of the pandemic, directly from health board service returns to the Scottish Government. National Records of Scotland ... death data linked to COVID-19 testing data was also crucial ..."

And then you provide a little more detail about the daily reports which were made available to the Scottish Government at paragraph 4.5.10, page 47:

"SICSAG rapidly repurposed its reporting systems, which usually operate on a monthly basis, to develop a daily flow of data from all intensive care units in Scotland. This allowed daily reports to be issued by 9am reporting the number of patients in ICUs across Scotland. This was then linked with data it from testing laboratories to identify ICU patients with a positive PCR test for SARS-CoV-2 allowing a more detail daily report to be issued by 12 noon providing national information on the numbers of patients in Scottish ICUs, their COVID-19 test status, the number of people requiring mechanical ventilation

and other life support therapies ..."

We have an example of a daily report on acute bed occupancy, levels of care, and Covid status of patients made available to the Scottish Government which was exhibited to the second PHS statement of May this year. Appreciating that you may not be able to speak to the detail of the data in it, I'd just like to check with you whether this was the type of daily report being produced.

Could we have it on screen, please, INQ000372596.

And this spreadsheet provides figures for each hospital grouped by health board and their network, as we can see on the left-hand side. It's from December 2020. Did you personally have any involvement in the collation or presentation of this type of data for these types of reports?

A. No, I didn't.

Q. For the day it is dated and the previous day it provides numbers of empty, full, and closed beds; the number of patients at each level of care, so level 0, level 1, level 2 and level 3; and the number of suspected and positive Covid cases. The Inquiry understands that a closed bed is one which is closed due to a lack of staff or equipment to staff the bed. Is that also your understanding?

A. Yes, that's correct.

Q. Is this the daily report which would have been discussed at the daily huddle with the Scottish Government?

A. Yes, it was.

Q. Did you personally ever attend those huddles?

A. No, I didn't. This had become a fairly routine practice at the time I joined Public Health Scotland.

Q. What this spreadsheet does not do is give any information about whether prescribed ICU trained staffing ratios were being maintained; would you agree?

A. That's correct, yes.

Q. It also does not give information about, for example, how many patients were receiving mechanical ventilation or other respiratory support, does it?

A. No, it doesn't.

Q. Or whether the empty beds were level 0, 1, 2 or 3 beds?

A. That's correct.

Q. It also doesn't give any figures for bed occupancy as a percentage of baseline or surge capacity; would you agree?

A. Yes.

Q. Do you think it would have been helpful if these daily reports had contained such further data?

A. I think it's worth me just explaining a little bit, this report that you see was the one that was submitted and

sent in to Scottish Government at fairly high level. We tried to keep it as simple as possible and this had been evolved since April through to May with Scottish Government where they were clear about the information they wished to have.

There was a separate report produced each day which was certainly for intensive care consultants for the co-ordinator of intensive care across Scotland, and that provided the detail you've just described, it talked about the staffing ratio, it talked about the types of ventilated beds, etc. So that detail was available. It was a second report that was not circulated to Scottish Government.

It was very operational and it was felt it could be potentially confusing, and it was really about how the clinicians and the operational management of the units were working.

I think it was important that Scottish Government, at their request, were clear about how many beds were full, how many were closed because of staffing potential issues, and those that were empty and that would allow them to understand where the pressures were in the system.

Q. Stepping back and looking at this document and you've indicated it was intended to be fairly high level for

Scottish Government but it's not easy at a glance, is it, to understand how well hospitals were coping with demand. Would you agree?

A. Yes, although in trying to -- if you look at the column of "closed", that's giving you an indication of beds that could be available but were unavailable because of staffing. So, for instance, level 3 bed requires one-to-one nursing care. A level 2 will require two members of staff. And that second member of staff could be staff more generally from the hospital. And what it's saying in fact that there are closed beds that there is staffing issues within that hospital in trying to maintain the capacity it could provide should the staffing have been available.

Q. Again, there's no breakdown there, is there, of various of the closed beds as to what level of care they relate to?

A. No. There's no level -- that isn't available in this report. It would have been available in the second report that was produced and I'm very happy to produce a copy -- and example of that if that would be helpful to the Inquiry.

Q. That would be helpful. Thank you. In terms of how an at-a-glance, one-page spreadsheet like this could be improved, to give a view of how well hospitals are

coping with demand for government, so not those, you know, involved in the management of the hospitals but government, how would you propose this document is improved?

A. Well, as I said initially, the work started in April and throughout April and May there was -- there is an enormous amount of data collected through this system, and throughout April and May there was a lot of toing and froing and discussion about being clear about what data Scottish Government needed in order to understand and to help them develop their policy and their understanding of what was happening. So, the data you have is the data that they requested that they would need in order to make those decisions.

Behind the scenes there were professional advisors in Scottish Government through the Chief Medical Officers Office, who would have probably been able to look at this and make a sort of -- more of a clinical judgment, and would then influence any, or answer any questions that may have been addressed by either senior civil servants or ministers.

Q. That document can come down now, thank you.

Turning, please, to testing and surveillance. You have dealt quite comprehensively with your colleagues with the early work which was done on testing and

capacity and capability in the November statement and I'd urge anyone interested to look at paragraphs 5.1.27 to 5.1.31 and 5.2.3 to 5.2.4 in particular.

In the interests of time I'd like to focus, please, on whole genome sequencing and its role in identifying or ruling out nosocomial infections. Is it right that PHS contributed to the development of a UK service offering rapid sequencing of Covid-19 samples so that genome types of the virus that is the genetic fingerprint could be compared to other samples?

A. Yes, I think I just need to explain that in a little bit more detail. At the beginning of the pandemic the capacity within Scotland to undertake whole genome sequencing was very rudimentary, if almost non-existent. What was created in the early months of the pandemic was COG-UK, which was a collaboration of academic and other organisations which provided a service to Wales, Northern Ireland, Scotland and England in terms of increasing the capacity to undertake whole genome sequencing.

Throughout 2020, my colleagues worked with Scottish Government to get the funding and the resource they did to introduce whole genome sequencing as a sustainable service into Scotland, and then to expand that, and our reliance on COG-UK diminished over time as

our own service developed in Scotland.
Q. I see. So the service that was launched on 2 December 2020, is that the UK-wide service?
A. No, that was the Scottish service.
Q. Can you explain, please, how that service helped infection prevention and control and public health teams to investigate community and hospital based out breaks?
A. There's been a lot of discussion about whether or not let say an infection identified in the community was either taken into the hospital or whether the hospital contributed to development in the community, or whether indeed, I think, as I previously said in the last inquiry, hospital patients had actually ceded out breaks in care homes. What the whole genome sequence does is provide a genetic finger if you've got two samples with the same sequence they're somehow related or linked. What it doesn't do is tell you the direction in which that relatedness exists.

So it can't say this has come from the hospital and gone into the community, or vice versa. For that, you need the detailed epidemiology to understand when an individual was infected and could have been acquired in the community, and brought into the hospital.

So it's a good example of why epidemiology and microbiology need to work together than service needed

to be developed.
Q. So is it right that whole genome sequencing was most helpful in ruling out nosocomial infection rather than ruling it in, so to speak?
A. Yes, that would be one use. But as I say, it simply determined the degree of relatedness between samples. You needed to understand the sequence of events in order to draw a potential conclusion about which direction that infection had happened.
Q. But if you had, for example, 15 people in a ward, and their samples were different looking at that genetic fingerprint, that would assist, wouldn't it, in terms of whether it was a nosocomial infection outbreak or not?
A. Absolutely. You'd be talking about 15 separate introductions.
Q. How did whole genome sequencing improve nosocomial infection prevention practices? The statement indicates that it did.
A. Well, I think it would be along the lines that you've suggested, it would be useful in looking at outbreaks to determine whether or not this could feasibly have been nosocomial transmission or it could have been, let's say, 15 different introductions. After understanding that, it would allow the team to look at infection control practice, and if there had been one single

strain affecting all of the 15 people, they'd then be able to look at the practice and see whether there had been any breakdown in what had been done, and it would enable them to then look at how they could strengthen or improve infection control in that particular setting.

So it was useful in identifying gaps and weaknesses, and providing also the assurance, where that wasn't an issue, about the adequacy of infection prevention controls.
Q. Moving, please, to data on nosocomial infections.

PHS worked closely with ARHAI on a report called Changes to the Severity of Covid-19 and Impact on Hospitals in Scotland which provided some statistics on nosocomial infections, is that right?
A. I don't recall that report, but if it --
Q. If it assists you, it's paragraph 5.5.14 in the statement in front of you. We don't need to display it, but that might assist you if you want to refer to it. Paragraph 5.5.15 of the statement and in fact let's have that on screen, please, page 70. For completeness if we can go up to the paragraph above that just explains the report. So this section explains, 5.5.13 at the top, please that:

"PHS does not hold data on hospital-acquired infections. ARHAI is responsible for routine

monitoring and reporting ..."

But, the paragraph below:

"PHS worked closely with ARHAI on the report ..."

I've just referred to.

And then 5.5.15 gives a summary, some headline figures from the report:

"The report found that between December 2021 and mid-May 2022, there [were] 14,215 hospital admissions (all admission types) and of these 5,644 were probable/definite hospital onset."

Just to be clear what definition of nosocomial infection was used for that report, which is explained in the paragraph above, these were defined as having probable or definite hospital onset with probable onset defined as the test taken 8 to 14 days after admission and definite onset being defined as the test being taken 15 days or more after admission, is that right, looking at the statement?
A. Yes, that's right.
Q. And so looking at that figure, the 14,215 figure, can you help with whether that is the total number of hospital admissions for a person with a positive Covid-19 test? It would seem to follow from the explanation given in those paragraphs.

A. I'm not familiar with the report. I'm afraid I wouldn't be able to comment on that, I'm sorry.
Q. Okay. If that were correct that that is the total number of hospital admissions for a person with positive Covid-19 -- with a positive Covid-19 test, that would mean a figure for her Ladyship to take from this of nearly 40% of that 14,215 by my calculation, being probable or definite hospital onset cases?
A. Yes, I'd agree with that.
Q. That can come down now, thank you.

Paragraph 5.6.14 of the November statement explains that PHS does not hold or have access to data around the proportion of patient deaths within healthcare settings in Scotland which are attributable to patients having died with hospital-acquired Covid-19 infection, is that right?
A. Yes.
Q. Can you explain, please, why that is?
A. The information on hospital-acquired infections is basically stored in the system called ICNET or -- of which, I think about 11 or 12 of the boards have adopted. There are three or four boards which use their own system. ICNET is not accessible from -- by PHS because obviously it contains patient detailed information. We would therefore be reliant on working

with ARHAI, which is where the close collaboration would come in, to make those sort of links and to use that data.

We can only make inferences and one of the -- at the beginning until we changed our definition of how we would identify a Covid-related death we were using a definition of someone who was Covid-positive and died within a certain period of that diagnosis being made.

That tended to over-emphasise, if you like, because many of the people who actually developed Covid had many comorbidities and it may have been another cause which eventually led to their particular death. So that was refined over time and we adopted the National Records of Scotland, NRS, data which was that we would only use deaths ascribed to Covid if they were included in the death certificate.

There are challenges then in trying to link that back to the hospital data given that we're talking about three different datasets.

There is work underway to look at how we can make that data more accessible and in one place and that is work in progress that is being undertaken at the moment.
Q. So is it the case that it's simply not possible to say at the moment the proportion of patient deaths within healthcare settings in Scotland which are attributable

to patients having died with nosocomial infections, or is it the case that that is information held by another organisation within Scotland?
A. I think it's not possible at the current time.
Q. I'd like to come, please, to the risk for healthcare workers and their households.

Could we have on screen, please, page 85 of the November statement. Paragraph 6.7.4, please:

"PHS was included in the REACT-SCOT consortium looking at the risk of Covid-19 hospitalisation among healthcare workers (18-65 years old), their households and other members of the general population. Work prior to this was insufficiently robust or comparable and there was a lack of studies evaluating the risk of Covid-19 infection in household members of healthcare workers."

And the next paragraph, please:

"The findings, published in on 28 October 2020 in the BMJ ... showed that during the first peak of the pandemic, whilst the absolute risk remained low, patient-facing healthcare workers were at three-fold higher risk of hospitalisation with COVID-19 than the general population and individuals living in the same households as a patient-facing healthcare worker were at two-fold higher risk than the general population.

The study found that healthcare workers and individuals living in their households accounted for one in six of all individuals hospitalised with COVID in Scotland. The study highlighted that whilst the risk for many healthcare staff is similar to that of the general population, there is higher risk to some staff. The results helped to inform action to protect those healthcare workers at greatest risk."

Can you help, please, with how the results helped inform action to protect those healthcare workers at greatest risk?
A. I'm afraid this publication and the results and the implementation happened prior to my appointment in Public Health Scotland. What I do know is that using information that was coming out of studies like this we were able to stratify potential risk factors that might put people at greater risk and I would have expected that then to have been part of an occupational health assessment for people who were either dealing, perhaps, with a cohorted ward where Covid-19 patients were being managed, or in frontline staff.

So there would have been an occupational health assessment to determine those at greatest risk and advise them appropriately.
Q. That document can come down now, thank you.

The next topic I'd like to you ask about is work done by PHS on health and healthcare inequalities. Pre-pandemic health inequalities are dealt with at paragraphs 8.2.1 to 8.2.2 of the statement, if that assists you. The position is put fairly starkly, Scotland went into the pandemic with the worst health inequalities in western and central Europe and the lowest life expectancy in western Europe.

Just to be clear on terminology. There's an important difference, isn't there, between health inequalities and healthcare inequalities? Can you just explain that difference, please?

A. Well, health inequalities would be those inequalities that people experience through either their environment, their income, the habits, what they do, etc, so it's a very generic term influenced by many factors.

Healthcare inequality would be people where there were situations where people were unable to access or where there were challenges in the provision of healthcare in an equitable way. So one is about a general responsibility. The second one is about potentially systems, and how we go about providing access and engaging with patients.

Q. And this section of the statement is dealing here with health inequalities, isn't it?

A. Yes, it is.

Q. It is clear from the reference in the paragraphs which follow from the reference to work done in 2013 and 2019 on the causes and solutions to health inequalities that there was an awareness of the state of health inequalities in Scotland pre-pandemic, is that right?

A. Yes.

Q. Was there also an awareness pre-pandemic that a pandemic would be likely to exacerbate existing health inequalities?

A. There should have been. I mean, if we look at the history of pandemics and we go back to 1892 to the Russian pandemic and again in 1918 to the Spanish flu pandemic, the groups that were most affected were those in, you know, conditions of overcrowding, typically the situations we describe as deprivation.

A feature of the 1892 pandemic was that it was felt that a major factor in the rapid transmission of the pandemic was the fact that people needed to work, if they didn't work they didn't get paid, therefore they were turning up to work with symptoms, they were infecting their colleagues. So it's been well recognised that health inequalities will be exacerbated during a pandemic and we need to be thinking about what measures should be put in place to try and minimise

those or, as we would be trying to do in Public Health Scotland, to try and take every effort to ensure that those inequalities are minimised generally in everything we do.

Q. Was any planning done pre-pandemic to ensure that mechanisms for mitigating such an exacerbation could quickly be put in place in the event of a pandemic?

A. The pandemic plan that was developed for the UK was in 2011, and that described very much the response that should be taken to manage the pandemic. I can't recall whether there were any specific measures about what we might do regarding the work situation or how we might help those in deprived communities but certainly some of the measures that were introduced during the pandemic were designed to try and mitigate that and that was furlough where people who were unable to work, either through Covid or for whatever reason, were provided with an income to ensure at least they had some resource of finance.

Q. Looking at the impact of Covid-19 on health inequalities, PHS undertook analysis of the inequalities relating to the direct and indirect health harms and the statement indicates that this was led by colleagues from NHS Health Scotland who had been involved in pre-pandemic health inequalities work, is that right?

A. That's right, yes.

Q. When did that work start? And appreciating you may not have been there at the time.

A. This was in relation to the pandemic itself in 2020? I think it started fairly quickly because the colleagues in question, this had been something they had been working on for many years in respect to health inequalities and therefore they were well placed to rapidly identify and adapt the work they were doing to look into this further. But I can't recall exactly when it happened. As you say, I wasn't there at that particular time.

Q. Could we have on screen, please, paragraph 8.4.4 of the November statement. The findings of a PHS paper are summarised here. And from that paper it was clear that people living in more deprived circumstances were more likely to be exposed, infected, become unwell and to die from Covid-19 because of socioeconomic inequalities and that the measures put in place to control the pandemic are also likely to have had disproportionate impacts on the most deprived groups.

There's no date given for that paper here. Can you help at all with the date of that paper?

A. I have a feeling that paper was in April 2020 but again I can look into that and provide a copy of the paper to

the Inquiry. Just commenting on it, as I've said, the impact that pandemics have had in people in socioeconomic and deprived situations is well recognised, one only needed to look at the mortality data coming out of both of those pandemics that I mentioned to see that.

So this is well recognised, and perhaps what it highlights is that maybe the emphasis was on looking at the response and not thinking about what we might do more generally in society.

Q. Well, let's look on at a little more detail. Going over the page, please, there is a diagram, which we don't need to go to the detail of now there, indicating direct health impacts and indirect health impacts. And then at paragraph 8.4.7, data relating to occupation is addressed. And it says "The briefing referred to above," and looking back up that appears to be a reference to the briefing for -- forgive me, we don't need to go to it on the screen, but at paragraph 8.3.5 of the statement there is reference to a briefing for Scottish Government ministers taking place in June 2020.

Can you help with whether that is the briefing referred to above?

A. I can't at this point in time but again I can clarify with you and provide that information after today.

Q. So the briefing for which may be the briefing for Scottish ministers in June 2020 found that:

"... using occupation as an individual marker of socioeconomic position, and data between March and December 2020, the COVID-19 death rates for working-age adults employed as 'process, plant and machine operators' was eleven times higher than those working in 'professional occupations', while all-cause deaths was 5.3 times higher."

The next paragraph addresses other groups for whom Covid-19, direct Covid-19 mortality is higher. So:

"Direct COVID-19 mortality is also substantially higher for those in some ethnic minorities in Scotland ... with increasing age, amongst men compared to women, and for those with pre-existing health conditions. Early analysis of data on mortality from COVID-19 for people with learning difficulties suggests that this might be three times higher than in the general population."

And then at 8.4.9 there is this:

"In addition, the COVID-19 mortality rates have been found to be higher in some local authority areas than others. Data from the first wave of the pandemic show that this can be explained by higher income deprivation levels and household overcrowding ..."

In terms of inequalities in indirect health harms, over the page, please, 8.4.13, this is an assessment from May 2020, as we can see from the paragraph above, and it indicates here that:

"The assessment looked at a range of mechanisms through which physical distancing measures could impact on health including economic impacts, social isolation, health-related behaviours and disruption to essential services. Potential impact identified in relation to disruption to health and social care services include:

"The potential for the cancellation of face-to-face appointments to lead to inappropriate care or barriers to care for people who require interpreting services including Deaf people who use British Sign Language."

And then:

"The potential for delays to non-urgent healthcare provision detrimentally impact on people with long-term health conditions. It was suggested that delays to treatment could result in ongoing unresolved morbidity and delays to prevention activities such as cancer screening, which could result in longer-term adverse health impacts."

So it appears that the analysis done by PHS by May/June time in 2020 led to a tolerably clear

picture of particular groups being disproportionately affected both in terms of direct and indirect health harms caused by Covid-19, is that fair?

A. Yes, that is fair.

Q. And that picture was shared with the Scottish Government at the time, was it?

A. Yes.

Q. There was in fact a meeting of the Scottish Government Covid-19 advisory group which took place on 9 April 2020 and that's addressed at paragraph 8.7.1 of the November statement. Could we go to that, please, it's page 114.

This paragraph explains that at this meeting, a paper entitled "Calibrating the impacts of COVID-19 with the impacts of its control measures: informing decision-making on ... (NPIs)", it was a paper authored by Dr Gerry McCartney, who was an inequalities expert and a consultant in public health at PHS, was considered at that 9 April 2020 meeting.

And looking towards the bottom of the page, the last bullet point on the page highlights a particular aspect of the paper:

"There are difficult decisions to be made on when and how to reduce NPIs. These will need to balance the potential impacts of Covid-19 mortality and morbidity, pressures on health and social care

services, and the unintended against consequences across society (including on population health and health inequalities). Further work can and should be done to estimate the intended impacts of NPIs on COVID-19 and the unintended impacts on health and other outcomes urgently to inform this decision-making. There is a risk that, on many measures, the impact of the NPIs for Covid-19 could be more deleterious than the impact of a less mitigate aid approach to COVID-19. This balance requires careful ongoing monitoring and consideration."

Appreciating you had not joined PHS by this point, I'd just like to ask you about the response of the Scottish Government to this paper and your understanding, if you can help, of action taken in response.

At paragraph 8.7.2, just scrolling down:

"The minutes of the meeting noted that 'government is considering points raised in the paper and expressed that the paper should feed into broader thinking' and that while long-term issues are clearly incredibly important, there are urgent issues also to address. In the last week of full reporting there were almost 800 care home outbreaks in England. It is important that we address the issues of today as well as tomorrow."

What is your understanding of what, if any, action was taken by the Scottish Government in response to the suggestion in the paper in particular that further work could and should be done to estimate the unintended impacts on health and other outcomes urgently to inform decision-making?

A. I'm afraid I can't comment on that, but again I could seek to clarify that and would provide a written response to the Inquiry if that would be helpful.

Q. We'll come on to specific action taken on ethnic health inequalities in due course, but in terms of the general position, you can't take that any further for us today?

A. No, I think what you've described is a real dilemma between, on the one hand, do we try to take measures which will impact on the speed or the size of the pandemic, and trying to weigh that up against the potential disbenefits or impact it could have on certain groups.

And I think it would be fair to say that the pandemic planning that had been done prior to 2020, things like lockdown, some of the measures that had been taken had not been part of that initial planning assumptions, albeit it wasn't the basis of a flu pandemic which, to some extent, one would be very similar.

So there is a sense that some of these measures that were introduced, there had not been the work -- the work had not been done beforehand to try and estimate what the impact could be, and whether any other measures may have been as effective, or could have worked in this situation.

Q. This statement deals with a study on which PHS collaborated, looking at ethnic inequalities in positive SARS-CoV-2 tests, infection prognosis, Covid-19 hospitalisations and deaths, covering a period of March 2020 to April 2022.

Can we look, please, to the summary of the findings which is paragraph 8.8.3, page 116.

"There is [a risk] therefore that most ethnic minority groups were at increased risk of adverse COVID-19 outcomes in Scotland, especially White Gypsy/Traveller and Pakistani groups. Ethnic inequalities persisted following community infection but not following hospitalisation, suggesting differences in hospital treatment (healthcare inequalities) did not substantially contribute to ethnic inequalities."

I think that might be "ethnic health inequalities".

To what does PHS attribute the ethnic inequalities in health outcomes, given that the conclusion of this

study is that healthcare inequalities did not substantially contribute?

A. I think this is a very complex area and certainly I can recall in England when the first data started to emerge, that there seemed to be an adverse impact on ethnic groups from Covid which would be March/April 2020 time.

I think also what's interesting is that as you went through the pandemic, the impact on ethnic groups diminished such that when we got to the Omicron wave, which was, I think, in 2021, or -- yes, 2021, the inequalities for Covid had reversed, and the white British population were sustaining the biggest impact, which suggests that there may be a factor in the virus itself or some genetic predisposition that could lead to that.

There were also differences in habits, smoking, drinking. Alcohol tends to be lower in certain ethnic groups, which might counterbalance some of the deprivation indices that one would normally expect to see. And we know that certain groups have a certain predisposition to certain conditions such as cardiovascular disease, diabetes, which were factors which contributed to serious illness and mortality.

So I think it's a very complex picture. We do know that when we looked at offering vaccination, there

were differences in uptake in ethnic groups, and vaccination was a key measure which was introduced to protect the population, and therefore, if ethnic groups aren't -- were not able to get that group vaccinated, then one would expect to see an adverse outcome there as well.

So I think it's multi-factorial, and I think to try and pin it down on one specific issue would not be feasible or credible, in my view.

Q. That document can come down now, thank you.

Paragraph 8.8.5 of the November statement deals with the establishment by the First Minister of an expert group to consider the impact of Covid-19 on ethnic minorities in June 2020. Can you explain, please, what work that group did and what recommendations it made particularly in relation to ethnicity data?

A. Yes. The work -- the group was comprised of a number of key members, both from Public Health Scotland and also representatives of various ethnic groups within Scotland. There were essentially two sub-groups. One group was looking at data, the other group was looking at systems and what could be done to try and assess any adverse impact that healthcare systems might have. A particular group looking at data raised the issue that

the collection of ethnicity has been for many years and was at that particular point a challenge both in terms of completeness and the quality of data, therefore being able to accurately describe the impact that Covid and other factors would have on ethnic groups was challenging. I think there were 16 recommendations that came out of that particular group, and currently my colleague Scott Heald is co-chairing a group which is looking at how we implement changes that will improve the quality of that data.

In the meantime, Public Health Scotland is using data linkage using somebody called SMR01 which is the routinely collected healthcare data which is reasonably complete as a consequence of action taken by the health service, and also vaccination data, because we moved over to a new system in Scotland whereby all vaccination data was collected on a new tool. And this provided an opportunity, given that most of the population in Scotland had been vaccinated, somewhere in the region of 90%, used this as an opportunity to make sure ethnicity was gathered and collected.

So we're using that data as an interim measure and linking that back to healthcare data, and that is being -- the plan will be that that is introduced to the various groups. People on the data plan were concerned

that there needs to be some explanation, because although a field is completed, people have the option to opt not to say what their ethnicity is, so therefore there was a concern that that field may bias any interpretations in any one particular group.

So that work is ongoing and there are long-term plans in a group led by Scottish Government looking at how we use something called CHI, which is the Community Healthcare Index, which is a unique system in Scotland, it's a 10-digit code which every person using the healthcare system has and that -- if we can modify that and include ethnicity data with that then that should provide a fairly comprehensive way of looking at ethnicity going forward which would allow us to look at things like access to healthcare, use of healthcare, etc, in a much wider and holistic way.

Q. The group you've just referred to, is that the same as the Racialised Inequalities in Health & Social Care in Scotland Steering Group --

A. Yes, I believe so.

Q. -- or is that different?

A. I believe so.

Q. It's the same. Can you help, please, with anything additional from the work of that group or recommendations which you think is relevant for

her Ladyship to know about in addition to those -- that work on data?

A. I think the other group which is looking more at the systems and what could be done to improve access or at least to understand what the access issues might be, I think there were something like 11 or 14 recommendations which ranged from improving education, providing people with appropriate training, dealing with unconscious bias, looking at how information may be conveyed, recognising both the cultural and language issues that may be at play.

So again, that group and the recommendations I believe that work is being taken forward but the data is primarily the concern of Public Health Scotland.

Q. How are any changes to the data being monitored for their effectiveness?

A. Well, we don't have the systems in place yet so it would be -- we will have to wait until that is introduced and one of the ways that we have been looking at the completeness of the data is comparing that to census data which is reasonably complete, well is the most complete and most accurate picture of ethnic information we have and so looking at completeness and coverage with that should give some assurance around the completeness of the data.

MS PRICE: My Lady, I've reached the end of a topic. Would it be a convenient time for the morning break?
LADY HALLETT: Of course. I shall return at 11.30.
(11.13 am)
(A short break)
(11.31 am)
LADY HALLETT: Ms Price.
MS PRICE: Dr Phin, I'd like to turn, please, to shielding and in particular evaluation of the shielding programme.
PHS was commissioned by the Scottish Government in 2020 to develop an evaluation framework for the shielding programme, is that right?
A. That's correct.
Q. Could we have on screen, please, paragraph 9.3.1 of the November statement. The aims of the evaluation are set out here. They were to evaluate the effectiveness of the shielding programme, inform the advice, information and support offered to individuals in the shielding group during the pandemic, inform the advice, information and support offered to people at risk more widely during the pandemic, identify lessons learnt for future pandemic planning, and identify lessons learnt for work with at-risk groups.
Outreach mechanisms are dealt with in the next two paragraphs and these included establishing a lived

experience panel to advise on the design and implementation of the evaluation. The panel had ten members including a black or ethnic minority individual with -- people with mobility and sensory impairments, three older people, and the carer of a disabled person. The panel also had a practitioner representation, a social worker supporting three shielding clients, including somebody with a history of criminal justice involvement and substance use, and an older person in sheltered housing. And it was said that this enabled the evaluation to capture the voice of individuals who would have struggled to engage directly with PHS including those from disadvantaged socioeconomic backgrounds.
Is it right that eight members of the panel attended a meeting online in July 2020 to help identify those evaluation questions that mattered most to individuals who were shielding, or caring for someone who was?
A. That's my understanding.
Q. There were three parts to the evaluation: an online survey that ran between 1 and 14 June 2020 with findings published in September 2020; a rapid evaluation undertaken between March and November 2020 using mixed methods including focus groups; and an online survey

which ran between 25 October 2021 and 7 November 2021.
In terms of the key findings of the evaluation, and focusing, please, on healthcare, dealing with the first stage and findings from the 2020 work, paragraph 9.3.11, please. The findings were these:
"The evaluation considered the issue of access to healthcare and related unmet support needs. Healthcare appointments being postponed, cancelled or not available featured more prominently as a concern than individuals being dissuaded from accessing healthcare because of the advice to shield. A July 2020 Scottish Government survey of individuals on the shielding list (included in the January 2021 PHS evaluation report) suggested that almost one in five respondents had had a healthcare appointment postponed or cancelled; 2% had decided against attending an appointment because of safety concerns. The PHS evaluation findings about the difficulties individuals experienced in accessing healthcare were highlighted the Scottish Government across the different PHS evaluation reports."
Can you help, please, with what action was taken by the Scottish Government in response to these healthcare access difficulties highlighted at all stages through this evaluation?
A. My understanding is that this information was made

available to health boards and it would be for individual health boards to look at the way they operated their services and how they could address some of the concerns that were being raised. I'm not aware of what action Scottish Government actually took. I simply understand that given the devolved responsibility of healthcare within Scotland to boards, that the operationalising that would be the individual boards' responsibilities.
Q. Looking, please, to paragraph 9.3.16. This deals with evaluation findings looking to the future:
"The PHS evaluation also found that the shielding guidance was neither necessary nor sufficient to change behaviour in all instances. The conclusion was that a repeat of shielding, in its initial form, was not recommended and that any future approaches would need to give greater consideration to personal choice, the multifaceted nature of risk, and hospital-onset infections. The evaluation thereby helped the Scottish Government to shape and evidence their support for people on the Highest Risk List. PHS was advised that Scottish Government colleagues used findings from the evaluation to input into cabinet papers around the removal of legislative COVID-19 restrictions."

Do you agree with the recommendation that future programmes should consider more fully the risk of hospital-onset infections?

A. Yes, I think this was rather a blunt instrument. It hadn't really been introduced, although notions of cocooning had been tried in other countries where you're trying to either ring-vaccinate vulnerable individuals in their household or looking at ways of trying to minimise spread. So this had not been done before and I think one of the key issues is that it was done, it has been reviewed and there are lessons identified in that that need to be taken account of in any future pandemics.

Q. Particularly focusing on the risk of hospital-onset infections, are you aware of any resultant review of safety measures in place in healthcare settings or consideration of changes which should be made to reduce the risk of nosocomial infections for the clinically vulnerable when accessing healthcare?

A. I'm not personally aware of this but, again, that is something I could look into and provide information to the Inquiry.

Q. More widely, can you help with how the findings of the evaluation were used by the Scottish Government to mitigate the impact of Covid-19 on the lives of the

clinically vulnerable?

A. We do not usually have access to cabinet papers, therefore I've not seen the content of the cabinet paper referred to. Therefore, it would be difficult for me to comment on how the findings were used.

Q. I'd like to move now to Long Covid, please. Could we have on screen, please, paragraph 2.4.9 of the November statement, page 19, and you say here:

"NSS has set up a long COVID programme and a governance structure to facilitate the work of a National Strategic Network on long COVID. The network supports NHS Boards and health and Social Care Partnerships to deliver services for people experiencing long COVID. PHS Chief Officer Manira Ahmad chairs the Strategic Oversight Board ... for the network. Reporting to the Cabinet Secretary for Health and Social Care via the Scottish Government Directorate for Healthcare Quality and Improvement, the SOB leads and directs the work of the network on behalf of the Scottish Government. As well as chairing the SOB, PHS provide public health expertise to the Steering Group that oversees the activities of the network's workstreams."

The National Strategic Network on Long Covid was only commissioned in March 2022, as the Inquiry

understands it, is that right?

A. I ...

Q. The Inquiry has received evidence that that is the date on which --

A. Yes, sorry.

Q. -- it was commissioned. If you have other evidence to suggest it wasn't, please do tell her Ladyship about it.

A. No, that's correct, I was confusing this. Sorry.

Q. The need for a clinical guideline for Long Covid has been recognised in Scotland since September 2020 and a clinical guideline was in place by December 2020. Can you help with why the NSN on Long Covid was not commissioned sooner?

A. I think one of the challenges in this area and -- while I think post-viral syndrome, of which Covid is one, has been recognised for many years, following infections like flu, Epstein-Barr virus and a variety of other viral infections, and I think what it's done is highlighted the frequency of which post-viral syndrome occurs and to some extent the lack of support and infrastructure that exists.

Part of the problem, I think, with Long Covid is that there's no clear definition of Long Covid. There are no clear biomarkers, there are no understanding of the pathology or how it's caused, which makes coming up

with clinical guidance on how to manage it challenging, and the guidance you are referring to was actually a joint guidance by NICE and by SIGN which is the Scottish Intercollegiate Network which comes together.

I can't comment on, you know, the gap between that report being produced and the network being established. I do know that £10 million was made available to boards and other organisations to apply to this board. There have been challenges because this was a three-year project and obviously employing people on a fixed-term contract, recruitment is challenging and I know that that has been extended for another year to try and take account of that. But as to why no action was taken at the end of 2020 until 2022, I'm afraid I can't comment.

Q. The statement refers in the paragraph above to a commitment made to September 2021 to establishing an expert group to identify the capacity needs of NHS boards and staff in delivering safe and effective and person-centred support for people living with Long Covid. Why was such a group considered necessary?

A. I think it goes back to the point I was just making that this was something that I think was somewhat of a surprise but on reflection given that flu is also recognised to be associated with post-viral syndrome then it is probably something that should have been

anticipated. The challenge here is understanding the actual physiological and biological mechanisms, so knowing what would make a difference, what could be done to try and minimise it.

What we do know is that vaccination has a positive impact on the development of Long Covid, something like only 8 to 12% of people that were vaccinated who were hospitalised actually ended up with Long Covid. And this compares with 50 to 80% of people that were unvaccinated and hospitalised with Covid.

So vaccination is a positive intervention that can be offered.

With respect to what other treatments could be offered is mainly psychological support is seen as a key issue because fatigue, this sort of brain fog which is a common description of how people feel when they get Long Covid, or even Covid, so psychological support was a feature.

And some form of physiotherapy to try and rehabilitate people. So I think the absence of an understanding of what caused it made -- well, presented challenges in coming up with or developing services to be able to respond to people who suffered from this.

Q. This refers to the point of the expert group being to

assess or identify capacity needs. Is that the type of capacity you're referring to, understanding what service to provide as opposed to how to use resources to provide it?

A. My understanding is that this was about the services to provide rather than the capacity --

Q. I see.

A. -- to provide those services -- that would be a separate issue, or a separate argument -- I think established what could offer support and benefit.

Q. There is a reference here to PHS and NSS working together, are working together, to deliver on this commitment. Has the expert group been set up?

A. I'm afraid I'm going to have to come back to you on that. I can't recall. But I will come back and provide that information.

Q. Turning finally, please, to the specific lessons learned issues raised in the November 2023 statement. Could we have on screen, please, paragraph 13.4.2. This is under the heading of "Essential services":

"It is important that in planning for healthcare system resilience that decision-makers have an explicit and shared understanding of what constitutes an essential service, that this includes ongoing surveillance of inequalities in wider health

outcomes and determinants of outcomes including accessibility and quality of healthcare provision."

Can you help please what about the healthcare response to Covid-19 in Scotland prompts PHS to stress the importance of this?

A. This review of the lessons learned relates to the national incident management arrangements which was convened under the auspices of the health protection guidance around the management of incidents. So, this is looking at -- this report was looking at how that functioned, what could have been done better, and by inference what the obstacles were to actually making this happen. My feeling is that this is implying that there were underlying resilience issues. We tend to operate healthcare services at 85-90% capacity which actually leaves little room for expansion to deal with critical incidents. And that's good if you're actually running a system where you're trying to maximise your efficiency and effectiveness. What it doesn't help with is where you're suddenly having to respond to an incident.

And I illustrated in the information around the SICSAG intensive care report that required a rapid expansion of intensive care facilities, but the one thing that hampered the actual provision was actually

having the staff necessary to be able to make it function.

It's one thing to have a bed, but if you don't have the staff able to operate it and to look after the patient, then that's a problem.

So that's one inference. The second one really is highlighting the need for the prompt reporting of data, SMR01, which is one of the main sources of data that we tend to use, can take several weeks to come through once it's been recorded and checked. So looking at how we can improve the speed with which SMR01 which describes, you know, a patient's condition, where they were admitted to, the treatment they received, would be one way of trying to improve the resilience and improve that understanding.

And finally, again, this ongoing issue around data requirements, having things like ethnicity better collected, better completed, and other issues around the link to deprivation, would have enabled us to identify problems should they have occurred at an early point in time.

Q. The two other points that are made beneath on behalf of Public Health Scotland relate to data infrastructure. We've dealt in some detail with data issues and whole system working, and the importance of that.

Dr Phin, are there any other lessons that PHS or you personally have taken from the pandemic which are relevant to the healthcare response which you'd like to share with her Ladyship?

A. In terms of the healthcare response, one of the issues that I was struck when I moved from England to Scotland is the difference in the way that the NHS is delivered operationally. In England we had NHS England which was a separate management structure to the trust, and really took an overview, an oversight of -- and reached very rapidly a consensus on what should be in place to deliver the response to an incident. Things like HCID, high consequence infectious diseases, that is managed by NHS England.

There is no similar body in Scotland. You have to go to, I think it's 22 boards: 14 national boards -- sorry, 8 national boards and 14 local boards to reach a consensus and agreement before you can get something fully implemented.

And while this can be really helpful when you're allowing autonomy to deal with issues locally, trying to present a national picture of which prevents inequalities happening inadvertently is really, really important, both in terms of delivering consistent care, and responding to a level of -- providing a level of

care consistent with the need across Scotland.

So one of the issues that were around healthcare would be to look at how we better co-ordinate an NHS response in that situation.

MS PRICE: My Lady, those are all the questions I have.

LADY HALLETT: Thank you, Ms Price.

Ms Mitchell, do you have any questions?

Questions from MS MITCHELL KC

MS MITCHELL: The questions that I was going to ask this witness, I don't think he will be able to answer because of when he arrived at Public Health Scotland. I do, however, have one question in relation to a matter that arose this morning in terms of resilience and staffing, if I might be able to ask that.

LADY HALLETT: I was alerted to that fact. Yes, you may, Ms Mitchell.

MS MITCHELL: I'm obliged, thank you.

Dr Phin -- sorry, Professor Phin, we heard earlier this morning when you were asked about Public Health Scotland taking over from its predecessor, and whether or not there was any challenges on the impact of the ability of Public Health Scotland to contribute to the healthcare response to the pandemic. And your response to that was one of the things that the creation of Public Health Scotland did was actually create greater

resilience in the system.

So as an organisation with a much larger staffing numbers, we were able to draw on staff from different areas to bolster up to support the efforts. I would say that actually, the creation of Public Health Scotland enabled greater resilience and in fact helped the response.

Now, you gave evidence also in January of this year to the Inquiry at Module 2A, yes? Yes?

A. Yes, sorry.

Q. And in that, you were asked by counsel to the Inquiry at the time about the creation of Public Health Scotland and the issues that that caused. And counsel to the Inquiry Mr Dawson said:

"Professor Phin, we were asking you about this administrative change and in particular in light of the evidence that Dr McMenamin has already given about the earlier period before April and the extent to which the pressures had driven Health Protection Scotland service to near breaking point have on the effectiveness of the response."

And your answer was:

"Answer: Yes, I think people maintained a very professional approach to the separation. They tried not to let it get in the way of any sort of

barriers to useful working. However, what effectively happened was that Health Protection Scotland lost a third of its workforce in -- when we became Public Health Scotland and over the period of the pandemic we found ourselves going after the same group of staff. So we were advertising to fill posts and indeed there was movement from ARHAI, as we describe ARHAI, to Public Health Scotland and from Public Health Scotland to ARHAI which I don't think was helpful."

Now, I'm wondering if you can help us with this. If Health Protection Scotland lost a third of its workforce when it became Public Health Scotland and over the course of the pandemic found itself going after the same group of staff as ARHAI, how did this enable greater resilience?

A. The greater resilience I was referring to was that within Public Health Scotland we had a number of healthcare scientists that were involved in looking at things like some of the aspects of health improvement and you will see from some of the evidence that we presented that not only were we trying to simply respond to the incident as it was happening, we were trying to undertake work around the evaluation of how things like shielding, how ethnic differences may have impacted on the health of the people in Scotland.

So the greater resilience is that this gave us greater capacity to consider some of those wider issues.

I also said earlier today that although we lost a third of our staff to ARHAI, this was in effect an administrative change and one of the things that we did, and we did very well, was work with colleagues over which -- with whom long-standing relations had been built up to try and mitigate some of those challenges facing us at that time.

We also did receive additional funding and that was to recruit additional staff, scientific staff. It wasn't without its challenges but that greater capacity within Public Health Scotland, both in terms of servicing meetings, carrying out health improvement, carrying out some of the surveys that we needed to support that work was actually extremely valuable, and had we not had Health Scotland as part of our organisation, I think it would have been much more challenging to do.

MS MITCHELL: My Lady, I would like follow-up questions but I understand we are on a tight time schedule.

LADY HALLETT: We are today, I'm really sorry.

MS MITCHELL: No, I'm obliged my Lady.

LADY HALLETT: Thank you very much indeed.

I think that completes the questions for you,

Dr Phin. Thank you very much indeed for your help, for the second time. I don't think we'll be having to call on you again but thank you anyway for the help you have given to date.

(The witness withdrew)

MS CAREY: My Lady, may I call, please, Professor Dame Jenny Harries.

PROFESSOR DAME JENNIFER MARGARET HARRIES (sworn)

LADY HALLETT: I hope we haven't kept you waiting for too long. I understand that sadly you have a funeral you wish to attend tomorrow. I guarantee we will finish your evidence this afternoon.

THE WITNESS: Thank you.

Questions from LEAD COUNSEL TO THE INQUIRY for MODULE 3

MS CAREY: Professor, your full name, please.

A. Jennifer Margaret Harries.

Q. Professor, I mean no disrespect if I don't call you Professor Dame Jenny Harries every time I address you.

You were the -- you are former Deputy Chief Medical Officer. You are now the Chief Executive of the UK Health Security Agency who we've been naming UKHSA, just for convenience, and I think you have made two statements in Module 3, the first one ending 410865, dated 31 January this year, and a second statement on 27 June 2024, INQ000489907.

I'm going to try not to flip too much between them both but forgive me if occasionally we have to.

By way of background, is this correct, you are a doctor with specialist training in public health medicine and have a number of other qualifications in public health?

A. Yes.

Q. I think you in fact undertook your clinical doctor specialist training in Wales?

A. I did.

Q. And prior to your roles with Public Health England, as it then was, you worked as a director for public health in Norfolk and Waveney, in Swindon, and Monmouthshire. Indeed, you were chief officer of two former local authorities and in your national work you've contributed to various significant health protection incidents, including the Novichok poisonings, the first cases of Monkeypox in 2018, Zika virus, and supported a number of other global crises in your role.

A. That's correct.

Q. You were appointed, I think, the Deputy Chief Medical Officer for England between July 2019 and 1 April 2021 and in April 2021 were appointed the CEO of UKHSA although I think we've heard that UKHSA didn't become operational until the beginning of October.

A. That's correct.

Q. And is this right, that throughout the relevant period that we are dealing with, you did not work on the frontline during the pandemic but were clearly heavily involved in your role as DCMO and then CEO?

A. That's correct.

Q. Can I start with the topic of shielding, please, and you primarily deal with this, Professor, in your statement ending 410865, the January 2024 statement, and if it helps you we have heard from a number of witnesses, including Professor Whitty, the Clinically Vulnerable Families Core Participant Group, Professor Snook, so we're familiar with the creation of the shielding programme and indeed the two lists, the clinically extremely vulnerable and the clinically vulnerable.

Can I just take a step back and ask you, please, what was the aim of the shielding programme when it was first established?

A. So the aim when the shielding programme was established was a very simple one which was to support those people who could predictably be at highest risk of a new pathogen to keep as safe as possible, ie its primary aim was to prevent mortality.

Q. It may be that some people are confused and think it was to prevent transmission, prevent nosocomial transmission

but it was essentially, if I understand your evidence, protective of those vulnerable groups?
A. It was voluntary and protective in the way the programme was organised. I think the confusion, if you'd like me just to explain, potentially was right at the start of the pandemic when epidemiology was being considered and various options modelled, different portions of the population, if you like, were considered and how that impacted or potentially impacted on the transmission of the virus and I think as we went through we may see this later there may have been some confusion about some early thinking about control of the virus, as opposed to the actual programme which, as I say, was protective and entirely voluntary.
Q. It was essentially about 17 million people who were deemed to be clinically vulnerable, is that right?
A. Yes.
Q. And although the numbers for clinically extremely vulnerable, it was initially thought to be about 1.2 million people and we know that once QCovid analysis had been undertaken those on the shielding patient list rose to about 3.8 million or there or thereabouts?
A. That's right.
Q. So a significant proportion of the UK's population were either CV or CEV?

A. Yes.
Q. Now, the structure of the programme, if I may say was not the most straightforward but you have set out in your statement and could we have up on screen, please, INQ000410865, page 11, a helpful table setting out who was generally responsible for which aspects of the programme. We can see that the Ministry of Housing, Communities and Local Government, as it was then called, had overall responsibility. OCMO, of which you were then a part at the beginning, led on the development of the criteria. And if we go over the page, we can see DHSC's responsibilities set out. NHS Digital, as it then was, were drawing on the data. And NHS England and Improvement developed the first letters.

And if we just scroll down we come to PHE and UKHSA. PHE contributed to early clinical discussions led by the CMO, and then in due course you became -- is that the senior responsible officer, the SRO?
A. Yes, I think it was actually senior reporting officer --
Q. Thank you.
A. -- but for a different programme, and there was obviously a gap between when I left my D CMO post at the end of March 2021 and when the EPP, the Enhanced Protection Programme was established in '22.
Q. I'm going to come on to the Enhanced Protection

Programme in a moment, but that just sets out the number of bodies involved. Can I just ask you to stand back; do you think it was helpful to have that many bodies involved in such a significant programme, as the shielding programme became?
A. So I think it's difficult but it was inevitable. I'm sure we'll go on to understand why, but I would just like to point out that there was an overarching government department, and it was MHCL till it became DELUC, so it was very clear where that overall responsibility was. The part that I played, and I'm sure we will come into this, was around the clinical elements of understanding who might be at greatest risk at the start of the pandemic.
Q. Now, I think the shielding policy you say in your statement at paragraph 38 was announced on 16 March 2020, so the week before we went into lockdown?
A. Yes.
Q. And why was the programme brought into being before there was the decision taken to go into lockdown?
A. So I think if we look back to Module 2 there was quite a lot of discussion about the need to move very rapidly at that point, so the original SAGE modelling of how the pandemic was likely to pan out, and the identified peak of a 12-week period when we were expecting to advise

those who were most at risk to keep out of circulation actually much of that got pulled forward, and so the advice, broadly, to the population, as well as the clinically vulnerable and clinically extremely vulnerable, became slightly condensed. That was inevitable because of the detection of more transmission in the country than was envisaged at the time.
Q. So if I understand you, there was always the plan to try and protect the vulnerable groups --
A. Absolutely.
Q. -- but as a quirk, I'm afraid, of the high number of deaths and what we were seeing in Europe, the lockdown was brought forward, which was -- tended to perhaps merge the two in some people's minds?
A. Yes.
Q. I understand. All right.

You do say, though, in your statement, that it was -- looking at your paragraph 44, Professor:

"It was recognised at the start that whilst the majority of individuals could be identified relatively quickly, for others there would be a time lag ..."

And can you help, did you know, at the beginning, what that time lag would be?
A. No. We'll probably go on to the detail of this, but this had never been attempted in any country before.

The only reason, really, we can attempt it I think in this country is because of our national health system and some of our connections across that. And so we knew -- what we wanted to do was identify those people who we thought clinically plausibly were most at risk, and reach them as quickly as possible. And some of those, we knew we could reach very quickly through digital means, others we knew we would not be able to but we weren't able to predict exactly how long that would take at the start.

Q. Can you help as to --

LADY HALLETT: Sorry to interrupt, talking about quickly, if you could slow down a bit --

A. Oh, sorry.

LADY HALLETT: -- or I think I might find -- face screams from the stenographer.

A. Apologies. Thank you.

MS CAREY: Those that you could identify quickly, can you help with what groups or type of vulnerability they had? How were you able to pick out one group more quickly than the others?

A. The programme overall was -- if we use the word "digital cohorting", so what we were trying to do was electronically identify people, so effectively those where records were good and coding was consistent, were

the individuals we were most likely to find systematically so, for example, somebody who had been -- being treated for cancer, I think we've spoken about the groups before, over a long time period, you would be able to identify.

But if we then took somebody who perhaps had only just been identified, they would not necessarily be flagged in their GP records. So it was seven different databases connected eventually, but we would not necessarily be able to pick them up. And particularly important was the fact that for example, some treatments, immunosuppressive treatments, were being prescribed in secondary care, and those would not necessarily be on a GP list.

Q. A number of points arise from that, if I may.

We also know that there was, in due course, the ability for general practitioners to identify their own patients that they felt should be shielding. But help us, please, a number of different databases clearly caused a degree of difficulty in merging them.

What happens in the event of a future pandemic we're trying to speed up, if one needs to identify a CEV cohort or a VC cohort?

A. So I think this is a really important opportunity for the UK particularly, because of our national data

systems, to be able to alert individuals and provide advice to them very early in the event of a pandemic or serious pathogen.

One of the problems here is coding, so if we don't have the information to start with, I'm sure we will come on to talk about inequalities so we need to be clear for example around ethnicity, which is not systematically recorded. We also need to be very clear about medicines and treatments that people are having right across the system. So all of these databases need to be able to speak to each other and be as available as possible.

One of the things we found was initially, and this is has already moved on, that we would have to update the database, and that was quite a task, so it would update weekly. It wasn't instantly available. So -- and different systems would update at different times.

Q. Can you help us, Professor, who is responsible for sorting out the coding difficulties? Is that NHS England, DHSC?

A. Well, complex topic. Please stop me if I say too much, but initially, all clinical professionals have responsibility for ensuring appropriate coding on the frontline. Sometimes that's difficult because people are very busy, but it is really important because for

exactly the reasons we're seeing here, if we want to be able to support individuals, we need to know what the intervention they had was or what their illness is. So somebody has to put the coding in, it has to be accurate, and it has to be consistent and updated.

But then the actual collation of that responsibility flows through a number of different systems. You will have seen, on the responsibilities chart, NHS Digital at the time was the organisation who was, I might say, brilliant in the work that they did on this, and really stepped up to support collation of these datasets.

Q. And who's responsible now for data?

A. So I think that would be will be NHSE.

Q. Do you know, and we will be hearing from NHSE witnesses tomorrow and indeed into next week, but do you know, Professor, yourself, how long it would take a frontline professional to enter in coding, age ethnicity, diagnosis, treatment? I'm just trying to think about practically what are we asking our frontline professionals to do here?

A. So it won't always be "the" individual at the frontline, they will vary with different parts of system, primary care or secondary care, for example if somebody has surgical intervention, they have an operation, that

should be coded both by the surgeon but actually there should be a check in the administrative system of the hospital. So it varies.

And, of course, basic information should be at this time sitting on a patient's record, full stop, and should obviously be updated and checked regularly but won't change significantly.

I think the important point is these different parts, the entries are in different places and they're not automatically linked. The opportunity, going forward, of course, is for electronic patient records and appropriate connectivity, but with that comes, obviously, sensitivities around responsibilities and sharing.

Q. And do you know, is there any difficulty with getting data from patients that live in Wales, Scotland and Northern Ireland? Is it easier, harder?

A. So each country is responsible for its own data systems, and they speak differently. Wales, for example, has very good, you may have seen in my report, sale data where it can do a lot of very good connections between social care, local authority data and health data. But it does vary, and we were reliant -- you will see, with the shielding programme, that whilst there was clinical agreement, actually the implementation of that across

the different systems necessarily lay with the different countries.

Q. Can I ask you this. We often hear that work is being done, good idea, we're moving it forward, but if we were to hit a pandemic next Monday, heaven forbid, how confident are you that these data coding issues would actually be, if not resolved, better than they were when we were here in March 2020?

A. I'm confident they have improved. There was a lot of learning through the pandemic, so the data foundry in the NHS has improved significantly, I think, but nevertheless we would hit many of the problems that we had before and I think those are the opportunities for the future.

Q. Does it require legislation?

A. Well, I think it's not simply legislation actually we need patients to understand similar conversations as to deal with research trials, to understand why it's beneficial to share data, and to give assurance, I think, that that data is carefully used.

Q. Can I just go back to where we started a moment ago and the time lag between some people being identified as CEV. You weren't able to sort of pin down a time frame for reasons that you've explained but what about the rest of those people who were at the end of the

receiving of the letters? Was there any support or information provided to them at the beginning even though the letter hadn't actually landed on their doormat?

A. I think if I start with the people at the end. Those -- by the time we got to that -- QCovid is separate.

Q. Yes, it is.

A. But for those people, if you like, at the end of the first phase, I mean, we could have waited and sent out all of those letters all at one time when we got them but clearly that feels ethically inappropriate, you want to reach anybody who you would like to give advice to as quickly as possible.

I think the reasons which I've outlined about data are important and it is also really important that it wasn't just GPs, actually, it was secondary care professionals as well were able to add individuals. So in that time frame we were either directly, through linkage with some of the representative societies or through NHS England, linking with clinicians, specialists who would also then advise their patients. So there was activity going on during that time.

Q. I understand that but what I was trying to understand is if you know you have had an organ transplant, for example, and therefore are likely to be deemed CEV but

don't actually get the letter, what was done, if anything, to try and support those people whilst they were waiting for the formal notification? Was there anything put up on websites, or any messaging gone out to reassure them pending that letter being received?

A. So DHSC had the overall responsibility for communicating -- for the policy side of it. I mean, obviously it's a clinical topic and I personally and many of my colleagues would support that but the linkage out to patients also went through the NHS, so you may hear when we discuss perhaps some of the clinical reviews we were liaising all the time with specialist clinicians.

I think, importantly, we talk about the shielded cohort but this is not -- these are very, very different people with very different illnesses and diseases and what we're trying to do was work with the specialists in those topics who could then link with their patients.

Q. So one-size-fits-all would not work?

A. It doesn't and, actually, you can have, for example, a very -- a young person of working age with a specific immunocompromised condition. These are not, as I think are sometimes considered, all very elderly individuals for example, they have very, very different diseases, backgrounds and contexts and they changed as the pandemic went through.

Q. I think having started the programme, in your statement you make reference to the future of the shielding programme -- at your paragraph 49 -- and possible growth of the group asked to shield and you were asked to provide some advice to the Department of Health in that regard and I'd like to ask you about the advice you gave which I think is probably set out in part in an email.

INQ000151804_2, please, page 2.

We are in late April of 2020. And there is quite a long email, which I won't go through, that starts on page 3 but there was a request of you and others as, I think the department and the ministers were thinking about considering changing shielding as they were thinking about reviewing social distancing. So that's the sort of context in which the email arises.

And then you were asked to provide your comments on shielding and if we look at page 2, can you see there the sentence beginning "Cabinet Office":

"Cabinet Office have asked us to flesh out some next stage options on shielding in more detail and asked us to consider ... extending [it] ... relaxing [it] in some way ... further segmenting shielding cohort ... and [indeed] applying shielding guidance to households rather than individuals."

A number of different options at all ends of the

extreme, if I can put it like that.

So that was up for discussion and I think if we turn to page 1, we have set out there an email from you where you say:

"I feel quite uncomfortable with the elaboration in the document which seems to miss some of the very high level key points ..."

Then you set them out.

But are you able, Professor, just to help us. What was making you uncomfortable about the options that were being considered at the end of April 2020?

A. So I think what you see in this email exchange is a continuous push and pull, if you like. So I was very clear what my role was, it was to protect a group of individuals with a heightened clinical risk as we understood it at the time in what was definitely a voluntary system and to support them. I think unfortunately, and I refer back to some of the comments that I made at the start around the SAGE modelling which was entirely appropriate but perhaps what different parts of the system took from that was that every time there was a conversation about changing the social distancing rules it was quite a what I would call a tactical technical conversation and perhaps didn't recognise some of the points I've made earlier that this

is a very heterogeneous group, that often people would be feeling very frightened, that you couldn't just put a date on a chart and say this was how we were going to change it.

So again, you can see in line two there, "The ability for people in this group to choose not to wish to shield is still missing in several places" and this was a recurrent problem which was this was voluntary, it was there to support people who wished to shield, but it often came across in some of the media or the commentary as people being required to do things.

Q. We won't go and look at a shielding letter through you but I have to say it doesn't strike you as immediately obvious that this is a voluntary option for those that were required to shield. Can I just ask you about that messaging. If there were to be a shielding programme in future would you recommend changes to the letter -- I know it wasn't your responsibility, but the letter that went out, highlighting the voluntary nature, if indeed it is voluntary in any future programme?

A. So I did input to the letters and I would add that for colleagues who were drafting them sometimes it could be more difficult than it might appear. So for example, to ensure support for Statutory Sick Pay which is something which was -- I very much supported, there had to be

quite technical wording in places which wouldn't feel immediately personable to individuals who were perhaps frightened with an illness in the pandemic.

But I do think -- I wouldn't say the letter was necessarily the thing that was the problem, I'd perhaps draw two examples. One is every time there was an announcement going out at ministerial level, although as I think Professor Whitty said, we were told when we were on the No. 10 podium or not, I would actually actively try to get on the podium and that was to ensure that when a message was going out the voluntary nature of that was very much put forward.

A second example might be I probably got better at doing this myself as we got further into the pandemic and if there was an announcement I, on a couple of occasions, did what we would call an off-camera but on-record media group conversations to explain to the media what we were doing, and why. And on one of those I distinctly remember saying: this is what I expect your headline to be. Please do not write it because there are frightened people out in the public.

And so there was always a tension between getting the communications of this right.

Q. Can I just ask you this. Do you know or do you know if any work has been done to ascertain how many people that

were deemed to be CEV volunteered to shield and those that decided not to?

A. So much of the information which you may cover is quite confused in terms of feedback because it does -- as you say, not everybody who was asked -- often the data includes people who were asked to shield and people who shielded themselves. So it's very difficult to disentangle.

Q. So, in short, we don't know --

A. There were attempts, and actually ONS and I think DHSC did write out that obviously the response rates from something like that will not necessarily uncover the true numbers.

Q. May I ask you about one of the options that was being posited on page 2 of this email which was applying shielding guidance to households rather than individuals, and her Ladyship heard some evidence from Dr Cathy Finnis who spoke about the difficulty experienced where one person was shielding but the rest of the house was going about their daily business. What thought was given to try and apply the shielding guidance to households rather than individuals?

A. So I think there was strong recognition of this issue. We know in the first wave I think we had around 0.6 million individuals who lived on their own and about

1.2 in the first sort of few months who were living with somebody else, sometimes that of course was somebody else shielding, so they were shielding together, if that's not an oxymoron.

But it was actually practically very difficult. SAGE I think did some modelling on this early on and it was one of the reasons they didn't go to the cocooning route because once you start moving out to who needed support, it became very, very difficult to identify a household and/or a confined group and it was recognised right from the start that these were supportive interventions, they were never going to be perfect interventions.

Q. I think in due course there was an email that you were copied on.

Can we have a look, please, at INQ000152001.

We are now in May of 2020 and there was, I think, reference to bubbling and potentially getting various households together and I think you had some concerns about that and it -- it just follows on from your last answer really, but what was your concern about changing the rules for the clinically extremely vulnerable to potentially allow them to bubble with either their own household -- well, obviously with their own household but with another household?

A. Yes, although I would just flag "allow", it was exactly the same point, people were allowed to do anything, this was the issue about what we were advising and this is part of the problem with the communication.

I think in this email what you can see, you can see it's a risk balancing proposal already because there isn't a perfect answer to this. My concern was that whilst bubbles were being promoted, this is the push/pull, very strongly, and there were lots of positive reasons for all sorts of people, single parents, elderly, people who were suffering with mental health conditions and needed support, there were also risks. And I think this email came before an appropriate communication and one of the problems at this stage was that bubbling was being created or thought about but with no limits.

So, for example, as it was drafted it would say you can bubble with one household, it didn't say you can't then swap your bubble. And so this is broadly trying to say: this is a great thing and we recognise, you know, being tucked away brings significant morbidity in itself but please be very careful about how this is articulated and thought through, so get the benefit but balance it with the risk as well.

Q. If we move on slightly from May 2020, I think shielding

was paused certainly in England in August of 2020 and I think you were involved in some work in the run-up to that and in particular some work that you were doing around -- in relation to occupational risk?

A. Yes.

Q. And I'd like to ask you, please, about a paper and a roundtable you were involved in at INQ000421846, please.

Now, here we are in July and I think it was August that shielding was paused, so not long before. You were involved in clinically vulnerable groups, workplace and Covid-19 risk clinical principles, informed by DCMO roundtables. Can you just tell us, Professor, what did you actually do in the run-up to the pausing?

A. So I think what -- obviously you can see here it was running up to a time of people getting back into society, to opening up workplaces and also considerations of school opening in a number of different areas and there was, quite rightly, consideration of about how best to protect people. It also came on the back of things like the report from PHE on the impacts of Covid-19 on ethnic minorities and so there was quite a lot of discussion about how this risk and risk management was articulated in the workplace and so what this roundtable did, and you'll find that I'm

often called in to do roundtables between quite difficult or disparate factions to try and get some sort of consensus and shared understanding.

This one included representation from NHS who obviously had applied a specific risk assessment model from the Faculty of Occupational Medicine, from Health and Safety Executive, and a number of others around to try and pull all of that thinking together as we went into opposing -- or pausing the shielding programme.

Q. I'd like to ask you about the risks to healthcare workers to prevent them from coming to harm in healthcare settings. And I think, taking your point as this is applying to a broader group than necessarily healthcare workers but included them. Can I just obviously you set out there at the beginning the responsibility to protect all workers from harm by carrying out a workplace risk management and providing a Covid-secure workplace. And was it envisaged there would be different types of risk assessments depending on the setting that was being spoken about?

A. So one of the reasons for doing this workshop was to, if you like, reinforce the hierarchies of control which are relevant both to, I think you would have heard about them during infection prevention and control but they are also highly relevant to risk management of any sort

in the workplace and that sentence itself, it says, by carrying out workplace risk management of which risk assessment is a part, and I think what had happened was the NHS were one organisation had gone straight into individual risk assessment of particular individuals and the whole thing needed contextualising and managing workplaces safely.

Q. That's something I wanted to ask you about. Can we highlight paragraph (f), because I wasn't clear here, Professor, what you were trying to get at. You make the point clearly:

"It is important to be clear about terminology: workplace risk assessment, risk management, clinical risk assessment and culturally competent conversations mean different things and should be used consistently. There is currently a focus on 'individual risk assessment' (eg in the NHS) and the purpose and scope of this should be re-evaluated (is it more proportionate and appropriate to ask for COVID conversations in clinical workplaces)."

I would break that down. I want to understand, what was your concern with there being individual risk assessments given, that people may have very different advice risks on morbidity, ethnicity, the role they were performing? I wondered if that was perhaps going too

far the other way.

A. So this wasn't just me, obviously. These are comments coming from a consensus statement from a number of different representations around the room, and it might be easier to work backward because that very last point, "appropriate to ask for conversations in clinical workplaces", was actually the key finding from the qualitative outcome from the PHE health inequalities report.

And I spoke to Kevin Fenton myself quite a lot on this because there was a difficulty here, I think, if we take the NHS workplace, my own concern and it was shared with others, was that if you like I'm going to call it a knee jerk response but it was felt there was an anxiety, quite rightly, we were looking at data, people rushed to an individual risk assessment without assessing the full workplace and actually the qualitative work that came through was that the biggest difference in the ethnic and some other group within the NHS was that they didn't feel able to have the conversation or they weren't enabled to have a conversation. When the conversation happened people were reassured about the, if you like, PPE or whatever else it was in place, but the conversation needed to start with all of the different measures in the

workplace that had been put in place to make the workplace safe.

And so what this was trying to do was say everybody needs a risk assessment you start with the workplace first and try and remove the risk and you work through the hierarchies of control, and then back to -- I know some of the comments that others have made, which is the actual PPE bit is the very last point on this, and we need to risk assess every individual, because it's the -- and actually one of the other comments here was not just the individual in the workplace, but those conversations enabled the environment of the individual to be assessed as well. So, for example, when we had lots of peaks in -- I think it was in Swindon, for example, in one particular workplace, actually the risk turned out to be people travelling in cars together to work. And so it's exactly why these conversations and the broader thinking was really important for understanding workplace risk.

Q. And you would say that would still apply even in a healthcare setting, there needs to be that broad a context?

A. Yes, because I will probably misquote the numbers now so I won't but, I mean, the risk for healthcare workers was higher in community, I think, than it was from in the

workplace, I think, itself. High risk of infection. But I mean, these are just normal parts of living. This isn't a worker issue, it's just actually thinking through where the risk of infectious disease might happen, and managing it in all settings.

Q. And so what was the outcome if I can put it like that of this round tail which I think was about a week or so before shielding was paused, what was the upshot as far as healthcare workers were concerned and the risk to them?

A. Well, this wasn't purely for healthcare workers --

Q. No.

A. -- as I say, this was primarily to consider the clinically vulnerable groups in whatever setting they were in, so this just wasn't just focused on healthcare. It gave -- this was a statement, really, which looked at all those risks and said, "How can we support return to work of clinically vulnerable groups, ensure that they are supported?" And this was fed back as well to BEIS -- all the department names have changed now but that was the Business --

Q. Business, Energy, Industry --

A. Thank you --

Q. -- something like that.

A. -- and obviously the NHS were present as well. So it

informed the thinking then of the subsequent cross-government guidance, I think, that came out as shielding was paused.

Q. Can I just ask you more generally about occupational health risk assessments. Were studies such as SIREN helpful in informing occupational health risk assessments are not?

A. So I think we need to distinguish between the workplace risk management, the cohort of staff, and then individual risk assessments. The SIREN study has been hugely instrumental so it started off looking effectively to see how many healthcare workers had been infected, but it's been used consistently then to track through the effectiveness of vaccination, how to best set testing regimes, for example, to ensure both its staff and patients are maximally safe, what that time should be, and it's still going. And I think you may have seen that that study is also being used now to assess some of the specific IPC questions as well.

Q. And is a study such as SIREN, I think, available to be reused again in the event of a future pandemic to help look at whether there is a risk to a particular group of healthcare workers or there's a particular nosocomial outbreak?

A. Yeah, the SIREN study was set up, actually, as one of

the rapid public health studies, so there are health protection research units across the country, UK Health Security Agency has what we call twin hatters working in and out of research as well, there is the NIHR, National International Health Research, new framework responding to pandemics, whether it be to do with this practical implementation, or whether it be to do with things like developing new vaccines or treatment.

So I think that has moved on a lot, and that particular study was given rapid funding and is continuing to be funded.

Q. I paused to look at occupational risk, but clearly some healthcare workers would have been deemed either CV or CEV and therefore at particular risk if they couldn't work from home, and that was really why I was trying to broaden the questions into the risk to healthcare workers.

Can I just ask you this, though: clearly, there was the pause of the shielding in August 2020, and then by the autumn of that year the prospect of another lockdown loomed and loomed large as we neared Christmas. What advice, if any, did you give to ministers DHSC about the prospect of a new national lockdown? If it helps you, Professor, I'm at your paragraph 55.

A. Thank you. I seem to remember.

Q. We can put it up on the screen, actually, it's INQ000410865_20.

A. Perhaps if I talk through while that's coming up and I'll hopefully check if it's what I think it is. I think at the time we were in the summer period. We knew, or we were pretty confident there would be further waves, obviously we're now used to that, but at the time it was difficult to know when they might come. There was a higher chance of any wave impacting more badly during the winter when people tend to stay indoors and accumulate closely together, and apart from a few areas it felt that that was the right time to give a signal or to encourage people to be out more. It was both a climatic -- I mean, Covid hasn't settled into a particularly seasonal pattern, but the risks are different during the winter months, and there was a particular concern as well that for individuals, when they started, the initial period was advised to be a minimum of 12 weeks, and the concern was actually if we needed to advise people to shield again during the winter in those coming months, it would be very difficult for people, both mentally and physically, to be right out of the system for a whole year.

Q. Does that feed into your first bullet point there shown on screen, is that on 31 October 2020 you advised DHSC:

"We should not return people to fully restrictive shielding ie never leaving the house, given the known negative mental health impact, particularly given the extended periods of relative isolation we have reached through the pandemic to date."

A. Exactly, and it's not that the mental health impact to some extent was recognised, these are balanced risks, and there wasn't an easy answer one way or the other but the longer it went on then clearly many of those risks would accumulate and if people had a break from them it was an opportunity for a reset moment and obviously no period is entirely safe, no individual was entirely safe but this was probably the safest time.

Q. May I deal with two short topics before perhaps we take our lunch break. I'd like to ask you very briefly about QCovid.

Now, Professor Whitty, I think told us that the big delay in QCovid was pulling the data from the multiple sources together. Is that feedback to the seven databases that we were talking about a moment ago?

A. Yes.

Q. If there was another pandemic today, how soon would UKHSA, and indeed the others involved in QCovid, be able to roll out a similar tool if it was thought necessary?

A. We may have seen from the records we did try to retain

a model for doing that more quickly. Obviously there are competing demands across the system and that was not funded on an ongoing basis and those decisions are made. I think what we did retain was a playbook as to how we would do this again and for the reasons which I've said around the foundry and other data systems some of that would be easier and some of it would be quicker. It would nevertheless still require us -- require some time to step it back up again.

I do think it's an opportunity, it could -- to be able to digitally cohort people -- it sounds a bit technical as though we're counting numbers not individuals, but if you're going to reach them very quickly if we suddenly found, for example, there was a problem with something, or an intervention I think there are much wider opportunities than just responding to a pandemic so this should be an area of urgent progress.

Q. When you say it would take some time to be able to step it back up again -- days, weeks, months, what are we talking?

A. Probably months.

Q. Is there any thing that practically be done now to make that shorter period of time?

A. The issues about data, which are recurrent, I can -- I

mean, we're all saying them for a number of different reasons. So the issues around data, about being clear who owns data, about working proactively with the public to understand why that sharing is important, and to give the reassurance about its safeguarding, to always encourage the continuity of the content of it.

I mean, ethnicity, I started in public health work 30 years ago, ethnicity was not being recorded properly and that has two sides to it, because it may be that people are frightened to have that ethnicity recorded for different reasons, and so we're looking at it in a very technical point here but it's very sensitive and who puts the information in and how it's recorded is really important.

Q. Aside from the data issue, and that's not to minimise it --

A. No, that is the major consideration.

Q. -- are there any other barriers that might lead to delays with implementing a tool like QCovid which has vaccination implications? It was helpful for getting a number of people on the vaccination list, so even if you don't shield them it increased their chances of getting a vaccine first.

A. It was a completely novel approach, it won a number of prizes, it scored very highly on quality, it was

externally assessed, so I think this was a really important way forward. I think it needs more familiarity across the system so people understand the benefits but I think it could be, for example, it's a similar approach running almost parallel to some of the clinical trials work as well. They are all required around data, in being able to reach people and for people to give information, their agreement in advance of something happening.

Q. It's probably my fault but aside from the data, are there any other barriers that we need to remove?

A. I think being really clear who is responsible. You will see from the EPP, the Enhanced Protection Programme work plan, if you like, that in some ways I came back into that because as I'd stepped away and with a gap there was a degree of confusion about all the different parts were running but the oversight of that was not clear. So I think being absolutely clear who owns this going forward and who runs with it is really important and I think that depends on the number of uses that can be applied and where that should sit.

MS CAREY: My Lady, would that be a convenient moment for lunch.

LADY HALLETT: Certainly. You've got a better idea of -- we've got a lot to get in this afternoon. Are you happy

that I take the usual hour for lunch?
MS CAREY: Yes, I am, thank you.
LADY HALLETT: Very well. You know that we take breaks certainly for lunch.
1.45, please.
(12.46 pm)
(The short adjournment)
(1.46 pm)
LADY HALLETT: Ms Carey.
MS CAREY: Thank you, my Lady.
Professor Harries, may I just finish off with a few questions in relation to the shielding. You say in your statement that:
"DHSC held overall responsibility for communication with both the CEV and CV [cohort] ... [Public Health England] and subsequently UKHSA were mainly involved in the production of guidance."
I just would like your help about one piece of guidance.
Can we turn to INQ000410865_33, please.
A. Just while that's coming, can I just go back. So, overall, DHSC was not responsible for the whole shielding programme.
Q. No.
A. They were responsible for the policy element of the

clinical side of it --
Q. Yes.
A. -- and the actual shielding guidance was, if I remember, was responsibility of Cabinet Office from May.
Q. Well, I'm reading it from your paragraph 81 where you said:
"[They] had overall responsibility for communication ..."
It may be you misheard me.
A. On the clinical side of things.
Q. Yes.
A. So I think it's the fact that these are multifaceted elements.
Q. I see. Thank you very much for clarifying.
Can I ask you, please, about the entry on your screen, I hope, 29 September 2020, and there was some guidance given to the clinically extremely vulnerable from PHE, and it says it's updated to remove references to rates of transmission of Coronavirus falling, in response to user feedback.
Are you able to help me with what the feedback was and why then the references were removed from the guidance?
A. I'm happy to check that after for you, but my suspicion would be that the rates rose and fell and obviously the

advice to come out of shielding were when the rates were falling. But there were periods of time, and I think this is one, where parts of country were in different rates, so it was quite a confusing message. And so if an area was staying in a tier 3 lockdown and the rest of the country was coming out, it wasn't a simple narrative to give.
Q. If you wouldn't mind checking that in case there was another reason why the guidance was updated as a result of user feedback that would be helpful.
Can I turn to a slightly different aspect of the shielding programme and the risks to clinically extremely vulnerable and clinically vulnerable people not accessing healthcare. In your statement you deal with this at paragraph 103 onwards and you say, if I may summarise, the CV group were strongly advised to use remote access. The CEV group were also advised to use remote access but should speak to their GP or treating clinician to ensure they receive care. So slightly different advice.
The Inquiry heard from Dr Cathy Finnis, who was a member of the clinically vulnerable families core participant group, who told us certainly the immunocompromised people were at the time, and indeed perhaps still, cancelling or delaying healthcare

appointments due to ongoing concerns about the risk of infection in the healthcare setting. And I just would like your help, if you're able to give it, as to what practical steps could be taken to ensure that the immunocompromised people, whether in a rate of high transmission or not, feel able to access healthcare services.
A. So I mean obviously I can't speak on their behalf, and I have heard many similar points of view. I think the reason that that was -- that note was put in there was actually to assist them in getting care safely. So we -- there was a particular note at the start of the shielding programme that asked if there was booked care already planned, these are individuals who would often have regular appointments and need to access care frequently, that they discussed how necessary that was with their GP, and also that they discussed with their GP in order that the GP might be able to advise on a safer way of doing something or advise on any precautions.
So the reason for the difference was exactly to ensure that they were as safe as possible. In terms of messaging, I mean I think communication, as I've already noted, has been really difficult throughout this. I think it was the same for many of the population.

I myself had email messages, actually, from people who had accessed care, and were going to discharge themselves to the extent I actually stepped in on one, which was very unusual, because of the fear of the virus at the time. And I think we can try and learn from people's experience for a future episodes but it's very difficult because people's perception of risk, on top of the standard messaging is very individual as well.

LADY HALLETT: Yes, we learn that it's difficult, but what do we learn that can be done differently?

A. So, in terms of that, we did have behavioural insight group running, particularly for the CEV group, and so where that -- on a fairly regular basis, where that picked up, something we would try and feed it back into the guidance that was going out. There's also wider work going on which UKHSA is involved with in terms of communication, so one of our communications team is actually co-chairing a European piece of work around risk communication during pandemics with WHO Euro. So -- and I'm also leading some work with WHO Euro looking at how we can engage with civil society organisations in a different way going forward, and I hope that will give some clues, not just for us, but actually other countries as well, as to how we can support individuals safely.

LADY HALLETT: Thank you.

MS CAREY: Can I ask, is UKHSA doing anything in relation to whether a CEV person should be allowed to wear a mask when attending healthcare appointments? Because we heard some evidence of shielders being told to take off masks particularly if they are wearing, perhaps, FFP3 or FFP2, and it being replaced with a blue FRSM.

Is your agency doing anything in that regard? Is it your remit?

A. Obviously I can't speak for whichever organisation has advised. I think I agree with comments which I think my colleagues have made, Professor Sir Chris Whitty, which is people should be supported to do what makes them feel safe. The only reason that may not be -- you know, if it's going to harm somebody else, for example, somebody wearing a valved mask when they are infected, that's not a good idea for the rest of the group around them. But I think we're talking about precautions which make individuals feel comfortable and if that's not interfering with their care or others' safety it feels the wrong thing, but clearly I can't speak for health services, that is a -- if it's an NHS organisation it will be NHS England.

Q. Thank you. One of the things you've already alluded to is clearly the longer-term, sort of, psychological

impact or mental health impact that the shielding programme had and there was -- can I have up on screen INQ000348091. There was some guidance released by the government included, from public health.

Can we just go to the first page, if at all possible, of it. Thank you.

Guidance for the public on the mental health and well-being aspects of Coronavirus. I just -- is this a general piece of advice not specifically aimed at CV or CEV?

A. It is and it recognises that there will be -- you know, the whole population, I think, we've had increased rates of mental ill health, it wasn't for everybody and I think this document, for some people who are in the clinically extremely vulnerable group, there may be some comments there which will help some people and would not be helpful to them and we recognise that. It's difficult to create documents which suit all different systems.

On the advice that went out specifically to clinically extremely vulnerable we tried to add on elements around mental health.

Q. Right.

A. And I remember, actually, when I personally was doing one of the early No. 10 briefings, I actually flagged

issues about mental health and specifically pulled out the risks, if you like, to CEV who we recognised would be more isolated than others.

Q. What about the risks to CV, clearly a much larger cohort of people? Was there any specific advice given to the clinically vulnerable?

A. So it was always -- this is a different balance because individuals have different personal risk perceptions and judgments and the advice can't be precise in an uncertain epidemiological future, and so what we tried do and this actually I think is -- these aren't specific to UKHSA, or certainly not to OCMO, was give general advice and then build on it if there was individual communication with the different groups as I just explained for CEV.

Q. Thank you, that can come down.

Can I just ask you this. Clearly bearing in mind the impact that the shielding programme had on those that were shielding, do you think there should be any additional support and guidance given to certainly the immunocompromised people currently?

A. This is an important thing -- point I think for the future. I think there are two things. One is knowing what we know now about mental ill health and a pandemic of this size, actually putting in -- it's difficult to

prevent it, I think. There will be some learning. But actually for a group like the CEV or CV having a mechanism where their GP, for example, can see what a mental health status is as somebody progresses through -- some people will manage quite well, some people enjoy being at home having their garden, other people who do not have those facilities, have very poor health and perhaps were in the CEV group, having a mechanism of monitoring that health going through with a simple questionnaire, for example, on a regular basis of some sort would I think would be quite helpful both to them, or those who were supporting them at a distance, and particularly to health services to see where they could focus and target their support.

Q. And in the event that there were to be a shielding programme in years, decades down the line, what sort of support or advice is ready-made, if you like, or available to be got up to speed to help them quickly understand what advice and guidance is out there for them?

A. So guidance was put out, as you you've seen. This was not something that was not thought of and you are limited in what you can provide. I think one of the areas that we need to understand more and is probably not covered effectively yet is the digital divide

because if people have digital access and feel confident and comfortable to use it they can reply to questionnaires, they can engage with people easily. If that is not the case then the opportunity to support at a distance and safely from an infection risk perspective is much reduced and I don't think we've got that covered yet.

Q. Can I come to the end of the shielding programme certainly as far as England is concerned. I think it ended on 15 September 2021?

A. Yes.

Q. And clearly -- I think you were asked, certainly back in April of 2020, whether there were any proposals to measure the effectiveness of the programme and you deal with that, Professor, in your paragraph 46 onwards.

So clearly it was in people's minds at the beginning of the programme to try and work out if the programme was working, and I'd like to ask you about an email chain, please, INQ000151754.

Essentially, you were asked, I think, to provide some comments on the efficacy or otherwise of the shielding programme and I think we see on the first page -- yes, it is, first page at the bottom there, is you replying to the request, and you say, you're only just back, you have some major concerns about looking at

the efficacy and you set out there:

"... we have a whole data factory arisen from a single primary outcome measure effectiveness -- which is prevention of death. The only logical way I can see to identify relevant strong interim variables as proxy measures of success for this programme would be if the data being collected could demonstrably be linked back coherently to the model which the SAGE/SPI-M modellers used."

And then you go on to say you can't see that has happened. Can you put that into layman's terms for us, what was your concerns?

A. Can I explain the background to this?

Q. Yes.

A. As a starting point any public health intervention that goes in you should always think about monitoring and evaluation, that goes as standard, and then you want to know if you've made a positive or, hopefully not, negative difference.

So that's number one and that will always be in the minds of any public health professional.

Additionally, of course, there had been public resource invested in this programme as well and we had colleagues from the NHS who wanted to understand things like health service utilisation. So everybody had

an interest in understanding it.

My prime interest was: did we actually prevent deaths, did it more good? But the Treasury, for example, would be interested in the funding and how much it had cost and what it had achieved.

The difficulty we had here, this email came on the back -- if you're senior in, as you are, in the Office of the Chief Medical Officer, you tend to see things quite late when many people have done a lot of work on things before you've seen them, and so people had been setting up -- collecting large numbers of hospital data and coming up with a whole load of numbers and interpretations which were not valued.

And so what we have is two things. Number one, we absolutely want to investigate and understand whether this has been effective. But number two, the proxy measures are what are the things that you can measure that will give a real, true picture of what has happened and what I was presented with was a very, very long way from what I thought was effective for that purpose.

Q. Let me ask you this then. Do you know, was there any work undertaken to ascertain whether the shielding programme did in fact prevent death?

A. Yes, there was a lot and it was sitting -- this was part of the start of it. So there was both a look at the, if

you like, the health service data and mortality data and things like infection rates, where that was available, and then when this came through, you may have -- I think I have put into the Inquiry, I did do one very blunt email where I highlighted all of the reasons which I thought this was not an appropriate methodological evaluation, and so to check that this was just not me having a bad day, we involved the University of York, Professor Tim Doran and colleagues, to look at the ways -- I flagged all of the reasons I thought this was not right and we had not been able to work through a way to get a comparator group and so we asked them to say, you know: what do you think of this early piece of work? I don't think it's acceptable, have you got ideas as to how we could do this differently?

And they came back with four different ways, interrupted time series, synthetic control groups, regression discontinuity design, and various other things, but even those, they said, would struggle, they would be better than what we had but they would not -- and the fundamental problem is that if you have a belief that you are plausibly going to do good and protect people right at the start of this, you cannot have a comparator group because you will have left people out that you're trying to protect, and every time then that

you try and make a comparator group there is some major difference that does not allow you to make a true comparison and so, in fact, effectively, the University of York agreed with us and there is no definitive evaluation but it's not for the want of trying.

Q. So can I take it, given that ultimate conclusion, in the absence of a control group means it's almost impossible to be able to work out the efficacy of the programme, can I take it I don't need to ask you about the four different ways that they came up with, and the interrupted time series control groups, etc?

A. Not indeed, but the one of those I perhaps would put back --

Q. Please do.

A. -- to relate to Professor Snooks' evidence.

Q. I was going to come on to that, yes. And can I start, and then if you haven't said what you wanted to add, please add it at the end, Professor, because I think you are aware that her conclusions were that given that there was a high rate of hospital-acquired infection and given that the CEV group in particular are more likely to need healthcare and hospital appointments, they concluded that shielding did not consistently protect CEV people from infection, serious illness or death. And so she came to the conclusion that she would not

support or recommend a shielding programme in the event of a future pandemic.

Now I think you're aware of her conclusions and I'd like you, please, to put forward your views about her conclusions.

A. So I do feel very differently, as you can probably guess from my introduction.

Firstly, I agreed, actually, with a lot of what Professor Snooks says, she has always drawn the problems of comparator groups, and we've highlighted that. So that is a point of agreement.

The difficulty then is, she has then gone on to use evidence which almost is contradictory to the statement that she's made. So -- and I would also perhaps separately like to pick up the point about the healthcare-associated infection.

If I just go to the evidence, in fact one of the types of methodology that was used, was used by Filipe, it's the only one if I look across at all of the studies that she's included, actually picks up one of the recommendations from the University of York. That one actually said that the likely impact on reduction in mortality was 34%. So that's really positive. Now I would not put forward a single study to show evidence in favour of shielding, I would lodge it and say we need

more studies. But the only one that I think is methodologically near the main point is that one.

If I then look and say -- and I will use Professor Snooks' own study, and I think you will be able to understand why this feels differently -- the comparator group which she has used even before you get to shielding characteristics is starkly different. So for individuals, we always look in a study to say, what's the group we're interested in, and what's the comparator? And there basically should be, as close as possible, to avoid confounding, apart from the thing you're looking at. And so you immediately -- and she has set these out in her table 2 in her paper, but bearing in mind how important age is on its own as a risk factor, those who were 50 years old equal to or 50 years old form 79.6% of the shielding group, and in her comparator group they form 25% -- sorry, 39%. So we've already got almost a double difference, and we know how important age is.

Then we look and say, care home status, and the proportion of the group which she has included in the shielding group is twice as high as that in her comparator group. And I could go on. We then look at frailty, and 38.3% are in a frailty category of mild, moderate or severe in shielding.

The point I make, without getting into the detail, is you have got a very, very different group of people before you start looking at shielding, and then, most of all, exactly as you have said, these individuals we expected to go into hospital frequently. We don't want them to be there, we want them to only go when they need it, and to do that safely, and to stay out of the way when they didn't need to.

She has no, as far as I can see, and I'm happy to be corrected, but I can see no clinical parameters at all which are compared in this. So we've got a younger, healthier, unspecified population.

We would expect the shielding group to be going in and out of hospital, sadly, probably, with much, much higher mortality rates and being tested much more frequently.

Q. So if it's too simplistic, please say, but in short are you saying she didn't compare like with like?

A. Yes, and I don't think she can, and she's used several studies to look and I admire that, that's exactly what we should do, but I think whereas she has published that, I have gone the University of York and said, "Please check that I am actually seeing this the right way". The only way I think we could do it in the future, and this is an important point, is to say, who

do we think are in these cohorts of individuals? They're very different illnesses -- might be the same people we would want to contact again, let's say we have avian flu or something popping up, and actually take groups so that we know broadly what their average healthcare utilisation is now, it would still be very difficult but at least we would have better understanding and that could come, for example, from what you might call peacetime digital cohorting, actually looking at those groups in the intervening period.

Q. Do I take it, from what you've said, then, that in the event of a future pandemic -- would you recommend a shielding programme or not?

A. Well, I would -- there's the what -- whether, what and how. So whether, the answer is yes I would. I would find it very difficult as a clinician to say I know there are people who, for plausible clinical reasons, are likely to be at heightened risk from an infection which has no vaccine, no countermeasures, no therapeutics, and just say, sorry I'm not going to give any particular advice or support. That feels wrong.

Would I do it differently? We've discussed lots of different communication elements, yes. Would I try and set things up sooner? Yes. Would we have -- the

QCovid, for example, was a tool, actually, to support individual risk assessment as well, and the sooner that's set up -- it still needs type time to collect data before you can use it, but the sooner that's set up, then obviously again we have more information.

But yes I would, actually and I'm afraid, but with respect and for all the reasons I have said, I feel strongly I would find it very difficult just to say I'm doing nothing.

Q. Can you help with whether you are aware of any research now being done on the efficacy of the shielding programme?

A. Well, for the reasons that were said, I think we have stopped for this time because, of course, individuals are vaccinated, even as the programme was running, time was changing and the parameters, different variants, they're quite variable, so it is quite difficult to do.

Q. And finally on this, I think you said you wanted to say something about the healthcare-acquired infections.

A. Yes.

Q. I'd just like to hear your views on that.

A. So, number one, we definitely want to minimise healthcare-acquired infections. To some extent it's predictable they would be there, and I think that's actually even in some of the records, SAGE and NERVTAG.

But the way it's been linked with shielding seems a complete anomaly to me. So my position would be, we want to protect people who are clinically extremely vulnerable, maximally, regardless of what is happening in the healthcare system, so if rates are high we want to reduce them for them and for everybody, but it's a non sequitur, they are not necessarily linked, we still want to protect people and those people were mostly not in hospital, they would visit frequently, many of them, but they're mostly at home, and we will protect them as much of the time as we possibly can.

Q. Can I leave shielding there and turn to some other matters, and perhaps your second statement from June 2024 which is perhaps more within the UKHSA remit than the DCMO remit, although, clearly, if there is crossover, please say.

Can I just ask you, you have set out helpfully a number of locations of experts in the UK at your paragraph 3.5iii, I think you mention there are UKHSA experts in Cardiff and Glasgow. Can I ask, are there any UKHSA experts situated in Belfast?

A. No, there aren't, but we do --

Q. Why not?

A. Well, it's not designed on a geographical basis, it's designed about where support is needed and so we have

a team, some of these are contracted services, if you like, public health services are devolved, most of them. But the UK Health Security Agency is the lead for global health security with government, and for some specific, specialty areas, so things around radiation, and we have chemical expertise. The devolved administrations generally are too small to maintain services, and so those cases are some of our specialist services, but Northern Ireland actually calls on us as well, and we have very close links. I do personally both with the chief executives for each of the agencies, and also with each of the CMOs and their team.

Q. The Inquiry has heard a lot about transmission and terminology in relation to Covid, but can I ask you, as at today in November 2024, does UKHSA now accept that Covid is transmitted via the airborne route potentially as well as other routes?

A. Yes, and I think that's clear in our documentation.

Q. And in the event of a new coronavirus, what assumptions, if any, are going to be made as to how the virus is transmitted?

A. Clearly we'll need to learn from the evidence as it accrues, and the reason I think that there has been as many people who have said that, that movement from a predominantly, not exclusive but predominantly a

fomite and droplet based -- it was based on historic evidence of near relatives, if you like, in virological terms. But actually we now have a whole lot of information on this one, so we're starting with a different evidence base.

And I think the two areas which I know my Lady will know from Module 2 before -- I call it a sensitivity analysis -- that when you're starting off looking, we need to broaden the area that we are thinking about in detail and in planning. And so things like asymptomatic transmission and the relevant -- you know, the relative proportion of transmission by different routes, needs to be thought through, I think, with more clarity at the start. I think all of the -- it was a reasonable assumption to start with what we knew, but clearly the evidence has grown and changed as we've gone forward.

Q. So if there were a new coronavirus, would the assumption be that it's droplet, fomite and airborne?

A. It would be very bad practice to assume anything. It would be a good starting place because that is exactly what we have seen and grown now, and then we would need to continue to explore that. And I think the importance of testing, we did not have testing capacity at the start of the pandemic to investigate some of this in

more detail, and so work which is probably not visible to this module that UKHSA is doing on establishing rapid stand up of testing and also the opportunity to do point-of-care testing as early as possible, so lateral flow tests for new pathogens, is really important work for actually understanding the virus much earlier.

LADY HALLETT: Just going back to your point about -- on transmission, it was a reasonable place to start, but didn't we already know, by the time the pandemic hit us, that SARS was a virus from the original SARS -- what do you call it, SARS-CoV-1?

A. Effectively, yeah.

LADY HALLETT: That that was airborne, didn't we already know that?

A. I'm not a virology expert in that area, but I don't think -- I mean, we have different viruses, they don't cause this element of severity that we've had during this time. And I don't think anybody ruled out, in fact I haven't heard anybody, and I'm not saying either that airborne transmission was ruled out. It's the proportion which is the tricky part, and I think what we've absolutely seen is the proportion, both of that and of asymptomatic transmission as well, has turned out to be much more significant than was, I think, put in the sort of frame at the start of the pandemic.

LADY HALLETT: But I've heard from, as you may have gathered, quite a few IPC specialists, and they seem to become rather wedded to the idea that it wasn't airborne. And so I'm just really, I suppose, "using" you as an expert in other areas: should they not have been thinking about the possibility it was airborne, from very early on?

A. I think the evidence -- I might struggle to point you to individual papers, but a lot of the evidence we have including at SAGE, for example, says that it talks about airborne transmission. What it doesn't do is talk about it as a major or high proportion of the transmission risk, and I think that's the element which you learn as you go forward. And to be honest, even now, I'm not sure we do have a really strong estimate of what it is. I think everybody accepts it's there and it's significantly higher than was accounted for at the start.

MS CAREY: I need to correct one thing, I think the World Health Organisation tweeted it wasn't airborne at the beginning --

A. I agree.

Q. -- but we put that as an anomaly.

A. I think CMO made a point about that, that it probably -- I tink most people recognise that there is a spectrum of

transmission normally, and it tends to be at one end or another and you can have multiple routes of transmission, it tends to be one or another or a bit of these two. And it's as you get used to the pathogen and more research is done, it becomes much more evident then which of the critical transmission routes.

Q. Is UKHSA doing any work to ascertain the amount -- my words -- of virus that is contained in droplets as opposed to transmitted via aerosols?

A. I would not be able to give you a list of all of the research that we're doing. Along with many other organisations, we have funded research from NIHR and we work with other organisations. We definitely have research I know you're aware of in relation to respiratory protective equipment and we do routinely do work on IPC and so one of the really important studies, I think, from this pandemic has been the SIREN study which I mentioned, that was an urgent public health study and that is continuing including work on IPC.

Q. May I just ask you about one matter Professor Hopkins told us about. We had an exchange about the terminology used and whether it was helpful or otherwise to maintain the airborne droplet terminology, or move it to far field, near field, and perhaps other terminology in between, and she told us there was some work ongoing,

but I wanted to try and get a sense from you. Is there any timescale for when this terminology review is going to be completed and then translated in due course perhaps to new NIPCM guidance?

A. I think I would have to refer you back to Professor Hopkins for that, I'm afraid, I don't have the detail.

Q. She said there were a number of forums engaged in looking at the terminology. I think where we got to was, well, that's all well and good to look at it but when is the product going to come? Perhaps if you could ask her that would be extremely helpful.

A. I will.

Q. May I turn then perhaps to some IPC and PPE matters, and I think you say in your statement that it was not your role during the pandemic to author guidance but you would be shown guidance and would sense check it as well as contribute your understanding based on your knowledge at the time.

What were you sense checking for, Professor?

A. So in the OCMO role, DCMO role, and particularly when the triple lock was put on I would be sent guidance on almost anything, mostly at 1 o'clock in the morning for a one-hour turnaround and so a lot of what I was doing was just trying to check that somebody had thought

through what the implications were in another part of the system. If I give an example, IPC guidance in healthcare systems, was there an implication for education or work front?

But obviously I would also try and professionally keep up with developments and literally act as a spot checker -- people were working at high pace -- and to see if there were anomalies. It might be IPC, it might be testing, you know. So it was much more of a checking arrangement between systems than necessarily the detail of the content. But if I saw things then I would flag them and pull them out.

Q. I think that was in your role as DCMO, I'd like to ask you though about a roundtable that you chaired in January 2022 when you would have been CEO of UKHSA by that stage. It's at your paragraph 6.26, if it helps you, Professor.

But I think once Omicron had emerged in January 2022 you chaired a roundtable discussion on RPE and in particular FFP3 masks, attended by representatives from DHSC, the four nations IPC cell, NHS England, the Health and Safety Executive, and indeed the public health agencies.

And could we have up on screen, please, INQ000348432.

This is a summary of the discussion. It was a couple of hours, the meeting, and I think you say in your statement the purpose of the meeting was to ensure that shared understanding of the current guidance, sense check the guidance to ensure that it was clear:

"I had no personal authority to change the guidance, that rested with the IPC cell."

But was there a concern that there were aspects of the IPC guidance that was not clear?

A. So as I've noted before, I would often be asked to chair meetings where we had quite a spread of colleagues either across the health system or health and care, or local authorities, having worked in those areas, and so this was probably one of those meetings. I would be able to understand different insights from where people were reflecting their own practice.

There was quite a lot of noise about this time, so this was the Omicron time, I seem to remember the meeting was organised just before Christmas. And so people were concerned, as it says here, about whether the Omicron -- it was a new variant and people were concerned about whether it was going to be more transmissible, and as I think you've discussed, there was still quite a lot of conversation, shall we say, about FFP3s, fluid-resistant masks and the purpose for

me in this, and this is probably from experience, is actually to make sure we all know what the argument is about, if there is one, and be clear what we can then -- need to do to resolve it.

And so having a meeting like this was to enable all of those contributing to feel that they had a space to explore that and see where the differences lay, if there were any, and what we all needed to do about it.

Q. Can we scroll down, please, to the summary section, beginning "Guidance". All the attendees, a number of whom we are familiar with now, Professor, indeed have heard from:

"... jointly noted that the UK IPC Guidance already enables the use of FFP3 in appropriate risk settings. However, there was some agreement that further messaging may 'enable' appropriate wider use where needed."

And it's that that I'd like to ask you about.

What was the concern given that UK IPC guidance said FFP3 can be used, I think if you're risk assessed and needed it or you are working in an AGP area or a hot spot, why was there still concern in January 2022 that there needed to be further messaging to enable wider use of FFP3?

A. So I think some of this is actually about, you know, the

conversations about the evidence base but some of it goes back to the insights which are reflected from the work that Kevin Fenton did actually, which is not all staff felt able to come forward and ask. So I think many colleagues and I would agree with this, there is a standard that has to be met for face coverings and we've seen that from HSE and from the IPC guidance but on an individual basis people could use FFP3s on a local risk assessment and I think what came through the meeting was that that was not happening for some reason, whether it's because messaging from individual trusts didn't -- wasn't landing correctly, whether people were not coming forward and asking to do that, I wasn't sure.

But that was why we've got the word "enable" there. The guidance itself wasn't changed, but what we hoped it would do would support individuals who felt it was appropriate, through their risk assessments and individual requirements to get to use FFP3s. And there was no shortage or anything at this time, this was purely to support individuals to ask questions and to use kit they felt was appropriate.

Q. May I ask, Professor, one understands the tenor of this was to try and increase usage if people wanted it, felt able to ask for it. But how is this practically, having this discussion at the roundtable, actually going to

translate to those on the ground that either want to ask for it or have to risk assess and provide it?

A. So there's a human element to all of this and, as I say, this is often where I end up in many of these meetings, you will see me at random meetings on different topics, because sometimes it just needs a connection between organisations to allow people to understand what the shared picture is and then feel able to go out and take their message.

Now, in this case most of this utilisation will have been in the NHS, and NHS were present. So from the perspective of anyone who was sitting there, everybody who was around the table knew what we'd all agreed and then everybody would and should be supportive in giving out a single message in any environment to say: this is what is available and appropriate. That hadn't necessarily, I think, for all the reasons we've heard, been as clear up to that point.

The end result, at the end of the day it is the employer's responsibility and the employer for most frontline staff for this was actually the NHS.

Q. It may be that we'll ask this question of those witnesses that are coming as well. It's just the mind may be willing but it's the translation on the ground that I'm struggling to see how this roundtable actively

helps the hospital or the employer enable more use of FFP3 if it's wanted.

A. So that is a translational question for the NHS. That happens with many areas but nevertheless it often is of value, I think, to have senior representatives from organisations to sit round, agree what they're all agreeing, and make sure therefore that anybody in the system knows this is what all of their seniors are signed up to. It takes away some of the sometimes erroneous dispute as a starting point.

Q. Underpinning a lot of the conversation or concern back in the day was whether FFP3 is more protective or otherwise than FRSM, and I'd like to piggyback on some evidence Professor Hopkins gave because she told us that certainly in a healthcare setting there was no evidence that it was more protective, we looked at observational studies that suggested it was, indeed there are lab studies that suggest it was, but I'd like your help, please, with what UKHSA was doing back in January 2022 in trying to design trials that might determine whether FFP3 was more effective than FRSM. And if it helps you, I think on 4 January, is it right, that UKHSA applied for funding for a randomised control trial called WIPPET?

A. Yes.

Q. Can you help us with what WIPPET was, please.
A. So WIPPET was a winter infection protection study to try and look at the use of face coverings, FFP3s and fluid-resistant surgical masks and, indeed, some funding was provided for that, initial funding which was utilised. It was rejected, I think at a second stage and I'm very happy to send you the detail because I think some of these funding applications will go in an initial phase and then it will go to a second phase, often rejected or challenged on methodology.

So certainly UKHSA was doing work then, it's an NIHR grant, to try and establish different mechanisms for exploring this work and then there was another study, a SURE study application to look at sessional use through a randomised control trial.
Q. Pausing there, we'll come to sessional use in a moment --
LADY HALLETT: Before you go any further, 4 January which year?
A. 2022.
LADY HALLETT: Thank you.
MS CAREY: My fault, I am so sorry.
A. We didn't exist until October '21, so ...
MS CAREY: The trial was designed to try and work out which if either of the masks provided the best protection and

you have explained, I think there, that it perhaps didn't go ahead. It begs the question, what is being done now to determine what is undoubtedly a really important question for a number of healthcare workers who wanted FFP3, felt they were more protected by FFP3, even if in fact it may turn out in a study to be less protective or not as protective as they hoped.
A. I might make a comment on the evidence base in a moment but in terms of this, so I think there were two studies, the WIPPET one and then SURE which was a similar one about sessional use, so clearly actively exploring these.

But I think UKHSA absolutely recognises that this is an area that we need to get much more certainty. And so we have put in a small amount of -- and we're not a funding organisation but we've put in a small amount of funding internally ourselves to develop an observational framework so that we can move to assess mask use in healthcare workers. We're doing some work within the SIREN study which is possible, and then I think overall we've got studies focused on experience of users, how to assess that, so the framework, and then policy around it.

But -- and I think we will be trying to obviously move towards other studies as well.

We can -- I can send you the detail of that. These are quite technically difficult ones so they will often be rejected or challenged, quite appropriately on methodology to get that right so we get an outcome, result. And I think it's not just UKHSA either, there will be a number of academic institutes around the country also who are doing similar work.
Q. The observational framework that you just spoke about, what are the kind of timescales we're looking at though to --
A. I would have to come back, because these are quite detailed research plans, so very happy to send that back to the Inquiry so you can see --
Q. And you mentioned the SURE study which was in April 2022, UKHSA applied for funding for the sessional use of respiratory protective equipment, SURE trial for short, to develop the evidence base around different strategies. What was the aim of this study?
A. Because we'd introduced and recommended sessional use and, again, I think there was a lot of validity in that but often healthcare workers also felt that was probably -- they didn't feel comfortable. So, again, it's one of these areas, we just need to work out and get a really strong evidence base behind. That application I think was rejected, again for

methodological reasons, it needed a particular cluster randomised trial study. So I think the best thing I can do is probably send you the detail of the active work that's ongoing and we can look as well if we are aware of other research institutes.
Q. Can you just help me to this extent. Was the purpose of the SURE trial to work out whether sessional use is in fact safe?
A. We would not have introduced it as an approach if we didn't think it was safe during the pandemic. That goes without saying. But I think it's more how effective are things and what is more effective than anything else. And these are all questions which you're very familiar with from all of the Inquiry participants.
LADY HALLETT: But these are questions that don't just affect us in the UK, they affect people around the world.
A. Yes.
LADY HALLETT: So presumably other countries are doing research?
A. They do, many of our -- many, many people in UKHSA have counterparts, if you like, working on different things overseas and often there will be trials, we've got a research, an online research database that might be looking at Mpox or it might be looking at something like

this. We have a particular -- we have a lab and we have a set of a hospital ward in a science hub in Porton Down where we can actually test out some of these things and some of that research has been assessed here. But it does -- it needs funding and it needs a plan with it so I think probably the best thing is if I can set out for you what we actually have in train at the moment in, some of the studies that have taken place.

MS CAREY: Can I ask you about testing of hospital inpatients and indeed testing of frontline staff and I'm aware there is another module looking at testing. But her Ladyship has heard a number of witnesses and experts urge and urge strongly that in the event of a future pandemic the need to get testing up and running as soon as possible is absolutely key, for example to keeping patients safe, working out if patients have the disease, dealing with asymptomatic people, dealing with healthcare-acquired infections -- across the board.

Can you just summarise, if you're able to, what is UKHSA's ability now to roll out testing more quickly than perhaps had happened at the beginning of the pandemic in March 2020.

A. So just to -- again, I'll just be boring on the responsibilities. There were different pillars of testing which we'll come on to that obviously a lot of

people are referring to them, the mask community testing. But in terms of what happens if we have a new pathogen, so in fact the reason we got this test running pretty quickly, very quickly, was because there had been preceding work internationally over the prior five or ten years to actually look at a bank of coronavirus tests so that they could be tweaked effectively when this pathogen arrived. So, in fact, the actual initial test was done very, very quickly by PHE and then could be ramped up to a small number of specialist laboratories.

The difficulty is in the stretch out from there. So we are doing work on priority pathogens, so what do we think is the most likely next critical pathogen to come along. There's international work as well, we're linked into that. And then looking at how rapidly we can roll out and there does need to be -- there's a safety issue around HCID about when different labs can handle different pathogens which we need to be aware of, but on the assumption they can roll out it's then UKHSA's opportunity to roll out to NHS labs and then they can continue that testing for inpatients.

So there is national work on testing capacity and it is much clearer than it was. It won't go -- I mean, obviously there are political decisions about how far

one prepares for pathogens for the future, but I think that is in a very different place to where it was. It is still the NHS responsibility and was then to be testing their staff.

Q. We've heard also about a desire for more testing to enable more visitors to be able to attend either end-of-life visits, maternity services and perhaps many other different settings in between. And I think everyone understands that there will be priorities. But what about the availability or ability to roll out the testing so that it's more widespreadly available to enable more visiting?

A. So two points. If we just talking testing and that's not my main comment but I know that's the focus of your answer. The real game changer was around getting lateral flow devices, and so UKHSA is doing work currently at Porton Down. We still monitor and check that the current LFDs will work against new variants, that goes on all the time, but we're also doing work under a diagnostics accelerator to try and ensure that, effectively, we can get LFDs up and running as quickly as possible for new pathogens. Now, none of that is assured, but there is a very new focus on doing that.

The wider point I want to make, which you may not welcome, it's around hierarchies of control, because

a test is a tiny, tiny part of the IPC control and in fact if you have visitors, you're saying you have a test, an LFD, they're brilliant at saying, "Ah, you infectious at this minute". Really good. They wouldn't necessarily be telling you you're infectious the next day, so there's an issue about how often you do them. But, equally, if visitors -- there's a learning where we need to learn together, I think, particularly for regular visitors, where there's always a risk of bringing in infection from community and hospitals or care homes have a duty to protect all of their patients and all of their staff, not just the individual patient.

And so this balance is important. And I think the more shared understanding there is of that hierarchy of control just about how you move around a building, about ventilation which we haven't mentioned much is really important, just as important, actually, as that test.

Q. Can I turn to some comments you make in your second statement starting at page 34, please Professor. And we touched on some of the work you were doing in relation to occupational risk and then there's a section beginning ethnicity. And I think you've commented on a number of pieces and guidance, not all of which was healthcare guidance, some of which was social care guidance, but I just wanted to understand really what

your concerns were that you were setting out at paragraph 7.2 onwards, relating to risk reduction frameworks and the undoubted risk there is to people from a black, Asian and minority ethnic community, as Professor Fenton's inequalities report brought to the fore.

A. I'm afraid I don't have the page in front of me, but I think I -- yes, I know what you're referring to.

So my concern is about the long-term support and reduction in harm, and the risk of running to conclusions on very early data without really understanding what sitting behind them.

My anxiety was we would be doing, if you like, tick box exercises -- I'm summarising for brevity -- without really understanding what was sitting behind the data.

So in fact and I think Professor Whitty said this, if you look at those who were impacted most particularly in numbers on the first wave and the second wave, you immediately see that we have those of black African heritage, Caribbean African heritage on the first wave, and -- it was in London, and we know that somewhere near 45% of the healthcare worker staff who are supporting running public services are from those heritage, and then if we move then to the next wave, that is not the

ethnic group that's affected, it's south-east Asian.

So it's very clear that that is not a biological ethnicity issue, there are some small variations, it is actually a representational issue, and so my anxiety, and I was possibly a little bit outspoken in some of these areas, was that by only looking at that immediate knee-jerk reaction, and doing what are quite superficial, in some ways, risk assessments, we would miss the point that we do not have appropriate representation through all of our ranks, through our senior NHS.

And I think in some of these conversations, I was very anxious. So we had, for example, pregnant women just being told not to go into work, not being allowed to go into work, or senior individuals potentially being taken off the frontline, just at the point when we're starting to reasonably, still not right, get appropriate representation of ethnicity, through our health services and our public services, to truly represent the communities that we serve.

And so it's an area where, again, I've been in the public system for a long time, we have not seen much movement, and I was concerned this would actually be a retrograde step if we weren't honest about what was sitting underneath it.

Q. Can I ask you about an email that might bring to the fore some of those problems, at INQ000152140, please. Which should be an email involving you -- yes, thank you -- in June 2020. And at the bottom of the page you had been asked by the Government Equalities Office for support for some questions summarise below and it says:

"A question regarding what you are looking for with regards to guidances that are sent your way. I expect we can go back and state that ensuring that: appropriate stakeholders have engaged, and in the right channels are followed ..."

But essentially you were being asked some questions about signing off new guidance, which also involved guidance going to the BAME communities, and that then resulted in your response on the first page, saying:

"... this is quite tricky and might benefit from a ... pragmatic, unminuted confession with GEO, to get [a] shared understanding of what is and is not possible."

And there's key things they should be aware of:

"[There are] a number of different 'tools' being developed which will incorporate ethnicity risk -- there is potential for these to be picked up deferentially".

What did you mean by that?

A. So this goes back to QCovid, so one of the things about QCovid was that it effectively pulls in a whole load of data, and not only did it inform the clinically extremely vulnerable group and support appropriate individuals being pushed upwards into a higher vaccination group and safety, it also was designed to allow an individual to have a conversation with their GP about their own individual risks. So -- but what we had at the time was a multiplicity of everybody developing some sort of tool to put in occupational settings. There was actually a review, which I think I've quoted in my statement, which looked at about a dozen of these different tools which were being advocated, including one which was being advocated in the NHS, I think.

And the only one that was suggested as suitable for community settings, for -- all of them were for hospital settings, the only one that was supported was actually QCovid, which at the time was not completed, it suggested it needed to go out for peer review and validation, which it did, and it passed with flying colours, it was assessed by ONS and other external bodies. None of the others did.

Now, when it comes back to this particular issue, again, my concern was different people will be going and

getting different, unvalidated answers, having wrong risk perception, and then, again, coming away either worried from their work, making decisions about their work which disadvantaged them and their families in the long-term, and there was no control on this, which was why everybody agreed to use the QCovid tool.

Q. Right, so a proliferation of tools at the beginning was unhelpful for the reasons you've just set out. You say there is a very poor understanding of the comparative or combined risk in most discussions you've had. Whose was the poor understanding?

A. Just generally, around the systems. Again, and I'm not trying to pick on the NHS here, what they were trying to do was answer the concerns -- quite reasonable fear, I think, and concerns of their workforce.

The difficulty is, though and, I tend to use, say, two examples, if you are -- if you were a young, black, 24-year-old footballer in London, your risk was probably still very, very low. But if you were white, with -- immunocompromised, whatever -- the risks would be very different. And what you needed was a tool.

Now, overall, there are a number of underlying health conditions which are much more prevalent in people from different ethnic minorities, and the whole point here is it needs a proper risk assessment with all

the right parameters going in, not just to, suddenly, you are this or you are that and you are boxed. And, again, I say my concern was that we would end up with illogical responses which actually disadvantaged people in the long run.

Q. The QCovid tool, though, identified people who were at higher risk of infection and/or mortality as I understand it --

A. Yes.

Q. -- so I understand it being helpful on saying yes, you're more at risk, but it doesn't necessarily help you work out how to then risk assess and put in practical implications -- sorry, practical measures to stop you getting infected.

A. Well, when it was up and running, it did. And in fact what we tried to do, this is probably a recommendation about occupational health because there is no single and national occupational health system, but had there been, we could have rolled out the QCovid so that with your occupational health clinician, you had a conversation where you put in your own risk factors, and effectively it will give a relative risk or an absolute risk of severe outcomes or mortality from Covid.

And it would combine those risk factors so people had a proportionate understanding of their risk and then

took proportionate action.

And, you know, many people were very frightened at this stage. So it was, in some ways, some of the risk tools, I think, were actioned, some of the language, the narrative, was making, I think, concerns worse in many places.

Q. You say some interventions which are really practical and would help will not land well in the current context of inequalities. What were you talking about here?

A. Well, these are the wider societal ones. I mean, it's probably why I said at the start, you know, often when you're asked to respond -- and I'm being very open and honest here -- people want -- there is a problem, people want to see an answer. But actually the same problems follow infectious disease around, which you will have heard through this, and we need to understand those. I mean, if there are, for example -- I think most of the differential outcomes, actually, in current data is gone. Once you take away things like vaccination, underlying health conditions, the obvious thing here just as an example would be, why are we not paying the same attention to cardiac events in south Asian males, for example, routinely and looking at the data? We shouldn't just be trying to put in another layer of PPE now.

Q. And finally in relation to this email, please, you say:

"I am very fearful that we will get reverse inequality longterm if we are not very careful how this is managed: for example lack of BAME opportunity in senior positions -- for example BAME banished from frontline roles and therefore career development in [NHS England], where the trend in equality has only just started to turn."

I am asked to ask you if you could clarify what you meant by the phrase "reverse inequality" and what specific concerns were worrying you.

A. Well, I mean, this is just an example, but we know that we don't have equitable representation of our communities at different levels through our services, so even if I look at UK Health Security Agency where I am passionate about trying to getting diversity and equality, I haven't managed it in my top team. We are over-represented in some of our lower grades but we still don't have it right despite proactive trying in our -- in our more senior posts, and that is absolutely classic across the system. And any intervention like this where you suddenly start, effectively, although done with the right intentions, targeting people and moving them out of post, their careers will go backwards as well. They don't have the experience for two or

three years during the pandemic, and then we're back to square one.

So it was really to be possibly running a bit against the tide, but to flag some of the risks of doing this when we didn't have good indications of what the true risk to individuals were.

Q. And finally on this topic, appreciating that you are not responsible for employer practices as we do, are you able to help, though, with what, if any, further action can be taken in healthcare settings to protect ethnic minority healthcare workers from higher risk of infection and, dare I say it, higher risk of mortality?

A. So many -- going back to these points here, many of the -- in fact, the vast majority, if you look at data now, I mean, I may not be up with all of the latest detail of it, so please do refer to other colleagues, so people like Kamlesh Khunti who I know who has contributed and I worked with, with Kevin Fenton at the time.

Many of those differences can be taken out of the data. They are not directly related to the infection. The infection is following round systems of inequality. So, high occupation houses, particularly roles where people are public-facing frequently -- so we've had conversation about healthcare workers, but actually

those healthcare workers were also the ones who are mostly going out on transport during the pandemic, they are the ones most exposed.

So we will always have inequalities until we have equal representation across all of our public services.

Q. May I move finally, please, to some lessons learned and recommendations, and a number of, perhaps, slightly discrete topics but nonetheless ones we hope UKHSA will be able to help us with.

We have heard, Professor, about the make-up of the UK IPC cell, and there is potentially a recommendation to be made around about expanding the make-up and membership of that cell, including potentially some specialisms that may be represented on the IPC cell. I want to know, are you in a position to help as to what other specialisms might be useful on such a cell?

A. I realise my facial expression may be giving my view on this. We need to be very careful, I think, about having groups that are functional in size. The more people you get round, the more difficult it is to get somewhere.

The real question is, what is the skill set missing and where should it be? And I think I agree with Professor Hopkins' comments, I think she pushed back quite hard on do we have these skills in the system already?

Every hospital trust has a director for infection prevention control. They will work with their engineers. There's some really, really skilled people around the system. So the question is, is that thinking represented in the IPC?

The other thing I would just flag is, as you will have seen, there are sometimes differences, you know antigroup thing, between UKHSA science positions and a practical position. That is an important distinction and neither is incorrect. And I think the question might be, where do you want that science to feed in because we do have environmental scientists feeding into UKHSA advice. We have research running down at Porton Down, for example. The question is, and I'm not suggesting it should all be in UKHSA either, I thought the environmental group in SAGE was fabulous.

So my own view is the IPC cell is a practical translation of advice into the health system and trying to intersperse different skills there is quite challenging. It's also important that the advice can be utilised at a local level with the skills that are there.

LADY HALLETT: Taking your point about the expertise that exists around the country, if I got an impression, it was that the guidance that came from the UK IPC cell was

treated as the word of God and followed by everybody as if this was the most highly specialised specialists in the country and I suppose that's why I question, so your very expert director of IPC in hospital will just -- I haven't yet decided but that's one of the things that's worrying me, that it was taken as if this was written in stone and everyone had to follow it, even if people didn't really agree with it.

A. This may be a better question for NHS colleagues because that's where it goes out. My experience is that if I go around the other side of being a director of public health, say, in Norwich and working directly with the Acute Trust and with the Health Protection Agency then, my experience is DIPCs are hugely experienced individuals, they know their environments really well, and so the trick is to get the guidance that comes out to give the framework in as much detail as is needed but then allow that to be translated in a local setting and that is really important because, as I think Dr Shin said, and many others, the NHS estate is so different that just taking something and applying it systematically absolutely everywhere is really difficult to do and not necessarily helpful.

LADY HALLETT: Thank you.

MS CAREY: You mentioned the work of the environmental

modelling group that was a subgroup I think of SAGE. We understand that that's been stood down now that we're not in the emergency phase of the pandemic but do I understand from what you've just said that they are nonetheless environmental scientists still working on behalf of UKHSA to do the same kind of work that the EMG did?

A. We have scientists working, for example, as I say in Porton Down but, equally, Cath Noakes who was the chair of that group -- again, I would have to come back with the detail, I won't have it to hand -- but many of these connections, or research work, she will be working most certainly on pieces research and I wouldn't be surprised if some of my staff are as well, but I'd have to try and find it out. Some of that would move then into academic research environments though, so it won't necessarily sit within UKHSA and many of them will have or will be applying for NIHR funding as well.

Q. A slightly different topic. Is UKHSA involved in any work being undertaken as to whether the AGP list, the aerosol-generating procedures list should remain as a list and if so what procedures should be on it?

A. So clearly that didn't end in -- I think we can see that there is -- the position it's got to is a practical one in the sense of there was a scientific position and

another one -- I think this is one of the areas along with the FFP3s, and AGPs is one we need to resolve, but that is actually an international debate, as well, it is not simply a UK debate.

Q. But is UKHSA involved in AGPs?

A. Again, I think the best thing I can do with all of the detailed research is -- this is not an area that I will personally be directly involved with each day so let me come back and identify against the key topics where there are research programmes running that we're aware of and involved in.

MS CAREY: My Lady, I have about five minutes left. I wonder if I might finish and then we take a break, if that's convenient.

LADY HALLETT: Yes, of course.

MS CAREY: Can I ask you about this. We've heard about the proliferation of guidance that was issued, invariable late on a Friday, some of which had PHE's name attached to it and that having to be trickled down and then implemented in the hospitals and the like. And there may be an urge for a more streamlined process and if there can be more streamlining what would it look like?

A. Well, I think just to go back to that. Clearly I wasn't directly involved in that but PHE published, it was not the author, it was definitely not the disseminator, and

I think that's important because the issue I think you're raising is how does this land, if you like, effectively and sensibly with frontline workers.

The NIPCM is now on the NHSE site. We have done a piece of work to ensure that the roles and responsibilities are clearly set out. I always thought they were clear before but clearly that's not how has been portrayed through this Inquiry, so I think we've done that piece of work and that has been agreed with Department for Health and with NHS England.

So the short answer to your question is that should be the NHS, always has been but will be clear it's disseminating.

In terms of the Friday night thing, and I think Sir Chris Whitty gave a similar answer. I mean, I have been guilty of sending things out on a Friday night on occasion but we always think really carefully. So if it was, for example, an infectious disease outbreak, you know, are we putting out a press notice at 6 o'clock at night to frighten everybody over the weekend, do we need to? Sometimes we do because we need to alert the public or workers in a hospital. You can imagine a Novichok incident, for example. But generally we know that putting things out -- we have Friday as a no publication day unless we absolutely need to. In fact, you'll see

all of UKHSA's standard data, whether it's TB, infectious diseases, what have you, our standard publication day is Thursday exactly for that reason.

Q. Different topic again, please, hibernated studies. Module 3 has heard from Professors Brightling and Evans in relation to Long Covid and hibernated studies that were woken up, for want of a better phrase, in the pandemic. Is UKHSA involved in ensuring that there may be hibernated studies that are capable of being brought to life in the event of a future pandemic?

A. So just so I make sure I'm on the same -- I think these are NIHR hibernated studies --

Q. They are.

A. -- which effectively is when there is an incident we step up. So the ones that we would be involved with would be around things like early infection risk, understanding the pathogen, there is now a new framework actually which included cross-government framework which Lucy Chappell, the Chief Scientific Adviser in the Department of Health worked on, we've been part of those conversations. It runs with some of the testing as well. So we are definitely involved with some of those. The more clinical side of things, I think you raised that on -- probably on a Long Covid basis, we wouldn't be involved with.

Q. Communications generally, and the balance of the message that is put out, that is something that you have already touched on, Professor. But can I ask you, what are the risks of being more transparent with the public in future that maybe hospitals are overwhelmed or nosocomial infection rates are on the rise? How could that potentially fear-engendering communication be mitigated to encourage people to still come into hospital or seek treatment?

A. Most good public health interventions are based on a background of trust whether that be around infection control or whether it be about vaccination and certainly for UKHSA we have the opportunity quite unusually of being a relatively new organisation and so I have set out to say we will always be transparent with what we do, and you will have seen I think in some of the work, Dr Shin and colleagues' report about some of our appraisals for example, they are up on the website and very clear. We go out early with technology, technological briefings, for example, about variants.

So there's what do we do routinely that generates background trust, and then on some of the data there is a point, I think, which is a wider issue about the public being used to what might happen during a pandemic, what normal looks like, rather than

everybody suddenly focusing in when there's a calamity.

Now, that's easier said than done. I don't hold the NHS data. We do model for the NHS in these sorts of incidents but I think again that's probably one for those instances better reflected back to NHS colleagues.

Q. Is UKHSA involved in any way in monitoring the deaths of healthcare workers in the event of a future pandemic?

A. Only in the sense of we will be party to things like you will have heard of the CO-CIN -- so we use data that comes through in order for us to understand early viral characteristics and things like the early data we'll try and indicate any clinical risks or any occupational risks and certainly during the pandemic, exactly as Sir Chris Whitty said, I would see data coming through, recognising, as someone pointed out, I think, that it is not complete and sometimes we are not -- we don't distinguish, you know, we have healthcare workers and different data on a social care side for example.

So there is, I think, a wider discussion to have, again looking forward, around death certification because it doesn't currently have ethnicity for a number of very good reasons. But actually the more we understand about occupation, about ethnicity and about other characteristics, and that could almost certainly be within a data link system, the more quickly we will

be able to understand where true risks are and then be able to take action.

Q. Finally this from me, please. If there were one recommendation you would urge her Ladyship to consider on UKHSA's behalf to make the response of the health system next time, what would it be?

A. Data. I'm afraid it's a recurrent theme and it's a huge theme but much of our work is around interpreting data. It needs to be robust. The more variables we have the more information we can provide, the sooner we have it, the earlier we can give advice and take action and protect lives.

MS CAREY: My Lady, those are all my questions.

LADY HALLETT: Thank you very much. I will return at 3.20. And a warning to all Core Participants: do not expect any generosity from me this afternoon.

(3.06 pm)

(A short break)

(3.20 pm)

LADY HALLETT: Mr Wagner.

Questions from MR WAGNER

MR WAGNER: Good afternoon, Professor Harries, my name is Adam Wagner and I asked questions on behalf of the Clinically Vulnerable Families Group.

First, I want to ask you about masks. You were

asked by Ms Carey earlier about the January 2022 roundtable discussion on RPE and the minutes of that say -- that you were shown, say UK IPC guidance already enables the use of FFP3 in appropriate risk settings and that further messaging may enable wider use where needed.

Do you recall any discussion about whether the use of FFP3 masks should be enabled for patients, particularly those who are clinically vulnerable in appropriate, that is sort of high-risk, settings for example attending hospitals or other healthcare environments?

A. I think I made an earlier point here people should be enabled to wear what they wish so long as it's safe, which I think a broad point but not directly answering the one you have made. That meeting was very much around advice to healthcare workers, I think, not more broadly, but it did also pick up conversations about use of face coverings and masks for patients because of the importance around nosocomial infection.

But I think what you will have heard from other colleagues, probably more expert than me in this area, so Professor Hopkins and Professor Sir Chris Whitty said -- I think there was no recommendation including from the expert group from Dr Shin and colleagues to

recommend anything other than FRSMs for patients and there are a number of reasons for that. I think Professor Whitty flagged some of the issues of handling them and also the issues of fit testing, as well, to make them very effective.

Q. And you said earlier that if a patient comes in wanting to wear an FFP3 mask they should be permitted as long as it's safe, and you said because it makes them feel safer. Would you agree that FFP3 masks, if fit tested, mean that the patient, a clinically vulnerable patient is safer, they just don't feel safer they are safer from contracting Covid or other respiratory illnesses?

A. Well, the evidence that we've -- not necessarily myself today but others have discussed here has actually been very much around debating the effectiveness, the differential effectiveness of different masks and again I would go back to this hierarchy of controls because the thing which is most important to those individuals is that the setting that they're working in is sitting within that hierarchy of controls. PPE is just the very last step in that point. So I would be most concerned that hospitals were keeping up to step with all of the other areas.

My point is I don't think -- we don't want to be -- well, I certainly wouldn't want to be telling

other people what to do when there is no harm associated with what it is they are trying to do. There's a difference between feeling safe and effective PPE and I think from our earlier conversations I'm equally supportive that FRSMs, from the evidence that we have now, in practice are effective.

Q. Sorry, can you just explain what you mean by that last comment?

A. Well, I'm not distinguishing between the evidence for example that I think Professor Hopkins gave, certainly others have, and including Dr Shin and Co, that say the evidence of effectiveness in use, in clinical use, between FFP3s and FRSMs is very, very small. And so the same I think will apply to individuals in the clinically extremely vulnerable group.

Q. Picking up the point about evidence. Do you agree it's difficult, maybe even impossible to obtain randomly control trial evidence in relation to the success or otherwise of FFP3 masks in hospital settings?

A. So I think, as I was saying earlier, and we were discussing some of the research proposals, in fact one of the reasons that one of those research proposals has not gone through is because and again, I think Professor Whitty said this, actually, it probably needs to be looked at in a methodology called a randomised

cluster trial so that you get the right comparison. So yes, they are technically very difficult. Yes, UKHSA has put in to try and do some of those sorts of trials, but actually this isn't -- I think there's been some earlier sort of debate about whether everybody is looking for an RCT and therefore we should only look at observational studies, but in fact the evidence I think which Dr Shin provided was a meta-analysis which included something like 21 observational studies. So the -- which -- you know, broadly the evidence has been the same from both the expert witnesses and from those who are working in the field.

So I think the evidence can be explored more and I think will be beneficial to everybody whether it be healthcare workers, those providing guidance or clinically extremely vulnerable and individuals themselves.

Q. Do you agree that there is a real risk if people are waiting for the, what would be the gold standard in, for example, drug trials, of RCT evidence, in relation to an area in which you're just not going to get that and yet there is a lot of observational evidence which shows -- which comes up with a positive outcome?

A. We always work on the best evidence that we have and we're working from predominantly observational studies

now and the best evidence is agreement between Dr Shin, who is the expert, and colleagues who provided it, Dr Hopkins, Chief Medical Officer, I'm not actually seeing a difference in their views of effectiveness and the majority of that evidence is currently on observational studies. I think it would be helpful to have some RCTs and UKHSA is applying to try and promote that line of investigation.

Q. Can I ask you about mask abuse. Are you aware that many clinically vulnerable people who choose to wear a face mask today have experienced mask abuse, so people being abusive towards them because they're wearing a mask?

A. I am aware of it obviously just from the media. I haven't had individuals that I know in that -- in that -- who are clinically extremely vulnerable experience it themselves, but I absolutely acknowledge it. But I think this is -- any form of abuse is unacceptable.

Q. Would it be a good idea to have some sort of public information campaign explaining to the general public that some people reasonably continue to wear masks today because they remain at high risk of Covid-19 which continues to circulate?

A. I think this is a much broader conversation. One of the things that has struck me in some of these conversations is that we're now with Covid in exactly the same place

as we are with flu or RSV or any other pathogens and we will have groups of individuals across the population who, unfortunately for them, will always be at a slightly increased risk. So I think, going out with a sort of specific Covid-19 wearing a mask campaign is probably not the right thing to do. Getting a wider understanding of the risks of pathogens and how they can be prevented and how individuals can be supported is a really important thing to do and that actually will feed in not only to supporting individuals in that group, but the public's understanding of how they could respond if we have another pandemic.

Q. But that could include mask wearing, couldn't it? Even if it's wider than --

A. Many nations wear masks routinely; I mean, if you go to Korea in the flu season, routinely people with wear a face covering.

Q. So I think you're not disagreeing that some sort of public information campaign of that kind, of that wide a kind would be good --

A. I don't think that was exactly what I was saying. What I was saying was educating the public so people are more accepting would be quite a positive thing to do, but I think it needs to be in a wider context and certainly not just in relation to Covid-19.

Q. Can I ask you now about design of the shielding programme.

Many of CVF's members who shielded found it practically impossible to socially distance from other members of their household, particularly, for example, if they had children and they were going off to school or a partner who was going to work. And they -- there's evidence before this Inquiry of them going to quite extreme lengths like sleeping in a tent in the garden, on the most extreme scale.

CVF has proposed, and you've been asked about this morning, this idea that the shielding support could have been extended in some cases to family members, for example, to allow a partner not to have to go to work, or a child not to have to go to school. And you said earlier, just quoting from what you said:

"... once you start moving out to who needed support, it became very, very difficult to identify a household ... or a [confirmed group or] confined group ..."

Do you mean by this that it would have been difficult to identify those people to give them the support, or was it something else?

A. So I think I said as well, SAGE actually did look at how one could achieve shielding effectively, and you will

also have heard me say, when this programme went in, it was recognised that this was an imperfect way of supporting people, protecting them. So I think we were clear at the start that we were supporting to the best position we could, rather than necessarily ending with a perfect programme.

Obviously many of the support things -- my role in this was very much about trying to identify those individuals that we thought were plausibly most at risk when we had very little information, and that has changed as well a little bit, obviously, since vaccination and with QCovid and our understanding of risk.

The actual support elements sit with other parts of government, and that's not for me to opt out, but it is -- it wasn't for me to make those decisions. It was difficult, though, because I -- I mean, in supporting them, I know there were many conversations about how it could be achieved. And one of the difficulties was actually there was always a connection somewhere. There was always somebody who needed support or a family member or something else, and to try and manage any further support equitably was quite challenging in itself in organisational terms, and I think you can see that coming through some of the email chains. You can

see it was thought about. It wasn't followed through, eventually.

Q. Yes, so it was really a practical issue rather than a principle issue, because it was about making sure you could have identified individuals who could straightforwardly identify themselves --

A. Partly, but --

Q. -- or be identified, or was it a principle issue?

A. Yes, I mean I think in part. But equally, as I said, as you start extending out the group that you are trying to protect, actually the sort of societal fabric starts to go. So if every single family, for example, is isolating indefinitely, systems start to fail, and it wasn't practical. And I think this was very much -- I realise people picked up different messaging, but it was voluntary and supportive. And so, in the end, I think it was felt that certain provision was made, and we recognise that wouldn't suit every single circumstance, but it was actually a very unusual, I think, internationally unique way of trying to support individuals with these conditions.

Q. I just want to finish with healthcare-acquired infections. We've been -- you have been over in this morning. Obviously, shielded people tended to access healthcare more than others, and often CVF members felt

that their efforts to shield which came with some very significant costs were undermined because they had to leave their homes to access healthcare, where they were exposed to higher rates and -- much higher rates of hospital and other healthcare-acquired infection.

And that is discussed, there is an email which is in your bundle, you've not been shown, it's at tab 8, to Patrick Vallance where it's described, in effect, the opposite of shielding, vulnerable or being preferentially infected.

Do you agree that there was a failure to make it sufficiently safe for clinically vulnerable people to attend hospitals and other healthcare settings?

A. So there are some specific details about the data that email refers to, because in fact, on that one, I think it was associated with some graphs where, in fact, the mortality in hospitals was actually plateauing. So the interpretation in the email and the data, I think, is slightly misaligned. So I'd prefer not to do the detail of that email.

But in relation to your actual question, I think, number one, as I explained earlier, we recognise that individuals, they're going to have to keep going to hospitals, and many of them have conditions which require recurrent interventions, and that was why there

was a specific paragraph around contacting your GP, so that if you did need to go, you were supported and encouraged to in the safest way, and if you didn't need to go, you didn't expose yourself unnecessarily to some sort of routine check-up that he or she may have been able to provide differently.

You'll also see that as shielding was stepped down, the guidance going out to trusts very much mentioned specific wards, so renal dialysis wards, and wards where individuals were immunosuppressant being treated were specifically named to encourage them to try and ensure that things like mask-wearing and particular care was taken around infection.

But I think, you know, what we want to do is actually keep healthcare-associated infections down for everybody, and to some extent there are bound to be some in a pandemic, so this is about keeping everybody safe including those who are clinically extremely vulnerable.

Q. What concrete steps can be taken now to achieve that?

A. Well, I mean routinely we try, and -- I say "we", NHS, but we support with data -- to try and keep healthcare associated infection prevention infections down, and that's -- you know, we have good data systems in this country. For example, I think, maybe, any minute now or tomorrow, something like that, you know, the HCI report

goes out so UKHSA monitors those infections frequently. We have continuous surveillance running. And we try and match that with discussions with modelling with the NHS. But these are all the things that people have discussed about interventions to try and reduce that and understanding where the infections are coming from.

So, again, we know from data that these were predominantly healthcare-to-healthcare and patient-to-patient.

I think one of the important things for clinically extremely vulnerable is because not -- because of them, because of the conditions they have, sometimes the viral load of an illness will continue for a longer period and that's a really important point both for them and those working with them and caring for them that we need to try and flag.

LADY HALLETT: Thank you, Mr Wagner.

MR WAGNER: Thank you.

Ms Waddoup.

Questions from MS WADDOUP

MS WADDOUP: Good afternoon, Professor. I represent 13 Pregnancy, Baby and Parent Organisations.

Your comments on the draft maternity visiting guidance were particularly focused on the fact that testing couldn't eliminate risk. In hindsight, do you

accept that testing support partners from the same household as a pregnant person could have sufficiently mitigated the risks of Covid-19 transmission, especially when balanced against the clear and direct risk to the health and well-being of the mother and baby of being alone during or after birth?

A. So I understand the thrust of your question, but I don't actually -- the short answer would be no because there is an objective, practical one, which is, if you give somebody a test, will it remove all risk of Covid? No.

The wider question is, can we prevent or absolutely minimise the risk of infection in a way which allows all of the positives around having a partner there and reduces all the negatives of ill-health and the feeling of nil support. And the answer to that is I think we can do that much better.

I mean, I commented it was quite interesting which guidance come to me or not. I have a responsibility to flag -- usually, if they were coming to me, it was to flag what the clinical technical risk was, and I have a responsibility to say that. There is a balance point for people to take and for hospitals to take but it does go back to the point of two things: one is hierarchy of controls, so, you know, if your partner is super well-trained and knows how to go in and out safely and

all sorts of things, that's a much safer one, whether or not you've got to test a human, than having somebody who is not used to that.

Then the other point is, of course, local facilities are required to maintain the safety and the well-being of both the mums, the partners, but all the other mums' partners and babies as well. So this is why it's important locally that they do understand that. But the principle should be that for -- whether it be start of life or end of life, that there is good, normal, routine access, and that's assisted by some of the near testing technologies that we have.

MS WADDOUP: Thank you, Professor.

My Lady.

LADY HALLETT: Thank you very much.

Ms Sen Gupta. She is over there.

Questions from MS SEN GUPTA KC

MS SEN GUPTA: Good afternoon, Professor Harries. I represent the Frontline Migrant Health Workers Group. Our clients' members include out-sourced non-clinical workers, not directly employed by the NHS such as hospital cleaners, porters, security guards, and medical couriers.

Our questions relate to occupational risk management and risk assessment in hospitals. Ms Carey

has already shown you the relevant passage of your evidence, and it's Inquiry reference INQ000489907, page 58. Please could that be displayed. This is paragraph 9.31 of your second statement in Module 3. Thank you.

In a single hospital setting workers include those directly employed by the NHS trust, nurses engaged by agencies, and other out-sourced workers such as cleaners, porters and medical couriers who were engaged by private companies and so employers responsible for workplace risk management for those workers include NHS trusts and private companies. Do you agree that this inevitably leads to inconsistent risk assessments and protections for those working in the same hospital?

A. It shouldn't, is the answer, because I think at any -- if you are running a hospital and we're talking, I think predominantly about infection control and transmission here, that hospital needs to control. If that means supporting individuals as well to do that, transmission within the hospital. I do recognise that this issue of who you are employed by and who you are looking to to get that advice and support from can be challenging and disconnected but the key point here is, to my mind -- I mean, I'm coming from a protection -- Covid protection perspective, actually it is important that proactively

anybody in that environment is able to have a conversation in a way which they understand and feel comfortable in so that they can ask for the protection that they need or be advised what is available and that is a Covid-secure environment.

Q. Thank you. Professor, do you agree that at least during a pandemic assessment of risk and risk management within hospitals is best conducted by a single employer who is subject to regulatory sanctions by the HSE in the event of a breach of health and safety law?

A. That, I think, is more difficult. It's not my expert area. There shouldn't be loopholes so that people end up being looked at in one space when they're working in another because the combination of the role that somebody does and the risk management of the workplace is an important combination.

So I think, you know, it is critical, we found -- I'll take a slightly different track. But for -- and I know my Lady will be looking at this later. For care homes, actually, individuals, it's the same here. Individuals who are supporting -- like I said, just as much as doctors or nurses, these places will not keep running and yet actually often people will be -- on the lower employment ranks they will be earning less, they will be doing two or three jobs and these all start to

become transmission risks.

So I think I'm broadly supportive of what you're saying, I'm steering slightly away from the regulatory side because that's not my area of expertise.

Q. Thank you.

Finally, do you agree that the employer best placed to assess and manage risk to workers in a hospital setting is the organisation with direct experience and control of the hospital where the risk exists, ie the individual NHS trust?

A. So again, there are clearly both contractual and regulatory responsibilities. My position would be that it would be very difficult to run a safe hospital unless you are really sure of how risk is being managed in your employers within that working environment because otherwise how can you know your environment is safe.

So I think it could be done by different ways but very definitely if I was heading up an Acute Trust I would want to know all where my workers were and what that risk assessment was and I think that's implicit in running a safe hospital.

Q. And building on that, doesn't that lead to the conclusion that the employer best placed to conduct that sort of risk assessment and risk management is the NHS trust?

A. I think that depends on how systems is -- there are very, very many different setups, so I don't want to be pinned into one particular place, you might have a group of trusts, you might have a local system where an individual knows the different trusts and is acting on their behalf, so I think that is much more difficult. But the principle that individuals both should be protected in any environment they're in but also that the owner, if you like, who is responsible for the workplace should understand that in order to deliver a safe environment are both agreed with.

MS SEN GUPTA: Thank you, Professor.

Thank you, my Lady.

LADY HALLETT: Thank you very much.

Mr Stanton.

Mr Stanton is behind you but if you could make sure your answers go into the microphone. Thanks you.

Questions from MR STANTON

MR STANTON: Good afternoon, Professor. I ask questions on behalf of the British Medical Association.

I'd like to refer you to a UKHSA paper, which is reference INQ000338440 which should be before you -- I can see it is. This is a paper that I think your scientist colleagues prepared in response to a Rapid Review of AGPs that was carried out by NHS England and

I just want to quickly refer you to a sentence on page 2 which reads:

"There is an increasing evidence base of aerosol measurements during normal respiratory activities such as tidal breathing, breathing during exercise, talking, shouting, and singing."

And then take you quickly to the three conclusions on the fourth page, please, and actually I just want to reference the first two conclusions.

The first one is:

"In the absence of robust evidence, the precautionary principle should apply before potentially removing protections from staff and patients."

And the second conclusion:

"This AGP review highlights the production of aerosols by normal respiratory activity in a graded and proportionate way and importantly this physiological respiratory aerosol has been demonstrated to contain SARS-CoV-2 in-patients with COVID-19. The logical consequence of this conclusion is that those delivering close care to patients with suspected or confirmed Covid-19 should be provided with the highest grade of respiratory protection."

And I'd just like to ask you briefly whether you agree with the conclusions expressed there by your

scientists?

A. So I think, if I'm correct, this comes -- was a review and I was also provided a note as the chief executive because there was a debate -- I think there was a document, a review done by the IPC cell and some of my colleagues in UKHSA were less comfortable, I think, with the idea that some of the procedures should come off the list.

Q. Yes.

A. So I think this is predominantly about AGPs and I think the only thing I would just pull here is I think "the graded and proportionate way around respiratory activity", I think that is a debate. It may have come through some of these, but it's quite variable of both between different procedures, aerosol-generating procedures and between different individuals, and I think that's an area where I've already flagged there should be more work.

But broadly I was supportive of the fact that I felt this should be flagged to the IPC cell and indeed it was with my permission.

Q. You mentioned in your answer that some of your colleagues were less comfortable, I think you might have said, with the initial review that was conducted on behalf of the IPC cell. Can I just ask you quickly

about that as well. The conclusions of your scientists are in contrast to the approach taken by the IPC cell. Would it be fair to say there was a difference of view between the IPC cell and some of your scientists on this issue?

A. So if you look back at a lot of the evidence that's come to the Inquiry there are times when the scientists are saying something different and in fact the scientists, if you think back to Professor Beggs at the start of it is saying something different somewhere else.

So, number one, there is definitely not group thinking because there is quite a lot of noise.

Number two, I think there is a differential which I was trying to say which is the IPC cell is providing, if you like, a manual, an operational manual. We are providing the science input. I think one of the questions that arises is at which point do I or my colleagues shout really, really, really loudly if we think this is inappropriate? In this particular case, if I remember, the broad principle was maintained but a couple of AGP procedures were removed from the list and my point there is I think this is very difficult territory, we need really, really good research and that is exactly what we should do.

Q. Can I really quickly ask you, just finally, your view

about whether the UK IPC cell should have responded more quickly to the emerging threat of aerosol transmission?

A. So this goes back, I think, to the effectiveness. So what is the thing that they should have done and I don't actually think that any of the experts either feeding -- that the Inquiry has called or others feeding in are saying that there is strong evidence of a different approach to the guidance that's there from the IPC at the moment. This was specifically about AGPs, I think.

So I think you were asking both content and time issue, so I think the content is we have an agreed position. We think we could do better with evidence and we should generate that.

In timing I'd have to look back, I'm afraid, at the precise timing in which they responded. So if I can, I would rather pass on that one and come back to you if I need to.

MR STANTON: Thank you.

Thank you, my Lady.

LADY HALLETT: Thank you, Mr Stanton.

Mr Burton, who's at the back there.

And if, when you are being polite by looking at Mr Burton, if you --

A. Sorry.

LADY HALLETT: As you are looking at Mr Stanton, we lost you

a bit.

Questions from MR BURTON KC

MR BURTON: Good afternoon, Professor Harries, and please don't feel obliged to look this way at all. Please just address her Ladyship when I'm asking you these questions.

I ask questions on behalf of the Disability Charities Consortium which you may be familiar with and I'm going to be asking questions exclusively about the shielding programme, and with one exception I'm going to be going to be asking guess about your witness statement, your first one, so if you want to look at that at any point please feel free to do so.

Professor, at paragraph 49 of that statement you say that on 26 April 2020 you provided advice by email to DHSC on the shielding programme and possible growth of the group asked to shield and Counsel to the Inquiry asked you some questions about that process earlier.

In particular, that advice was provided by you in response to an email from James Rogers of the Cabinet Office which I think had been forwarded to you by Antonia Williams. It might be helpful just to briefly look at that.

This is the only document I'm going to ask the witness to look at, my Lady, which is at INQ000151804,

page 2.

And you'll see there that Mr Rogers was asking for an assessment of each proposed addition to the SPL against, amongst other things, net health including socioeconomic status and fairness, and in relation to fairness Mr Rogers said at paragraph B3 of his email:

"On fairness impacts we should thoroughly consider the differential impacts on different groups both those with protected characteristics and other groupings such as socioeconomic background or location. This work will need to inform a public sector equality duty assessment for ministers."

Professor, as far as you know, was each proposed addition to the SPL considered in the way Mr Rogers had requested in relation to socioeconomic factors and protected characteristics in particular?

A. I haven't got the questions in front of me, I have just got the front page, but I think I remember the content of this.

So at 24 April the SPL was a conditions-based list. That was how -- it was done on the clinical grounds of whether there was a plausible likelihood of an individual suffering significantly because of the condition that they had.

So many of the questions that have been asked here

were just not -- derivable at that point, there wasn't sufficient evidence.

What we did do, though, and that was the whole point of QCovid was to -- as evidence arose, to move on and the list was updated and conditions around location, for example, or deprivation and protected characteristics were brought into QCovid and that's why more people were added and in fact when we got to some of the additions and I think it may have been evidence that was presented to Professor Whitty, we could see that, for example, there was a much higher proportion of ethnic minority individuals brought in because they got picked up on this intersectional consideration.

But at this time it actually wasn't possible to do that because it was primarily a conditions-based initial list.

Q. Just in relation to QCovid, do you know if disability in particular was ever one of the considerations in relation to QCovid?

A. So the conditions were -- so disabilities is a really -- I might go back to the recommendation about data because the data -- as I -- it's difficult talking away, but I'm sure the data, as you know, is really difficult. So some conditions which will be counted on that will have appeared in the -- in our original conditions base list,

and then as the QCovid data was generated effectively we could see various conditions coming through. So I use the example of Down's Syndrome where, the initial run of the QCovid, there was very little signal earlier on when the initial run, the test data went through, if you like, on the initial run for QCovid, we could see that there was a signal from Down's syndrome, and then when we got that through you could see this was a strong signal, and those with Down's syndrome were moved into this -- into the QCovid list and into the CEV.

So it was -- but it was considered on different areas, and disability of course is recorded in many different ways for different conditions, and means different things. And that's one reason why the data is so difficult to incorporate.

Q. Thank you very much. I think I know from your previous answer what your answer is likely to be to the next question, but I just need to ask it for formality's sake anyway, if that's okay. Just following on from Mr Rogers' email, do you know if any public sector equality duty assessment of a shielding policy was ever actually undertaken?

A. I can't remember offhand, but it would be very unusual for something not to take place, and I know from the data that we looked at, although it's difficult to

evaluate the effectiveness, which is clearly part of the outcome, should be part of that duty as well, the characteristics of the group were clearly described. And then when we got into, as I say, the QCovid, you could -- we could see, intentionally, that we had higher representation than we had previously from ethnic minorities, we had differential geographical representation, for example, which was, although we were challenged on, I think it was entirely consistent with where there were health conditions differentially -- disproportionately affecting populations, particularly, for example, in -- I think it was Newham, Tower Hamlets, various other areas where we know there was high deprivation.

Q. Sorry to pin you down on this, Professor, but I think your answer there was, you're not sure but you'd be surprised if there hadn't been one?

A. Well, Department of Health would have been responsible for it, but I know -- I know from the work that we did that we looked at different characteristics, so whether you call that a formal PSED -- I mean, I'm very happy to confirm that we looked at those characteristics in detail. I wasn't the one responsible for putting in a formal response back to Government, but it was monitored very carefully.

Q. Most grateful, thank you.

At paragraph 55 of your statement you cite further advice you gave to DHSC somewhat later on 31 October 2020, and you very helpfully cited some of that advice after paragraph 55 and I just want to ask you about two bits of that advice that you cited there. Towards the bottom of the page you say:

"We should continue to rapidly include those additional groups already identified by the Clinical Panel at increased risk and not yet included in the SPL -- CKD5 and Down's. This work has been paused by CO but there is clinical agreement with NHSE that work should proceed apace on Monday unless other factors preclude this."

Now I think the decision to add those with Down's to the SPL had been made somewhat earlier in September. Can we take it from your advice, then, that as of 31 October 2020, those with Down's still hadn't been added to the SPL list?

A. So we'd looked at this, as I'd just noted, that there was an early signal but with not very granular data back in June. We had taken that too, so there's a clinical review panel which I would chair, and then we take that for decision to the UK CMOs. Their consideration at the time said actually individuals should be added on

an individual basis because we didn't have sufficient data to really make forward a strong recommendation to say that everybody with Down's, for example, should be on that list. But actually, when we ran the data, the QCovid data formally with all of the updates, we could see that there was a strong signal, and that was the clinical panel's recommendation, the UK CMO's decision.

The actual processing of that going into the list, for all of the reasons which I explained earlier on the data and the connectivity was a responsibility that went back to DHSC and NHS digital so my assumption would be that they were working on it. I was really saying here there was clinical agreement and we strongly support that.

Q. I'm most grateful and further to that then, you would agree --

LADY HALLETT: Last question, I'm afraid, Mr Burton, I'm really sorry.

MR BURTON: But Madam, I haven't gotten through the questions I've been given permission to ask, I --

LADY HALLETT: No, but I'm afraid you were given eight minutes and we're really tight for time.

MR BURTON: Very well. Well, I will skip the next question and ask another, if I may.

If you could look again at that advice, please,

you'll see at the bottom of it, it says:

"In addition, advice should be that those on the SPL do not provide childcare or other care and arrangements even those these are permitted more generally."

Do you see that?

A. Yes.

Q. Do you know if that advice was actually given?

A. So the advice finally would go back, as I noted earlier, it was Cabinet Office advice, and I would provide a clinical view. It wasn't my final decision, but the rationale sitting behind this was to try to protect individuals, obviously we wanted -- and you can see here -- recognition of the fact that there were significant mental health conversations and physical for people who were shielding for a long time, but actually multiple childcare arrangements, for example, could actually be quite challenging in terms of transmission control.

I think it was actually -- I'm just trying to connect the time frames because I think this links to the bubbling conversation later on where there was a recommendation to bubble but again not to bubble more widely.

MR BURTON: And, my Lady, if I might ask one very quick

follow-up question?

LADY HALLETT: No, I'm sorry, I'm going to have to stop -- I'm sorry, Mr Burton. We had intended to call Dame Jenny tomorrow. We can't because of -- she has to go to a funeral, so I'm afraid I have to cut you short I'm really sorry.

MR BURTON: Thank you.

LADY HALLETT: Ms Shepherd.

Questions from MS SHEPHERD

MS SHEPHERD: Good afternoon, Professor Harries, I appear on behalf of Covid-10 Bereaved Families for Justice Cymru. The first question I was going to ask you was going to be, do you accept that the IPC guidance did not have sufficient measures to adequately address the risk of aerosol transmission?

You were asked that earlier by Mr Stanton, and I think the answer that you gave was, what should they have done?

Well, the evidence of the IPC experts who were Professors Gordon, Drs Shin and Warne, gave a couple of recommendations: they wear HEPA filters, the portable HEPA filters, UV lights, improved ventilation, and they advised that FFP3 respirators should have been used on a precautionary basis when treating Covid patients and patients with suspected Covid-19.

Do you agree that those recommendations weren't in the IPC guidance issued?

A. I'm just trying to process your question. Ventilation I absolutely support, but that is -- again that comes with understanding more of the transmission as the -- as our evidence base developed, but it's -- that goes -- whether it's in hospitals or other areas, and I think again Sir Chris Whitty mentioned the point there are risks with that as well around thermal regulation as well, the different -- and so we need -- it's not quite as clear as it is.

On the evidence that we were discussing which Dr Shin and colleagues presented -- again, I'm just repeating what I've said -- I think nobody has suggested that the actual practical evidence of wearing FFP3s is significantly better than wearing FRSMs, except for the AGPs that we were just discussing. So I'm not sure if I've answered your question, but I think it's probably the same answer I gave before.

Q. Very quickly, you asked earlier what were the things they should have done that they didn't. I was just giving you some examples of the evidence that we've heard in the Inquiry. Do you agree that that should have been implemented?

A. I'm sorry, I don't understand the question. Apologies

if I'm not --

Q. I'll move on. Earlier in this Inquiry, Sir Frank Atherton, who is the CMO for Wales, gave evidence that he assumed that long-range aerosol transmission was taking place, and that it was understood from quite early on that there's a continuum of droplets to tiny particles. Did you understand that as well at the early stage of the pandemic?

A. I think obviously it depends at what time he thought long-range air transmission was happening and in what proportion. So the issue is not whether there was some air transmission, it is how much, what proportion, how far, and I think I've probably answered that question previously. So I think, at -- any respiratory virus, we would always think, is there some air transmission? But our evidence from previous SARS and MERS, in practical clinical utilisation and transmission prevention, was that wasn't the predominant route. I think, obviously, evidence has changed now.

Q. In relation to the issue about predominant route, it also wasn't known at the time whether droplet and fomite transmission was predominant at the beginning of the pandemic, but you wouldn't remove measures in relation to droplet and fomite, so do you agree that if there is some evidence of aerosol transmission and it wasn't

known to the extent of the aerosol transmission, that it should have been assumed that it was taking place and that it was a predominant route?

A. So I think I just repeat what I've said previously, which is, it was a reasonable assumption to go to the nearest relative in the viral chain, look at what had happened in clinical practice, because this is important as well, that's where guidance started. Yes, we should always stay open to changes in proportion of transmission routes and risks and we need to manage those, but I don't think -- it wasn't an unreasonable assumption at the start.

Q. In your witness statement you talk about the role that you had, which was effectively to flag any issues that you saw in the IPC guidance, but that wasn't necessarily your primary role; you were looking at if there were any interferences with other parts of guidance. Did you ever flag any issues with the IPC guidance or challenge it?

A. Yes. But I struggle to be -- we've seen -- it's not just IPC guidance, it's guidance, full stop. And I would get guidance for example from BEIS, and flag differences in the way things have been described to ensure there was consistency across, but these would be multiple documents on a daily basis flying through the

office, so that's quite a broad question.

Q. If I could make it more specific, did you ever say that there needs to be more in this IPC guidance to address the risk of aerosol transmission?

A. Well, I would have been looking at the control of transmission as a whole, and it would -- obviously that would depend on the evidence we had available at any particular time as to whether I would or would not have been flagging it. Obviously at the start of it, I think I've just said that the transmission TO was recognised potentially but was not thought to be a major route so I would not have been focused on that specific at the start. Clearly, as the guidance went through, I mean, I can think many occasions where I put in the word "ventilation" in the middle of things as the guidance and the evidence developed, but, I mean, these are -- there's probably hundreds of documents, so I think I'd need a slightly more precise question. Sorry not to be more helpful.

Q. I'll move on to my next topic which is aspects of divergence between English and Wales. In late April 2020, the Minister for Health in England announced an expansion of the rapid antigen testing programme to include asymptomatic healthcare workers and NHS patients. When the announcement was made, Sir Frank

Atherton said that the Welsh Government was still trying to reach across to England to understand the exact rationale for the changes that they've made in various categories. To your knowledge, did Sir Frank Atherton or anyone else from Welsh Government reach across to understand the rationale for the expansion?

A. I wasn't involved with Test and Trace at the time, so I can't answer from that perspective. I can say that Frank Atherton I routinely joined conversations with all of the DCMO -- CMOs from all of the nations, as I think others have described, and we would have had conversations through that and through the Senior Clinicians Group as various changes were being managed. So I think in general that was it. It's not clear from your question whether that relates to a practical issue. There were tests you know test availability which I could find out for you for a later module I think I'm sorry I'm not able to help.

Q. What Sir Frank Atherton said in his early evidence was test wag as bit of an issue although information on the public health basis fled very smoothly between the CMOs sometimes at the policy level in England they didn't communicate as rapidly as we would have liked with colleagues who were working on similar issues in Wales and he says that that did lead to some divergence and

some difficulties in keeping up with what everybody was doing. Were you aware of any of those difficulties in communication?

A. I don't think this is a question -- with my Lady's permission I don't think this is a question for this particular module. There will be a testing module. I can provide information historically that I receive on behalf of the Test and Trace, but it feels like that's probably a question for DHSC policy, possibly, in a different module.

LADY HALLETT: It's a legitimate point. I should probably have thought about that more when I gave permission.

MS SHEPHERD: My final question is about testing, so therefore, my Lady, I will raise that in the next module. Thank you.

LADY HALLETT: Thank you, Ms Shepherd, I'm very grateful. Mr Pezzani who is over there.

Questions from MR PEZZANI

MR PEZZANI: Thank you, my Lady.

Good afternoon, Professor, I ask questions on behalf of Mind, the mental health charity. The first topic has already been raised with you, Professor, by Ms Carey, Counsel to the Inquiry, and it's in relation to the document published by PHE on 29 March 2020 called Guidance for the Public on the Mental Health and

Well-being Aspects of the Coronavirus, the reference is INQ000348091.

My questions in relation to that are first, children and young people's mental health was not expressly addressed in the guidance published on 29 March 2020. Given that (a) known risk factors to their mental health include disrupted schooling and social isolation and (b) the guidance did expressly address another age category, that of older people, are you able to assist on why there was no specific reference to children and young people's mental health in that guidance?

A. So I'll say two things. One is, I wasn't -- I can't say the origins, I wasn't in Public Health England at the time and I didn't draft the guidance. So what I can say is in the -- as DCMO, I did link a lot and I think that is -- I've provided some evidence of that with Royal College of Paediatrics and Child Health, the CMOs obviously, provided that for CMO position for education, and I recognise all the points that you make. I think it's probably become much clearer to everybody through the last few months just how difficult it's been for children and for mental health and how enduring some of that difficulty has been. I don't think it was necessarily anticipated at the start and I think your

point about always ensuring that children are considered in guidance is a really important one. Whether -- I think there was separate guidance for children which I would just flag but I don't have that to hand to show you.

Q. I'm very grateful. The second point is similar but in relation to eating disorders. Similar risk factors apply, and much of what you've already said in your answer to my first question would also apply to eating disorders as I'm sure you're very well aware. And also, a later version of the guidance did expressly address eating disorders as a specific category of groups with additional mental health needs, and it said, and it's worth just noting briefly what it said: if you have an eating disorder or struggle with your relationship with food, you may be finding aspects of the current situation particularly challenging, for example the reduced availability of specific foods, social isolation and significant changes to your routine.

But the first version of the guidance in March 2020 did not mention eating disorders at all. Again, are you able to assist on the reason for that omission early on in the pandemic?

A. So, again, this is not an area -- I wasn't responsible for the guidance, I wasn't in that organisation and in

fact, as we've progressed, that advice now would come from the Office for Health Improvement and Disparities not from UK Health Security Agency.

Nevertheless, I'm a general public health physician so I think the point that you make is an important one. I think, again, it would have been difficult to know at the start of the pandemic. We had no understanding of how long this was going to go on, how the waves would form, what the impact in timing would be on education and the impact on children. So I think these are important considerations to learn for any other potential future lockdowns, if I dare use the word, but really important and actually the most important thing is about the services -- now, again, not my responsibility but I know is recognised because services have been strained for many years and actually if individuals, if children are not recovering quickly there will be an ongoing significant demand and I think that's probably an important one to ask NHSE colleagues.

Q. Thank you. I don't want to overuse my time, so I will ask you this. You said to Ms Carey before lunch, and I hope I got your evidence down right from the transcript: the mental health impact -- and I think you were talking about shielding then and lockdown:

"The mental health impact was to some extent

recognised."

My question is, why to some extent?

A. Well, I think I gave the answer then because we don't have -- I mean, it was recognised on an ongoing basis so if I think about the clinically extremely vulnerable or other groups, people were surveyed through the pandemic, ONS produced regular updates so, as I say, to the extent that those surveys showed evidence then that's there. But for something like an eating disorder, that can be actually hidden for large amounts of it and it may not surface until children are back in different societal fora, so I think it's inevitable that some of these things will surface through the pandemic and not all were predictable.

Q. I see. So your point is delayed emergence of evidence for the mental health impact?

A. And the fact that, you know, unless you put in very specific studies for different cohorts of people you will always have hidden pockets of illness, or ill health, which you cannot quantify or qualitatively explain in detail until a specific piece of work is there. I think I was probably just saying there is a general recognition and I think we can all see that. We could see that through the clinically extremely vulnerable, although actually the mental health levels,

the reported downturn in mental health was probably not too dissimilar to actually what the general population reported as well. So I think it will have affected different individuals in different ways and some of that also will depend on their own individual home circumstances.

So it was a general comment, really, but I think recognised the importance of mental health.

MR PEZZANI: I am very grateful.

LADY HALLETT: Thank you, Mr Pezzani.

Ms Munroe, just there. Much more convenient.

Questions from MS MUNROE KC

MS MUNROE: Thank you.

Good afternoon, Professor Harries. My name is Allison Munroe and I ask questions on behalf of Covid-19 Bereaved Families for Justice UK.

I'd like firstly to take you back to a document you have been referred to a number of times already this afternoon. Hopefully, I have different questions in relation to that.

It's the January 2022 roundtable that you attended. And looking at the summary of notes, the purpose of that roundtable, amongst other things, was for those participants to understand and discuss the current evidence base regarding RPE, usage, guidance,

how the guidance was being implemented in practice, and what the practical considerations are regarding RPE usage such as fit testing and supply.

Now, that is January 2022. However, the concerns about availability and use of FFP3 masks for healthcare workers treating Covid patients were being raised from the outset of the pandemic which I'm sure, Professor, you were aware of at the time. What was your involvement in addressing such concerns prior to this roundtable in January '22?

A. So I didn't have a direct involvement. As I tried to say, usually if there were 20 topics or areas involving individuals representing large parts of the healthcare -- health or care system or local government then often I would be used as a chairperson -- very willingly -- but because I had insight into each of those different areas of work rather than just one part of the system.

So, originally, I would have been -- in fact very little, to be honest. My role as deputy CMO was theoretically, prior to the pandemic, to do with health improvement work, so nutrition, physical activity and those sorts of thing and I reverted to health protection obviously in response to the pandemic.

So I think the reason this particularly arose by

that stage I was the chief executive of the UK Health Security Agency, clearly I have professionals now working in my new organisation who were inputting to the IPC cell. The first event, actually, after the formation of UKHSA was the Omicron wave and that had triggered a number of conversations to come back up to the top.

So in some ways it was an opportunity for all of those people in a new wave with a new health protection system to say, actually, what do we all think here, are we all understanding the evidence the same, are there issues here, can we have a single voice around what's there or are there things that we need to do to improve the position?

Q. Thank you. The summary notes of the meeting also state that the evidence relating to RPE was accrued up to April 2020 and pre-Omicron. There may be value in revisiting this work. My question, was the work revisited and had further evidence been sought post April 2020?

A. One of the reasons, actually, for chairing the roundtable which as I say I think I had flagged or suggested just before Christmas, was to check. It was this whole position of: well, this is what the evidence was before, has the evidence changed? And so when

people came to that -- I would have to go and check -- I mean, PHE and then the UKHSA will routinely update evidence, there's usually a time frame attached to a piece of evidence, but the pandemic was fast moving. As we've all discussed, the transmission routes were being considered and the proportion of airborne transmission was being considered so it was important to ask. So that was one of the topics that was discussed.

Because each of those contributors came from a different background so they would have brought with them the science side of things, what utilisation was right, what healthcare workers were seeing or feeling on the ground, a whole range of different potential evidence bases and if there were gaps then we could take that away and review it.

Q. Thank you. And finally on this roundtable meeting, amongst the outcomes of the roundtable was further consideration of fit testing in the context of pandemic preparedness. Can you, Professor, comment on the work done since the roundtable, since January 2022, either by UKHSA or others in regards to (a) RPE and transmissibility of Covid and (b) fit testing?

A. The transmissibility and the use of RPE goes back to the conversations around our research programme and I'm going to provide my Lady with some detail of that. So

there is work ongoing.

The fit testing is much of an operational issue for NHS so I suggest that might be a question that you might want to keep for when colleagues are on the stand in the near future.

Q. Thank you. One question on another topic, testing of asymptomatic patients and healthcare workers. I want to refer you to another meeting that you attended. It was a senior clinicians meeting at which a paper was discussed on nosocomial transmission. For reference, it's in your statement at INQ000489907.

Now, the paper that was discussed was drafted by NHS England to SAGE and dated 31 March 2020. And it identified risk including the risk of transmission by asymptomatic patients or staff and noted that swabbing of healthcare workers and/or asymptomatic patients was a potential surveillance and research option which had already been underway in Bristol.

With that in mind and in view of this early recognition of the risks posed by asymptomatic transmission and potential for addressing it, do you consider that such testing of healthcare workers, which was not implemented until November of 2020, was properly prioritised, particularly in advance of the second wave in October of that year?

A. I would have to check some of the detail in my notes but I think the sequence of events was -- that was -- that paper was -- I don't have it in front of me but I recognise -- it had a number of different areas of potential opportunity to intervene and so there were two issues. One was actually the testing capacity, and I think that was the prime reason, but there was also research which started and in fact the SIREN study, which I've mentioned earlier, picked up some of that, so that it gave an opportunity -- I think it came in before the actual testing, it was a research protocol, but the real problem with testing at the early part of the pandemic was actually the capacity. So it was clinical use first for management of patients and then obviously healthcare workers and their families and social care workers as well were the -- and key workers were the next priority.

Q. My final question relates to lessons learned and data systems. We've heard a lot about data, you've spoken at length about it, and your answers have touched upon my question so the remnant of the question that I have left I can probably summarise as follows. It's abundantly clear, Professor, how important and significant you place data and it's a view that we share.

In the event of another pandemic we're going to

need to hit the ground running and be in a position that data is used better and is utilised better and that there are mechanisms to facilitate its use and rapid implementation, etc, for policies such as perhaps a future shielding policy. What is being done now to prepare and ensure that we're in the best possible position to utilise data effectively and efficiently?

A. So obviously there are many different owners or custodians, I will say. The data is provided often by the individual, so it's their test, it's their infection it's whatever it might be. But we are careful custodians of a lot of public data, particularly on infectious diseases. So in UKHSA now we will receive in automatically signals of, you know, to monitor, survey different infections, so Covid variants, or what have you. We have taken action because what happened during Covid was that a lot of new systems were set up quite quickly, patched together, they were quite expensive systems and they were only specific for Covid.

So we don't have most of those systems now. I think this is an important understanding. So if you absolutely said this happens this minute, I cannot do what we provided for -- for dashboards and things to the extent that we did before, but we are trying to now build systems which are pathogen agnostic and so not

only could we pick up -- use those for any new emerging infection but much more routinely we can provide information to the public so they can see as well.

I mean, one of the important things about the dashboard was once it was up and running, actually people responded to the waves that they saw and so to some extent the advice we give can be -- there will be routine evidence and we are doing that now. It's a little bit -- it's crude at the moment but we're trying to put out new systems for the public to use and if you go on the UKHSA website you will see that for winter viruses at the moment.

So we are doing work but there is a history, I think of a lack of investment in digital infrastructure across the public system and that comes with security as well which is obviously a changing environment. So it's quite a slow progress but there is work.

MS MUNROE: Thank you very much, Professor.

Thank you, my Lady.

LADY HALLETT: Thank you, Ms Munroe.

Ms Hannett is right at the back there. I think she's trying to make your life difficult as the last questioner.

Questions from MS HANNETT KC

MS HANNETT: Thank you, my Lady.

Professor Harries, I ask questions on behalf of the Long Covid groups.

Can I ask you first of all about UKHSA's work. The latest publicly available data on the prevalence of Long Covid was published by ONS in March 2024, and that reported that nearly 2 million people, or 3.3% of the population of England and Scotland, are self-reporting with Long Covid.

What work is UKHSA currently doing on communicating the risks of Long Covid to the public?

A. So, predominantly, the risk of Long Covid and the clinical interventions are managed by the NHS through NHSE, so broadly we don't transmit risk because we will include those risks along with the risks of the pathogen itself.

So I think in -- for example, in things like vaccination, where we know of vaccine effectiveness we will show in public communications the evidence that we have in relation to reductions in Long Covid, alongside those reductions in prevalence of disease.

Q. Is the answer that then, generally, no, nothing, save for when it --

A. Well, I think this is a distribution of responsibility, so it's not that we don't recognise the significance of

the disease. It's actually -- it's more to do with different parts of the health system and the responsibilities we have. So we will monitor vaccine uptake, for example. We will look at the associations of effectiveness of vaccine in a number of different ways, preventing serious illness, preventing Long Covid -- a number of those areas. But we -- it's not probably our -- it's more in the clinical research of clinical trials with NIHR, with the Department of Health and NHS England, to look at some of the other parameters.

Q. Can I just ask you about Long Covid in young people. The UK chief medical officers, of which at the time you were one, put out a statement on 23 August 2020 on skills in childcare reopening, and in that statement you said very few, if any, children or teenagers will come to long-term harm from Covid-19 due solely to attending school. That statement was issued at a time, August 2020, when a number of my clients' children had already developed debilitating and disabling symptoms of Long Covid and were being disbelieved by medical practitioners. So the August 2020 statement didn't warn parents of the risk of Long Covid in children; when did the office of the Chief Medical Officers provide such a warning?

A. So I think I'd probably refer to the evidence that Professor Sir Chris Whitty gave. Obviously I left that office in April 2021, and -- as I think he said, we are still learning a lot about this, and I'm sure you are very familiar with that.

I think that there is a -- there were lots of things that were really difficult and bad about the pandemic, and the balance of impact on children is really difficult. I think we've just had a colleague speaking from Mind about the mental health impact, so it's very difficult to -- there are lots of things in that statement that have not been flagged, and there is a lot of learning ongoing. So I think there's an absolute recognition that in a small number of children there will be really, really significant impacts.

It is still the case that the impact of Covid severity is still very much with the elderly, and you can see that in the outcomes.

Q. Professor, do you accept having put out that statement in August 2020, it was incumbent on the office of the Chief Medical Officer to flag the risk of Long Covid in a subsequent statement?

A. I think it would have been very difficult to do that in August. I mean --

Q. I'm not talking about August, I'm talking about subsequently, once the risk of Long Covid to children became apparent.

A. I would struggle to answer, I think, on behalf of the Chief Medical Officer, because I think you posed a similar question to him when he was here and it's his office now and it's not mine. So I think the broad question, I think, is, are we aware of those risks? Yes. Is it well-known amongst the medical profession and among health services? Yes.

And for my own organisation, we do use that as not specifically for children, obviously, but we do say that the reduction, when we're using vaccine data, we will use the evidence about reductions in Long Covid as part of the opportunity that is available to the public of all ages from the reduction in incidence of Covid and therefore of Long Covid.

Q. Can I put the point another way: would you do anything different now, in your time as Deputy Chief Medical Officer, to offer reassurance to parents of children with Long Covid in hindsight?

A. Well, we're talking now about a document that I think went out in August 2020 when I don't think -- we were only a few months after the start of the pandemic, and the Long Covid syndromes were not well-described and

understood, and that's obviously because it has a long time frame. So I don't think it would have been possible to say very much more at that time. Clearly, the approach for everybody is there are lots of negative things about Covid that we want to reduce them, and the more we reduce the incidence of Covid, the less Long Covid there will be.

MS HANNETT: My Lady.

LADY HALLETT: Thank you very much, Ms Hannett.

I think that completes the questions that we have for you, Dame Jenny. I think the last we met you, you had to go off to deal with -- was it an Mpox outbreak?

A. There is another Mpox outbreak.

LADY HALLETT: Another one, and I had a case of avian flu this morning, so I hope that your organisation isn't overwhelmed with cases, and that you manage to get them all under control.

Thank you for your help. I think you may well, during the course of your answering Ms Shepherd, have volunteered to help the Inquiry again in another module, but we'll try to limit the burden we place on the UKHSA, but thank you for your help to date.

(The witness withdrew)

LADY HALLETT: Very well. 10 o'clock tomorrow, and I understand the tube strike has been called off --

MS CAREY: It has, my Lady.

LADY HALLETT: -- so travel arrangements back to normal, however good that may be. Thank you very much.

(4.33 pm)

(The hearing adjourned until 10.00 am on Thursday, 7 November 2024)

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