

Thursday, 26 September 2024

(10.00 am)

LADY HALLETT: Ms Carey, I understand the next witness is Professor Fong. Some details of his evidence may well be distressing, not only probably to the witness himself but also to those who are following our proceedings. We expect it to contain descriptions of end-of-life care and the management of those who died. So those in the hearing room who feel they will be too distressed, please leave now, and those who are watching online, if you wish to do so, please pause the live stream.

MS CAREY: Yes, thank you very much, my Lady. May I invite now, please, Professor Fong to be sworn.

PROFESSOR FONG (sworn)

Questions from LEAD COUNSEL TO THE INQUIRY for MODULE 3

MS CAREY: Professor Fong, your full name, please.

A. I am Kevin Fong.

Q. You are a doctor employed by University College London Hospitals NHS trust as a consultant anaesthetist, is that right?

A. That is correct.

Q. You also work as a helicopter emergency medical service doctor for the air ambulance charity in Kent, Surrey and Sussex?

A. That is correct.

1

2020 all the way through until July 2021, when administrative support was ceased. They continued in other forms after that but that was the formal programme.

Q. Over the course of that period how many visits did you personally undertake?

A. I personally led and undertook more than 40. I lost count.

Q. All right. I think the visits had their genesis, is this right, when you received a message in March 2020 from a colleague at a general hospital -- district general hospital that was experiencing a significant surge. So can we start there, please, Professor. Just tell me, what did the clinician tell you about what was going on in their hospital?

A. So at that time I was aware that they were experiencing pressure when I contacted one of the clinicians working on the shop floor. They told me that their ICU was full, that they were overflowing with patients, that they were running out of staff, that they were running out of basic consumable items, and that included drugs, equipment, that they were raiding their resuscitation trolleys, which are the trolleys that you usually keep for cardiopulmonary resuscitation if someone has a cardiac arrest, for things like -- very basic items

3

Q. I think you have a dual specialist accreditation in anaesthesia and intensive care medicine, and you have been in practice now for some 26 years?

A. That is correct.

Q. During the pandemic, is this right, you were seconded to NHS England as a national clinical adviser to the emergency preparedness resilience and response core, EPRR as we have been referring to it, and it is about that that I would like to ask you some questions.

I think also though, as well as working in the EPRR capacity, you took on clinical roles, including clinical shifts at UCLH and indeed in critical care transfer, so one hospital to another, throughout the southeast of England; was that by road and air?

A. By road and air, yes.

Q. The questions I want to ask you this morning really focus on your role in what are called peer support visits for intensive care units, and I think you say in your statement that you were responsible for organising and leading a programme of visits into hospitals that were experiencing severe pressure during the pandemic. This was across England, is that right?

A. That is correct, yes.

Q. And how long did the visits programme last?

A. So formally the programme ran from around the summer

2

like bougies --

Q. What's a bougie?

A. A bougie is a kind of flexible stick that you use to help intubate a patient to place a tube into their windpipe to help them breathe and establish them on a ventilator. They were raiding the trolleys for those items. They are very basic items. And -- and for endotracheal tubes, tubes that you would place in the windpipe to establish them on a ventilator.

Q. Were you surprised to learn that they were running out of such basic equipment?

A. It was very early in the pandemic, it was quite a shocking account. They -- I was surprised at the scale of the pressure they were facing and that the data had not captured that.

Q. No, well, I was going to ask you that, and I ought to have introduced your statement, which ends 474327. I think you have a copy in front of you, Professor, if you need it.

You said there that what you had learnt appeared to be, your words, at odds with the data reports. What was the data telling you that was such at odds with what this hospital was telling you?

A. The data -- it was more that the data did not paint the picture of that severity of pressure: out of basic

4

1 equipment, out of staff, insufficient staff, to staff
2 transfers out to decompress your facility. And I felt
3 that there was a gap between what we could understand by
4 seeing numbers on screens and what was actually
5 happening when you spoke to the people on the ground.

6 **Q.** I think you said that that clinician told you that they
7 had insufficient intensive care and anaesthetic medical
8 staff to be able to transfer patients out?

9 **A.** That is correct.

10 **Q.** Given that you had been involved in transfers, how many
11 doctors and nurses does it take to conduct a transfer
12 from one ICU to another?

13 **A.** So it is a specialist skill, you usually require at
14 least one specialist intensive care nurse and
15 an intensive care doctor or anaesthetist who is
16 specially trained to conduct these. They are not
17 without risk, they are difficult to do, there's risk to
18 the patient, there's risk to the staff.

19 **Q.** In short, were you invited then to come and see what it
20 was like in the hospital?

21 **A.** At that time, no. At that time it was just the
22 realisation that perhaps there was a gap between the
23 data and the information and the insight. You know,
24 data isn't information, information isn't insight, and
25 I -- given that so much of this depended upon

5

1 correct?

2 **A.** It was. It occurred to me that it might be useful for
3 me to see that myself. And so I did indeed, I think one
4 Sunday afternoon, visit that unit.

5 **Q.** You say this was a hospital where a catchment area
6 featured pockets of significant social deprivation, as
7 well as black, Asian and minority ethnic communities,
8 who we know were at increased risk of severe Covid if
9 infected.

10 So could you tell us, please, what you saw on that
11 first visit.

12 **A.** Yeah, it was very memorable. I was greeted at the
13 entrance by one of the intensive care registrars.
14 I asked him immediately what things had been like. He
15 replied -- I will never forget, he replied "It's been
16 like a terrorist attack every day since this started and
17 we don't know when the attacks are going to stop."

18 And I remember thinking that's -- you know, for
19 them, that was not a hyperbolic statement, they'd
20 admitted an average of eight intensive care patients per
21 day during the whole of that period.

22 We went into the hospital. Their oxygen panel
23 alarms, so the panels that show you the state of their
24 oxygen supply, were alarming constantly. They led me
25 down to an ad hoc intensive care area. Their intensive

7

1 understanding how much capacity there was in the system,
2 I identified that as a problem.

3 **Q.** Can I ask you about your first visit, please, and
4 I think you deal with this starting at your paragraph 15
5 in your statement.

6 I think you talk there about visiting what you
7 describe as:

8 "... one of [the] UK's hardest hit hospitals for ICU
9 COVID-19 Covid admissions, relative to baseline critical
10 care capacity."

11 Can you put that into layman's speak for us.

12 **A.** Yes. So on this occasion I was aware that this hospital
13 was already under pressure. I had contacted them and
14 they said -- and I said "Please tell me what's going
15 on". And in the end the clinical lead, who I knew
16 personally, said "It's much easier if you come and see
17 it."

18 When I talk about baseline capacity, that is the
19 number of beds that that unit would have had pre-Covid.
20 And that's important because it determines the number of
21 staff available to run that bed. An ICU bed is not
22 a piece of furniture, it requires a specialist staff
23 around it of many people.

24 **Q.** And so this was an informal visit as a result of the
25 offer, effectively, from the clinician you knew, is that

6

1 care areas were already full. So their baseline was
2 already full and they had spilt out into their operating
3 theatres.

4 **Q.** This is, I think, April 2020?

5 **A.** That is correct.

6 **Q.** Can you give us an idea of what's the noise like in
7 an ICU when the oxygen is under stress -- there are
8 obviously other pieces of equipment -- I just want to
9 try and get a sense of what it was actually like.

10 **A.** It is difficult to remember precisely what I was
11 hearing. Intensive care units are noisy at the best of
12 times but -- they led me through this -- I guess this
13 plastic air lock that they had assembled with a zip
14 and -- you know, between the clean areas and the Covid
15 areas. The operating theatres' recovery was just --
16 like nothing I had ever seen. An intensive care bed is
17 supposed to have about 20 to 25 square metres. It's the
18 size of a very large living room.

19 **Q.** Pick something in our hearing centre to give us an idea.

20 **A.** It would probably be from here to that desk, to
21 my Lady's desk, and about that width. That's about --
22 5m by 5m should be what it should be.

23 The beds were stacked in here so tightly that I had
24 to squeeze between them. The patients were close enough
25 that they would have been able to hold hands. The

8

1 equipment was wedged between them. This looked like
2 a unit that was in real trouble. It had already taken
3 on its full intensive care unit capacity. It was in the
4 ad hoc areas. It was in its theatre's recovery, and the
5 nurses were nursing at a ratio as low as 1:6 actually,
6 at that time; one specialist care nurse to six intubated
7 ventilated patients.

8 **Q.** Can you help us: how long did you spend at this
9 hospital, and then we will widen it to the other visits
10 that you conducted. How long were you there for?

11 **A.** So this was an afternoon's visit where I had a look
12 around at all of the different areas. And I think
13 this -- I talked to the staff on the shop floor, many of
14 whom were already in tears, and I realised at this point
15 that perhaps it would be better if we were able to do
16 this ourselves and see these areas to understand what
17 they were going through.

18 **Q.** What were the nurses telling you?

19 **A.** They were telling us that they couldn't operate at this
20 level, they -- these diluted ratios, with one specialist
21 ICU nurse covering four or six patients at a time.

22 I remember in another hospital the nurses telling me
23 that all you have time to do is to manage the alarms;
24 you're not managing the patients. The alarms are going
25 off constantly -- the syringe drivers, the ventilators,

9

1 clear -- we plotted the data. It was clear that those
2 units under the most stress provided the poorest data
3 returns, and indeed until the point that they became so
4 operationally stressed that they provided no returns at
5 all. So those that you wanted to know the most about
6 were least likely to return in first wave.

7 **Q.** Can we be clear, the data return, is that a requirement
8 placed on them by NHSE?

9 We have also heard about ICNARC data, and I just
10 want to be clear about who requires this data to be
11 provided.

12 **A.** So those data sets are separate, but there was a
13 requirement centrally from NHS England and/or the
14 regions in addition to the ICNARC data which is
15 routinely collected for, I think, all the units now.

16 **Q.** Okay. You decided then that there needed to be this
17 programme set up, and I think you say that:

18 "The visiting team [either you and/or the rest of
19 your colleagues going on them] would comprise up to four
20 doctor and nurses drawn from a unit of a similar size
21 and scope in another region."

22 And just tell us now, over the course of your
23 40-plus visits, how long were you at the ICUs for?

24 **A.** So, each visit, we would turn up, depending on
25 geographically where they were, as well as you could in

11

1 the beds, whatever you've got, the oxygen, and you're
2 putting out fires, rather than caring for the patient.

3 **Q.** When you came away from that visit, what did you resolve
4 or decide to do?

5 **A.** I think it reinforced my sense that there was a gap
6 between what the data could tell us and what we could
7 understand by talking to people or actually being there.
8 I think the data were important and necessary, but they
9 weren't sufficient alone to give us a good picture of
10 what the state of compensation or decompensation of
11 these units was, and so after that, I felt that we had
12 to have mechanisms that would better inform us, to give
13 us the information, to give us the insight.

14 **Q.** I think you say in your statement that acute hospitals
15 have to complete a return on a daily basis with their
16 data, and you say that's an onerous task, and you make
17 this observation: that the quality and completeness of
18 the data return reduced when the hospital, the unit, was
19 under severe operational stress, and presumably
20 therefore you had the best data from those hospitals
21 that weren't under that degree of pressure?

22 **A.** That's correct. The data collection forms at first were
23 incredibly onerous, so much so that the nursing staff
24 who were already pressured were coming in, in their
25 spare time to complete them and return them. And it was

10

1 the morning, that was usually, practically speaking,
2 nine or ten o'clock in the morning. We would stay for
3 a full day. It was important that this wouldn't be
4 a cursory flyby of a visit. It was important that we
5 had time to embed with them, to put on PPE, to get onto
6 the shop floor with their people on their units, and
7 then to spend the back half of the day in conversation,
8 so that would be all five hours of conversation
9 afterwards with whoever would talk to us.

10 **Q.** And when you spoke to the staff, what kind of roles were
11 they were performing? What levels of staff did you
12 speak to?

13 **A.** So, we made the offer open to the unit we were visiting.
14 Sometimes we would only talk to the doctors and nurses;
15 sometimes they would give us everybody. They would --
16 we would talk to the doctors, the nurses, the allied
17 healthcare professionals as well, the occupational
18 therapists, the dietitians, the physiotherapists, all of
19 these people who are required to run an intensive care
20 unit, healthcare assistants. It was really up to the
21 unit how they wanted to use us as a resource.

22 **Q.** Did you ever speak to any non-clinical staff during your
23 visits?

24 **A.** So, if by "non-clinical staff" you mean neither doctors
25 nor nurses, then yes. As I mentioned, the allied

12

1 healthcare professionals who are also clinically active.
2 Healthcare assistants. I think at one or two hospitals,
3 we did speak to some of the porters and some of the
4 cleaning staff.

5 **Q.** May I ask you this: what was the sort of purpose of
6 going in and visiting these hospitals? What was the
7 aim?

8 **A.** It was twofold. First and foremost, it was to provide
9 support for these people. We designed them very
10 carefully. It took effort to design these visits. They
11 were informal. They were peers, so we would take
12 doctors and nurses from similarly sized hospitals from
13 another region in to see a mirror image of themselves
14 elsewhere so that it would encourage discussion and
15 sharing of information.

16 So the first, foremost was to provide support for
17 these people, to allow them to spend some time
18 reflecting and -- with us, and learning, you know, if
19 there were different ways to do things.

20 And then, secondarily, it was to try and close this
21 information -- this gap between information data
22 information and insight so that I could go back to the
23 emergency preparedness resilience and response team and
24 report in and give an accurate picture of what we were
25 dealing with.

13

1 an NHS England role, and the programme was an NHS
2 England programme.

3 We were unable to offer visits outside of England at
4 that time. We discussed with the four nations what we
5 were doing. We had requests, but we didn't have the
6 resource to fulfil them, and I am not aware of any
7 similar programme in the other nations.

8 **Q.** And can I ask you this: you're going into ICUs, as
9 I understand it, that are under the most extreme
10 pressure. Is there any sense that you, by visiting,
11 might have added to the burden that the unit was under?

12 **A.** So this is one of the things that we thought about
13 really carefully, that we must not add to the pressure
14 they were already under. And that was part of the
15 crafting of this product, was to make sure that they
16 didn't feel like this was some surprise inspection by
17 NHS England, that we were going in to support and give
18 them time to share, and it was why it was important that
19 it was peer support, that it was people who understood
20 the pressures that they might be under. And, you know,
21 it was very carefully crafted so that we would not add
22 to the burden, and it was designed so that it should
23 have been a positive experience for them as a unit.

24 **Q.** In your statement, you have set out in particular 14
25 visits out of the 40-plus that you conducted. I'm not

15

1 **LADY HALLETT:** Sorry to interrupt. Can I just go back to
2 the data gap, Professor Fong.

3 Presumably, if you have that gap, what you were
4 hearing and seeing is dismissed as anecdotal because the
5 data is not showing it? "Dismissed" may be too
6 pejorative a word.

7 **A.** Yes. There is understandably, you know, this value that
8 we attribute to stuff that you can count. But, you
9 know, in their famous words, not everything that counts
10 can be counted. And for me, if we were talking about
11 the capacity available in these units, then we had to
12 understand this anecdotal picture. This picture is
13 a complex assessment of a complex system, and that's why
14 I was taking the teams in.

15 The doctors and nurses who came with me are system
16 experts. They are able to see with their own eyes and
17 have an assessment of what is happening.

18 **MS CAREY:** I think you said you spent more than 400 hours
19 during the course of your visits in conversation with
20 the frontline teams.

21 Are you aware whether there's any -- there were any
22 similar visits or programmes run in Scotland, Wales and
23 Northern Ireland?

24 **A.** I was contacted by representatives from several of the
25 other nations. We were NHS England, and so my role was

14

1 going to ask about all of them, but I would like to ask
2 a little detail about some of them, ideally across the
3 waves, if I can put it like that.

4 Can I start, please, with what you experienced and
5 saw when you went to hospital 2, which was
6 December 2020.

7 I think you said there that it was a large teaching
8 hospital, had 32 critical care beds, normally run at
9 a capacity of 30, and you went there I think that
10 autumn; is that right?

11 **A.** That is correct.

12 **Q.** And how many beds were they running during the first
13 wave that they told you?

14 **A.** So this was a large teaching hospital that usually ran
15 at 30 beds. At the peak of the first wave, they'd got
16 to 55. So those numbers don't mean very much, do they?
17 But what it means is that the resources they would have
18 to run 30 beds were stretched to nearly 200 per cent,
19 nearly twice their capacity, and because it's not about
20 the physical bed space, because it's about the people
21 who are trained to deliver that critical care, that's
22 a massive stretch for them, and they had certainly felt
23 it.

24 **Q.** I think you said they had declared a critical incident.
25 Just tell us what does that mean? What's that

16

1 an indicator of?

2 **A.** So by the time of our visit, and part of the reason that

3 we went in with the team, we took in a team of four that

4 day, they had recently declared a critical incident.

5 Which is to say that they were unable to maintain

6 an acceptable standard of care without resort to

7 extraordinary measures. And in the case of this, the

8 declaration of that incident facilitated what we call

9 a decompression of the unit. They transferred out

10 a large number of patients over a very short space of

11 time. And if I recall correctly, it was 28 transfers in

12 ten days, which is unprecedented in any -- outside of

13 Covid it is an unprecedented number of transfers to

14 undertake in that period of time.

15 **Q.** When you went to the visit, what were the nurses and

16 doctors telling you about how it had been either in the

17 first wave or now coming up into the start of wave 2 in

18 reality?

19 **A.** So they were in massive trouble. They had transferred

20 a large number of patients out just to keep their heads

21 above water. We got into PPE. We got onto the shop

22 floor. The doctors and the nurses, and the nurses in

23 particular, were really in trouble and the accounts are

24 very, very distressing. They were telling us that, you

25 know, for them the surge had started, you know, earlier

17

1 achieved, which is what saves the unit in that moment.

2 **Q.** I think you spent some time at hospital 2 speaking to

3 the lead ICU matron. I would like to ask you about

4 that, please. It is your paragraph 65.

5 There is a number of quotes there but just stand

6 back for a moment, Professor, and just tell me what's

7 your overriding recollection of your conversation with

8 that matron?

9 **A.** I think that this was the point at which I really

10 realised that it was going to be difficult as we came

11 into this winter. This was, you know, one of the most

12 effective clinical leaders I have ever met and she was

13 very clear that she was trying to look after her staff,

14 she was trying to protect her staff at the same time as

15 delivering care.

16 It says in my notes that, you know, they didn't have

17 enough staff to look after the patients coming through

18 the door. They experienced the full range of challenge.

19 They had a unit in which they had to admit at times

20 several of their own members of staff from their own

21 hospital, and some of those people from their own

22 hospital did die, and she told me about how difficult

23 that was. To be a unit, to admit your own staff, to

24 look after your own staff in the middle of all of this,

25 and to watch them die is devastating. They were not

19

1 in the autumn and it was beginning to crescendo for

2 them. So -- but their accounts were really of just

3 barely hanging on and only just managing with this

4 massive transfer out of patients.

5 **Q.** Did they say anything about how the first wave was for

6 them as compared with how they were experiencing the

7 second wave? Better, worse? Were they better equipped

8 to deal with it because they had been through it before?

9 **A.** So it was mixed. They said they had learnt lessons and

10 were better equipped, but a lot of the adrenaline had

11 gone from the first wave. They said a lot of the

12 support from elsewhere, redeployed staff, had gone, and

13 they felt that actually their public support had started

14 to go by the second wave, they felt that they had been

15 forgotten. And one of the comments I remember is one of

16 them said "The first wave felt like everybody's war and

17 this feels like nobody's war."

18 **Q.** Did they say anything about how the trust or the

19 management of the hospital responded? Was there any

20 positive comments?

21 **A.** So at this particular hospital there was an excellent

22 partnership between the senior leadership at that trust

23 who formed a link between the unit and the regional

24 response teams. It was partly through that leadership

25 that an effective and efficient decompression was

18

1 alone. They were not alone in that.

2 **Q.** I think she told you that they ran out of physical bed

3 spaces and had to resort to putting two patients into

4 one bed space?

5 **A.** That's correct.

6 **Q.** And she said there that they ran out of normal

7 ventilators and pumps and had to sometimes make

8 decisions about which patients could be taken off

9 a ventilator for a period of time or who could manage

10 a little longer on high flow oxygen without advanced

11 respiratory support. Does that happen sometimes in

12 normal times? I hesitate to use that phrase.

13 **A.** None of that happens outside of Covid. And this is the

14 thing about intensive care, and we were told this often

15 by different hospitals: intensive care is about the

16 detail. They train you to pay attention to the detail.

17 And for the clinical staff involved, for the whole team,

18 it is about being able to throw the -- you know, the

19 kitchen sink at your patient, the cutlery, the crockery,

20 everything at them, and, when that doesn't work, to be

21 there at the end, to give a good quality of death and to

22 be there for their family afterwards. And for these

23 people, they were unable to do that, and the moral

24 injury that followed from that is very clear, that they

25 are trained -- they knew the difference between what

20

1 they should -- could -- they should be delivering and
 2 what they were delivering, and that was very injurious.

3 **Q.** Right. I think you said there that the matron told you
 4 it was harrowing for the family but also for the nurse
 5 who was unable to provide any comfort to the relative.
 6 We perhaps sometimes lose sight of that in the desire to
 7 treat the patient but the role that is played at the end
 8 of life by ICU staff is obviously important as well.

9 Help me about what the matron said about the scale
 10 of death that they had observed in that unit.

11 **A.** Yes, and this is one of those things that is really very
 12 difficult to capture in figures. The scale of death
 13 experienced by the intensive care teams during Covid was
 14 unlike anything they had ever seen before. They are no
 15 strangers to death. They are the intensive care unit.
 16 They look after some of the sickest patients in the
 17 hospital. But the scale of death was truly, truly
 18 astounding.

19 I went into this and other hospitals where they said
 20 it would be routine to see three to five deaths a day.
 21 I worked on a shift where we had six deaths in a single
 22 shift. Another hospital told us that they had ten
 23 deaths in a shift, two of whom were their own staff.

24 We had nurses talking about patients raining from
 25 the sky, where the nurses said that they -- one of the

21

1 of experience. Why is even recounting this now so
 2 obviously painful for you, Professor?

3 **A.** I've never seen anything like this on any given day.
 4 I have served in a clinical role in several major
 5 incidents, I was on the scene of the Soho bombing in
 6 1999, I worked in the emergency department during the
 7 7 July suicide bombings, I have attended a number of
 8 very serious civilian major incidents in my time with
 9 the helicopter emergency medical service, and nothing
 10 that I saw during all of those events was as bad as
 11 really Covid was every single day for every single one
 12 of these hospitals throughout the pandemic surges.

13 You care -- it is painful now because it was very
 14 clear what was happening to the patients, it was very
 15 clear what was happening to the staff. The staff were
 16 very injured by just how overwhelmed they were by the
 17 whole thing.

18 **Q.** Do you think the patients were getting the care that
 19 they needed?

20 **A.** They were getting the best care that could be delivered.
 21 I have said already that intensive care is about the
 22 detail. Once you start diluting the detail it kind of
 23 stops being intensive care.

24 It is really hard to describe this, and this is why
 25 I think these visits were important, that -- whatever

23

1 nurses told me that they'd just got tired of putting
 2 people in body bags, and at the hospital where they said
 3 sometimes they were so overwhelmed that they were
 4 lifting -- putting patients in body bags, lifting them
 5 from the bed, putting them on the floor, putting another
 6 patient in their bed straightaway because there wasn't
 7 time.

8 We went to another unit where things got so bad,
 9 they were so short of resources, they ran out of body
 10 bags and they were instead issued with 9-foot clear
 11 plastic sacks and cable ties, and those nurses talk
 12 about being really traumatised by that because they had
 13 recurring nightmares about feeling like they were just
 14 throwing bodies away.

15 These people are used to seeing death but not on
 16 that scale and not like that. And whatever the figures
 17 show you, the experience for them was indescribable.
 18 And when we talk about capacity in the healthcare
 19 systems, you know, the toll on those teams from that
 20 scale -- and it really was like nothing else I have ever
 21 seen and certainly like nothing else those teams had
 22 ever seen in their experience -- it was incredibly
 23 difficult.

24 **Q.** I can see it has taken its toll on you. You are,
 25 I daresay, no stranger to death either in your 26 years

22

1 you read in the columns on the Excel spreadsheets and
 2 the data didn't tell you this. And it didn't tell you
 3 about the actuality of the thing. And for the smaller
 4 hospitals, the thing that I described of transferring
 5 patients out to try to create capacity, what it meant
 6 for the smaller hospitals was that they were drowning in
 7 patients. The bigger hospitals would come in, try to
 8 relieve that pressure by transferring patients out.
 9 When you come in, you transfer patients out, you
 10 transfer out the most stable patients because they are
 11 the people who are most likely to be able to survive on
 12 more limited equipment in a moving vehicle for several
 13 hours if necessary.

14 But what that meant for the smaller units is that
 15 they were left with a cohort of patients who were most
 16 likely to die. For the smaller units, when we talk
 17 about the scale of death, over the next few weeks those
 18 units would experience some mortality rates in excess of
 19 70% in some cases. 7 out of 10 of every patient that
 20 they had died. And I remember early in the visiting
 21 scheme going into a unit, a small unit, and them saying
 22 at the end of the day, after we had had all these
 23 accounts and accounts of these types, you know, and with
 24 very little to offer them, and they said "Thank you for
 25 coming, we thought we were alone, we thought we were

24

1 doing ..."

2 **LADY HALLETT:** Try having a drink, Professor. Take your
3 time.

4 **A.** They said "Thank you for coming, we thought we were
5 alone, we thought we were doing it wrong". And I just
6 thought how have we left them feeling like this? How
7 has no one told them this is not their fault, it is the
8 surge that has come with Covid that has led this to
9 happen.

10 But if you are a unit and you are isolated in that
11 way, how can you know that it is not you. You watch
12 seven of every ten patients die. How can you know?

13 So those experiences basically affirmed for me the
14 need for the visits and the need to try to get this
15 information out.

16 **MS CAREY:** Can I ask you about a different visit but still
17 in late December 2020 and what you have described in
18 your statement as hospital 9.

19 You said there that that was -- had a baseline
20 capacity of 17 beds, it had 88 whole-time equivalent
21 nurses, and I think you were there in late December of
22 2020.

23 Is this right, they had transferred out
24 70 critically ill patients in the first wave and 110 in
25 the second wave. Tell us, please, about the visit that

25

1 open area. In the side rooms, which have limited
2 capacity, at 1:2. There were so few staff that some of
3 the nurses had chosen to either use the patient commodes
4 in the side rooms and some of the nurses had chosen to
5 wear adult diapers because there was literally no one to
6 give them a toilet break and take over their nursing
7 duties. That was the intensive care unit.

8 The intensive care unit was full. Their overflow
9 areas were full. Their non-invasive ventilation unit,
10 their respiratory unit was full. This was a hospital
11 bursting at the seams.

12 I then toured the hospital with the intensive care
13 staff grade, a doctor who then looked after the unit and
14 the rest of the hospital. I will never forget being in
15 the stairwell with him and he's out of breath on the
16 stairs because he has himself had Covid in the first
17 wave and now is suffering the consequences of Long Covid
18 but he's still there.

19 The referrals are coming up from the floor. The
20 referrals are the calls --

21 **Q.** Is that for emergencies or ...

22 **A.** From the wards or the emergency department asking for
23 help. That's what happens in routine intensive care.
24 They say, "This patient is too sick for us, can you take
25 them to intensive care?"

27

1 you conducted at that hospital.

2 **A.** So that is correct. So that scale of transfers out
3 tells you the constant pressure that this hospital is
4 at. This is exactly one of the hospitals that
5 I described that is a smaller hospital that is in need
6 of constant decompression to just keep its head above
7 water.

8 It was a relatively -- it was a medium-sized unit.
9 On this occasion I had been tasked to go there by the
10 sector lead to actually have an urgent review of what
11 this hospital needed. It was calling out for help.

12 I will never forget, I got a phone call -- I got
13 asked how long it would take me to get to this hospital
14 and I said "Well, when do you want me to go?" And
15 they said "If you get in your car now and drive, how
16 long will it would be?" So I understood it was urgent.

17 I got there, I got onto the unit. It was just -- it
18 was a scene from hell. The chief exec, the
19 chief operating officer, chief medical officer, nursing
20 officer, they were all on the shop floor, all trying to
21 do it, but this was a hospital in massive, massive
22 trouble.

23 We went in an intensive care unit first. The
24 intensive care unit was nursing at 1:4 ratio, one
25 specialist ICU nurse to four intubated patients, in the

26

1 There were six of those referrals from the wards.
2 There is no place to put them in the intensive care
3 unit. We went into the emergency department. I looked
4 through the resuscitation bays through this intensive
5 care staff grade 8. Of the five patients there, there
6 were three patients who also needed incubating, so you
7 have nine more patients who need intensive care
8 urgently. There was no one there to intubate them,
9 there's no one there to look after them.

10 When we got to the intensive -- when we got to the
11 emergency department, we were told that a patient had
12 died in an ambulance waiting to get into the hospital
13 the night before. The same thing had happened that
14 morning. The oxygen alarms are going off, the
15 chief operating officer is trying to troubleshoot that
16 with the estate's manager. It is genuinely the closest
17 I have ever seen a hospital to a state of collapse in my
18 entire career.

19 **Q.** I think you decided to effect what's called a rapid
20 decompression of that unit, and did that result in 17
21 critically ill patients being transferred out that
22 night?

23 **A.** That is correct. We called it back to the sector lead.
24 I reported it up to the national EPRR team. That's what
25 we did. We would come up with a plan for immediate

28

1 support. And the only option here was to effect a rapid
2 decompression.

3 To put it into perspective, in an ordinary winter
4 outside of Covid, throughout the whole of the country
5 the number of transfers that you might undertake to
6 create capacity through the whole country -- in 2019 it
7 was 68. And that night we sent 17 away from that
8 hospital.

9 And it was all we could do.

10 **Q.** How were the staff that you spoke to in that unit?

11 **A.** They were in total bits. I mean, you know -- and they
12 had been doing this throughout the first wave, into the
13 second, for them which had started in late autumn and is
14 now moving into winter. They knew that worse was to
15 come. They were still turning up.

16 They had had -- again, they had had their own staff
17 admitted to their own unit. Again, that they had
18 massive staff sickness. So the other insult was that as
19 Covid surged, so did the levels of sickness among the
20 staff. So there was massive staff sickness.

21 We didn't, obviously, have time during that visit to
22 talk to them in a reflective way. We went to them
23 later, you know, and they told us again about the scale
24 of death. It was there that they told me that it was
25 usual to see three deaths a day, more like five. The

29

1 we went to the nurses talked about the difficulty of
2 that for them. Exactly at a time when you would recuse
3 yourself to give the patient and their family some
4 dignity, you are actually holding a phone or an iPad up,
5 showing them the monitor, showing the family the
6 patient, listening to families imploring the patient not
7 to die and then the howling down the phone, and with
8 nothing else that you can do other than to stay there
9 and to be entrained into that grief. And I think they
10 found that -- I know that they found that -- there
11 wasn't a single nurse I spoke to who didn't talk about
12 how traumatic that was.

13 **Q.** I think after that visit you went in very early January
14 to what you describe as hospital 10, and that was
15 a large teaching hospital, is that right, Professor?

16 **A.** That is correct, yes.

17 **Q.** 21 of your statement, a slightly different but allied
18 topic. I think there you spoke to an anaesthetic
19 consultant who told you about what he had experienced on
20 a night shift. Can I ask you about that, please. It is
21 your paragraph 117.

22 What did that consultant tell you?

23 **A.** So this was the experience of the large teaching
24 hospitals and they had the other end of it to the small
25 hospitals. They were receiving patients, this constant

31

1 intensive care consultant told me going on ward rounds
2 and watching patients die in front of you, to the left
3 of you, to the right of you, behind you. You know, that
4 was their experience. And they did everything that they
5 could but everything they could wasn't enough and that
6 was why it was so hard.

7 **Q.** I think you comment in your statement that one of the
8 staff members spoke about holding an iPad up to a family
9 member as the patient was dying and -- effectively
10 an end-of-life virtual visit. Clearly horrific for the
11 family on the end of the iPad. What about the impact on
12 the nurse who was trying to help that call?

13 **A.** So the care never stops in intensive care. There's
14 always something you can do. And even at the end, when
15 there is nothing more that you can offer
16 therapeutically, you know, your last duty to your
17 patient is to ensure a good quality of death and to
18 support the family through what follows. And that is
19 usually about a relationship being built up with the
20 family over a long period of time, but because of the
21 remoteness of all of this, you hadn't established that
22 rapport.

23 And many of the patients' families understandably
24 wanted to be present virtually at the end when visiting
25 was difficult or wasn't allowed, and every single unit

30

1 infall of patients who were transferred from other
2 hospitals in trouble, so they experienced surge in that
3 regard. And they were capable and well staffed and well
4 led, but they were -- their units were full. Their
5 overflow -- they created another two overflow units
6 within that building. They were ventilating people in
7 their operating theatre departments. They had in the
8 first wave been intubating and ventilating people in
9 their operating theatres. And they too were in massive
10 trouble. No one had it easy.

11 And as we got into late December, again, the rate of
12 death, the rate of work was massive, and one of the
13 consultants there started a shift, watched six people
14 die, ran an arrest right at the start of the shift and
15 talked -- and had resuscitated a young patient and it
16 had been unsuccessful, had spent 40 minutes trying to
17 resuscitate this patient.

18 And at the end of a resuscitation in which a patient
19 has died, it is quite usual in normal practice to take
20 your team aside, to make sure they're okay and to try to
21 care for your team, and at that point you go around the
22 team and you work out who you've got and you're all
23 dressed in PPE, and three of the members of the team who
24 had done cardiac compression were medical students who
25 had volunteered to be on the ward and you would

32

1 ordinarily try to support them, for some of these people
2 it was the first time that they had seen death, and
3 there was no time because more death followed, there
4 were more people arresting.

5 And so you can't recover your staff in the moment
6 and you can't recover them later. And, you know, when
7 we talk of capacity in healthcare, you're over capacity
8 by the time that you're at that point.

9 **Q.** Yes, I think you say in your statement that after the
10 unsuccessful resuscitation of the young patient, within
11 minutes there was another cardiac arrest, followed by
12 several more, and it was that consultant in the space of
13 a single 12 hour shift where six ICU patients died.

14 Now, can I will pause you there, Professor, because
15 I would like to ask you about what you did with this
16 information, and could we call up, please, on screen
17 INQ000072310. I would like to ask you about an email
18 that you sent to Patrick Vallance on 3 January. He
19 says:

20 "Dear Kevin

21 "Many thanks for sparing the time to speak to me
22 today. Your account was harrowing and disturbing.
23 I have spoken to Chris Whitty about this and he would
24 like to hear more. I think the best plan would be to
25 include Keith Willett [who I think is NHS England] and
33

1 willing -- I -- for me, it was all about flow of
2 information. This whole thing was about trying to get
3 the right information to the right people for the best
4 decisions, the best actions, and so it seemed to me that
5 it wasn't unreasonable to try and share if that
6 information hadn't been shared.

7 I must say that I was -- I felt really well led and
8 supported by my emergency preparedness resilience
9 response team in NHS England and in particular my line
10 managers, Chris Moran and Keith Willett. They
11 facilitated my ability to do the peer support visits.
12 They understood the need to get this information. And
13 my understanding is that they transmitted that up all
14 the way as far as cabinet and beyond. But -- but we
15 somehow couldn't land that narrative, and so it felt
16 natural to me to have that discussion.

17 And so that is why I had that discussion and it led
18 to the email that you see there.

19 **Q.** And did you then, in fact, I think receive an email from
20 Professor Whitty saying that Patrick Vallance had
21 updated him? He was grateful for it being passed on,
22 and effectively, he said:

23 "I would find it helpful to get those directly,
24 probably most usefully with a few others to get
25 a rounded picture. The more actual data we have to
35

1 others in that, but Chris will have a view on how he
2 would like to make sure he hears from a number of people
3 to assess the current situation. As you rightly said,
4 this is a complex situation and the data alone may not
5 tell the story.

6 "Thanks again for raising it."

7 And there is reference to setting up the call.

8 Now, why did you feel it necessary to speak to
9 Patrick Vallance about what you had witnessed?
10 **A.** So this is actually an email from Patrick to me with
11 Professor Chris Whitty in copy. I had gone on to
12 a night shift myself at my own hospital around this
13 time. I had gone through a pretty traumatic shift with
14 a lot of death. On the way into that shift I had been
15 speaking to -- I had been speaking to Jeremy Farrar, who
16 I knew because I had been a research fellow with the
17 Wellcome Trust, and really just as friend to friends
18 just to rant really about how bad things were and how
19 close to the edge I felt it all was. And he then said
20 to me would I like to speak to Patrick in the morning,
21 who he also knew -- Patrick Vallance, who he also knew
22 personally.

23 So I did my shift and I came off the shift and --
24 and, you know, this was on the back of all the visits
25 and my own personal experience and it wasn't -- I was
34

1 support the better; anecdotal views on how things are
2 [I think that should be 'in comparison with'] the first
3 wave are quite varied.

4 "If you would prefer to talk directly to me that's
5 also fine."

6 He had just come off a ward in UCLH.

7 Did you speak to Professor Whitty?

8 **A.** I did, yes. I did the following morning. I spoke to
9 Professor Whitty and relayed the same information
10 really.

11 And, again, I think both Professor Patrick Vallance
12 and Professor Whitty were very receptive to that. And,
13 indeed, as the email says, resolved to convene a wider
14 group of people to discuss the burgeoning pressures on
15 the wards as it was happening in very early January.

16 **Q.** I think, in fact, on the 4th we went into lockdown
17 again, so if that helps ground people with where we are,
18 this is the timescale we're talking about.

19 Now, just pausing there. We're in the troubling
20 times of January 2021. There's another wave.

21 Did you continue your visits throughout wave 2 and
22 into and the rest of 2021, Professor?

23 **A.** Yes. So, in many ways, that was the most important
24 time. The period after the January 4 lockdown I think
25 was the most dangerous period of the whole pandemic for
36

1 us.

2 **Q.** Why do you say that?

3 **A.** Because even after we'd gone into social restrictions,
4 cases would continue to rise because of the incubation
5 period of the virus. We knew that there was a two- or
6 three-week lag before we would see the peak of our
7 intensive care caseload, and so actually we were very
8 operationally busy during that time, but we recommenced
9 the visits as soon after that as we were able.

10 **Q.** Can I ask you about a visit you undertook in June 2021.
11 So it's your hospital 14, Professor. We are out of wave
12 2, if ever we were out of it -- sorry, wave 1.

13 Tell us what happened, please, when you visited the
14 hospital in June 2021.

15 **A.** This was a small, medium-sized district general
16 hospital. So much of what we saw in the pandemic
17 publicly and in the press was of the larger hospitals,
18 the larger teaching hospitals. But this is emblematic
19 really of the experience of the smaller hospitals, but
20 very small baseline capacity, only nine beds, and as
21 soon as you stray much above that, you feel extreme
22 surge. And they had been hit really, really badly all
23 the way through.

24 And the account there was really telling. The small
25 units have no spare capacity. They're stretched even on

37

1 **A.** Yes.

2 **Q.** What did they tell you?

3 **A.** They had had sustained pressure. Even the summer had
4 been bad for them. They had had sustained pressure
5 almost since the pandemic had kicked off in the spring
6 of 2020.

7 You can see there in paragraph 151, they say:
8 "... as a team, we're fractured. We're not sure how
9 to do things safely. There are so many rules and
10 regulations that have gone out of the window."
11 They were a young unit. They had very few
12 experienced staff, and the experienced staff they had
13 left very quickly because of mental health issues.

14 One of the band 5 nurses, quite a junior nurse, is
15 saying, you know:
16 "... we were a young unit, most of us with less than
17 a year's experience. I was newly qualified. I didn't
18 know what I was doing half the time."
19 They had a massive staff sickness rate. Nearly 20%,
20 nearly one in five of their units -- one in five of
21 their nurses off sick at any one time.

22 **Q.** Were they talking about January 2021?

23 **A.** This is '21, yes.

24 **Q.** You're visiting in June, but they're telling you how it
25 was in January that year?

39

1 an ordinary day, so any surge for them was particularly
2 difficult to deal with.

3 And this is an emblematic experience for the smaller
4 hospitals. The ICU consultant there who I spoke to said
5 he got a few hours' notice before -- being told he was
6 going to resident on call, so he would be present in the
7 hospital throughout the on-call shifts.

8 There's no provision made for on-call facilities.
9 He talks about having to sleep in the boot of his Ford
10 Galaxy when he was on duty for three months at the start
11 of the pandemic. They talk about running out of PPE.
12 They talk about going to Screwfix to get visors. They
13 talk about running out of theatre scrubs and having to
14 go to the local private hospitals and beg them for their
15 supply and, when they'd run out of that, they talk about
16 having to have one shift where they had no theatre
17 scrubs, and they went around in their underwear and
18 gowns for the shift.

19 **Q.** Can I pause you there? Did they give an indication of
20 the pressures with PPE, which wave that was occurring
21 in?

22 **A.** So that was in the first wave, and the first wave was
23 where most of the equipment shortages occurred.

24 **Q.** Did you speak to any nurses whilst you were at hospital
25 14?

38

1 **A.** Yes. And January 2021 for them, as a smaller hospital
2 with limited capacity, really, really brought them to
3 their knees.

4 They talk about how hard the burden was on the
5 intensive care consultants, how many shifts that they
6 had to do. They talk about the consultants having to
7 work ten weekends in a row. This was the same
8 consultants who in the first wave had slept in their
9 cars.

10 You know, that statement that they made to me in
11 June 2021 when I asked them how they were, you know,
12 coming into the summer, they said "We're broken. We're
13 worse than broken". I don't know -- "We can't look
14 after nine patients". That's their establishment.
15 That's what they should be able to do. "We can't surge
16 to any more than that. We can't surge beyond that."
17 And that consultant -- and I need to get these words
18 right, but he said "Look, we've run out of -- we ran out
19 of equipment. We ran out of drugs. We ran out of
20 nurses. We ran out of goodwill."
21 You know, that is what this thing did to those
22 people and those units. This is what happens.
23 I went into another unit of similar size where they
24 talked about how on the television what you saw was
25 these big units who complained about being short of

40

1 equipment but were usually wearing PPE.

2 **Q.** Yes.

3 **A.** And how they said that they were watching those
4 programmes, and they were standing in their own units
5 wearing cagoules and waterproof trousers that the chief
6 exec had bought from an outdoor shop. And they were
7 angry actually that that is all that people knew, was
8 the sight of well-resourced hospitals, when the truth in
9 the smaller hospitals was just that.

10 **Q.** Can I just ask you now: if you stand back and think
11 about the -- we've looked at a few hospitals there, but
12 if I ask you to stand back and think about the 40 or so
13 visits that you made, what were your takeaways from all
14 of those? What were other things that you were hearing
15 that perhaps you haven't told us about this morning?

16 **A.** We had a substantial programme by the end. We had
17 a secretariat of about six people who supported the
18 visits administratively. I had about 40 -- maybe 30 or
19 40 people who staffed up these visits, to whom I am
20 extremely grateful to.

21 We all had the same conclusions. The first was: we
22 were always surprised at just how supported the staff
23 felt by this. The sense they weren't alone. The sense
24 they weren't getting it wrong, that it wasn't their
25 fault, and that other people elsewhere in the country

41

1 iPads while relatives are screaming down the phone. You
2 don't know if you haven't sat in transfer vehicles next
3 to a patient who is dying of Covid wondering if your PPE
4 is buttoned up well enough that you might not do the
5 same. It is impossible to know.

6 And that's why, although this is not, as you pointed
7 out my Lady, hard numerical data, the information is
8 important. There is more to know than just what you can
9 count. And I think that that was well understood by my
10 EPRR team. I was well supported in that role.

11 There is a tendency for us in healthcare to, you
12 know, eschew that kind of anecdotal data. It is the
13 lowest form of information. But I don't think that was
14 true here. I think the information was important. And
15 I think it did change the way that we saw these people.
16 And the most important thing is the need to support
17 their wellbeing.

18 It is a complex system. It has a social component
19 and it has a technical component. We got good at
20 managing the technical component. The human resource,
21 the people that stop it all from falling apart from day
22 to day, we didn't really have sufficient mechanisms to
23 measure and monitor that or indeed protect them.

24 **Q.** In your statement, you speak of the Professional Nurse
25 Advocate programme. We heard a little of that from Dame

43

1 were experiencing similar or the same. The ability just
2 to talk with people who were going through the same
3 thing was incredibly supportive. Many of them said it
4 was the first time they realised that they weren't on
5 their own.

6 It absolutely confirmed my belief that the data, the
7 information, are important, but the insight is gained by
8 going and seeing these people and having a group of
9 people who know what they're looking at, looking at that
10 system and understanding what it is.

11 It is easy for us to think that we knew what was
12 going on. And this isn't just a problem with the NHS.
13 Any large organisation suffers this problem, any
14 multilayered organisation suffers this problem, of what
15 you can measure most easily, that's seen at the top,
16 between what is actually happening at the front line.
17 And I think that it was easy to convince ourselves that
18 we knew what was happening, but you don't know.

19 You don't know unless you're the people going into
20 that shop floor. You don't know if you're not the
21 people who are putting on PPE before you've got
22 vaccinations available, wondering if it's buttoned up
23 okay. You don't know unless you're the people who have
24 run out of body bags and put people in plastic sacks.
25 You don't know if you're not the people who held onto

42

1 Ruth, but do you have any views about the utility or
2 otherwise of that programme?

3 **A.** So the Professional Nurse Advocate programme, which, at
4 least I'm told by Emma Wadey, who was the director of
5 mental health nursing at the time, and Dame Ruth May
6 herself, the data, the information, the insight we
7 gathered through the visits and through the wellbeing
8 surveys informed their decision to support and develop
9 that programme. That programme was there
10 as acknowledgement that there needed to be support and
11 recovery. It for the first time provided nurses with
12 a role whereby they faced their own staff and they cared
13 for their own staff. And, you know, that was such
14 an important thing.

15 And actually as the visits progressed and the
16 Professional Nurse Advocate programme developed,
17 everyone told us how important that programme was to
18 have one of your own team able to look after you. And
19 so, you know, I was very -- Dame Ruth May was very
20 responsive to these data from early on, you know, from
21 the summer of 2020. I think she referred to in her own
22 evidence that it helped convince her that we should try
23 to draw a hard limit of no lower than one intensive care
24 nurse to two ventilated patients in coming waves.

25 So I was happy to hear that. I was happy to hear

44

1 there was some consequence from the work.
 2 **Q.** I think we have probably gleaned your lessons learned,
 3 Professor, but what about some recommendations for how
 4 not to end up in this position in the event of a future
 5 pandemic? Is there anything that you can recommend to
 6 her Ladyship to try to ameliorate the stresses on the
 7 staff in these ICU units?

8 **A.** So much of this pandemic was about the concept of
 9 capacity and the capacity of the healthcare system. So
 10 much hinged upon that. But healthcare -- capacity in
 11 healthcare systems is a complex feature of a complex
 12 system. It requires a complex assessment.

13 There is, as I have mentioned, in the system a human
 14 element and a technical element, and we get good at
 15 managing technical elements, but the social element that
 16 we depend upon to close the gap between reality and
 17 expectation in a system that every single day wants to
 18 tear itself apart, and during Covid much more so, we do
 19 not pay enough attention to.

20 So, in terms of the way forward for me, at least
 21 through this, I think there are four things.

22 I think those peer support visits were important.
 23 I felt well supported and facilitated to develop them by
 24 a team in emergency preparedness and response, who
 25 understood the need for them. I'm grateful for that.

45

1 to them, to know that they weren't alone. It takes
 2 effort to do that. We will forget that very quickly.
 3 You need to preserve those mechanisms and we need to
 4 have them. Arguably outside of a pandemic, certainly
 5 for one in the future. I think that ability to have
 6 that context is important. That's my first thing.

7 The second thing is, you know, we talk about
 8 learning lessons and preparing for the future. We
 9 must -- and the knowledge of how to manage a pandemic at
 10 operational level -- I'm not talking about the strategic
 11 lessons, I'm talking about operational level. The
 12 pandemic was managed by the teams in the frontline areas
 13 day in, day out, not just on intensive care, throughout
 14 the hospital, throughout the ambulance service, in the
 15 community, general practice, in our social care
 16 facilities, in our care homes.

17 The know-how of how to stop a system from tearing
 18 itself apart when faced with a challenge that should
 19 have been insurmountable exists still within those
 20 people and it must be preserved. I'm not sure we are
 21 doing enough to preserve that operational,
 22 organisational memory. And organisational memory is
 23 short.

24 So the preparations for next time need to start now
 25 and need to be properly resourced, need to be captured.

47

1 I was very well led there and very well supported.
 2 I think that mechanism is an important mechanism both
 3 during the pandemic and outside of that.

4 **Q.** The EPRR mechanism?

5 **A.** Sorry, the peer support mechanism.

6 **Q.** Thank you, sorry, I misunderstood.

7 **A.** Having a mechanism by which you can support colleagues
 8 in this way, gather information, to short circuit the
 9 flow of information from the front line all the way up
 10 to the top. You need to have a mechanism that stops
 11 information having to flow through all the filters in
 12 between, so that the decisions that are made at the
 13 top -- there is a way of the people at the front line to
 14 signal their experience without it being diluted.

15 So, firstly, all this in future pandemics, the peer
 16 support system was important, this ability to go in and
 17 visit hospitals was important I think, and we should
 18 preserve and develop it.

19 It is not just a thing that you magic up. It took
 20 effort and nuance to do it. It took time to understand
 21 how to get these people to have the trust in you to
 22 share the things that ...

23 **(Pause)**

24 To share the things that they shared, for them to
 25 know that someone cared really about what was happening

46

1 **Q.** And your third?

2 **A.** Is about wellbeing. Again, it is that point about --
 3 and I repeat it deliberately because it's so important
 4 but I think so overlooked. We managed the technical
 5 aspect of this complex system, we do not look after the
 6 social aspect. We go in and we check our machines and
 7 our drugs every day to make sure that they are there
 8 when we need them in a difficult moment. No one really
 9 does that for our staff. We do not have the right
 10 mechanisms to measure and monitor, protect and promote
 11 the wellbeing of the human workforce upon whom
 12 everything depends, whether you are in a pandemic or
 13 not.

14 Wellbeing of the workforce should be a central
 15 strategic priority for the NHS, whether it is in the
 16 pandemic or not. And it needs better resourcing and it
 17 needs better attention than it has had.

18 The final thing I'd like to say, just a wider scale,
 19 is it was very clear when we were going into hospitals
 20 about the disparity in the provision for different
 21 areas, the smaller hospitals versus the larger teaching
 22 hospitals. If you wanted to find an indicator substance
 23 to drop into a general population to see where
 24 healthcare was most needed, then Covid was it. And it
 25 showed us that the care and the resource wasn't where it

48

1 needed to be, and we should reflect upon that.
 2 This is the biggest national emergency that this
 3 country has faced since World War II. Out of the
 4 medical needs that arose out of World War II and the
 5 Blitz in part came the recognition of the need to care
 6 for -- the need for us to be able to care for -- the
 7 collective need for us to care, as a country. And in
 8 part -- it was part of the impetus that established the
 9 NHS. It was a lesson we learned through that awful
 10 experience, that we needed something more going forward.

11 So we need to learn after Covid those lessons, and
 12 perhaps for me the most salient one is that we do not
 13 look after the people who deliver the care. If we do
 14 not care for the carers, they cannot care for our
 15 patients.

16 **MS CAREY:** Professor, that's all the questions I have.

17 **LADY HALLETT:** There are just a few more questions from
 18 Ms Munroe. Can you cope with a few more? And then we
 19 will break and it will all be finished.

20 **Questions from MS MUNROE KC**

21 **MS MUNROE:** Thank you very much, my Lady, and I can say to
 22 Professor Fong that during the course of his evidence
 23 this morning the vast majority of my questions have
 24 either directly or sufficiently been answered and there
 25 are literally just a couple, which I hope I can

49

1 it was a falsely positive picture but it was
 2 an insufficient picture to which you need to add context
 3 and insight, which is what these visits did.

4 So I think that the second thing I would say is that
 5 I think there was, at least initially,
 6 a misunderstanding of what an intensive care bed is.
 7 I think that people thought of it as being some
 8 technical piece of furniture into which you plugged
 9 a patient. It requires a staff. Not just doctors and
 10 nurses, it requires a physiotherapist, dietitians,
 11 occupational therapists, radiographers, radiologists,
 12 a whole huge team of people. The bed itself is just
 13 a shorthand for that. You know, it is no more use to
 14 you than an aeroplane is to an airline without its
 15 staff.

16 **Q.** Thank you.

17 Professor Fong, it is very clear from your evidence
 18 that you have given us this morning that blanket
 19 statements or opinions such as "ICU was not overwhelmed"
 20 would be oversimplistic and lack nuance. In concluding
 21 your evidence today you mentioned that so much hinged on
 22 capacity. Bringing it all together, can we describe
 23 what we were seeing during the pandemic then, in terms
 24 of capacity being overwhelmed, that it was overwhelmed
 25 in different individual locations and at different times

51

1 summarise, Professor Fong, and take it relatively
 2 quickly.

3 My name is Allison Munroe, Professor. I represent
 4 Covid-19 Bereaved Families for Justice UK and on their
 5 behalf just a few questions, please, thank you.

6 My first question was about data. You have spoken
 7 a lot about that and described how the data did not
 8 paint the picture of the severity of what you were
 9 seeing on the shop floor, as you have described it, in
 10 ICU.

11 Effectively, it is a falsely positive picture was
 12 being painted by the data.

13 So my second question, arising from that, was: was
 14 that disconnect between the picture painted by the data
 15 and what you yourself were seeing on the shop floor due
 16 perhaps in part to a focus on physical bed space rather
 17 than considering the question of the adequacy of
 18 staffing requirements?

19 **A.** So I think that it is natural in the face of
 20 a fast-moving pandemic that initially you focus on the
 21 things that you can count most easily. But as I have
 22 said before, not everything that counts can be counted
 23 and not everything that you can count counts. It is
 24 that old adage.

25 And so the focus on numbers of beds, it's not that

50

1 throughout the pandemic?

2 **A.** It is difficult, isn't it, to know whether -- and the
 3 language changed in the national assessments between
 4 the risk of a unit being overwhelmed and a country being
 5 overwhelmed and the risk of it exceeding its "assumed
 6 capacity". From the perspective of intensive care, if
 7 you ask yourself what intensive care is, it is the
 8 detail, it is the detail and the dedication, the ability
 9 to provide everything that can be provided in an effort
 10 to provide the best care for a patient who is critically
 11 unwell.

12 If your definition of overwhelmed is your ability to
 13 provide that, then at many times and in many places the
 14 units were overwhelmed.

15 You just have to listen to the evidence that was
 16 given today to know that these units were beyond their
 17 capacity to cope. And the thing is that they did
 18 anyway. On paper they shouldn't have been able to cope
 19 with this and they still turned up.

20 **Q.** Thank you. The second point, Professor Fong, is on
 21 diluted staffing ratios.

22 In your witness statement at page 24, paragraph 128,
 23 you deal with one of your visits to hospital 11, it is
 24 a general district hospital, and you state that
 25 initially you met the lead matron and the clinical lead

52

1 for ICU and asked them how things had been for them, and
2 the clinical lead told you that:

3 "... they were already at 1:3 and in some places 1:4
4 nursing ratios ..."

5 You then go on in paragraph 29, in very clear and
6 graphic detail, to describe what the lead matron told
7 you about the effects that was having on many of her
8 staff who she described as terrified.

9 That visit was January 2021. Professor Fong, from
10 your observations, your discussions, what you saw and
11 what you heard in practice, is it correct that diluting
12 staff ratios continued into and throughout the second
13 wave of the pandemic?

14 **A.** So my understanding is that there was a clear decision
15 between the first wave of the spring of 2020 and
16 subsequent waves that no unit or units would aim to go
17 no lower than one specialist ICU nurse to two ventilated
18 patients. That was the goal.

19 And I think that was absolutely important at
20 redefining what capacity really meant for these
21 hospitals. But as the surge came through in autumn for
22 some regions and then in winter 2020 and then into 2021,
23 even that goal was not -- you couldn't sustain it. So,
24 the goal was to hold at 1:2. But even though that goal
25 was set, it speaks to how challenged the units were that

53

1 caused by the upswell of critically ill patients, by
2 Covid-19, meant that it was not possible to deliver the
3 standard of care that would ordinarily be expected in
4 a non-Covid period.

5 **MS MUNROE:** Professor Fong, those are my questions, and
6 thank you very much on behalf of those I represent. We
7 are very grateful for the visits that you made and the
8 very powerful evidence you have given us this morning.

9 My Lady, thank you.

10 **LADY HALLETT:** Thank you very much. Ms Munroe.

11 Professor Fong, we are extraordinarily grateful to
12 you for helping us. It is obvious how distressing it
13 was for you and obviously reliving such an ordeal is
14 never easy. It is not easy to describe, as you have had
15 to do this morning. It is not easy for us to listen to.
16 But we had to do it, so thank you so much for all you
17 have done.

18 Could I also thank you for not only the excellent
19 work you did with the support scheme, for the work you
20 did in the units, but also for your work with the air
21 ambulance service. As you may know from having been the
22 coroner at the 7/7 inquest, I am a huge supporter of the
23 work they do, it's brilliant. So thank you very much.

24 I shall return at 11.35 am.

25 **(11.20 am)**

55

1 they -- this unit was not able to maintain that.

2 And you refer to the paragraph that follows. This
3 unit at this point were in such trouble -- they talked
4 about coming into work one day, one of their senior
5 nurses had vomited on the way to work out of nervousness
6 about what she was about to face, how terrified they
7 were. And, you know, this is a team of people that are
8 operating at the edge of their own personal capacity, at
9 great cost to themselves. And so we talk about physical
10 capacity but there is the capacity of a human workforce
11 and that was clearly exceeded here.

12 **Q.** Finally, Professor Fong, in the course of your evidence
13 this morning you have told us from your own real
14 experience of actually visiting, the peer visits that
15 you made, that you saw staffing ratios significantly
16 higher than the recommended 1:1. You spoke of diluting
17 the detail of intensive care.

18 From your visits, observations, speaking to
19 healthcare workers, Professor Fong, would it be fair to
20 say that, despite the monumental efforts and dedication
21 of the staff that were available, the impact upon the
22 quality of care in ICU can properly be described as
23 devastating in some places?

24 **A.** Despite the best efforts of everyone really in the
25 system, everyone, the surge in demand for healthcare

54

1 **(A short break)**

2 **(11.35 am)**

3 **MS CAREY:** My Lady, may I call, please, Professor Sir
4 Christopher Whitty.

5 **PROFESSOR SIR CHRISTOPHER WHITTY (sworn)**

6 **LADY HALLETT:** Professor Whitty, thank you for coming along
7 to help again. And, again, I reiterate my apologies for
8 the demands we make upon you and your office, and we're
9 very grateful for your help.

10 **A.** Thank you, my Lady.

11 **Questions from LEAD COUNSEL TO THE INQUIRY for MODULE 3**

12 **MS CAREY:** Professor, your full name, please.

13 **A.** Christopher Whitty.

14 **Q.** We have a statement from you in Module 3, ending 410237,
15 which I think you have in front of you?

16 **A.** I do.

17 **Q.** I know you've given your background in previous modules,
18 but you became the Chief Medical Officer, I think, on
19 1 October of 2019; is that correct?

20 **A.** It is.

21 **Q.** And you are, by background, a consultant physician in
22 infectious diseases and tropical medicine at UCLH.

23 **A.** Yes.

24 **Q.** And you have a number of other qualifications, as set
25 out in your statement. I won't go through them.

56

1 You worked shifts, is this right, throughout the
2 pandemic?
3 **A.** I did. I decided at the beginning to stick to my usual
4 rota, and that therefore meant I had -- I worked shifts
5 in actually Wuhan -- the Alpha wave, and then after the
6 vaccine, in a very different environment, the Delta wave
7 and the Omicron wave, so I did see various phases of
8 this.
9 **Q.** Tell us about wave 1, please. What was it like
10 working -- was it on Covid wards that you were working?
11 **A.** Yes. In wave 1, I was towards the tail end of wave 1 in
12 the middle of the year, so by this stage a lot of
13 learning had been done already by my colleagues, but I
14 think much of the trauma that was very powerfully laid
15 out by Professor Fong in the last evidence -- with it
16 I fully concur, to be clear -- was very apparent in many
17 of the colleagues I had. There was a period of
18 recovery. I think what then he described, and I think
19 this is accurate, I was working -- I did two weeks over
20 the Christmas/New Year period at the end of 2020, which
21 is in fact very similar to the time he was talking
22 about, and that was an extraordinarily difficult time,
23 even in the relatively privileged environment of
24 a teaching hospital, which is where I work, and fully --
25 I fully agree with his point that actually in less

57

1 different outlook.
2 **Q.** What about the staff in wave 2, though? They'd been
3 through all the various ups and downs from March 2020.
4 Was there any appreciable difference in the way they
5 were feeling and behaving by the end of the relevant
6 period?
7 **A.** I think that one thing that in my experience did make
8 quite a big difference was when staff knew that the
9 vaccine was coming, because until that point, there was
10 a very -- a sense of: this could go on for literally
11 years with wave after wave.
12 Once -- the second wave in particular was incredibly
13 harrowing, as Professor Fong has laid out, but knowing
14 that there was something which was going to
15 significantly reduce that, I think for many people, it
16 at least meant they felt there was some light at the end
17 of the tunnel, although it was a very long tunnel.
18 **Q.** You set out in your statement the role of the Office of
19 the Chief Medical Officer, and I'm not going to go
20 through it all, but is this right: you are the senior
21 adviser to government. You are independent of
22 government, and you can therefore write reports and make
23 public statements which don't accord to government
24 policy if that's how you consider the evidence to fall.
25 **A.** That's correct.

59

1 resourced smaller settings, the outcomes were even more
2 difficult.
3 **Q.** When you were working on the Covid wards, what type of
4 mask were you wearing?
5 **A.** I wore exactly what was in the guidelines, so that, for
6 most many of the time, was a surgical fluid-resistant
7 mask.
8 **Q.** Thinking towards the end of your -- end of the work
9 during wave 2, were there any noticeable differences
10 between wave 1 -- sorry, Wuhan and wave 2?
11 **A.** I think the scale of the second wave was actually under
12 appreciated in the general public. I think people who
13 had relatives, obviously people who were sick fully
14 understood that this was in fact a larger wave, in terms
15 of total numbers of people who were severely ill and
16 indeed who sadly died. And the first two waves were the
17 ones which had the extraordinary mortality in the very
18 large numbers in ICU.

19 By the time we get to the delta -- most for the
20 delta wave and the Omicron wave, vaccination had
21 completely changed the pattern, so although people were
22 still getting Covid still coming into hospital, it put
23 enormous strain on the system as a whole. The
24 proportion unfortunately who were going to ICU and going
25 on to die was massively lower, and that led to a very

58

1 **Q.** All right. You have a small private office, I think,
2 including public health speciality registrars. There
3 were three deputy chief medical officers, is that right,
4 during the relevant period?
5 **A.** There were, although one of them was mainly working for
6 the NHS.
7 **Q.** And I think you said at its largest, there were 19
8 members of staff, but typically you only have about 12
9 members of staff; is that correct?
10 **A.** That is correct. And I think the small scale has a big
11 advantage and a significant limitation.
12 The big advantage is: everybody understands what
13 everyone else is thinking and you can think as a unit.
14 Obviously, the disadvantage is: it's quite a small
15 resource and, in an emergency of this size, it meant we
16 had to be very careful about which things we prioritised
17 in terms of the things we did and which things we
18 didn't.
19 **Q.** You do not have, is this correct, a direct role in the
20 organisation or operation of the NHS, and so, therefore,
21 clinical advice to the NHS comes from within
22 NHS England; is that correct?
23 **A.** In a purely statutory sense, the 2012 Act significantly
24 changed the way in which the Chief Medical Officer
25 interacted with the NHS and gave the NHS, in a sense,

60

1 complete independence, and therefore, there's no role
2 for the CMO in the structure. However, there would be
3 situations where senior members of the NHS, and indeed
4 other members of the NHS, would talk to me for -- to
5 really talk through a problem as they appear in the
6 system.

7 For example, I was in constant contact with
8 Professor Steve Powis, who I think you are going to be
9 hearing from subsequently, and also with Dame Ruth May,
10 who you have already spoken to.

11 **Q.** Yes, right.

12 I think though you say you may have, from time to
13 time, provided technical advice which might help
14 NHS England make decisions.

15 **A.** Yes. And I think this is -- there are sort of two kinds
16 of advice I would give on this, but I tried, as far as
17 I could, to say -- make clear who was maintaining the
18 final decision-making because, otherwise, things get
19 very confused.

20 And the first form was -- I mean, I am a technical
21 expert, both in the epidemiology and in the treatment of
22 infections; many of my colleagues were not. So
23 sometimes I was actually giving, literally, technical
24 advice from my own personal -- professional background,
25 and sometimes it was as a senior member of the

61

1 incidentally has a slightly different interaction with
2 the NHS -- I should have said that on the way -- talked
3 about the four harms. I put it slightly differently,
4 but I gave the same four harms. The first harm being
5 the direct harms from Covid, where you're trying to
6 reduce the number of deaths directly. But the second,
7 and very important for this, is the indirect harms that
8 comes from the system being overwhelmed, or at least
9 unable to cope, and all -- in fact, all diseases, not
10 just Covid, having higher mortality rates than they
11 would have had. And I think both of those are relevant
12 to this.

13 **LADY HALLETT:** Could I ask you to slow down, Professor.

14 Thank you.

15 **A.** Apologies, Chair.

16 **MS CAREY:** You said in Module 2 that -- well, you were asked
17 this:

18 "What was the understanding as to what would likely
19 happen to the NHS if a lockdown were not imposed?"

20 And you said:

21 "Well, I think that the first thing that was going
22 to get to the point where it was no longer able to
23 function in any sense close to normal ..."

24 Taking that answer and the aim to try and minimise
25 the number of direct and indirect, do you think that we

63

1 collective leadership of the medical profession and
2 healthcare more widely. So those are the two kind of
3 environments.

4 **Q.** I just wanted to be clear about the remit of your role
5 as CMO. It may be at times we trespass into matters
6 that you provided advice from or were in the room when
7 decisions were being made, but please make it clear if
8 you are unable to answer any question or it's outwith
9 your experience or expertise.

10 Can I start, though, with this. I think in Module 2
11 you explained that one of the reasons for the lockdown
12 in March 2020 was to prevent the NHS from being
13 overwhelmed.

14 Can I ask you this: was "overwhelmed" ever defined
15 by those that were making that decision?

16 **A.** Not really. And I think that it's become,
17 unfortunately, quite a loaded term, where people,
18 depending on what point they're trying to make, either
19 say things were or were not overwhelmed.

20 I think the aim of it, though, was to minimise the
21 number of people who died, both directly and indirectly,
22 from Covid in the health service.

23 And if you would like me to expand slightly on that
24 answer?

25 Professor Smith yesterday, CMO for Scotland, which

62

1 achieved that aim?

2 **A.** Well, I think that -- I'm going to work backwards from
3 what would have happened if we'd gone further.

4 I think the key thing to remember, and I think
5 people forget this, is that this was an exponentially
6 rising -- in the technical sense of the term,
7 an exponentially rising thing, where you have --
8 epidemic, with a doubling rate of three to four days at
9 the point we were talking about. Four doubling times
10 more would have led us to an absolutely catastrophic
11 situation.

12 Now, I'm not saying that where we were was anywhere
13 short of incredibly difficult, and in many places,
14 individual elements of hospitals, individual hospitals,
15 individual bits of the system were coping nowhere near
16 where they would be if Covid wasn't there. That's
17 self-evidently true.

18 But if we had not had the lockdown, the expectation
19 is that would have got a lot worse. I don't mean just
20 trivial worse, but really quite substantially worse.

21 **Q.** Do you think that the NHS was able to function?

22 **A.** Well, I think that makes it sound quite binary. I mean,
23 the NHS continued to treat sick patients throughout. It
24 continued to treat people who did not have Covid
25 throughout. In fact, in most -- I think at all times,

64

1 actually, there were more people in hospital who did not
2 have Covid than had Covid; I think, certainly for the
3 great majority. I'm sure there were places where that
4 was not true, it wasn't true in many ICUs, as we heard
5 this morning, but more generally.

6 So, you know, there was still a functioning health
7 service. It was clearly functioning at well below the
8 capacity that it would have normally.

9 And I think, you know, just to make a slightly wider
10 context, in a normal winter, the NHS is very, very
11 strained. Lord Darzi has just done a report, I'm not
12 going to go into that in detail, but just making the
13 point: the NHS is under strain in every year, even prior
14 to Covid. This was a major -- this was the largest, as
15 you know, medical emergency since the Second World War
16 in a high-income country. And this made the system
17 really not work anywhere near as effectively as it would
18 if Covid had not been there.

19 But that's self-evidently true. If that were not
20 the case, it would be extraordinary.

21 **MS CAREY:** I ask you because I think you -- obviously, you
22 heard from Professor Fong just a moment ago. I think
23 you've seen the report from the intensive care experts
24 that the module has prepared. I think you've also seen
25 the research that the Inquiry commissioned in relation

65

1 I probably departed from the evidence of Professor Smith
2 yesterday, almost everything else I agreed with -- not
3 everything else, but -- was this: that he expressed some
4 surprise. I didn't express -- I didn't see any surprise
5 in this.

6 I would caveat this by saying: if you said in the
7 middle of a winter in the NHS pre-Covid -- had asked
8 these questions, you would not have got a 100 per cent
9 everyone can be escalated to the next level. And
10 I think it is unrealistic, even in those circumstances,
11 to think this would have been the case.

12 Pretty unsurprisingly, for the biggest pandemic in
13 100 years for this country, the system was unable to
14 escalate things in the way it normally would. I don't
15 think, you know -- that doesn't seem to me a surprising
16 statement, and it is entirely in keeping with what
17 I previously said.

18 **Q.** If it's not surprising to you or indeed those with whom
19 you work, how do we in future prevent stats like this,
20 evidence like we've just heard from occurring again? I
21 know that's a very broad question. Professor, can I say
22 at the outset, this is not a counsel of perfection.
23 I do take that point. But how do we either surge up or
24 create more capacity so that there isn't a healthcare
25 worker saying "I couldn't give that patient a bed"?

67

1 to escalation of care.

2 And I just want to ask you about how your answers
3 tally with some of the things that we've actually heard
4 over the last nearly three weeks.

5 Could we have up on screen, please, INQ000499523.

6 I'm not going to take you through all of the pages,
7 Professor, but could we go to page 3. You will
8 appreciate that this cannot be representative across the
9 entirety of the healthcare workforce, but nonetheless,
10 there were 1,683 healthcare professionals who were
11 spoken to, over half of whom reported that some patients
12 could not be escalated to the next level of care due to
13 lack of resources during either wave 1 or wave 2. A&E
14 doctors and paramedics were more likely to have ever
15 been unable to escalate care due to a lack of resources
16 at either wave.

17 And so, when you speak at "functioning below
18 capacity", we understand now what you mean, but what
19 about the people that couldn't get the care that they
20 would otherwise have got? How does that tally with what
21 you're telling us?

22 **A.** Well, I consider they're exactly -- they're entirely
23 congruent with one another. And, I mean, what you've
24 said in -- what was seen in this report in no way
25 surprised me. In fact, that's the one thing where

66

1 **A.** Well, I think there -- I mean, there are kind of broadly
2 only two ways we can do it because we have to assume
3 a future pandemic on this scale will occur. That's
4 a certainty.

5 But for the UK, not for the world, but for the UK,
6 this is a one in 100 years event because the last time
7 there was something this big was back in 1919 -- 18-19.
8 And for something on this scale, you therefore have to
9 have two things.

10 You can have more capacity. Taking ICU in
11 particular, the UK has a very low ICU capacity compared
12 to most of our peer nations in high-income countries.
13 Now, that's a choice. That's a political choice.
14 It's system configuration choice, but it is a choice.

15 But, therefore, you have less reserve when a major
16 emergency happens, even if it's short of something of
17 the scale of Covid. So that's the first alternative.

18 The second alternative is to do things which -- and
19 this, in my view, is undoubtedly necessary either way
20 that minimise the scale of the impact of the pandemic,
21 and that of course is what the various attempts at
22 lockdown and other NPIs were really about. But the way
23 out of these is always going to be science in the end,
24 as it was for this one, with vaccines.

25 **Q.** The ability to scale up was something that was done at

68

1 real speed during February and March 2020, but do you
2 have any thoughts about the timing with which a scale up
3 should happen in the event of a pandemic?

4 If we take this pandemic as an example, by January,
5 the reports were coming out of the Wuhan. It got
6 progressively worse through January and February into
7 March and the lockdown decision.

8 Do you have any views as to when during a month or
9 two lead-in to the pandemic hitting that surging and
10 scaling up should take place?

11 **A.** Well, I think Professor Fong laid out, absolutely
12 rightly, that the key thing, which is the very limiting
13 thing for scale-up, is people. Trained people. So you
14 can buy beds. You can buy space. You can even put in
15 oxygen and things. And I think we learned some lessons
16 from, for example, trying to set up the Nightingale
17 hospitals, about the difficulties of doing that. But,
18 fundamentally, the limit to that system, as to any
19 system, is trained people, and there is no way you can
20 train someone in six weeks to have the experience of
21 an experienced ICU nurse or an experienced ICU doctor.
22 It is simply not possible.

23 So if you don't have it going into the emergency, if
24 it's an emergency of this speed of onset, you don't have
25 any illusions you're going to have it as you hit the

69

1 indeed, he'd previously been a chair of it before he
2 joined government.

3 **Q.** Does that mean that the OCMO observer does not
4 contribute or feed into the decisions made by NERVTAG?

5 **A.** Well, I think people use "observer" in different terms.
6 My view is, an observer is someone who can certainly, in
7 almost all scientific committees, can pose questions and
8 indeed if it's their area of expertise, make points.
9 An observer is not someone who sits passively. There
10 are some kind of environments where that is exactly what
11 an observer is. But in this environment, I would have
12 expected, and in fact hoped, that Professor Van-Tam, and
13 indeed any other expert adviser, would contribute if
14 they had something useful to add.

15 But in formal terms, they're not a formal member,
16 and they're not a formal voting member, were a vote to
17 occur.

18 **Q.** Understood. All right.

19 Now, although you weren't on it, I think the first
20 NERVTAG meeting was 13 January 2020.

21 And I'd just like to look at INQ000223307, please.

22 We're obviously in very early days, but you speak
23 there of -- it's an email from you to a number of DCMOs,
24 other people in DHSC, and you say -- you thank him for
25 a note, and you say:

71

1 peak.

2 **Q.** So does that mean we need more potentially skilled-up
3 ICU nurses, for example?

4 **A.** Well, I think -- I mean, there are strong arguments for
5 that in between emergencies, and I think the argument --
6 the argument for having them in the hope that we can be
7 better off for a one in 100 year event I think is less
8 strong than some of the other arguments for having more
9 ICU capacity.

10 **Q.** Can I just deal with some other features to your role
11 and the role of the OCMO.

12 Can I ask you about your interaction with NERVTAG,
13 please. I think you say in your statement at 3.45 that
14 you are there as observers to NERVTAG. Have I got that
15 right?

16 **A.** Yes. I mean, the architecture is a bit complicated, but
17 fundamentally, NERVTAG actually advises the CMO under
18 ordinary circumstances. Once SAGE was in operation, in
19 practice, NERVTAG advised SAGE. But the CMO has a very
20 close link to NERVTAG. It's -- that's just the way this
21 particular interaction works.

22 **Q.** So thinking about you, because I think you were
23 a co-chair of SAGE; is that correct?

24 **A.** I was co-chair of SAGE. I didn't sit on NERVTAG, but my
25 colleague Professor Van-Tam sat on as an observer, and

70

1 "My view is that any of three triggers would mean we
2 should start taking a close interest and considering
3 risk to the UK."

4 So, in short, now the word had come out that there
5 was the virus circulating in China. And you say the
6 three triggers are:

7 "(1) Healthcare workers dying. This is often the
8 early warning that a new infection is both severe and
9 transmissible, (eg, SARS, MERS, Ebola). This would be
10 most concerning."

11 Then spread from person to person, then geographical
12 spread.

13 Given that one of the triggers was healthcare
14 workers dying, who was it who was responsible for
15 monitoring the number of deaths of healthcare workers?

16 **A.** So in a pandemic or major epidemic like this, this is
17 one of the first things people will spot. And of
18 course, the healthcare workers are working in the
19 healthcare system, so people are aware they are there.
20 The deaths occur. They are usually in young and healthy
21 people, in comparison to older populations who are in
22 the general system.

23 So it's often, unfortunately -- and this is one of
24 the risks of doing medicine, and indeed doing medicine
25 in infectious disease areas, is you are going to be in

72

1 the first line of people who will be potentially exposed
 2 to an infection. And if you look at, for example, SARS,
 3 MERS and Ebola, in all of those, healthcare workers
 4 weren't massively disproportionately affected, in terms
 5 of the deaths, compared to the general population.

6 **Q.** But given it's one of the triggers, who is it that's
 7 going to monitor the numbers of healthcare workers
 8 dying? Is it DHSC? Is it OCMO? Is it --

9 **A.** These data would be coming from China to WHO or by
 10 indirect routes. All of them -- you know, what I was
 11 signalling here is, if you start to see even a small
 12 increase in healthcare worker deaths, that is a very
 13 concerning sign and one that you would want to -- would
 14 actually escalate, even if the numbers are small in that
 15 situation.

16 **Q.** And then within the UK, who is it that's responsible for
 17 monitoring healthcare workers?

18 **A.** Well, I mean, I think in terms of -- well, in terms of
 19 overseas data, this would come in to PHE, normally
 20 speaking; now UKHSA.

21 In the current -- you know, if it was in the UK, of
 22 course, it would be the NHS that would first identify
 23 this, under normal circumstances.

24 **Q.** So, if I understand you correctly, as at January 2020,
 25 you were looking for information coming effectively from

73

1 disease. And part of the reason for that -- not the
 2 only reason, but part of the reason for that is to nurse
 3 and provide medical care for people in environments
 4 which are relatively highly protected, with highly
 5 trained skilled staff who are used to dealing with high
 6 levels of PPE, and therefore a much lower probability of
 7 coming to harm themselves. There are additional
 8 benefits as well to the patient.

9 **Q.** Well, since you mention HCIDs, can I deal with that at
 10 this stage.

11 I don't think you were involved in the decision to
 12 classify and declassify --

13 **A.** I wasn't formally involved in it, but I was aware of it,
 14 and I agreed with both the classification and the
 15 declassification.

16 **Q.** All right. Well, I was going to come on to the fact
 17 that you set that out in your statement.

18 You -- I think you say in your statement -- forgive
 19 me, I've just lost my page -- that you made some points
 20 about HCIDs, including the significant disadvantages to
 21 the disease as being classified. Could you just set
 22 those out for us, please, Professor, and it's at
 23 paragraph 3.35 if it helps you.

24 **A.** Yes, I can remember what I said on that.

25 So the advantage to the healthcare workers is the

75

1 China at that stage as to whether there was healthcare
 2 workers dying. But do I take it that if we started
 3 having healthcare workers dying in the UK, that would be
 4 equally an indication of how severe the pandemic could
 5 be?

6 **A.** That is correct. Remember, this was 5 January. This is
 7 very, very early in our understanding.

8 **Q.** Now, given that that is -- healthcare workers dying is
 9 one of the triggers, certainly from your perspective, do
 10 you think steps should have been taken as early as
 11 January and February to assess what action could be done
 12 to protect UK healthcare workers from either catching
 13 the disease --

14 **A.** Well, I think there are clearly two lines to that.

15 I mean, the first and the most important is to try
 16 to do what you can to reduce the risk that the disease
 17 gets into the UK, if that's possible, and that it takes
 18 off in a major way. And that was covered in the last
 19 module. I'm not going to go into that, but, just to be
 20 clear, that is the most important thing you can do.

21 There's clearly a second area, which is making
 22 a decision about where you would start, particularly
 23 early on when you don't understand the infection. And
 24 the initial decision was taken that this would be
 25 treated, in UK terms, as a high consequence infectious

74

1 one I've just given. It's very important one. It's
 2 absolutely fundamental. The advantage initially to
 3 patients is that they get -- they are all cared for in
 4 a small number of specialist areas where people can
 5 accrue experience of managing a new infection, and that
 6 actually is beneficial. They also tend to have access
 7 to drugs and approaches which are not available more
 8 widely.

9 However, they come at a significant disadvantage,
 10 once you get beyond a quite small number of cases.
 11 People have to be moved around the country which can be
 12 very tricky. They -- and indeed, it can involve
 13 exposing staff in transit which is problematic.

14 They also are in an environment which actually is
 15 quite frightening to be in if you don't need it.
 16 I don't know if anyone has ever seen these on TV or in
 17 other areas, but these are not environments which are
 18 sort of the easiest ones to operate in. And they are
 19 set up principally to protect the staff who are working
 20 in them, quite properly, but that can in itself cause
 21 some risks actually because the level of barrier between
 22 the staff and the patient is quite significant. So
 23 there are a number of downsides.

24 There are also some very clear upsides, particularly
 25 with a very dangerous disease or a disease early in its

76

1 understanding.

2 **Q.** We've been told that, as part of the classification of
3 Covid as an HCID, there is effectively a PPE kit that is
4 required to be worn which includes FFP3 masks; is that
5 correct?

6 **A.** That is correct, yes.

7 **Q.** Are you able to confirm that the declassification of
8 Covid as an HCID does not have any bearing on what IPC
9 measures are thereafter recommended to people?

10 **A.** That is also correct.

11 **Q.** So it could be declassified, and FFP3 could continue to
12 be recommended?

13 **A.** Yes.

14 **Q.** A mixture of masks, no masks, depending on the
15 circumstances?

16 **A.** Yes, and I think to highlight one point which has come
17 up in various witnesses, not fully being picked up
18 I think, is: you've got the kit, but you also have to
19 have the training to use the kit properly.

20 People who work in HCIDs, and indeed work in
21 infectious disease units, I'm one of them, are trained
22 to use multiple different forms of PPE at quite a high
23 level. You go through training to do that. You
24 practice that training. People take fit testing very
25 seriously, and they are ready for it.

77

1 **A.** I think that -- well, let me just preamble this. You
2 are inviting me to do so, so I'm going to, by saying
3 that the areas of PPE, it's a highly specialist area;
4 it's not one that I get involved in under ordinary
5 circumstances, nor is it my technical expertise.

6 As you heard discussed yesterday, this has always
7 historically gone through nursing and
8 microbiology/virology groups of experts. That's where
9 it comes from. So I just want to be careful I don't
10 sound as if I'm trying to be an expert in this area.
11 I'm not. This is not my area of expertise.

12 I think that -- and I think this is a recommendation
13 I think the Inquiry might -- I would invite the Inquiry
14 to consider. I think that the messaging near the
15 beginning of this was quite confused. And I think the
16 reason that it was confused was it was not entirely
17 clear who it was who was ultimately responsible for
18 making decisions in this fast-moving situation.

19 Can I expand -- would you find it helpful for me to
20 expand on it?

21 **Q.** I was going to ask you who was responsible?

22 **A.** Well, I think that quite a lot of people thought they
23 were partially responsible, and that's always
24 an extremely difficult and dangerous situation to find
25 yourself in.

79

1 All of these things are not going to be true outside
2 that system, and just having kit but no training often
3 produces little or no benefit. The training is
4 fundamental to making the kit useful.

5 **Q.** By the time Covid was declassified as an HCID, there was
6 UK IPC guidance which effectively said: FFP3s for AGPs,
7 or hot spots where AGPs were going to be conducted, and
8 FRSM in the other areas. I paraphrase. But do you
9 agree with that --

10 **A.** That is a good paraphrase.

11 **Q.** Do you think that was perceived by some in the
12 profession as a downgrading of PPE that was required?

13 **A.** Well, I'm sure the professions involved being large, I'm
14 very confident you'd find some people who thought that
15 was a downgrading, but I think most people would see
16 that as a quite normal sequence. They may or may not
17 agree with it, but they would see that as -- it's not
18 a downgrading; it's simply a move from an HCID to
19 an infectious disease for which you have standard
20 precautions for that level of risk.

21 **Q.** Do you think that there was sufficiently good guidance
22 saying notwithstanding that we've had FFP3 as an HCID.
23 The reason we're recommending FRSM in all non-AGP hot
24 spot areas is this. Do you think that that message was
25 sufficiently well communicated to healthcare workers?

78

1 So it wasn't that people trying to walk away from
2 responsibility, but the sort of quite complex system by
3 which Public Health England, as it then was, the
4 infection control cell, NHS delivery of various things
5 were interacting, and that's before we get into issues
6 of procurement and distribution, which had a separate
7 set of challenges.

8 I think works fine if you're changing every six
9 months or so in a reasonably measured way. Up against
10 the speed of changes that were needed, I think it led to
11 uncertainty. It wasn't deliberate in any sense, and it
12 wasn't anybody, as I say, trying to walk away from
13 responsibility, but uncertainty as to who finally was
14 actually trying to both call this and communicate it.
15 And I think that, to me, seems an important thing which
16 the Inquiry might want to consider recommending.

17 **Q.** So to go back to my question: from your perspective, who
18 was ultimately responsible?

19 **A.** I think that the ultimate -- my view mechanistically
20 was: ultimately, the responsibility for decisions was
21 taken by the IPC cell, which became clearer over time,
22 and technical advice to them came through Public Health
23 England as it then was, UKHSA now, with delivery through
24 the NHS.

25 But, as I say, I think there was a fair degree of

80

1 uncertainty. And actually, one of the reasons that some
 2 of the DCMOs in my team got pulled in was, in my view,
 3 because of that uncertainty. And we took a slightly --
 4 if no one else knows -- if it was unclear what to do,
 5 people would send it to the CMO, tended to be a default
 6 for quite a lot of things. But this was not our area of
 7 expertise, and that was why I was keen that we didn't
 8 get too heavily involved in it.

9 **Q.** Caveat understood. You said there that you think the
 10 messaging was quite confusing. For healthcare workers,
 11 is that who you mean?

12 **A.** I think for everybody, actually, but obviously the most
 13 important people are healthcare workers in the front
 14 line who are having to use this.

15 **Q.** Now, speaking of potentially confusing messaging,
 16 I think you are familiar, Professor, with the tweet that
 17 was put out by the World Health Organization.

18 Can we have it up on screen, please. I think it is
 19 INQ000300579. I'll just deal with the tweet, and then
 20 I'd like to ask you about your involvement with the WHO.

21 You can see there, this was I think tweeted on
 22 28 March, so we had gone into lockdown just a few days
 23 earlier:

24 "FACT: #COVID19 is NOT airborne."
 25 At the bottom:

81

1 have been slightly odd for people to do it. The
 2 general --

3 **Q.** What about the topic?

4 **A.** The general topic was discussed, and this was obviously
 5 one of the things that -- there was a lot of -- we were
 6 trying internationally to form some form of central view
 7 as to what the proportion was. Science is
 8 an international issue, and, you know, WHO discussions
 9 included this, although many other things as well, in
 10 what we were trying to do.

11 **Q.** Did you ever say in any of those meetings, "That is not
 12 a helpful tweet to have put out; it may be inaccurate
 13 for all sorts of reasons"? Did you ever take them to
 14 task, for want of a better phrase?

15 **A.** I think if I start taking WHO or anyone else to task for
 16 all their tweets, that would be a problem in the system.
 17 They were well aware of the fact that this had not
 18 landed well.

19 **Q.** All right. Did you ask them to do anything about it?
 20 To retract it? To get your WHO colleagues or CMO
 21 colleagues on WHO to join forces to re-write?

22 **A.** Among the very large number of things I was trying to do
 23 at this moment in time, trying to get WHO to retract
 24 a past tweet didn't seem to me one of my roles, no.

25 **Q.** What about -- forgetting the tweet itself, but getting

83

1 "FACT CHECK: COVID-19 is NOT airborne."
 2 Did you see this tweet?

3 **A.** Yes. I mean, I saw it subsequently. I didn't see it
 4 coming into my inbox, but people drew it to my
 5 attention. I was quite surprised by it.

6 **Q.** Well, I was going to say: what did you think?

7 **A.** Well, I mean, it was clear that, you know, there was
 8 uncertainty in this area. In the UK, we had been
 9 discussing -- the question whether there was any
 10 airborne transmission struck us as: well, of course
 11 there is going to be some. But the question was, was it
 12 actually trivial and having almost no impact, or was it
 13 a major part, or some point between that.

14 But what we were all certain of -- and if you read
 15 all the correspondence on this, it's clear from
 16 mid-January onwards we were discussing this -- was the
 17 degree of it. We all knew that the data were not yet
 18 clear enough to make a decision one way or the other.
 19 So this seemed surprisingly definitive.

20 **Q.** Now, you set out in your statement that between January
 21 and July 2020, you had had 44 meetings of
 22 an international nature, 19 of which were WHO meetings.
 23 Was this tweet discussed at any of the WHO meetings that
 24 you attended?

25 **A.** The tweet specifically was not, and I think it would

82

1 WHO to not be as definitive as they were here, given the
 2 uncertainty as to the extent to which airborne
 3 transmission played a part in the spread of Covid?

4 **A.** So I think what WHO was reasonably reflecting was
 5 scepticism of the size of the effect. I think what was
 6 wrong about this was the degree of definitiveness that
 7 was put into this tweet. But, I mean, in defence of
 8 WHO, I don't actually think tweeting is a very good
 9 medium for trying to put forward really difficult
 10 science, and possibly the question is: would it have
 11 been sensible not to tweet at all, rather than the exact
 12 wording of this particular tweet, on a subject which is
 13 so technically difficult and disputed?

14 **Q.** That's probably wider than Module 3's remit, but I take
 15 your point, Professor.

16 Just while we're dealing with WHO, we heard, is this
 17 correct, that guidance from WHO, the UK is not bound to
 18 follow it; is that correct?

19 **A.** No, absolutely. I mean, it's multilateral organisation.
 20 It's a membership organisation. There is no obligation
 21 on the UK or any other country to follow their advice.

22 **Q.** Generally dealing with your WHO meetings, were routes of
 23 transmission discussed in those meetings?

24 **A.** They were.

25 **Q.** And help us: what was the general tenor of the

84

1 discussion about transmission?

2 **A.** Well, I think that the debates that you have seen laid
3 out in, for example, SAGE papers where this was debated
4 quite extensively, the EMG group of SAGE, Environmental
5 Modelling Group of SAGE, for example, among them, were
6 reflected in the international literature as well.

7 So these debates were being had everywhere because
8 they had quite profound implications both for control
9 and for clinical management.

10 **Q.** You said in your statement you had I think 118
11 international meetings as well between August 2020 and
12 June 2022. Was there anything gleaned from how others
13 were doing it that was, you found, useful to bring back
14 and try and adopt within the UK or England?

15 **A.** I think it's important to recognise that for large parts
16 of certainly the very beginning of Covid, and indeed
17 subsequently at many multiple points, either all of our
18 information came internationally or a lot of it came
19 internationally. The science was international, and in
20 the end, the countermeasures, including vaccines, were
21 an international effort, so this was an international
22 effort at all times.

23 Different countries have different capacities. UK,
24 for example, is extremely strong in clinical research,
25 was very strong on genomics, but there were others who

85

1 not including Cabinet Office or Number 10, 286 meetings
2 between the UK CMOs between January and June 2020.

3 And so, I wanted to ask you, really, what, for you,
4 was a working day like in January, February, March,
5 April 2020?

6 **A.** Well, I mean, it was very long, but then it was very
7 long for huge numbers of people across the system. But
8 what we were trying to do was both absorb information,
9 both internationally and nationally. It was very
10 important to hear what was going on around the country.
11 You have just heard from Professor Fong why it is
12 important to get grounded information from around the
13 country, for example, in one particular area. That was
14 replicated across many areas.

15 Alongside that there was a large technical effort.
16 Since I was both co-chair of SAGE and a -- head of
17 the -- chief executive of the National Institute for
18 Health Research, which is the UK's largest funder of
19 practical applied health research from the government.
20 I had a large bit about trying to get science off the
21 ground, which is an extremely important part of the
22 early -- part of the work.

23 And there was a lot of interactions with political
24 leaders. I mean, you have talked about the Secretary of
25 State for Health and Social Care.

87

1 were giving useful epidemiology information from their
2 experience, so the sharing of information was both
3 normal and was incredibly important in this pandemic.

4 **Q.** And was that coming through you, essentially?

5 **A.** No. It came through me, but there were multiple other
6 routes. So people in PHE, for example, would have
7 formal routes. And then UK scientists and clinicians of
8 all sorts have bilateral links with colleagues overseas,
9 and indeed many of the things I got was an email from
10 someone who I -- a friend of mine, who I had taught at
11 some point, from another country would email me and say:
12 are you aware of this? And that was extremely helpful
13 as an early warning. But that was happening across the
14 whole system; that wasn't unique --

15 **Q.** Well, that's what I wanted to check. If you were the
16 central funnel for this repository and we were to sadly
17 lose you, I didn't want anyone to think that we would
18 lose with it the channels of communication.

19 **A.** That would not make much difference to the UK in that
20 sense.

21 **Q.** Can I just deal with your meetings, to provide some
22 context for some of the other questions I'm going to ask
23 about what was going on in the pandemic.

24 You had 65 meetings with the Royal Colleges between
25 January and June 2020, 245 meetings with Matt Hancock,

86

1 The CMO is the adviser to the UK Government, not to
2 the Department of Health and Social Care, and therefore,
3 obviously, that subsequently involved interacting with
4 the Prime Minister and other cabinet ministers as well
5 as senior officials.

6 But that came at -- a bit later along the track
7 after January and February.

8 **Q.** Can I ask you about that. Taking as you are the adviser
9 to the UK Government, why was there sufficient
10 a significant amount of interaction with Matt Hancock?

11 **A.** Well, I mean, he was the Secretary of State for Health
12 and Social Care. In a pandemic he was obviously the
13 lead cabinet minister, but under the leadership of the
14 Prime Minister, and that would be the normal situation.

15 **Q.** All right, so we shouldn't read anything the amount of
16 communication you had with him or meetings you had with
17 him?

18 **A.** Well, I mean, I think if I hadn't been meeting with him
19 there would have been a serious problem in the system.

20 **Q.** Okay.

21 Now, you mentioned there research, and I would like
22 to ask you about that, please, Professor Whitty.

23 I think you set out in your statement the fact that
24 you were the chief scientific adviser and head or CEO of
25 the National Institute for Health Research (NIHR) from

88

1 January 2016, so pre-dating your CMO role, to
 2 August 2021.

3 You say in your statement that one of the good
 4 responses to the pandemic was the way that research
 5 pivoted to respond to the pandemic. I would just like
 6 to ask you, please, about what you did during the
 7 pandemic that built on the NIHR that was already in
 8 place?

9 **A.** Well, I think we had a unique advantage in the UK of the
 10 existence of the NHS as a single provider, essentially,
 11 of health services, and a very strong tradition of doing
 12 clinical research and a very strong volunteering spirit
 13 from the general public.

14 And I think -- I would like to, if I may, just pay
 15 enormous tribute to the over a million people who
 16 volunteered to do studies as part of the Covid, and the
 17 fact that almost every doctor, every general practice
 18 that I was aware of was involved in research over this
 19 period. It was an enormous effort.

20 We were able to do this because we have a single
 21 system. We had a small number of major funders,
 22 ourselves and UKRI, the medical research council, the
 23 principal one, and we could therefore make centralised
 24 funding decisions. There was a very quick and
 25 centralised ethics system that was able to pivot to

89

1 of, begun to run into the sand. They had to restart up
 2 again.

3 So I think it did -- I think that the UK's
 4 leadership position on this, which -- I think the whole
 5 system should feel very proud, it also meant that we
 6 then had a dip. But as I say, we've now recovered. But
 7 I don't think anybody going into this should be under
 8 any illusions. If you swing all of your research
 9 capacity in one direction, there will be a kind of
 10 hangover period where you will not be able to do things
 11 you otherwise would have wanted to do.

12 **Q.** Yes, and a knock-on effect on the research that you were
 13 conducting that may have to be paused?

14 **A.** Correct.

15 **Q.** Understood.

16 All right, now I want to ask you about one
 17 particular aspect of research, and that is into Long
 18 Covid, please.

19 You deal with this in your statement starting at
 20 497.

21 But can I just see if you agree with me about this,
 22 by February 2023 the ONS estimated a prevalence of over
 23 2 million people in the UK with Long Covid. I daresay
 24 it may be higher now in September 2024. You make the
 25 point in your statement that long-term consequences of

91

1 this, do almost all of this work on this, and we were
 2 able to deliver to the NHS extremely rapidly.

3 If you look at speed of stand-up of research in the
 4 UK, it was way ahead of virtually every other country in
 5 terms of studies that finally got to see the light of
 6 day.

7 That came at a price, and the price was we were
 8 extremely ruthless about the number of studies we
 9 supported, because we were very determined that we
 10 didn't start 100 studies, none of which completed. So
 11 we pushed it right down. But there was a certain -- it
 12 was a pretty tough funnel. And we had to switch off
 13 large amounts of extremely important research into
 14 multiple other diseases to provide the capacity to do
 15 this. And it took us quite a long time, I think longer
 16 than we expected, to get those back on track. They are
 17 now back on track but it took us probably two years to
 18 get anywhere near back to where we were pre-pandemic.
 19 So I'm not saying this was a cost-free move.

20 **Q.** No. Why was it that it took longer than you had
 21 anticipated to get them back on track?

22 **A.** I think what we had -- when we should have anticipated
 23 but -- with reality -- is people had -- staff had left,
 24 things -- people had moved on. The, sort of, enthusiasm
 25 that had got someone halfway through a study had, sort

90

1 a virus are not new; is that correct?

2 **A.** Yes. The scale of this, I think, was not what we had
 3 anticipated.

4 **Q.** No. You go on to say that the precise nature and extent
 5 of the risks may not be known but it is fairly
 6 uncontroversial that there will be a risk of a long-term
 7 consequence?

8 **A.** Yes. There are -- there is one group of risks which are
 9 inevitable and one group of risks which are possible,
 10 and the inevitable bit is that if people are seriously
 11 ill, they will -- some people will have long-term
 12 disabilities as a result of that. If you go into ICU,
 13 there is a reasonable chance you will have a result of
 14 going into ICU which is long-term and potentially
 15 permanent.

16 That was unsurprising. So we were not surprised
 17 that severely ill people had long-term consequences,
 18 although obviously we hoped that that would not be the
 19 case.

20 On the -- the bit which was much less predictable in
 21 terms of its scale was for people who had milder or --
 22 mild or moderate disease also had quite profound
 23 long-term effects. Now, this is now unknown with other
 24 infections. For example, dengue infection is classic on
 25 this, Epstein-Barr virus can do it. So this is unknown,

92

1 but the great majority of infections this is quite
2 a rare event. And as the numbers you have given --
3 I think we could debate about what the exact numbers
4 are, but as the numbers you have given have
5 demonstrated, this was not a rare event, you know, this
6 was something that happened in a large number of people
7 unfortunately.

8 **Q.** It was obvious, was it not, certainly by March, that
9 there were people falling severely ill with Covid. One
10 only has to think back at images of Italy and our
11 counterpart across Europe. Given that it is inevitable
12 that some people who are severely ill may suffer
13 a long-term consequence, do you think there was strong
14 enough messaging or communication of the long-term risks
15 to the public when we went into lockdown for example?

16 **A.** I don't think that any different messaging would have
17 led to any different behaviours. I think at the point
18 when we started off in Covid, the key -- you know, what
19 you don't want to do is overload large numbers of
20 messages that don't lead to a particular change. The
21 key thing we were trying to say is: we've really got to
22 stop this epidemic in its tracks to the best of our
23 ability.

24 I don't think there was any evidence that that
25 message wasn't heard loud and clear by the general

93

1 not pitching it enough and therefore people didn't
2 realise the risk they were walking into.

3 I think that balance is really hard and arguably
4 some people would say, if anything, we overdid it rather
5 than underdid it at the beginning. I'm just saying that
6 there -- certainly there is a range of opinions on that.

7 So I'm not certain that loading an additional risk
8 on would in itself be useful. However, I think that the
9 thing which this absolutely blows an absolute hole in,
10 if it need any further, is the arguments for things like
11 the Great Barrington Declaration, that all you need to
12 do is isolate a few people and everywhere else can just
13 carry on with their lives because they are at limited
14 risk. That is obviously not true in this case and those
15 kinds of arguments are not strong ones to advance in any
16 future pandemic unless you can demonstrate it.

17 And I think we probably should have been swifter off
18 the mark in spotting Long Covid as it emerged, although
19 I think we were relatively quick and it wasn't obvious
20 we could have done something different as a result
21 because of the way -- the main thing we could do at the
22 beginning, before we understood it slightly better, was
23 to reduce the amount of Covid. If you don't get Covid,
24 you don't get Long Covid.

25 **Q.** Given the uncertainty as to whether a new virus might

95

1 public, and they acted incredibly responsibly and
2 incredibly quickly as a result of that. Whether adding
3 this component to it would have actually been important
4 I think is a pretty open question. I'm not sure I would
5 be convinced by that. Particularly as it was
6 a speculative --

7 **Q.** No, I follow that, but you can't say that it wouldn't
8 have had an impact, because we don't know what impact it
9 would have had if it had -- (overspeaking) --

10 **A.** No, that's the speculative.

11 **Q.** I tell you what I wanted to ask you was, do you think in
12 the event of a future pandemic you should be warned: try
13 to keep yourself safe because if you get it you might
14 die. If you don't get it (*sic*), you may still suffer
15 a long-term health consequence. That could be as bad as
16 X, we don't know yet how bad it will be.

17 But why do you think that messaging might not land
18 with the public in the future?

19 **A.** There is a thing we definitely should use to -- bear in
20 mind in the future and there's something which I'm a bit
21 more cautious about. I worried at the beginning,
22 I still worry actually, in retrospect, about did we get
23 the level of concern right? Were we either overpitching
24 it, so that people were incredibly afraid of something
25 when in fact their actuarial risk was low, or were we

94

1 have long-term consequences, how bad those long-term
2 consequences might be, do you think there can ever be
3 a pre-pandemic plan put in place to try to mitigate
4 the risk of long-term consequences?

5 **A.** I don't think in the narrow sense of you can reasonably
6 predict what the long-term consequences will be and then
7 have something ready to go for that situation.

8 What you do need to have is an open mind that this
9 may well happen and then try to work out what are the
10 skills in the health service that are going to need to
11 be shifted towards this.

12 So, for example, some of the -- in my opinion, and
13 I don't think this is controversial -- Long Covid is
14 made up of more than one syndrome.

15 **Q.** Yes.

16 **A.** I think probably at least three. And one of them is
17 very specific to Covid for sure, it is not an overlap
18 with other areas. And we weren't -- we didn't have the
19 skills for that and we had to develop them over a period
20 of time.

21 **Q.** Is that what you set out at your paragraph 4.109?

22 **A.** Sorry?

23 **Q.** It is page 63 of your statement, Professor.

24 **A.** I'll get there eventually, but if you read it out to me,
25 then I --

96

1 Q. Yes. You say:
 2 "Separately there is in some patients an overlap
 3 with the post-infectious chronic fatigue syndromes, for
 4 example that which may occur after Epstein-Barr virus or
 5 dengue fever ... There is certainly another group of
 6 symptoms which occur after [Covid] which seem relatively
 7 specific to this infection and have some similarity with
 8 ... (postural orthostatic tachycardia syndrome) ..."
 9 Just help, is that what you were talking about there
 10 in your last --
 11 A. Yes, so the three which I'm saying, and I think it is
 12 probably more than that, and it's -- actually, maybe
 13 I can explain why it is important to do this. It is
 14 a post severe disease syndrome, variety of ones, a post
 15 chronic -- a sort of post-infectious chronic fatigue
 16 syndrome, which is a very real and very debilitating
 17 situation. I used to do clinics where many of the
 18 patients I cared for had this from other infections
 19 pre-Covid. So I am well aware of the very profound
 20 effects this can have. And then this relatively
 21 specific group of symptoms which we hadn't seen
 22 previously after other infections. But there are may be
 23 other subdivisions within that and there is probably
 24 overlap in there.
 25 Why I think this is important to differentiate

97

1 the Long Covid research at the moment.
 2 There was initially some -- well, even before this
 3 I requested a systemic review to look at what we knew
 4 about this, and that was important because it helped
 5 inform our understanding, inform our clinical management
 6 subsequently. I think that was in -- from memory that
 7 was around about June I asked for that.
 8 Q. 2020?
 9 A. 2020, yes.
 10 There was an initial large study which was really
 11 looking at people who had severe diseases in hospital.
 12 So that's an important subset of people who have Long
 13 Covid. And then there were subsequently two waves of
 14 additional studies which were looking both at
 15 understanding its biology, because that helps to
 16 identify what might be treatment, and trying out some of
 17 the early potential treatments that might be useful.
 18 We are quite early in our understanding at the
 19 moment. I think that we are not yet at the point, in my
 20 view, where we can say with confidence: if you have this
 21 particular syndrome, here is a treatment that is going
 22 to have this particular effect. So -- but I think it is
 23 absolutely an area we need to continue to do a lot of
 24 research in, because there are clearly a lot of people
 25 affected, and will continue to be, and it may also have

99

1 these, if I may expand that slightly, is that
 2 particularly when it comes to treatment, the treatments
 3 may well be very different for those different
 4 syndromes, and if you lump them together, you may miss
 5 a treatment that's highly effective in one but not the
 6 others or start giving treatments which actually have --
 7 tend to have side effects or rather disadvantages to
 8 people who are unlikely to benefit.
 9 So, differ -- working out what the syndromes are is
 10 very important for the subsequent management treatment
 11 and, hopefully, recovery of people who have Long Covid.
 12 LADY HALLETT: I'm getting messages about slowing you both
 13 down.
 14 MS CAREY: Both down, I know. I'm so sorry, it is my fault,
 15 Professor.
 16 Let me just go back to where I was, which was
 17 actually about research into Long Covid, please, and can
 18 you just -- I think set out in your statement that over
 19 £50 million were spent on Long Covid research projects.
 20 Are you able just to give us a brief summary of the
 21 value of what you learned from those research projects,
 22 please.
 23 A. Yes. So they came in initially in broadly three ways.
 24 There is ongoing and there is a large international
 25 effort, although the UK has quite a large proportion of

98

1 a benefit in understanding the long-term effects of
 2 other infections where we have for a long time been,
 3 I think -- have had really very limited evidence for
 4 quite a significant issue.
 5 Q. Is there research that is ongoing in relation to Long
 6 Covid?
 7 A. Yes. There is a very active Long Covid research group
 8 led by Professor Kamlesh Khunti, who I think has given
 9 evidence -- or is going to be giving evidence to this
 10 Inquiry for other purposes, but many other people are
 11 involved in it. And we have also got, obviously, links
 12 internationally, as with all science. I helped to
 13 broker some of those with Admiral Levine, who is my
 14 counterpart in the US, to make sure, for example, that
 15 the US and UK efforts were properly coordinated, as
 16 an example, because they put quite a lot of resource
 17 into this.
 18 Q. Can I ask you this in relation to Long Covid as well.
 19 You say you were involved in trying to assess whether
 20 data coming from studies implied that countermeasures,
 21 and in particular vaccines, reduced the incident or
 22 severity of Long Covid. What kind of data were you
 23 looking at there?
 24 A. So this was really trying to look over successive waves
 25 and trying to see whether there was either a high

100

1 incidence, ie new cases, with people with Long Covid
2 post-vaccination, and then if they had Covid, what
3 proportion of those went on to have chronic symptoms
4 which could be called Long Covid.

5 I'm going to summarise rather crudely but,
6 unsurprisingly, vaccines that protect people from having
7 Covid protect them from get them getting Long Covid,
8 because if you don't get Covid you don't get Long Covid.
9 But importantly, vaccination meant that those people who
10 did get Covid subsequently, it looks as if they get
11 a lower incidence of Long Covid and a less severe
12 manifestation. But it is a bit difficult to tease apart
13 because, of course, different waves have had different
14 viruses and we are now in an Omicron -- post-Omicron
15 era, and that is obviously a rather different situation
16 biologically.

17 **Q.** You said in the statement that evidence currently
18 available is vaccines reduce both the incidence and the
19 severity of Long Covid?

20 **A.** Yes.

21 **Q.** In relation to the vaccination messaging, clearly her
22 Ladyship has a module dealing with vaccines, but do you
23 think there ought to have been clearer messaging about
24 the potential positive impact that vaccines could have
25 on Long Covid or the long-term consequences of a virus?

101

1 series, just a group of people, and then wider studies.
2 But unsurprisingly, healthcare workers had exactly the
3 same risks of Long Covid as the general population,
4 similar to them in age, gender, ethnicity and so on.

5 **Q.** Are you aware if there was any monitoring of the numbers
6 of healthcare workers that were suffering with Long
7 Covid?

8 **A.** Not that I saw. I had quite a lot of data from, for
9 example, ONS, you've quoted that, and others looking at
10 Long Covid in the general population. It is possible
11 that NHSE kept those data. I didn't see them.

12 **Q.** Did you yourself provide any advice or support to those
13 that you knew who were suffering from Long Covid?

14 **A.** I think all of us -- I suspect everybody listening, not
15 just those who have a particular interest in this
16 Inquiry, actually would be -- know people who had Long
17 Covid, and all of us therefore interacted with them as
18 friends, as colleagues, as you would hope.

19 **Q.** I'm asked to ask you this.

20 Clearly we are aware of the disproportionate impact
21 that Long Covid had on people who are from a black,
22 Asian and minority ethnic background, and I wanted to
23 see if there was any work ongoing to monitor Long Covid
24 within that particular group of people?

25 **A.** Yes, ethnicity is one of the things people are looking

103

1 **A.** Yes, I think -- the first thing is that until relatively
2 further down the line we had much less strong evidence
3 about this than we had for severe disease, and we were
4 obviously pushing a very, very clear series of
5 communications, based on the very solid data we had that
6 demonstrated that vaccines reduced, very significantly,
7 Covid, severe Covid and death, for which there is
8 absolutely cast-iron and early evidence.

9 I think arguably we could have added that in, the
10 point about reducing the risks of long-term sequelae.
11 I think whether that would have changed people's
12 decisions, so those who decided to have a vaccine -- or,
13 rather, those who decided not to have a vaccine,
14 fortunately a relatively small minority but still
15 an important one, whether they would have changed their
16 minds had that information been available I think is
17 an unknowable question. But clearly the majority did
18 choose to have a vaccine.

19 **Q.** What about the instance of Long Covid in healthcare
20 workers; can you recall when it was that you first
21 became aware that there were healthcare workers
22 contracting Long Covid?

23 **A.** Almost as soon as I was aware -- initially with
24 individual cases, of people you just knew, and then
25 increasingly what in medical terms are called case

102

1 at in terms of Long Covid in research terms.

2 **Q.** Do you know yet if there is a link between the
3 disproportionate impact of Covid on the BAME community
4 and the rate at which they contract Long Covid?

5 **A.** I think what's not clear, at least in my view, is
6 that -- you know, the increased rates of Covid in
7 a pre-vaccine era, which are one of the things which was
8 very important in understanding early on, led to
9 an increased rate of Long Covid, unsurprisingly,
10 irrespective of anything else, in people from black,
11 Asian and other minority ethnic groups. I think whether
12 they biologically responded differently to Long Covid is
13 much less clear, and is a -- potentially an important
14 point, because it may lead to differences in the way you
15 deal with treatment.

16 **Q.** You said I think at the beginning in answer to questions
17 about Long Covid it was important to keep an open mind.
18 I paraphrase perhaps. But can I ask you, please -- and
19 if we could look at it on the screen at INQ000474233,
20 at 176.

21 This, Professor, is an extract from the Inquiry's
22 Every Story Matters record, and there is a chapter in
23 there in relation to Long Covid. In particular, those
24 who were contributing to Every Story Matters have
25 commented that they found it very difficult often when

104

1 they spoke to their GP or other healthcare services that
2 at times the GP didn't know how to advise them, didn't
3 know what they were reporting.

4 Can you think of -- I can see there for example:

5 "I spoke to my GP and at the same time I was in
6 contact with the community mental health ... that's
7 where we sort of discussed Long Covid because of the
8 fatigue issues. But there wasn't a lot available at the
9 time."

10 I think you have read that section of the record,
11 haven't you, Professor?

12 **A.** Yes.

13 **Q.** Thank you.

14 **A.** Sorry, the information may not be available, but do you
15 know what the date is they were talking about?

16 **Q.** No, not necessarily.

17 **A.** The reason I say that is I think that up to and
18 including -- it's probably November 2020, there was
19 really very little guidance of any sort for GPs and
20 other doctors to know what to do. NICE then produced
21 some guidance, and after that point I would hope that
22 there was -- you know, through a trusted source, based
23 on systemic reviews, on the limited information we had,
24 at least we had a starting point to actually help
25 medical and other healthcare professionals to support

105

1 For example, Long Covid clinics were set up as part
2 of the response at the point we started to, I think,
3 really fully understand what we should be doing, from
4 about November 2020, and that expertise now exists, and
5 it is multidisciplinary because there are many different
6 aspects to this. Or there might be someone who had
7 a very specific thing, which might be around physical
8 disabilities or others.

9 And then I think there is also an important -- it's
10 an important point for people to understand that the
11 longer-term outlook for people with Long Covid varies
12 very significantly. Some people make an almost or
13 complete recovery relatively soon, as in a matter of
14 weeks to months, having had, undoubtedly, Long Covid as
15 defined by any area, and others have a much longer
16 course or, indeed, see no improvement. And I think
17 understanding that range is very important. But it
18 needs to be laid out. The strong caveat, as I say, we
19 are in the foothills of our understanding of this
20 important set of syndromes.

21 **Q.** If I can turn to shielding, please, and certainly make
22 a start on that topic before, perhaps, we take our
23 lunchtime break.

24 That is dealt in your section 9, Professor, of your
25 statement.

107

1 people.

2 I would be very disappointed if people didn't take
3 it seriously or didn't believe them. I think that --
4 but I can understand entirely why GPs and other
5 healthcare professionals found "Now what do I do?"
6 a much harder question until we had systems in place.

7 **Q.** If it helps you, although we don't have precise dates
8 for those whose quotes are recorded here, if we just
9 look at the opening paragraph and the final sentence.
10 Certainly the way this has been summarised is that early
11 in the pandemic contributors living with Long Covid said
12 it was challenging to find any information, advice or
13 treatment, which may chime with the answer that you have
14 just given us.

15 **A.** Yes, and I think that is absolutely -- clearly true.

16 **Q.** Can you think now of any way we can better advise
17 clinicians in their response to potential long-term
18 impacts?

19 **A.** Well, I think that this is -- I mean, the first thing
20 that is very important is to hear what people have to
21 say and understand it and believe it, as a starting
22 point.

23 I think then the question is: are they people who
24 are going to benefit from relatively specific or more
25 generalised specialist support?

106

1 You set out there that it was SAGE that recommended
2 shielding of the most at-risk patients in early 2020,
3 and it was the role of your Office to lead the
4 development of the definition of both clinically
5 extremely vulnerable and indeed those who are clinically
6 vulnerable.

7 **A.** Yes.

8 **Q.** You have helpfully included a timeline in your
9 statement.

10 I'm not going to go through every entry, but there
11 will be a couple of dates I would like to ask you about.
12 But can I deal firstly with clinically extremely
13 vulnerable --

14 **A.** Yes.

15 **Q.** -- and then deal separately with clinically vulnerable,
16 and really the identification of the conditions that
17 gave rise to CEV status.

18 And perhaps if we call up on screen your actual
19 statement it would be easier to do it that way. Could
20 we have INQ000410237_0086.

21 There are -- there, forgive me -- yes.

22 There are set out there, from bullet point 1 going
23 all the way through, I think, to 6: organ transplants,
24 people with cancers, people with severe respiratory
25 conditions, people with rare diseases, people on

108

1 immunosuppression therapies, and people who are pregnant
2 with significant heart disease. And those were the
3 people to whom the letters were sent, is that correct,
4 in March 2020?

5 **A.** That is correct. Traditionally GPs --

6 **Q.** I was going to come on to that --

7 **A.** -- identified additional cases, yes.

8 **Q.** There were six categories, if I may call it that, plus
9 the option for GPs to identify those from their own
10 patient list that they may consider to be clinically
11 vulnerable and that made up the shielded patient list,
12 is that correct?

13 **A.** That is correct.

14 **Q.** How was it worked out that these were the conditions
15 plus the GP additions would be the ones that were deemed
16 to be clinically extremely vulnerable?

17 **A.** So, I mean, there was a kind of -- essentially there
18 were two stages of trying to construct a list for the
19 clinically extremely vulnerable, and I think
20 an important preamble to this is that we recognised that
21 being on the clinically extremely vulnerable list and
22 then shielding would be extremely difficult mentally and
23 operationally and for people who had healthcare
24 conditions, which most of these people had, also in
25 terms of healthcare provision actually, so there were

109

1 and other scientists, remembering we didn't at this
2 point have a lot of UK data, this is before the wave had
3 passed through. The first wave.

4 And secondly, just what you would normally expect
5 for an infection, who were the people who were going to
6 find it most difficult to mount an immune response, for
7 example, and therefore be a much higher risk. It was on
8 that basis -- it was essentially a consensus statement,
9 which in medical terms is the lowest standard of
10 evidence, and we accepted that. Well, we thought this
11 was better than no evidence at all. So this is really
12 how this came to be. It was from -- people from
13 multiple disciplines came together to do this.

14 **Q.** In your witness statement you set out there were
15 a number of meetings around, I think, 5, 6, 7, 8 March,
16 as the shielding programme was getting up and running,
17 and clearly ended up with the categories that we have
18 just looked at; during any of those meetings was
19 disability as a criteria for shielding discussed?

20 **A.** The whole -- I mean, I can't recall absolutely
21 everything that was put as a possibility. Because of
22 the downsides of this, the only groups that we ended up
23 with were people where -- were ones where we thought
24 there was an overwhelming probability of substantially
25 increased harm, and from first principles at this stage,

111

1 significant downsides to it.

2 So we were -- on the one hand, if you start with --
3 essentially you divide it into three concepts -- things:
4 the concept of whether shielding was a good idea;
5 whether the lists were sensibly constructed in terms of
6 risk; and the operational elements of was it delivered
7 well.

8 Just taking the issue of the lists. We didn't
9 either want to put people on the list who were going to
10 have limited benefit from it, because we thought they
11 would probably come to net harm, nor did we want to have
12 people not on it who we thought would come to net
13 benefit.

14 Unfortunately at this point we were, of course,
15 constructing a list based on first principles.

16 So we subsequently -- and you may want to come on to
17 this -- did a much more evidence-based -- in the sense
18 of from Covid evidence-based -- list, which was -- which
19 led to something called QCovid, which was a risk
20 stratification --

21 **Q.** We will come on to that.

22 **A.** But from this period we were having to do it on the
23 basis of: who would you expect would be most likely to
24 die from this infection? And that's a combination of
25 some early information we had particularly from Chinese

110

1 disability, however defined, would not have been in that
2 group.

3 **Q.** We know in due course that Down's syndrome was added to
4 the list. Was there any thought given to that specific
5 addition, of Down's syndrome, to the CEV list at the
6 start?

7 **A.** At the beginning it may have been thought about, but
8 I think we would not have, from first principles,
9 expected to have had the degree of risk that actually
10 transpired.

11 The reason for doing the work that led to the QCovid
12 system was exactly this, which is the first principles
13 can only give you a very first approximation, and what
14 the QCovid risk score and the research that led up to it
15 did was much more accurately determine what the risk
16 was.

17 And the reason we put -- added people who had Down's
18 syndrome to this list, in advance of the rest of the
19 QCovid work, was they demonstrated so much higher a risk
20 than you would expect and, importantly, so much higher
21 a risk than the general population, that we thought
22 putting them on early was, clinically, the right thing
23 to do, in advance of other groups.

24 **Q.** We will come on to QCovid but just going back to the GPs
25 adding to those that they considered to be clinically

112

1 extremely vulnerable, what thought was given to the
2 impact on them of actually having to practically go
3 through their patient lists and work that out, given all
4 the other pressures that were on primary care and GPs in
5 particular as at March/April 2020?

6 **A.** Yeah, I mean, can I put on record what a superb job GPs
7 did. I thought they got a lot of flak, entirely
8 unreasonably. They did an incredibly hard job over this
9 period and we added this to their multiple other things
10 they were having to at this point.

11 Our view was that, again, there were clearly
12 downsides to asking GPs to do it, which is the one you
13 indicate, which is: this is going to produce additional
14 work for people who are already working incredibly hard
15 and in a very stressed system.

16 But we thought that what we had, which was a list of
17 people with a code, essentially, was too crude, and GPs
18 know their patients far better.

19 We also said the GPs could remove people from the
20 list as well as add them, so it wasn't just a one-way
21 door. There could be people where they would make the
22 judgment that actually, for this person's quality of
23 life, this would be entirely the wrong thing to do. And
24 so GPs had the capacity and the sense to say: of course
25 this is what the central data shows but in fact I know

113

1 **A.** As people will probably recall, by this stage the number
2 of people who were being infected by Covid was way down
3 on what it was on the peak and we were very conscious of
4 the major downsides for being -- strict shielding for
5 people who were living with it, and our judgment at this
6 point was, outwith these areas which had persisting very
7 high transmission, that the risks of someone being in
8 shielding, with all the mental and other stresses that
9 came with that, by this stage were going to outweigh any
10 possible benefit from an epidemiological point of view.
11 So for that reason it was paused.

12 **Q.** But clearly with the option of keeping it still in areas
13 where there were persistent high rates, as we can see
14 set out there?

15 **A.** Yes, because it's a risk benefit.

16 **Q.** Yes.

17 **A.** Quite a difficult balance.

18 **MS CAREY:** Yes.

19 Now I'm going to turn to QCovid, and I wonder,
20 my Lady, if that's a convenient moment?

21 **LADY HALLETT:** Certainly.

22 Obviously we have a very great deal to get through.
23 I shall return at 1.40 pm.

24 Can I just issue this alert to the core participants
25 to whom I have granted permission to ask questions.

115

1 my patients much better and I have made this judgment
2 based on these broad criteria that were laid out.

3 **Q.** Can we look on screen just at a couple of headline
4 figures in relation to the shielding list.

5 Could you pull up, please, INQ000410237_0080.

6 Here is the timeline that you have helpfully set
7 out.

8 Just pausing there. 18 March, the UK CMOs agree the
9 criteria, as we have just looked at. The letters
10 started going out then shortly thereafter. Shielding
11 was announced by the Secretary of State for Housing,
12 Communities and Local Government on 22 March. We went
13 into lockdown the next day. And you can see that by
14 7 May, if we just scroll down, at that point there were
15 2.2 million people who were deemed to be CEV.

16 I won't go through the various additions between the
17 announcement as to shielding and where we got to on
18 7 May.

19 If we go over, please, to 1 August, please. The
20 national shielding programme was paused, although
21 shielding did continue in Leicester and Blackburn with
22 Darwen until 5 October because of persistent high rates
23 of virus in these areas.

24 Could you help us, please, Professor, why was
25 shielding being paused as at 1 August 2020?

114

1 I have been looking through them and a lot of them are
2 actually quite lengthy, and given I'm going to be very
3 strict on timings, no generosity today, I'm afraid, they
4 may wish to shorten the questions. I'm not suggesting
5 they don't ask them, but they may wish to try to shorten
6 some of the preambles and the content.

7 **MS CAREY:** Thank you, my Lady.

8 **(12.51 pm)**

9 **(The short adjournment)**

10 **(1.40 pm)**

11 **LADY HALLETT:** Ms Carey.

12 **MS CAREY:** Thank you, my Lady.

13 Professor, to QCovid, please. Are you able to just
14 summarise briefly what it is, why you commissioned it,
15 and what it told us.

16 **A.** Thank you. The point of QCovid was to do a much more
17 accurate assessment of risk for people dying of Covid.
18 The immediate aim was to help to make the shielding list
19 a much more accurate tool, and based on individual risk
20 concluding things like ethnicity and deprivation, so it
21 wasn't just on individual diseases, which the previous
22 list had been. It subsequently became arguably even
23 more important in that it helped us to identify people
24 who had accelerated vaccination when that happened, so
25 it had two uses in practical terms.

116

1 Q. Pause there. Did it in fact identify a further
 2 1.7 million patients who ended up being added to the
 3 shielded patients list?
 4 A. Correct.
 5 Q. Was it as a result of the work that QCovid had
 6 undertaken that you and your fellow CMOs decided that
 7 Down's syndrome should be added to the CEV list?
 8 A. That's correct.
 9 Q. I think that was in -- I think according to your
 10 timeline, Down's syndrome was added in September 2020.
 11 A. Yes.
 12 Q. The additional 1.7 million were added in February 2021.
 13 And I suppose it begs the question: do you think
 14 therefore perhaps that was too late for that rather
 15 large cohort of people who should have been shielding?
 16 A. I think -- I mean, the first thing is to acknowledge
 17 that this was extremely difficult to do because it
 18 involved data from multiple sources. The big delay in
 19 this was actually principally in being able to pull the
 20 data from multiple sources together. And I think,
 21 again, if I may make a suggestion for something you
 22 might want to consider for a practical solution; the
 23 ability rapidly to get data from multiple sources is
 24 absolutely critical to these.
 25 So, for example, good ethnicity data would be held

117

1 adult population."
 2 Help me with that in lay speak.
 3 A. Yes. In broad terms, what that means -- and this is
 4 unfortunately unsurprising, given what happened -- is
 5 that people with -- from ethnic minority populations
 6 were overrepresented in the population, first point;
 7 but, secondly, that we didn't have complete ethnicity
 8 data, so even pulling data from multiple areas together,
 9 we didn't end up in a place where we were able to say
 10 with confidence what self-assigned ethnicity was for
 11 everybody.
 12 Ethnicity is a complex issue, but obviously the
 13 ideal is self-assigned, where people have identified
 14 themselves which ethnic group they belong to.
 15 LADY HALLETT: Sorry to go back on it. Could I just ask:
 16 going back to the suggestion for a possible
 17 recommendation, how would you gather the data from all
 18 these multiple sources? What are we talking about here?
 19 Are we talking about systems that speak to each other?
 20 Are we talking about getting permission to share
 21 patients' data? What do we need?
 22 A. In this situation, the -- this is not based on
 23 individual patient consent because that wouldn't have
 24 been possible to do at the scale we're talking about, at
 25 the speed we're talking about. But you also have to be

119

1 in one area, and death data might be held in another
 2 area. You've got to be able to, in an emergency, be
 3 able to pull these together very fast, and only if you
 4 can do that can you end up with accurate risk
 5 stratification based on individual risk rather than very
 6 broad categorisations.
 7 Q. Do you think that the addition of so many people in 2021
 8 erodes or undermines the credibility of those that were
 9 asked to shield back in March 2020?
 10 A. No, I don't -- I certainly don't think so for the ones
 11 who shielded in 2020. Of course, it was very difficult
 12 to work out whether the risk -- individual risk for
 13 people who had shielded because they were in a different
 14 category already, and so that is a weakness of the way
 15 we did it in two stages, but I don't think there was
 16 an alternative to that.
 17 But I certainly think it was reasonable to have
 18 a first pass, and then sensible to have a second, much
 19 more individually-based risk subsequently. All of us
 20 would have preferred to have been able to do that a bit
 21 faster.
 22 Q. I think you say at your paragraph 9.23:
 23 "Of the 1.7 million 'QCovid' cohort, 86% had
 24 an ethnicity recorded, of whom 36% were non-white,
 25 compared to 17% non-white ethnicity recorded in the

118

1 very careful, of course, that you only provide exactly
 2 the data you need and you're not overstretching the
 3 mark. But some bits of data were held in GPs, some were
 4 held in hospitals, some data came from other sources as
 5 well, and you need to be able to pull those together.
 6 And there are two elements to that. There is
 7 a technical element which is increasingly easy actually.
 8 There are lots of ways of getting one database to talk
 9 to another. And then there is a legal and societal
 10 issue which is: do we want to do this?
 11 Now, I think under ordinary circumstances, the
 12 expectation level I think of legal barriers to it is
 13 high, and that's a societal choice, but in an emergency,
 14 the ability to, within the law and within parliamentary
 15 consent, merge these data sets together, the faster you
 16 can do that, the faster you can start to provide
 17 accurate information that helps to identify those most
 18 at risk.
 19 LADY HALLETT: Thank you.
 20 MS CAREY: There are variations across the UK then as to who
 21 was added when, when it was paused, stopped. And I'm
 22 just going to ask you about 15 September 2021, the
 23 shielding programme closed; is that correct?
 24 A. Correct.
 25 Q. Whose decision was that?

120

1 **A.** Well, because I'm pausing, I can say with confidence,
 2 not mine. I can't remember. I think that was a sort of
 3 variety of people came together. By this stage, I think
 4 it was reasonably clear, given the much lower mortality
 5 and the fact that almost everybody who chose to was
 6 double vaccinated by this stage, that the disbenefits of
 7 being shielded, which are isolation, mental health
 8 issues and others, were likely to outweigh the benefits
 9 for virtually everybody.

10 **Q.** Did you have any involvement in putting support in place
 11 for those who had been shielding up to then and
 12 therefore were no longer shielding?

13 **A.** No. I mean, I said there were three elements. There
 14 was the conceptual, was this a good idea, which SAGE
 15 led. I was co-chair of SAGE, so I can absolutely speak
 16 to that. There was the who is in the greatest risk,
 17 which we have just spoken about. But the actual
 18 delivery of this was done by other departments,
 19 actually, not even just -- not even other bits of the
 20 Department of Health. It was done by local government,
 21 the communities department, and by DEFRA, who I think
 22 did a great organisational job. But that was a
 23 completely separate issue. And then there were issues
 24 of financial support for people who otherwise would have
 25 been working.

121

1 simply decided that we are not worth keeping informed?
 2 How do I go about making a practical assessment of the
 3 risks to myself of the ending of restrictions? I feel
 4 entirely disregarded."

5 I assume that wasn't the only correspondence --

6 **A.** No. I mean, I try making myself relatively available,
 7 so people email me on multiple different routes, and
 8 this was typical of quite a lot of people who had been
 9 shielding.

10 I think it demonstrates at least two things,
 11 probably more. I mean, the first of which is the --
 12 although shielding had some very important at least
 13 conceptual advantages -- we might come back to the
 14 evidence base for that subsequently -- but the reasons
 15 for it were sensible in concept, and I thought it was
 16 executed reasonably well when it was set up. As
 17 an outsider, I thought it was an extraordinary
 18 logistical exercise. It had some real disadvantages of
 19 people's loneliness and mental health which this person
 20 I think lays out really clearly and I think entirely
 21 compellingly.

22 And then, secondly, I think this was a period when
 23 there was much less information in the general public.
 24 I mean, Sir Patrick Vallance and I only appeared only on
 25 TV if we were asked to by the government. It wasn't

123

1 **Q.** I'd like to ask you about support, though, because
 2 I think you received an email, one of which we've got in
 3 our bundle.

4 Can I call up on screen INQ00074822.

5 In February 2022, you were emailed by someone who
 6 had been on -- deemed clinically developmentally
 7 vulnerable. If we could go on to the second page, once
 8 he set out that he was one of millions who were CEV.

9 He says in that -- I say "he"; it may be a she.
 10 They say in the document that they "followed the
 11 instructions rigorously". That that meant, for them,
 12 sacrificing contact with family, young grandsons,
 13 reducing their previously busy and fulfilling life to
 14 a miserable and empty nothing.

15 If we go a little bit further down the page to the
 16 paragraph that starts "and still nothing". He says:
 17 "And still nothing. No information. No
 18 perspective. No parameters. Instead, it's simply been
 19 announced that 'all restrictions will be ended within
 20 the month'. We've not heard from or seen either
 21 yourself or Mr Vallance for months. You seem to have
 22 disappeared entirely, and your advice and knowledge
 23 either ignored or suppressed. I for one am angry,
 24 resentful and fearful. Am I and the millions like me to
 25 presume that the government and health authorities have

122

1 a choice; they choose to or they don't. And this was
 2 mainly I think an issue of: you cannot overcommunicate
 3 in a situation like this, where someone has been
 4 essentially taken out of society, and information is
 5 very important.

6 I mean, I tried to get and then signpost to people
 7 some information myself, but that's clearly inadequate
 8 and a hopeless way of trying to achieve this aim.

9 **Q.** Can I ask you about one aspect of this email: the
 10 reference to making practical assessments of risks, or
 11 risk assessment to put it another way.

12 How were people who had been shielding and then were
 13 told not to, to practical work out whether they were at
 14 risk now, or lower risk, or higher risk? It just seems
 15 very difficult. What thought was given to helping
 16 people who were advised to risk-assess how practically
 17 to do it?

18 **A.** I think -- I mean, there was a lot of debate about what
 19 the best thing to do was, and what was useful centrally,
 20 which tends to lead to very crude risk classifications,
 21 and what was done best locally, ie via GPs or others who
 22 actually have a better understanding both of local
 23 situations and the individuals' risk, those two are
 24 potentially synergistic, but they have to operate
 25 together.

124

1 The problem for people was, you know, lots of people
2 who, when shielding ended, continued for practical
3 purposes to shield for quite a long period afterwards,
4 even when we actually made increasingly strong
5 statements saying: we don't think that this is now
6 necessary, I think people felt that they were at
7 significant risk if they went out, if they met people,
8 if they had other social interactions with inevitable
9 negative consequences.

10 **Q.** Quite, because it occurs to me that there may have been
11 pockets of infection in various parts of the country.
12 So how were they, in an area where Covid was rife, to
13 work out what they should or shouldn't do? It was
14 a difficult ask.

15 **A.** It was a very difficult ask. I mean, I think at the --
16 there was a period when the government had a system
17 called tiers, which was discussed in the last module.
18 During that period -- and you referred to it before the
19 break -- there were areas, for example, that were in
20 shielding. Either they didn't leave it at the time
21 others did, like Leicester and Blackwood and Darwen, or
22 they went back into it for practical purposes, as for
23 example London did, earlier than others.

24 So at a very macro level, there were points when
25 there was local difference, but it's not just the local
125

1 greatest risk choose to reduce their social contacts --
2 it did provide a practical level of support from the
3 government, which otherwise would not have been present.
4 So both financial and providing food, providing
5 medicines, providing some levels of support. That bit
6 I think was a good thing. I don't -- I think -- I'm
7 reasonably confident that was a sensible thing to
8 provide.

9 I think my view is that it is likely that -- the
10 second bit, which is clear, is that there were
11 significant harms to shielding, which your last email
12 that you showed up I think is a very good testament to.

13 And then the third element which is, did it actually
14 lead to a reduction in infection and therefore
15 a reduction in mortality is extraordinarily difficult
16 actually to test because the group of people who were
17 shielded were, by definition, at massively greater risk
18 or substantially greater risk than the general
19 population. So if they got Covid, they were much more
20 likely to die -- that was the reason they were
21 shielding -- and they were often people who, because of
22 their care needs, were likely to have multiple contacts
23 that others wouldn't, making the incidence, how many
24 cases they were, also difficult to tell.

25 If it would be helpful, I can give a slightly more
127

1 difference; it's also the individual circumstances. How
2 much potential benefit is this person getting, and also
3 how much risk are they -- and damage are they accruing,
4 and that's going to vary very significantly from person
5 to person. That really can't be captured by government
6 advice. That has to be more tailored.

7 **Q.** I think you set out in your statement attempts to
8 consider the effectiveness or otherwise of the shielding
9 programming. Can I ask you about that. You say:

10 "The Office of Chief Medical Officer did not
11 directly undertake evaluation of the effectiveness of
12 shielding advice. It is not possible to assess the
13 effectiveness by reference to the numbers of people
14 hospitalised because of various confounding factors."

15 But just -- I'm going to ask you about the
16 effectiveness or otherwise of a shielding programme. Do
17 you think it was effective at protecting the most
18 vulnerable members of our society, health-wise?

19 **A.** I think it -- I think it was beneficial in one way, and
20 harming in another way, and uncertain in a third.

21 The first one is, for people who would normally have
22 said: I'm at great risk, and I wish to isolate myself,
23 which is a very natural and proper response and would
24 have well preceded Covid -- and that's something which
25 has happened in multiple infections; people who are at
126

1 technical answer, but that depends whether that's
2 helpful.

3 **Q.** Well, can I ask you about Professor Snooks's
4 conclusions, and then we'll consider whether we need to
5 descend to the technicalities.

6 Could I have up on screen, please, INQ000474285_52.
7 And I think you are aware, Professor Whitty, that
8 Professor Snooks has considered some of the evidence and
9 evaluated some of the evidence on the efficacy of the
10 shielding programme. And she concludes at her
11 paragraph 147 and 148:

12 "There is no evidence of overall reductions in
13 Covid-19 infection associated with shielding, except in
14 the subgroup of rheumatoid arthritis. There is evidence
15 that hospital acquired infection was higher in the
16 shielded group. As the mechanism for protecting CEV
17 people from serious harm or death during the pandemic is
18 to avoid infection, these results cast doubt on the
19 effectiveness of the shielding policy."

20 She makes the point:

21 "There is little high-quality evidence on the impact
22 of shielding on mortality, but those researchers that
23 have investigated this have not found consistent or
24 sustained effects - in the majority of studies,
25 mortality has been found to be higher."
128

1 And she goes on to make the point, of course, that
2 you can't know what would have happened if we didn't
3 shield.

4 Can I ask you, please, do you agree with those
5 conclusions set out there, or not?

6 **A.** Well, firstly, I heard Professor Snooks has just had
7 a medical event, and I'm very sorry. I hope she makes
8 a rapid and full recovery.

9 I mean, she contributed very importantly to the
10 literature of people trying to study this, and her own
11 papers are extremely caveated and make clear the
12 methodological difficulties, and I thought actually her
13 expert witness summary of the various evidence was
14 a sensible summary of a complex and rather confusing
15 field.

16 I was quite surprised that she came out with such
17 a strong statement, having come up with such a nuanced
18 set of reviews of the various areas, and I think what --
19 I am going to make my technical point, actually, because
20 I think it's important for actually understanding this.

21 In these kind of epidemiological studies,
22 observational studies, what you're trying to work out is
23 the difference -- whether a particular exposure leads to
24 a particular outcome. That's simply what it is;
25 exposure and outcome.

129

1 was sensible to do --

2 **Q.** No, so I suppose it comes to this: in the event of a new
3 pandemic, would you devise a shielding programme again?

4 **A.** I think there are two things I would definitely do.
5 I think shielding I'm unsure about. It would depend on
6 the situation.

7 I definitely think that the risk stratification is
8 really important because there are many other things
9 that flow from them, and indeed you don't know what will
10 flow from them always when you do it. So we didn't
11 actually know that QCovid would end up being extremely
12 important to help us with vaccination prioritisation.

13 Secondly, I do think it's important to put in place
14 a mechanism to support people who rationally have chosen
15 to take themselves out of society to the best of their
16 ability to protect themselves.

17 Whether the particular approach to shielding we took
18 is an appropriate one to use again in a respiratory
19 infection, I honestly don't know. I think it's going to
20 depend on the situation. There are many kinds of
21 pandemic, of course, where it would be completely
22 irrelevant. It wouldn't have helped in HIV, for
23 example, or many other important pandemics.

24 I think it does -- and my final point, and I'm going
25 to give it a third kicking, and then hopefully I've done

131

1 But there are a bunch of what are sometimes called
2 confounding factors. Those are things you can measure
3 and you can deal with in analysis. But there are other
4 things which are called biases which you simply cannot
5 deal with by analytical means. If you have got a bias
6 in a study, it is essentially going to be very difficult
7 to interpret through to worthless. That's the reality.

8 The difficulty of studies is never finding the
9 exposed group; it's finding the control group, and if
10 the control group is systematically dissimilar in every
11 way from the exposed group you are interested in, then
12 it's incredibly -- it's basically impossible to actually
13 draw a conclusion.

14 My view is, this is -- to use something you
15 discussed with Professor Smith yesterday -- absence of
16 evidence one way or the other really, rather than
17 evidence that this did not work. I'm not excluding the
18 possibility that it didn't do what we were intending.

19 I'm not saying that it was highly effective. I'm
20 certainly not saying that. But I just think --
21 I wouldn't go as far as Professor Snooks has in the way
22 she's interpreted in this summary. As I say, the rest
23 of her analysis and her own studies I consider are very
24 nuanced and appropriately caveated.

25 I'm sorry that was a bit technical, but I thought it

130

1 my kicking for it -- it demonstrates yet again why the
2 Great Barrington Declaration approach, where you say --
3 you can shield the vulnerable and leave everyone else
4 makes no medical sense because shielding someone from
5 a respiratory infection is extraordinarily difficult to
6 do. People tried really, really hard here, as you can
7 read from that email and many others that you will have
8 seen in your testimony, and it is important to note that
9 even there, with a highly transmissible respiratory
10 infection, very, very hard.

11 **Q.** I suppose one of the points she's making there is that
12 you don't get nosocomial infection under control when
13 you have clinically vulnerable people who need to go to
14 hospital to manage their underlying infections. It's a
15 pretty dire situation for them.

16 **A.** Well, I think I would go further than that, actually.
17 That was -- part of the logic of shielding was we knew
18 that, inevitably, there would be infections at a higher
19 rate in hospital than out of it, and part of the point
20 was to ensure that people who were at the greatest risk
21 didn't go into hospital at the point of the peak
22 epidemic.

23 **LADY HALLETT:** In relation to the Great Barrington
24 Declaration, for those who haven't followed, was that
25 October 2020?

132

1 A. I can't remember the exact date, my Lady.
 2 **LADY HALLETT:** It was the autumn of 2020.
 3 A. Yes, but its basic concept was you could shield some
 4 people and then let the -- the infection die out of its
 5 own accord through others. I've given quite a long
 6 critique of it to the Inquiry previously, but I'm sort
 7 of, in a sense, evidencing the points I made previously.
 8 **MS CAREY:** Finally this on the CEV: do you think that there
 9 should be more advance planning to help identify others
 10 that might be at risk -- I suppose that depends on the
 11 type of virus that you're dealing with -- or is there
 12 anything you can think of that we could do to help plan
 13 a shielding programme in the event that it were needed?
 14 A. I was actually, in this situation, pleasantly surprised
 15 by how quickly NHS England, through its digital systems,
 16 was able to identify the people we had highlighted as
 17 high risk. So I actually thought they did a great job,
 18 and that was obviously pre-done; that wasn't done during
 19 the pandemic.
 20 For the specific risk, though, the QCovid model,
 21 absolutely, you could not do that until you know what
 22 the specific risks are, so that has to happen,
 23 unfortunately, once you've already got some real data.
 24 Q. Clinically vulnerable people, please, Professor.
 25 Can I show on screen the guidance, INQ000348029.

133

1 Can I ask you about pregnant women.
 2 There were a number of pregnant healthcare workers
 3 who clearly will have read this and, in accordance with
 4 the guidance, were now being told to work from home
 5 where possible. Was there any consultation with the
 6 Royal Colleges, either obstetrics and gynae, or Royal
 7 College of Midwives, prior to the clinically vulnerable
 8 guidance being published?
 9 A. Yes, there was quite a debate. I mean, I wasn't leading
 10 this; Professor Jenny Harries was.
 11 And can I just do a quick side point?
 12 Professor Harries, whenever there was a really difficult
 13 problem, she walked towards it, which is one of the
 14 reasons she appears in front of you a lot, but she has
 15 dealt with many of the most difficult issues. That was
 16 her choice. I think we all owe her a debt of gratitude
 17 for doing that. This is one of the issues where she was
 18 leading.
 19 And the Royal College of Obstetricians and
 20 Gynaecology, who are obviously the experts in this area,
 21 the Royal College of Midwives, came up, with others
 22 indeed, with a joint statement about their view about
 23 where the risk was, based on the limited data but the
 24 important data they had initially. And we signposted
 25 where we could their advice because they were the

135

1 This was the guidance that was disseminated on
 2 16 March 2020, and I think the list of those that are
 3 required is set out on page 2 or 3 of that document.
 4 Page 3, please.

5 Now, this is in a different category and a wider
 6 category; is that correct? I think you say in your
 7 statement the clinically vulnerable group encompassed
 8 approximately 17 million people who were eligible for
 9 the vaccine and therefore potentially asked to socially
 10 distance.

11 A. Yes. So, specifically this was, for practical purposes,
 12 the same list as for a flu vaccination, for those who
 13 are not -- haven't reached the age threshold. That was
 14 for practical reasons, but we thought that the risks
 15 were likely to be very similar, and they knew that they
 16 were eligible for a flu vaccine, so, in a sense, it was
 17 a group that was pre-identified, and you could simply
 18 translate that across.

19 Q. Right, okay. So it was 70 or over, under 70 if you had
 20 various health conditions, or those who are pregnant.

21 A. Yes.

22 Q. All right. And they were asked to socially distance,
 23 and indeed if you go down to page 4, please, the
 24 guidance sets out there the various things that were
 25 asked of the clinically vulnerable.

134

1 experts in this field. But the decision was that it was
 2 too complicated to try to put so many caveats into the
 3 social distancing information.

4 And we did have a residual concern that the royal
 5 colleges had quite a clear view based on data, which
 6 I think was the right place to start, that the risk was
 7 principally in the last trimester of pregnancy, the
 8 third trimester of pregnancy. This obviously extends,
 9 and this is where the difference is, and it's a subtle
 10 but important difference potentially into the first and
 11 second trimesters as well.

12 I think what subsequent data has shown is that there
 13 is an increased risk probably across pregnancy, but that
 14 risk is clearly much greater at the tail end of
 15 pregnancy. So, in a sense, both positions were
 16 a reasonable position to take, given the limited data
 17 that was here. We tried to make sure that there was no
 18 conflict, but there remained some ambiguity.

19 Q. I think you have seen an email from the Royal College of
 20 Medicine of being critical of you for not --

21 A. Royal College of Midwives.

22 Q. Sorry. Royal College of Midwives -- forgive me; you're
 23 quite right, Professor -- saying -- critical of you for
 24 not providing guidance for employers, saying fairly and
 25 squarely this is the job of the four CMOs. Was it your

136

1 job?
 2 **A.** No, is the short answer. I mean, I think that,
 3 perfectly understandably, the Royal College of Midwives,
 4 and remembering that whereas the obstetrics and
 5 gynaecology college is essentially my professional
 6 groups, where the doctors and midwives tend to be
 7 a different group, but quite understandably people
 8 seemed to think early on in the pandemic that anything
 9 that was important had to be signed off by the CMOs.
 10 Given how few of us there were trying to do a lot of
 11 different areas, I didn't think it was sensible for us
 12 to be trying to sign-off every bit of guidance.

13 I thought that really would lead to extraordinarily poor
 14 decision-making by us and/or a block on the system. So
 15 it wasn't our job to do the guidance and we didn't.

16 But we did appreciate the point they were making
 17 which was that there was a potential difficulty between
 18 if you passed this document and their document, their
 19 joint document, you could say, "Well, what am I supposed
 20 to do?" And we tried to signpost people to the expert
 21 document, ie the one that was jointly put out by the
 22 obstetricians and the midwives.

23 **Q.** New topic, please: routes of transmission. Professor,
 24 bear in mind that her Ladyship's heard a lot of evidence
 25 about this already in the preceding weeks.

137

1 droplets in medical speak, you've reduced it to, for
 2 practical purposes, close to 0. If there is still
 3 aerosol transmission, that is going to be much further.

4 And, secondly, it has an importance in terms of
 5 time. So droplet risk is only important for the
 6 immediate period after someone has actually been in the
 7 place. Aerosol -- again, using the medical terminology
 8 rather than the engineering one -- is important for
 9 a period after that and can be downwind of that.

10 I think it is often easier just to use the "okay,
 11 what are the practical implications starting point?"
 12 rather than the theoretical basis for it.

13 **Q.** Do you think, therefore, there is a need for the IPC
 14 guidance to be effectively redrawn to draw up that near
 15 field/far field distinction?

16 **A.** I think it is a lot easier for people to understand and
 17 avoid these -- you read, sort of, droplet sizes and try
 18 to work out what you're supposed to do.

19 **Q.** Can you help me with whether, at any point during our
 20 relevant period, you became of the view that aerosol was
 21 the dominant route of transmission of Covid?

22 **A.** I am still unsure whether it reaches that level of
 23 importance but it is certainly substantially more
 24 important than we -- the collective view was right at
 25 the beginning. I don't think any of the evidence you've

139

1 But I want to ask you about the terminology because,
 2 forget the extent to which airborne or aerosol
 3 transmission played a part, it was acknowledged, I
 4 think, fairly early on there was likely to be airborne
 5 transmission. Would you agree with that?

6 **A.** I agree with that.

7 **Q.** Airborne, aerosol, any other variation seemed to be used
 8 either interchangeably and the droplet definition size
 9 causes a degree of confusion potentially. Do you have
 10 any views or observations to make about the terminology
 11 we should use going forward when dealing with
 12 a respiratory virus?

13 **A.** Well, some of your expert witnesses, rightly in my view,
 14 said that part of the problem comes -- that different
 15 people from different disciplines work in this area and
 16 use terms in slightly different ways, and I think that
 17 isn't helpful. I come from a medical background, so
 18 I tend to use "aerosol" and "droplet".

19 But I think actually in practical terms the question
 20 is, is it a near field risk or far field risk? And I
 21 think in a sense that makes it less of a -- almost
 22 pseudo technical argument and into a practical one which
 23 is that if you are more than 2 metres away from someone,
 24 how much have you reduced your risk? The answer is if
 25 it's a droplet-based thing, in terms of ballistic

138

1 heard would dispute that that -- that the mid-point of
 2 medical and scientific opinion undoubtedly shifted over
 3 the first year of the pandemic. There were people who
 4 were outliers on both ends of the argument -- and indeed
 5 still are -- but in terms of the mid-point, that shifted
 6 during that period.

7 **Q.** Given that it was acknowledged that it was possible, the
 8 extent of airborne transmission was not known, do you
 9 think at the start of the pandemic in March 2020 there
 10 ought to have been FFP3 recommended for those working
 11 within the healthcare system?

12 **A.** Well, I think that hinges on a number of things but
 13 I think that includes how frequently a situation where
 14 an FFP3 will make a difference compared to a surgical
 15 mask, if there is a difference, and second question is,
 16 is there a difference at all? You saw the evidence both
 17 of Professor Hopkins, who I would consider one of the
 18 leading health protection people in Europe, and your own
 19 expert witnesses, who agreed with her the next day, that
 20 actually the evidence that there is a difference between
 21 these forms is in fact extremely weak. That may develop
 22 over time. That's not to say it doesn't exist. It is
 23 simply that at this point.

24 Then the question is, are there any downsides to
 25 wearing an FFP3 compared to wearing a splash-proof

140

1 surgical mask? And the answer is pretty clearly "yes"
 2 and they form two groups. There's one group which
 3 you've dealt with quite comprehensively, which is the
 4 disadvantages to the individual. I thought it was
 5 interesting that what your expert witness said that when
 6 they introduced them in their hospital, people who had
 7 be complaining they wanted them now complained they
 8 didn't want them because they were so uncomfortable.
 9 I would encourage anyone who doesn't believe me to try
 10 and wear an FFP3 all working days, day in, day out. It
 11 is not easy. It is very uncomfortable.

12 But it is also an additional barrier between
 13 clinicians and patients, and patients, I think,
 14 sometimes get a bit lost in this. Every layer of PPE
 15 can potentially protect healthcare workers. That's the
 16 principal goal. But it can also protect patients under
 17 certain circumstances. That's also a co-principal goal.
 18 But it also provides a barrier between the clinician and
 19 the patient. A mask at all does that. It is much less
 20 easy to communicate. FFP3 is harder to hear through.
 21 It's harder to express emotions through. Again, there
 22 is weak but reasonable research evidence but it is
 23 observationally true.

24 I worry, I have to say -- and I wasn't involved in
 25 these. I'm trying to just expand because I think some

141

1 **Q.** It was surprising?

2 **A.** -- and I think that one of the things we got wrong early
 3 on in the pandemic is the communications -- and I think
 4 it goes back to my previous point about confusion --
 5 communications within the medical professionals who were
 6 giving IPC advice and those who were having to work on
 7 the front line meant that I think there was -- through
 8 a combination of shortages of supplies which were
 9 certainly felt locally (even if they weren't true at
 10 a national level, they were certainly true at a local
 11 level), plus a concern that the reason that people were
 12 giving advice was essentially because of shortages, plus
 13 a concern about were they being given adequate
 14 protection given the very big risks they were facing.
 15 You heard what Professor Fong was saying. You know, you
 16 can see entirely why people get to that.

17 I think that was not as well handled as it should
 18 have been and we should have predicted that and done
 19 that better. I mean, there was no doubt about that. We
 20 talk about "we" collectively, rather than we, the --

21 **Q.** Can I pause you there in your mid-flow.

22 **A.** I'm getting to your answer but I'm trying to explain the
 23 reasons for it.

24 So, therefore, I think that what Professor Smith put
 25 in place with his colleagues in Scotland, and what I was

143

1 bits of the debate were well covered previously and some
 2 bits were not.

3 If you are hard of hearing, if you've got early
 4 dementia, if your first language is not English,
 5 actually having people unable to speak clearly and
 6 unable to express emotions does have downsides for the
 7 provision of care. I'm not saying that overweighs it,
 8 but I think people have talked loosely of the
 9 "precautionary principle". As previously, I consider
 10 that is only a useful principle where there are no
 11 downsides, otherwise you're talking about balance of
 12 risk and balance of risk is a different concept.

13 **Q.** Quite a lot to take in with that answer, professor, But
 14 let me just ask you about that.

15 We've heard about the discomfort and, in fact, more
 16 than discomfort, the actual physical marks it leaves on
 17 people's faces, the dehydration and the like. But one
 18 of the things you say in the technical report is that
 19 IPC there helps workforce morale, it supports and
 20 reassures clinicians. So forget the science for
 21 a moment. If the workforce felt more reassured by
 22 wearing FFP3, is there not an argument for enabling that
 23 to happen, supplies allowing?

24 **A.** Yes. So I think -- so, firstly, I completely agree with
 25 the point which, as I wrote it, is probably --

142

1 advised by Professor Hopkins in her evidence to you, is
 2 correct, which is it is sensible to say to people, "Our
 3 advice is professionally we don't think this will make
 4 a difference, but if you feel this is important for your
 5 particular situation, this is available for you."

6 And that might have been particularly right at the
 7 beginning because of what was available in the country
 8 at that point but I think, in principle, that seems to
 9 me to be a reasonable position to be.

10 The counter-argument to that -- and I'm giving a
 11 long answer because you've covered this ground a lot of
 12 times and therefore I want to give you a complete
 13 answer -- is that some people want to have some freedom
 14 to be able to go up above where they wanted to be. The
 15 counter-argument, if you have got stocks available
 16 everywhere -- so leaving aside the zero sum nature of
 17 this, the shortage of stocks -- is that quite a lot of
 18 people actually want to be told, "Can you just tell me
 19 what it is I need to do and I will do it". So some
 20 people prefer the one and some people prefer the other.

21 That's the reality. But I personally would give
 22 people choice within reason.

23 **Q.** Do you consider that FFP3 offers a higher degree of
 24 protection from inhalation of aerosols and FRSM?

25 **A.** In the sense of would I use FFP3 if I was going into

144

1 a room with someone with multidrug-resistant TB, yes,
2 I do. If I was doing an aerosol-generating procedure in
3 a very dangerous disease, yes I would. Did I use FFP3
4 when I was on the wards with people with Covid? No,
5 I didn't. I followed the guidance. Had the guidance
6 been FFP3 I'd have followed that.

7 I mean, my view about this is the guidance is
8 usually there for a perfectly logical set of reasons and
9 when there's a 49%/51% call, I'm going to go in the
10 hands of the people whose professional job this is,
11 which isn't me, and I will follow the guidance. So the
12 answer is I did what was recommended, not out of a point
13 of principle, but just because I think, "Fine, that's
14 what the experts have recommended, I'm comfortable with
15 that". People clearly weren't comfortable with that and
16 that was our failure, was the fact people did not feel,
17 for understandable reasons, comfortable.

18 **Q.** Well, that brings me back to something you said a moment
19 ago. You said the comms should have been better. How?
20 What would we do differently next time?

21 **A.** Well, I think that there were ultimately, as I say,
22 three things which coincided the first of which was we
23 were of course managing a situation where the level of
24 knowledge was extremely weak. So it was very difficult
25 for anyone hand on heart to say, "Well, I'm an expert in

145

1 otherwise incredibly unified view on Covid was most
2 obvious within the medical and nursing professions, and
3 I think this is clearly something we have to do better
4 next time.

5 **Q.** I did ask you how.

6 **A.** Well, I think that the first thing is we've got to have
7 either stocks or the ability to create stocks of all
8 reasonable PPE. Now, on this one, FFP3 is UK standard
9 stock but obviously for many, many smaller numbers of
10 cases surgical masks are obviously widely available. We
11 weren't using gowns routinely, so that was a new
12 departure and, of course, we practically had a situation
13 where every country in the world simultaneously wanted a
14 massive increase in this and some of the countries that
15 were producing it were themselves under strain, China in
16 fact being one of them. So the result was big increase
17 in demand and no increase initially in supply and that
18 caused problems. I mean, I obviously wasn't involved in
19 this but I'm just making an obvious point.

20 So having confidence that you either have the stock
21 or can create the stock, having internal capacity -- for
22 example, Germany had much greater capacity to make than
23 we had. Coming back to "make", that's not a -- that's
24 just a fact -- is the first one.

25 Secondly, I think you've got to have a system that

147

1 this area, I know what the risk is and this is the
2 risk", because actually there was a lot we didn't know.
3 So there was genuine uncertainty. The second problem --
4 and that's going to be the same the next time round.

5 The second problem was what I referred to earlier
6 which was I considered there was a confusion about who
7 was leading, at least in England, this area. I was
8 confident it wasn't our team. But I was not clear
9 exactly who it was and I don't think the people involved
10 were exactly clear, although they were all trying to do
11 their bit -- this was not an abrogation of
12 responsibility -- and that really, I think, made it much
13 harder to come to a clear communications area.

14 And thirdly, there was a real mismatch for many
15 people in frontline and other services between being
16 told there are no problems with stock-outs and actually
17 either their immediate experience or -- I think, in
18 practice more commonly but nevertheless importantly --
19 second-hand experience where they would see on Twitter,
20 they would see among their friends stories of and they
21 would say, "Well, that can't be true" and that leads to
22 an erosion, a perfectly understandable erosion of trust.

23 I think these things came together and I think --
24 you know, I can't emphasise too strongly that this was
25 the area where I think that the break down of the

146

1 is capable of making decisions on this where the senior
2 person who is the final arbiter, if there is an issue of
3 debate, is clear from the beginning rather than trying
4 to work it out in flight, which is in my view where we
5 ended up.

6 **Q.** Pause there, because I do want to come back to the UK
7 IPC call, but can I just try to finish my thread of
8 thought.

9 Would you advocate for further studies to be done to
10 determine the protective nature of FFP3 over FRSM?

11 **A.** I think it is sensible to do that but to acknowledge
12 that it would only be relevant infection by infection.

13 **Q.** Yes.

14 **A.** So you can't translate something that is in one
15 infection to another. And you need to have quite large
16 numbers.

17 This goes to a slightly wider point, which is the
18 majority of the transmission that went to healthcare
19 workers in the hospitals certainly, primary care may
20 have been different, was from other healthcare workers,
21 not from patients. And vice versa. The large
22 nosocomial spread in hospitals was between patients
23 appeared to be principally between patients not via
24 healthcare workers.

25 So actually the evidence that the big problem for

148

1 both healthcare workers and patients was the lack of
2 PPE, that was a barrier between them, isn't held up by
3 actually what was seen, which was transmission between
4 healthcare workers.

5 Now, if you make someone wear a FFP3, my own prior
6 would be when they go into the staff room, whatever it
7 is, they are even more likely to take it off than if
8 they are wearing a surgical mask, which in fact you can
9 wear perfectly easily and comfortably for quite a long
10 period.

11 So it's not -- and this is the point
12 Professor Hopkins made, which I completely concur with.
13 The question is not what happens in a lab. The question
14 is what happens when people are using it day in day out
15 in operational circumstances. And if it doesn't hold
16 out in that situation, it's not doing a heck of a lot of
17 good.

18 **Q.** I follow that. But in the technical report, I think you
19 commend that lab trials are of evidential value. We've
20 heard of observational studies, as well, tending to
21 suggest that FFP3 is more protective than FRSM, and
22 certainly more protective than no mask at all. And I
23 think Sir Gregor yesterday said that observational
24 studies were useful.

25 We appreciate the ability to do a randomised control
149

1 I think -- I mean, you know, that's a pragmatic
2 answer; it's not a good scientific answer.

3 **Q.** Asymptomatic transmission and asymptomatic infection.
4 We have the difference well in mind, Professor, but in
5 the event of a new respiratory virus, should the UK
6 assume asymptomatic transmission until it's shown that
7 the virus does not transmit asymptotically?

8 **A.** I think we should definitely assume that some degree of
9 asymptomatic transmission could occur. It would be
10 foolish to not assume that. But it is quite practically
11 important to at least have a first pass view as to
12 whether it's likely to be a major part of transmission.

13 So, for example, quite a lot of our initial public
14 health guidance was for symptomatic people, and the
15 reason for that was to allow people who were not
16 symptomatic to go about their daily businesses. Had we
17 said everybody is at equal risk of passing something on
18 to you from day one, we would essentially have been
19 saying: symptoms are irrelevant; we've got no test for
20 you; sorry. So what do you do then? You practically
21 have got some very, very serious societal answers, and
22 the same is true in the health system.

23 So I'm not saying that it's not reasonable under
24 certain circumstances -- under all circumstances to
25 assume it may well occur, and at some circumstances, it

151

1 trial may be difficult to determine whether FFP3 is more
2 protective, but having set this hare running, having had
3 20 years-plus of a division between FFP3 and FRSM masks,
4 it now appears during the Inquiry we're saying their
5 protective effect may not be quite as we -- I can't help
6 but wonder if we're making it worse for the healthcare
7 workers now, to tell them it didn't matter, when it
8 clearly did matter so much during the relevant period.

9 **A.** Yes. So I think, in a sense, your hierarchy is exactly
10 right. We need to do the lab studies first because if
11 there's no lab difference, there won't be any difference
12 in reality certainly.

13 We then need to do the observational studies.
14 Trials are essentially a kind of -- the gold standard of
15 evidence for clinical medicine and health protection.
16 Trials in this area will be very difficult. They would
17 have to be large. They have to be what's called cluster
18 randomised. You couldn't do them on an individual
19 basis. There's a variety of things that would be tricky
20 on this, potentially.

21 And so, you know, I agree that we need to get a much
22 stronger evidence base, or say: we're not really clear,
23 and we think you're fine with the surgical masks, but
24 here are FFP3s if you wish -- if you are at particularly
25 high risk or you have particularly high concerns.

150

1 may well be -- the prior view should be: this is likely
2 to be a major part of it.

3 If we have another Covid-like infection, I think we
4 would now start from the principle that asymptomatic
5 transmission is a significant part, as opposed to
6 starting from the MERS and SARS environment where we
7 started with: actually, this is unlikely to be the case.
8 So I think we've now moved our starting point. But we
9 shouldn't assume that that is a cost-free decision. It
10 is not. It comes with quite significant societal and
11 other costs.

12 **Q.** UK IPC cell guidance. I just want to touch on it very
13 briefly. We probably covered it in part.

14 But you're not the sign-off, if I understand your
15 evidence correctly, for the UK IPC cell guidance.

16 **A.** Correct.

17 **Q.** All right. Now, we heard a little bit of evidence about
18 the senior clinicians group, and I'd just like to hear
19 from you, please, what role, if any, did they have in
20 amending, looking over, approving, being cited on,
21 whichever terminology you want to use of the cell's IPC
22 guidance?

23 **A.** The UK senior clinicians group -- can I say a little bit
24 about that because it makes more sense for my answer?

25 **Q.** Yes.

152

1 **A.** It was something which I and colleagues set up,
2 I chaired, between the senior clinicians in government
3 across the four nations, and it was explicitly not
4 a decision-making body. That was in its terms of
5 reference. It was not a decision-making body.

6 And it really had three functions, one of which was
7 information exchange; the second of which was
8 essentially mutual support which, I mean, leads to, for
9 many people, lonely and difficult jobs.

10 But the third one was to allow people to discuss
11 difficult, technical issues with their peers. That
12 doesn't mean the group takes the decision, but it means
13 that you can then have a robust discussion amongst
14 people who are all experienced and all decision-makers
15 in some field, and then the person who is
16 the decision-maker takes it back to make the decision in
17 the place they should.

18 So it's a form of peer review. And on at least two
19 occasions that I can remember, IPCC discussions were
20 escalated to this group for a discussion, and there was
21 quite a strong discussion. Almost invariably, that
22 happens when it's a 49% /51% call. So if it's obvious
23 what to do, you don't escalate it; you just decide. But
24 these were ones where people were unsure, and they
25 wanted to get -- to check in with other people and see

153

1 CMOs, other chief nursing officers had other skills --
2 you've heard this from some of my colleagues -- it both
3 broadened the geography but it also broadened the skill
4 base. And they, of course, also were in lonely
5 positions, and it was useful for them to have the
6 support, so I thought there were several reasons that
7 was helpful.

8 **Q.** Final question in relation to the IPC guidance. We saw
9 a CAS alert that you issued, I think it was sending out
10 the acute shortages guidance actually, at 4.43 on
11 a Friday afternoon, and you may have heard other people
12 speak about the late dissemination of guidance. It came
13 through your office, obviously not from your office in
14 terms of the guidance itself.

15 Can you help from your perspective, particularly
16 being on the ground doing the shifts as you were, as to
17 is there ever a good time to publish the guidance?

18 **A.** Well, I mean, firstly, just on a technical point. CAS
19 alerts go through my office. Some of them I sign, and
20 some of them, I don't. If I sign them, I've agreed
21 them. If I don't sign them, it doesn't mean I don't
22 agree them; it just means it's not for me, just --
23 it's a technical point.

24 There is an absolute damned if you do and damned if
25 you don't on this one where, on the one hand, if you do

155

1 what their view was.

2 **Q.** Was one of those the acute shortages IPC guidance --
3 **A.** So the acute shortages protocol, yes. And the question
4 really is: is it better to take the risk of running out
5 of PPE completely and keep people as they are, or to try
6 and re-use things with the risks that go with that, but
7 the result of which is you have a high probability --
8 you have a much lower probability you'll run out. And
9 that's a debatable question, and that was debated as one
10 of those things.

11 **Q.** In relation to the senior clinicians group, you say that
12 it brought together initially OCMO, Public Health
13 England and the NHS and was expanded to include further
14 clinicians, including the other UK CMOs, and you
15 generally chaired the group.

16 Why were the other CMOs not involved from the
17 outset?

18 **A.** Well, it just -- its initial point was on
19 an England-wide basis. We started off with the medical
20 director of the NHS, the chief medical adviser to Public
21 Health England, as then was, and me, as the senior
22 clinicians in each of -- the areas of government. It
23 soon became obvious to us that this was a useful forum,
24 and since quite a lot of the decisions had to be taken
25 on a four-nations basis, and also importantly other

154

1 it on a Friday afternoon, you are guaranteeing chaos,
2 and if you do it on the Monday and people have run out
3 of PPE as a result of that, they will legitimately say:
4 well, you made the decision last week and you didn't
5 tell us until Monday. So it's kind of -- you can see
6 where the difficulties come.

7 However, I think, in this case, I think our view
8 was, having looked at it, we could have issued it
9 earlier at a bit more risk, and I think that would have
10 been the right thing to do, or to probably to have held
11 this one over.

12 So I'm just making the general point. But I think
13 you should avoid -- I think the implication of what
14 you're saying is completely right. You should
15 absolutely avoid issuing guidance just before a weekend.
16 Subsequent modules will come across situations where we
17 took the reverse decision and have also been criticised
18 for that, so, just to be clear, these will never be
19 straightforward.

20 **LADY HALLETT:** But, I mean, during a pandemic, so many
21 people were working a seven-day week. Was there such a
22 thing as a weekend for most people when this alert was
23 going?

24 **A.** Not in terms of the clinicians who were working on the
25 ground. Absolutely not. People work all the way

156

1 through. And a lot of people were working a seven-day
2 week. Nevertheless, the system tends to be better,
3 everybody tends to be in their place Monday to Friday.
4 Large numbers don't. But if you've got -- six people
5 need to sign off on something and one of them's not
6 there, then you can slow things down. So I think the
7 challenge to us, did we do the right thing on this, was
8 a fair one. But you are also right, a huge proportion
9 of the system was working all the time.

10 **MS CAREY:** I would like to ask about risk factors, please.

11 Can I have up on screen INQ000410237_44.

12 There were, as the pandemic demonstrated, a number
13 of people at higher risk than others of being infected
14 and/or dying.

15 I'm not going to ask you about each and every one of
16 them, but if we just look at the infection fatality
17 rate, and once you start to look at the figures for the
18 60-plus, 70-plus and 80-plus brackets, a significant
19 jump there.

20 If we go, please, to page 45. The proportion of
21 people infected that were hospitalised. Again, look at
22 the 60-plus range. Significantly higher numbers there.
23 And, again, I'm afraid for the fatality rate for
24 hospitalised people, again, significantly grim numbers
25 as you get older.

157

1 certain and publicised quite early on.

2 **Q.** The risk to ethnic minorities we have touched on, but
3 can I ask you please about the data. And while we call
4 that up on screen -- it's INQ000176354, page 14,
5 please -- this is a report that I think was commissioned
6 by you; is that correct, Professor?

7 Just in a sentence or two, why did you commission
8 this report?

9 **A.** Well, I was very concerned, as many others were, that
10 there were some groups who were either likely to be at
11 greater risk and we needed to test that question, or
12 where there was strong evidence from early observations
13 that they were at greater risk, some of which were
14 predictable, linked to poverty -- I'm afraid poverty is
15 a risk factor for infections everywhere -- some which we
16 had not predicted -- obesity would be an example -- and
17 some, like ethnicity, where we thought there was
18 a reasonable chance, but it was a more complicated area.

19 And then -- so there was a quantitative element to
20 this, where we tried to identify what the level of risk
21 was for different ethnic groups to a reasonable degree
22 of granularity, so not, for example, just South Asian
23 but also people who are British Bangladeshi, British
24 Pakistani and so on. But then this was also aiming to
25 put that -- those data in context and ask: why is that?

159

1 Do you think the risk to elderly people was
2 significantly well publicised at the start of the
3 pandemic?

4 **A.** Yeah, I think of the risks that became apparent over the
5 pandemic, this was the biggest, by some distance
6 actually. This trumped all other risks pretty well.

7 It was also the first to be identified, and I would
8 like to pay tribute to Chinese scientists and clinicians
9 who did so, and then the same was true in Italy. So by
10 the time it hit the UK, we were already aware of this
11 risk. You can see the date of this. This was before
12 our wave was fully underway. And so this was
13 identified, and I do think this was identified in the
14 public.

15 The bit we were a bit more cautious about saying but
16 did fortunately did prove to be the case was the other
17 end of the age scale, where initial data suggested that
18 children were relatively unaffected, in contrast to
19 something like pandemic influenza, which would
20 definitely hit children as well, particularly the
21 youngest children, and that did fortunately prove to be
22 the case. That doesn't mean there weren't children who
23 didn't become very sick -- acutely, chronically, and
24 some tragically died -- but it was a much lower risk in
25 that group. But the older age, I think, was both

158

1 What's the driver of that? Because that's quite
2 important for what you then can do about it.

3 **Q.** Can I ask you, please, if you are able to, to answer --
4 it sets out the review questions that the report was
5 aiming to answer, and if you can, Professor, can you
6 help:

7 "Are individuals in BAME groups more likely to be
8 tested for and/or subsequently diagnosed with Covid-19?"

9 What was the outcome of the report?

10 **A.** The answer for each of those two, and I'm also
11 incorporating more recent data; it was in line with what
12 was here. They were not more likely to be tested or
13 less likely to be tested, the exception being people of
14 Chinese British ethnicity, just for a detail of
15 precision, but they definitely were at higher risk of
16 being diagnosed with Covid-19 infection. This
17 difference, though, was different between the two first
18 waves. So in the first wave, people of black ethnicity
19 were particularly high risk of being diagnosed, people
20 of South Asian were at increased risk, and in the second
21 wave, that reversed. So the risk was greater in people
22 of South Asian heritage.

23 That was largely to do with where the waves were at
24 their worst. So in the first wave, London, which has
25 a large proportion of the British black population, and

160

1 the second wave, the Midlands, where a higher proportion
2 of the British Asian population live.

3 **Q.** I think -- did you say there then that question 2, are
4 the individuals more likely to develop severe clinical
5 presentations?

6 **A.** Yes, and the answer here, unfortunately, was also yes.

7 This is quite different biologically, so this is
8 someone who has already got an infection. Are you now
9 likely to get a bad disease? And there were higher
10 rates in people of ethnic minority groups, some of which
11 were, for predictable reasons, like higher levels of
12 diabetes, but many of which were not.

13 **Q.** Is infection with Covid more likely to lead to mortality
14 within BAME groups?

15 **A.** Yes, that was clear from wave 1. In wave 2, as I say,
16 I made the point about slight differences between the
17 different ethnic groups and the different waves, but the
18 short answer is yes.

19 I can give number to each of these, but the --

20 **Q.** It's in the report, and I'm afraid time precludes us
21 from going into that.

22 Question 4:

23 "What are the social and structural determinants of
24 health that may impact disparities in COVID-19
25 incidence, treatment, morbidity and mortality in BAME
161

1 be different because there is biological basis for that
2 being from different ethnic groups. And it was able to
3 answer those questions less well, I would say, than the
4 first set of questions. Then mortality and morbidity
5 are beyond that. I can go into them if you want.

6 **Q.** No, but can I ask you this. This is a report that came
7 out in June 2020, I think --

8 **A.** Yes.

9 **Q.** -- and as a result of this, are you able to help with
10 any interventions that you brought to bear to try and
11 mitigate or in some way address these risks?

12 **A.** Well, I think exposing them was in itself very important
13 because I think it highlighted to people in the
14 healthcare system the particular vulnerabilities that
15 people from ethnic minority and indeed some other
16 protected groups were in.

17 The second thing was Kevin Fenton,
18 Professor Kevin Fenton, who was the person who led this
19 study, then did a lot of work making sure that it was in
20 front of, for example, mayors, so they could look at
21 local issues, but also, for example, occupational health
22 groups so that people were aware that these were issues
23 that were particularly high risk for particular ethnic
24 groups or particular other high-risk groups. So I think
25 Professor Fenton did a really good job on that.
163

1 groups?"

2 I suspect there are many, but can you give us
3 an answer to that?

4 **A.** Yes, so this, in a sense, was the key question which
5 this report was answering which the previous reports had
6 not, is the "why" questions.

7 A lot of this could be explained by things like
8 occupation, like poverty, like crowding, like living in
9 urban settings. You know, there was lower levels of
10 Covid in the first two waves in rural settings than
11 urban ones. But that could not provide the full
12 explanation. So there was clearly an additional
13 element, and this was trying to tease this apart.

14 I can give a long answer to it, but the short
15 version is that there are some bits of this we could
16 clearly do something about, and there were other bits
17 that were much harder to do with structural issues in
18 society and indeed, arguably, structural racism in some
19 bits of the system. That is what this report suggested.

20 In terms of treatment, this can broadly be divided
21 into treatment seeking. Do people -- are people being
22 properly informed so that they seek care at the right
23 moment? Are the treatments being accelerated fast
24 enough through the system, or is there a failure to
25 recognise early on? And should the treatments actually
162

1 We also launched a number of research studies under
2 the NIHR system better to understand this, both from
3 a biological point of view and from social point of view
4 because, in a sense, unless you can understand the
5 drivers, it's very difficult to tackle the underlying
6 problems.

7 **Q.** Can I just ask you about that, Professor, because it may
8 be suggested that in fact the disparities or the
9 disproportionate impact on BAME communities in
10 particular is nothing new and that having more research,
11 having another report, saying things like "we need
12 better comms", it all sounds very good, but it doesn't
13 actually practically help the person who is BAME who
14 might be living in a socially deprived area.

15 I'm trying to sort of understand what practically
16 can be done next time to help reduce what is probably
17 going to be an obvious disparity.

18 **A.** I think you are obviously precisely right, that some
19 bits of this are (a) predictable and (b) unremediable,
20 in the immediate crisis of a pandemic. So if you want
21 to do something about it, you should have done it over
22 many years previously, and that's just a practical
23 reality.

24 But the point about doing the research, the point
25 about trying to pull these issues apart is, it can also
164

1 identify some issues which you actually can do something
2 about. That's the point about it really.

3 So, for example, we identified that people who were
4 front of house staff, people who were public transport,
5 taxi drivers were overrepresented in these groups, and
6 we therefore looked at those environments and thought:
7 what can we do that would reduce the risk of these
8 environments because we've clearly got a problem on our
9 hands which -- for which solutions are potentially
10 possible.

11 **Q.** Understood. What about the BAME healthcare worker?

12 **A.** Well, I mean, that was -- that is one of the reasons
13 that we want to talk to the occupational health groups.
14 But the main risk to BAME healthcare workers was much
15 less easy to deal with by these relatively mechanistic
16 things.

17 Some of the risk came from living in communities
18 where there was higher incidence, particularly in the
19 first wave, and that's just an inevitability.

20 There was a legitimate and perfectly reasonable
21 discussion about: should we be doing particular sets of,
22 for example, PPE for people of different ethnic groups,
23 taking people from different ethnic groups even out of
24 the workforce altogether. These raised really quite
25 difficult questions including, in fact, in the second

165

1 into many of the languages which are commonly spoken in
2 the UK. We were slow off the mark in identifying that
3 sources information people were getting, for example,
4 from radio or TV channels from overseas, so they were
5 actually not getting any of the messages we were giving
6 through our channels of communication.

7 I think we did get a lot better at it over time.
8 The biggest -- I mean, the easier ones to fix, in
9 a sense, were the ones I just highlighted because you
10 can do those centrally. I think by far the most
11 important was actually in people who were having -- and
12 Kevin was an example -- discussions with community
13 leaders, with people who were voices people would listen
14 to and actually would feel much more affinity to than
15 what they would see as potentially alien or even, you
16 know, automatically distrusted authority figures who
17 were really not the right people to be giving messages.
18 So the messenger was as important as the message.

19 **Q.** I have three discrete topics that I need to cover with
20 you by 3 pm, and it's not to do them any disservice, but
21 can I just ask you briefly about AGPs, please.

22 In your technical report, you say that the question
23 of what procedures were deemed to be an AGP or not was
24 probably the biggest source of tension amongst the
25 health profession. And it leads us to the question,

167

1 case, was this going to disadvantage people from ethnic
2 groups because they would be excluded from work,
3 excluded from a variety of other issues.

4 But it did at least mean people were asked the
5 questions and were trying to work out were there
6 equitable and helpful solutions to them.

7 **Q.** There is further detail about this, the limitations.

8 There's an issue you raise in the report about data
9 capture in relation to ethnicity that's set out in the
10 report. I'm not going to ask you about that, but I just
11 want to ask you this.

12 You, in your technical report, make reference to
13 having tailored communications, and it made me think,
14 was there any example you can give of a good tailored
15 message in relation to the disproportionate impact on
16 the BAME community?

17 **A.** Yeah, well, I mean, it's obviously -- you have to start
18 off with the bad and move to the good. I mean,
19 initially, we started off with an almost exclusively
20 white group of people in front of podiums through the
21 BBC speaking in English. I was one of them. Not
22 criticising that in itself. The people giving the
23 message were as important as the message itself.

24 There was also -- we were slow off the mark, and
25 I've said that in my report, in terms of translating

166

1 does it not, Professor: how is that to be resolved
2 before the next pandemic?

3 **A.** I mean, I think it -- we need to look at this, because
4 this was not specific to Covid; this was actually a much
5 more general point, and I'll use two examples, one of
6 which I -- in both of them, I made some intervention.

7 I mean, the first one was -- you have got it in the
8 bundle; I'm not going to refer to it -- where the
9 British Society of Gastroenterology and various others
10 said: look, we don't agree with judgments that have been
11 made about whether endoscopy was an aerosol-generating
12 procedure.

13 My view on that was that the initial technical
14 advice was reasonably done, but the challenge was also
15 a reasonable challenge from a respectable body and
16 should be taken seriously.

17 So we did -- we then set up a mechanism, so we
18 didn't end up with a "Computer says no" approach, for
19 people to be able to challenge these. So I thought that
20 was a helpful intervention, and gastroenterology, in my
21 view, was -- a priori top end endoscopy was likely to be
22 more risky than bottom end endoscopy, but I won't go
23 into the graphic details of that.

24 **Q.** No.

25 **A.** The second one, which I think is a more fundamental one,

168

1 and we really have got to come to a conclusion about,
2 was around CPR.

3 The reason for that is you do -- absolutely do not
4 want to put someone doing emergency resuscitation at
5 risk but a delay of even a large number of seconds,
6 certainly minutes, in that situation also puts the
7 patient who has collapsed at significant risk and that
8 may be a risk of death or it may be a risk of brain
9 injury. Therefore, you don't, on the one hand, want to
10 not have protection if that is needed, but you do not
11 want to have something which is going to delay things if
12 it is not needed.

13 So settling this question seems to me a fundamental
14 issue. And if you look at expert bodies around the
15 world they have not come to a settled view. So the
16 debate in the UK reflects the international experience
17 as well.

18 **Q.** That begs the question, why hasn't it been settled by
19 now? This has been going on since the beginning of the
20 pandemic. It caused the tension you speak about in the
21 technical report. It caused a great deal of upset in
22 the correspondence, many of which you were copied in on.
23 And I throw into the mix Professor Beggs' conclusions
24 that some of the AGPs that were deemed to be
25 aerosol-generating in fact may not have produced as many

169

1 In opening I said it was pretty unpalatable to think
2 that we had to think about this, but I would like your
3 observation, please, on, firstly, why did you want there
4 to be guidance. We know the guidance didn't come to
5 fruition because it was considered that critical care
6 capacity wasn't going to be saturated. Do you think we
7 should have such guidance in the event of a future
8 pandemic?

9 **A.** So I think there are many things I would do differently,
10 but this is not one of them. I think it was important
11 that the process of the guidance was considered, because
12 had we gone up two or three doubling times -- and
13 remembering this is exponential, so the difference
14 between three doubling times and where we got to is
15 profound -- we might well have been in a situation where
16 very junior staff were having to make incredibly
17 difficult decisions, for which they were not experienced
18 enough, and that would have been -- they would have
19 needed the support of something to do that.

20 But, absent that -- and we didn't, fortunately, get
21 to that, we got to an incredibly difficult place, as
22 Professor Fong laid out, I'm not in any sense minimising
23 it -- our view was, having a -- what is essentially
24 relatively mechanistic system that deviates from normal
25 practice was not appropriate, and indeed it wasn't

171

1 aerosols as initially thought.

2 Why isn't there a degree of certainty now, four
3 years on, as to what amounts to an AGP or not?

4 **A.** I think -- I mean, to me, this seems something which
5 internationally we have got to sort out. I mean, I'm
6 not the person going -- to do this. This is not my area
7 of professional trade obviously.

8 I think it is important that the people who are
9 co-designing the research on this are people, like
10 paramedics, who are actually having to do it, because
11 they have to feel confident that the methodologies are
12 strong enough that if it comes up with an answer they
13 are not expecting, they are satisfied it is strong
14 enough, and vice versa. So I think we need to do this
15 in a way which everybody gets together and decides this
16 is the way we are going to do it, and do it reasonable
17 effectively.

18 **Q.** Another controversial area, if I may. We are going to
19 be hearing next week from Professor Summers and
20 Dr Suntharalingam, and the doctor was part of a panel of
21 three experts, they were asked to develop a clinical
22 prioritisation tool in the event that critical care
23 became saturated. And I think you were at one stage
24 going to be the recipient of any guidance and report
25 that was prepared by that panel.

170

1 appropriate in the views of people who wrote it.

2 And the guidance is -- I mean, it's perfectly open.
3 It was discussed by lots of different groups and it is
4 now published in a journal. You can find it very easily
5 on the web. Endorsed by the critical care society,
6 which is the official -- one of the relevant bodies.

7 So it's not -- there is nothing -- this is entirely
8 open, as it should be. We didn't need it this time.
9 Hopefully we will never need it. But to have a process
10 where people can debate this and actually say, under
11 a circumstance where we had a situation even worse than
12 Covid today -- and that is not an impossible situation,
13 appalling bad though Covid was -- to actually pre-agree
14 that -- you may have to tweak it based on individual
15 things -- seems to me a sensible thing to do.

16 So I was very grateful to the people who took on
17 this difficult task. I thought they were excellent and
18 I thought that what they did was a useful and sensible
19 thing.

20 It didn't receive universal endorsement from all the
21 groups you would want it to, and that's one of the
22 reasons you wouldn't want to do it in the heat of the
23 moment. You need to make sure that, for example, the
24 disability groups, who had concerns that -- mental
25 health charities which had concerns actually can talk

172

1 those through.

2 So I think trying to do it against the clock, which
3 of course we had to do here, is not the right approach
4 to it. So I would much rather we are open about it,
5 have a proper discussion, and work out, in the very,
6 very strong hope and expectation you will never use it.
7 This is very much an absolute end-of-the-road thing.

8 **Q.** So if I understand your evidence correctly, the reason
9 why the guidance wasn't proceeded with was because,
10 thankfully, we didn't get to the point where critical
11 care was saturated; is that correct?

12 **A.** The technical answer is that the guidance was
13 explicitly -- and you can read this in the guidance,
14 this is -- as I say, it is published -- designed for
15 what's called CRITCON 4.

16 **Q.** Yes.

17 **A.** And CRITCON 4 means essentially the whole system can't
18 offload or anything -- there is a principle of the
19 CRITCON system which I am sure you have either heard
20 from or will hear from, that if you get to 4, nowhere is
21 full until everywhere is full -- nowhere is overwhelmed,
22 rather, until everywhere is overwhelmed.

23 And we didn't reach that, we reached the
24 situation -- many places individually were overwhelmed
25 at different points, in my judgment, but that wasn't

173

1 and in particular if it was urgent, an emergency,
2 life-threatening situation, you must go to hospital as
3 you usually would. And there is reasonable evidence in
4 my view, for example, that the number of people who came
5 into hospital with heart attacks was lower than you'd
6 predict. I don't anticipate there's any reason there'd
7 have been fewer, so some of these people were staying at
8 home who otherwise would not have done, and they would
9 have had remediable conditions.

10 So the bigger bit, which was did we get the message
11 across that people should still go to hospital, I think
12 we didn't get it across well enough. We tried. You
13 know, we tweeted, we talked to it the podium and so on.

14 Whether we pushed too strongly on the messages of
15 the risks of Covid, I think that's a much harder one
16 actually, because it was really important that people
17 understood why -- if they were going to do this terrible
18 thing for their society, for the economy, for their
19 families, they understood why it was. The scale of the
20 problem.

21 I think actually my experience was the overwhelming
22 majority of people thought they were doing it for the
23 most vulnerable in society. It was entirely altruistic.
24 So -- and that was certainly my judgment, particularly
25 amongst younger adults, who made a decision that they

175

1 what this guidance was designed for. And I think it
2 would have been appropriate to take a much more, in
3 a sense, mechanistic -- although well thought through --
4 approach rather than proper normal practice, which is to
5 judge an individual's circumstances and preferably
6 discuss with them and their family. That is how this
7 should be done in ordinary circumstances.

8 **Q.** I take it from what you have said then that the guidance
9 was not pulled because it was optically too difficult to
10 say to people "We may have to consider this"?

11 **A.** It had been circulated amongst -- perfectly openly,
12 amongst a large number of charities and pressure groups,
13 who were very good, who were very expert, and it has
14 been published online. So, I mean, I think that itself
15 answers it.

16 **Q.** Stay-at-home messaging. As one of those behind the
17 podium on occasions, do you think that we get the
18 balance right between telling people the NHS was open
19 but equally protect the NHS, save lives, stay at home?
20 What do you think about that balance, Professor?

21 **A.** I don't think there was ever going to be a perfect
22 balance on this one. I am confident what we didn't do
23 was to identify -- over and over again, you couldn't say
24 it too often, I said it, Professor Powis said it, many
25 others said it from the podium, that the NHS was open

174

1 were going to put their lives on hold to protect others,
2 which I think is extraordinary.

3 **Q.** Do you think if those that were deterred from coming to
4 hospital had come to hospital, the hospitals would have
5 coped?

6 **A.** I think the hospitals -- I mean, the hospitals would
7 have been able to improve their situation. So they
8 might not have been able to do absolutely everything
9 they would have been able to do pre-Covid, particularly
10 at the points of the year outside the winter pressures,
11 but I'm confident they would have been able to do
12 things, for example, for someone who's had a heart
13 attack, which are not possible to do at home.

14 **Q.** Finally this, please, Professor. Your technical report,
15 albeit that we are not the intended audience for it,
16 sets out a number of recommendations, and you have
17 spoken already today about things you would like her
18 Ladyship to consider, but are you able to now to give us
19 one or two concrete recommendations, in addition to
20 those that you have already mentioned, that you think
21 that her Ladyship should bear in mind in the event of a
22 future pandemic?

23 **A.** Yes, so if I bank the ones I've said as I went along --

24 **Q.** Please do.

25 **A.** -- I would say that the biggest one that I think

176

1 deserves slightly more emphasis even than I have given
2 it is having the mechanism to be able to do research
3 very, very fast.

4 Ultimately, what reduced mortality rates overall
5 from the first wave to the second wave was research and
6 individual clinicians learning, and the second -- but
7 then the second thing was the prevention, the vaccine in
8 particular. Without that -- if that had been six months
9 later, if the things like the dexamethasone treatment
10 had been three, five months later, the mortality rate,
11 terrible as it was, would have been even worse than
12 that.

13 So I think people always, at the beginning of
14 pandemics, underestimate that it is actually the science
15 that is going to get them out of the hole, not all the
16 other things they are doing. The other things are
17 holding the line until the science does the work. And
18 putting that absolutely central I think is important.

19 Then I think the second one really flows from your
20 points about ethnicity. If we are not serious about
21 trying to tackle health inequalities between pandemics,
22 there is no way you are going to be able to do it when
23 the pandemics occur. So that is -- you know, part of
24 our preparation is to reduce the vulnerability of the
25 people we know are already vulnerable. And this will

177

1 the Trade Union Congress. The questions are on the
2 disparate impacts on different groups of healthcare
3 workers.

4 You suggest in your witness statements that the key
5 to improving the safety of higher-risk individuals was
6 principally to optimise safety for all rather than
7 trying to differentiate by every risk group in the
8 workplace.

9 Professor, there is no disagreement from my client
10 on that as a general principle, but would you also agree
11 that the assessment of individual risk do play a role in
12 seeking to address some of those disproportionate
13 impacts?

14 **A.** I do agree with that, and I think the question is where
15 you draw the line. So, for example, the existence of
16 the clinically extremely vulnerable group is an example
17 where we drew a line which said: actually your risk here
18 is so high that you do need to be treated in a different
19 way. But what I think we were trying to avoid is
20 a situation where every single person was assessed on
21 completely different risks and we ended up in
22 an extremely difficult situation to actually provide
23 realistic and achievable guidance, when it would be much
24 better for all to optimise the outlooks for everybody.

25 So I think we are in agreement, I'm just amplifying

179

1 have immediate effects straightaway, on a whole --
2 beneficial effects on health, but then when the next
3 problem hits we will be in a much stronger position.

4 And I agree with Lord Darzi's conclusion of his
5 recent review that we went into the pandemic in a less
6 strong health overall state, and I think that
7 contributed -- it was definitely not the cause to, but
8 it's definitely contributed to particularly some of the
9 disparities we saw.

10 **MS CAREY:** My Lady, that concludes my questions. May that
11 be a convenient moment for the afternoon break?

12 **LADY HALLETT:** Certainly.

13 One more session after this next break,
14 Professor Whitty, and I promise you we will be finished
15 by 4.30. So done for this session.

16 I shall return at 3.10.

17 **MS CAREY:** Thank you, my Lady.

18 **(3.00 pm)**

(A short break)

20 **(3.10 pm)**

21 **LADY HALLETT:** Right. It is Mr Jacobs.

22 Where has he moved to?

23 **Questions from MR JACOBS**

24 **MR JACOBS:** Over here, my Lady, thank you.

25 Professor Chris Whitty, a few questions on behalf of

178

1 my point.

2 **Q.** And perhaps taking that forward, a known comorbidity is
3 something that can be identified in a risk assessment.

4 Some determinants such as quality of housing are more
5 difficult to address in a risk assessment, is that
6 right?

7 **A.** Correct.

8 **Q.** If we consider the position of porters and cleaners
9 within healthcare, part of the workforce on lower
10 income, higher outsourced work, higher incidence of
11 those exacerbating social and structural determinants.
12 Beyond the pursuit of a safe working environment for
13 all, what are the steps that can be taken within
14 healthcare to try to provide some additional layers of
15 protection?

16 **A.** I think -- I mean, acknowledging that this is quite
17 a long way from my area of practice, so I can make some
18 general points but I wouldn't want to claim that this is
19 something where I'm the right person to give
20 a definitive answer, but I think there are two things
21 which we can do which we currently don't do.

22 I think the level of training for people who are not
23 patient facing in one sense but actually are in reality
24 is often much lower than would be optimal. And I think
25 ensuring that there is a minimum level of training --

180

1 you know, being a porter is a difficult job physically.
2 You are also close to patients a lot. For example,
3 people who are providing meals are close to patients
4 a lot. And I think they are not trained in PPE to the
5 same level. And I think, of course, they see a lot of
6 people in quite close succession. So there's a training
7 element.

8 I think the second element is I can -- I worried
9 throughout the pandemic as to whether we were dealing
10 with the financial situation of people who were not on
11 an employed basis. Permanently employed basis was
12 optimal.

13 We know from the care sector, for example, where the
14 data is clearer, that people who were not paid sick pay
15 fully were more likely to come into work when they had
16 symptoms, and therefore spread disease around.

17 So I think there are a set of issues around this
18 that we need to look at quite carefully in advance of
19 the next emergency, it doesn't have to be a pandemic.

20 **Q.** So training and financial position, two practical steps
21 that could potentially be looked at to try to address
22 this disproportionate impact.

23 Finally, you have given evidence in response to
24 Ms Carey's questions about some of the structural
25 determinants and health inequalities which are relevant

181

1 which the Inquiry -- the chief counsel laid out, was
2 this is a real -- this should be a wake up call, as if
3 one were needed, that these problems exist within the
4 health service as well. And that point was made and
5 I think most people would agree with that point.

6 And the time to try to fix them is not in the middle
7 of the crisis. The crisis demonstrates this is
8 a problem. Sometimes it gives a sense of urgency but
9 also unfortunately it gives multiple other things that
10 need to be done simultaneously. I think that, you know,
11 we do, between crises, need to look at these issues very
12 systematically and seriously.

13 **MR JACOBS:** I will leave it there.

14 Thank you, my Lady.

15 **LADY HALLETT:** Thank you very much Mr Jacobs, very grateful.

16 Who is next? Mr Stanton?

17 You've gone over there as well?

18 **MR STANTON:** Yes, my Lady.

19 **LADY HALLETT:** It's so that you don't have to turn -- have
20 your back turned round to them.

21 **Questions from MR STANTON**

22 **MR STANTON:** Good afternoon, Professor. I appear on behalf
23 of the British Medical Association and I have a question
24 for you about the harms experienced by healthcare
25 workers.

183

1 to disparate impact. You have described how it is for
2 society -- I hope I don't paraphrase too unfairly -- to
3 decide whether and how to answer those in advance of
4 a pandemic.

5 A healthcare worker who perhaps perceives
6 inequalities not just within society but within the
7 healthcare service may feel that those broader matters
8 could serve as a distraction or even excuse from taking
9 a hard look at matters that actually exist within the
10 healthcare service. From your perspective, taking your
11 point that you are not directly responsible for these
12 matters, do you think that there has been any sort of
13 real or sufficient focus on structural issues not just
14 within broader society but within the health service
15 that the health service can do something about?

16 **A.** Well, I will take those in two parts. The first part
17 I would completely reject the idea that there is
18 a tension between trying to sort out disparities in
19 society and trying to sort out disparities in the health
20 service. I consider those are, in fact, synergistic,
21 and doing one will help to reduce the other, for those
22 who are working in the system. So I just wanted to be
23 really clear about that.

24 But on your second, I mean, the point that was made,
25 I think rightly, in the -- getting behind the data,

182

1 In your view, how do we ensure that the response to
2 a future pandemic or health emergency avoids the severe
3 and ongoing physical and mental health impacts
4 experienced by healthcare workers in the Covid-19
5 pandemic, as described so powerfully earlier today by
6 your colleague Professor Fong. And Professor, when
7 answering could I ask you to consider the extent to
8 which low staffing levels have contributed to these
9 harms?

10 **A.** Well, unfortunately, the answer to the first one would
11 take a long time, and I will give a couple of comments
12 but this is something which to give a proper answer
13 would take more time than her Ladyship will definitely
14 want us to take.

15 Staffing levels definitely make a difference,
16 because if you have some degree of capacity to surge,
17 which a greater staffing level gives you, you can deal
18 with a higher degree of emergency without stressing the
19 system more than you otherwise would do.

20 The difficulty, of course, in the health service is
21 you are -- at any given time, there are multiple
22 competing demands that those who are leading it -- and
23 I'm not leading the NHS bit of it, so I'm not saying
24 this on my own behalf but making an obvious point --
25 have to compare to one another, and if you have high

184

1 staff levels sufficient to deal with an emergency, that
2 means some other part of the system, given the same
3 degree of envelope, is going to be relatively squeezed
4 to make room for that.

5 And that's the difficult choice that political
6 leaders and leaders of the system have to take, and I'm
7 just being fairly clear about that.

8 But the idea that actually if we had had more
9 capacity, particularly in intensive care but more
10 widely, that would have given more headroom and
11 therefore reduced the number of places which came to the
12 kind of state that Professor Fong was talking about,
13 clearly that is true, with the caveat I made previously.

14 **Q.** Yes. Thank you, Professor.

15 Next and final question relates to the recording of
16 healthcare worker infections and, sadly, deaths whilst
17 at work.

18 Do you agree that it is unacceptable that we do not
19 have reliable published data about how many healthcare
20 workers were infected while in service, particularly
21 those who then tragically died, and that in future there
22 needs to be a better system for recording these impacts?

23 **A.** A lot of the problem that came -- so, firstly, data
24 existed. I mean, every day I had data which told me how
25 many healthcare workers had at that point died and who

185

1 was, the RIDDOR system, with which you may be familiar
2 was clearly not fulfilling this purpose.

3 Whilst there was a flow of data within the NHS, it
4 appears that that flow was not accurate. There was
5 a report in 2023 that you may have seen in the British
6 Medical Journal along the lines of a tribute to
7 healthcare workers, and they expressed the view that
8 their account may not be complete, and invited families
9 who may have suffered a bereavement to come forward.

10 Now, the British Medical Journal in 2023 doesn't
11 know how many doctors sadly died. That tends to suggest
12 there's something wrong with the system?

13 **A.** So, firstly, I recognise the point you are making,
14 I agree with it and I think it is important, for the
15 reasons you have given. It is also important to
16 acknowledge every healthcare worker who has died. So --
17 I very strongly believe that.

18 If I may make a hard-edged comment about my own
19 union, which you kindly represent, they have not been at
20 the forefront of trying to allow data to be merged from
21 different sources, which would allow for better data
22 outcomes in future crises, and if you could take back to
23 your distinguished clients that recommendation, that
24 they think about that seriously, I am sure that that
25 would be a very useful outcome.

187

1 had died in the last week. So data were flowing.

2 I think one of the things that were very difficult
3 were defining what is a healthcare worker. If you are
4 a doctor working in a hospital then it is a pretty clear
5 yes, but there are many people who were -- actually
6 could be counted either way, and then that's before we
7 get on to the question about where was the infection
8 from, their workplace, and where was their infection --
9 what would have happened even had they not gone to work.
10 And that's a much harder question to answer very often.

11 But the principle that there should be data
12 available is absolutely right, for lots of reason, but
13 one goes back to something which my Lady talked about
14 earlier on, which is if your -- if one of your earliest
15 indicators that something is wrong is healthcare workers
16 are dying, therefore knowing that healthcare workers
17 have died is a really important thing to do, because
18 that can tell you at an early point that you are in
19 a new situation that you need to do something about.

20 So I think it is more than a kind of workforce
21 welfare point, which it absolutely is and should be,
22 rightly, it also is a very important point of how you
23 actually spot trouble early on, where you have
24 a realistic chance of heading it off.

25 **MR STANTON:** Yes, Professor, the reason I asked the question
186

1 **MR STANTON:** Thank you, Professor.

2 **LADY HALLETT:** I'm not sure you expected that, Mr Stanton.

3 **MR STANTON:** Thank you.

4 **LADY HALLETT:** Right, Ms Hannett.

5 Questions from MS HANNETT KC

6 **MS HANNETT:** Professor Whitty, I appear on behalf of the
7 Long Covid groups.

8 My Lady, Counsel to the Inquiry has very helpfully
9 put many of the questions or topics that we wanted to
10 put to Professor Whitty this morning, so I have been
11 able to reduce the number of questions considerably.

12 First topic, Professor Whitty, if I may, deals with
13 recognition of Long Covid. In your oral evidence in
14 Module 2 you accepted that the evidence of Long Covid
15 was not in any way uncertain by October 2020.

16 You were asked questions this morning about those
17 with Long Covid having their symptoms disbelieved by the
18 medical profession. Do you agree that the prompt public
19 recognition of Long Covid in 2020 by you would have
20 prevented or ameliorated the delayed diagnosis and
21 disbelief of Long Covid sufferers and helped individuals
22 protect themselves and their families from some
23 avoidable harm?

24 **A.** Well, I hope that the fact that I set in train in
25 I think June of that year the first systematic review of

188

1 it and tried to accelerate research so that we had
 2 an ability to have an evidence base is evidence that I,
 3 in a sense, fundamentally agree that it is important
 4 that it is identified and acknowledged. But I am
 5 slightly puzzled if you are implying that I was not
 6 aware of it and making it aware to others, because my
 7 hope is that I was doing so as fast as I was getting
 8 information myself.

9 **Q.** Professor Whitty, the question was whether public
 10 recognition, perhaps in a press conference or otherwise
 11 by you, in summer or autumn 2020, would have assisted
 12 those Long Covid sufferers who were disbelieved by
 13 medical professions -- if you, as the Chief Medical
 14 Officer, had identified the existence of Long Covid at
 15 that stage?

16 **A.** I can't -- this is -- I genuinely can't recall when I,
 17 in a press conference, first talked about it. But the
 18 reason for dealing -- within a professional group, and
 19 you are asking about professionals, I was certainly
 20 trying to ensure that, at a professional level, this was
 21 which was addressed at a relatively early stage after
 22 this was first identified.

23 **Q.** Professor Whitty, if I can move on to research into Long
 24 Covid.
 25 Professor Brightling and Dr Evans state in their
 189

1 either repurposed old drugs or, in due course, when we
 2 understand the biological foundations of the different
 3 syndromes of Long Covid, actually designed for Long
 4 Covid specifically.

5 If you don't do that, the risk is that you actually
 6 do more harm than good, because all drugs come at a side
 7 effect cost to the individual.

8 So I think the question about when is it the right
 9 time to do therapeutic trials, in terms of your
 10 underlying understanding of the epidemiology and biology
 11 of diseases, varies very significantly, and it does with
 12 Long Covid itself. Also the UK is not the only country
 13 doing research, it is an international effort, and
 14 I have talked about some of the discussions we have had
 15 with others.

16 That's not to say we should not continue to do
 17 therapeutic trials when there is a good reason to do so,
 18 but when you do a therapeutic trial which has no
 19 biological basis in the view of disinterested observers,
 20 the risk is you either cause actual harm, because you
 21 are using treatments which have limited chance of
 22 success but a reasonable chance of side effects, or you
 23 make the field more difficult for subsequent studies and
 24 more appropriate treatments.

25 I realise that is a technical answer but it is
 191

1 expert report on Long Covid there is an urgent need for
 2 further clinical trials testing both pharmacology and
 3 non-pharmacological therapies for adults, children and
 4 young people living with Long Covid. Do you agree?

5 **A.** I do.

6 **Q.** And as we have heard this morning, the NIHR has put out
 7 two funding calls into Long Covid, the first in 2020,
 8 the second into 2021. There hasn't been any new NIHR
 9 funding into Long Covid research since 2021.
 10 Professor Brightling and Dr Evans say that the research,
 11 which they identify as urgent, should be supported by
 12 dedicated national research funding. Do you agree with
 13 that?

14 **A.** Well, I think there is a difference between new research
 15 calls and continuing research funding which is
 16 continuing in the UK and elsewhere.

17 **Q.** Professor, there is only one national funded research
 18 project into pharmacological interventions, for example.
 19 Do you accept that further research of that nature, for
 20 example, should be funded by national funding?

21 **A.** One of the problems for research into Long Covid, and
 22 I'm going to give it a technical answer, apologies for
 23 that, is that simply randomly firing possible treatments
 24 into the system is never a sensible idea. So you've got
 25 to have a strong evidential basis for why you are doing
 190

1 an important technical answer.

2 **Q.** Final topic then, Professor Whitty, given the time that
 3 I have left, planning and monitoring of long-term
 4 sequelae.

5 In your witness statement and evidence this morning
 6 you accept that the initial planning for Covid-19 didn't
 7 take any account of the long-term consequences, ie Long
 8 Covid. You also accepted that the possibility of some
 9 long-term sequelae was accepted but the nature and scale
 10 of those was not foreseeable.

11 Given that the possibility of chronic sequelae was
 12 accepted, do you agree there should have been
 13 surveillance of that from the outset of the pandemic
 14 just as there was of the acute effects of Covid-19?

15 **A.** I think it is difficult to know how you would have
 16 picked it up in a different way to how it was picked up
 17 as it was picked up.

18 I mean, people who had had severe infections and
 19 ended up in hospital generally are followed up when they
 20 leave hospital. That is a normal clinical practice.
 21 And to that extent they would have been picked up at
 22 a relatively early stage. I think that the bit which
 23 was the more surprising was the degree of disability
 24 that Long Covid caused people who had had a mild or
 25 moderate initial infection.
 192

1 The problem there is it is not really clear how you
2 could have put it in place, not knowing what the
3 symptoms were or who would be affected, an appropriate
4 sampling mechanism, particularly in the first wave,
5 where the great majority, I would suspect, of people who
6 had Covid of a mild sort were in fact not diagnosed,
7 because getting diagnostics at that stage was much
8 harder than it was later on. So actually knowing who
9 had Covid was really tricky at that point.

10 This is not saying I disagree that we couldn't
11 probably have done something better than we did but
12 I think it is not one of those ones where you look at it
13 and think: well, it's obvious that's the thing we should
14 do. I think it would have been quite hard to do for the
15 non-hospitalised patients. For the hospitalised ones,
16 as I say, I think a mechanism is relatively
17 straightforward.

18 **MS HANNETT:** Thank you, my Lady, I leave it there.

19 **LADY HALLETT:** Thank you very much Ms Hannett.

20 Mr Pezzani.

21 **Questions from MR PEZZANI**

22 **MR PEZZANI:** Good afternoon, Professor, I ask questions on
23 behalf of Mind, the mental health charity.

24 The main contextual document I wish to refer to is
25 the expert report for this module of the Inquiry by Drs
193

1 preparedness, despite the likely serious toll on
2 everyone's mental health due to social isolation,
3 anxiety, financial stress, and grief, and no
4 consideration was given to the impact on children and
5 teenagers who would face disrupted schooling and social
6 isolation.

7 Paragraph 162, Professor, is broadly to the same
8 effect.

9 Are Drs Northover and Evans correct that prior to
10 the Covid-19 pandemic, there were no specific plans in
11 place for mental health inpatient services or other
12 aspects of mental healthcare in the UK's pandemic
13 preparedness strategy?

14 **A.** In broad terms my view is yes.

15 **Q.** Are you able to assist on the reason that there were no
16 such specific plans for the mental health impact of the
17 pandemic?

18 **A.** I mean, I think that -- as I think was laid out very
19 clearly in her Ladyship's first report, the pandemic
20 planning had many areas where we had gaps in our
21 capacity.

22 I want to be clear that I think there is a big
23 difference between a plan and a capability. Actually,
24 I think a plan is less useful because there was no way
25 we could have told in advance exactly the mechanisms and
195

1 Guy Northover and Sacha Evans about child and adolescent
2 mental health services. I hope you've had
3 an opportunity to look at that report. It was produced
4 after your statement, but I hope you've seen it?

5 **A.** I've read it, with the important caveat that I'm neither
6 a child health doctor nor a psychiatrist, so therefore
7 I was reading it as an interested doctor and an
8 interested public health person. But with that caveat
9 in mind, yes, I read it.

10 **Q.** Thank you.

11 My first question relates to planning, specifically
12 before the pandemic, in relation to the potential impact
13 on the mental health of children and young people.

14 You may recall that Drs Northover and Evans record
15 at paragraphs 10 and 162 of their report that there were
16 no specific plans in place for mental health inpatient
17 services in the UK's pandemic preparedness, despite the
18 likely serious toll on everyone's mental health due to
19 social isolation, anxiety, financial stress, and
20 grief --

21 **LADY HALLETT:** I'm missing a lot of what you are saying.

22 The stenographer is too.

23 **MR PEZZANI:** I'm sorry. I will go through it more slowly.

24 There were no specific plans in place for mental
25 health inpatient services in the UK's pandemic
194

1 routes and outcomes that would have happened with Covid,
2 and many of the -- some of the effects were direct from
3 the disease but many of them were indirect, via the
4 lockdowns, which were again, in themselves,
5 unpredictable, because they weren't part of the plan.
6 So I think that would have been tricky.

7 But your general principle that we should take
8 account of particularly inpatient services I completely
9 agree with, and that's for many reasons but an obvious
10 one is that many people living with mental health
11 conditions find it particularly difficult to adhere to
12 some of the very difficult things during Covid, and
13 these are closed environments where close contact is
14 often needed. So for many reasons I think that is
15 an area where we could reasonably do a lot better in any
16 future areas. So I -- basically I am agreeing with you
17 in a rather long-winded way.

18 **Q.** I'm grateful.

19 Can I just quickly follow up on your distinction
20 between planning and capability and ask you just to
21 expand on what you mean about the importance of
22 capability in this context.

23 **A.** So the big difference here is that a plan is basically
24 to say: if a pandemic hits, we are going to do the
25 following, A, B, C, D and E.
196

1 Well, we don't know what kind of pandemic --
 2 remembering the last pandemic the UK suffered from with
 3 any seriousness was HIV, completely different. It had
 4 effects in mental health areas but completely different
 5 to the current one. So I'm very unconvinced that a plan
 6 will necessarily help us, but having capabilities,
 7 having people who are trained, duly, in infectious
 8 diseases as well in mental health, maintaining that,
 9 maintaining stocks of PPE that are available and
 10 appropriate in these environments, those all strike me
 11 as things we should be doing. They are capabilities,
 12 not plans.

13 **Q.** I'm grateful.

14 Would those capabilities include sufficient
 15 resources to meet potential needs arising during
 16 a pandemic, for example, from increases in children and
 17 young people with eating disorders and the continuation
 18 of those surges post pandemic, which you will have seen
 19 Drs Northover and Evans have reported upon?

20 **A.** Well, I think that is two very different things. I'm
 21 a little cautious about having as a reason for
 22 a particular area of skill in the UK -- or capacity in
 23 the UK -- something essentially held in readiness for
 24 the next emergency. I think the chances that would be
 25 maintained over time are incredibly low. So I think,

197

1 compared to more affluent areas.

2 You said:

3 "It was in my view predictable that there would be
 4 significant structural inequalities in the health
 5 outcomes for COVID-19."

6 But:

7 "It was not in [your] view entirely predictable
 8 which groups would be most affected other than that
 9 broadly people living in deprivation tend to have less
 10 good outcomes from most infections and indeed most
 11 public health problems."

12 Would a mental health impact on children and young
 13 people from disadvantaged areas fall into your broad
 14 category of a predictable effect, Professor?

15 **A.** I think it was unpredictable before, but is entirely
 16 predictable once we knew what we were going to do.

17 So I will take the example of home schooling. Home
 18 schooling is a much harder thing to do for families
 19 which are dependent on physically going out to work,
 20 people who are living in much more restricted
 21 environments than it is in more affluent areas. It is
 22 difficult for everyone but it was even more difficult in
 23 those areas.

24 So, insofar as schooling is one of the ways you can
 25 reduce anxiety and mental health issues in the medium to

199

1 even if it's desirable, it doesn't strike me as
 2 practical. I'm not sure it is desirable actually.

3 On the other hand, the surge in child and adolescent
 4 mental health demand that we have seen post-pandemic,
 5 which is on the background of an increasing wave before
 6 that, so it is not just caused by that but I think it
 7 has been accelerated by that, and specifically the
 8 impact on eating disorders of various sorts, I think is
 9 a very serious issue and I think we need to have a clear
 10 view on this. Is this something which is going to
 11 revert back to the trend line that was there before or
 12 is this something which has actually been a step change
 13 and which is now with us for a long period of time. And
 14 that has quite different implications for how we
 15 configure services in my view over the next 10 to
 16 15 years.

17 **Q.** I'm very grateful.

18 Finally, in relation to children and young people
 19 living in deprivation and the mental health impact on
 20 Covid countermeasures on them in particular, I noticed
 21 in paragraph 4.58 to 4.60 really of your fifth witness
 22 statement that you identified people living in
 23 deprivation being harmed by and I'm quoting, "the
 24 countermeasures to COVID-19" in a way that is greater --
 25 I have stopped quoting -- in a way that is greater when

198

1 long-term, which there is reasonably good evidence for.
 2 Therefore, as soon as it was clear we were going to have
 3 to do that, you would anticipate that this would have
 4 been an even greater effect in areas of deprivation.
 5 Before you saw any data you could be, unfortunately,
 6 confident that was likely to be the case. And indeed in
 7 my view it was the case.

8 **MR PEZZANI:** I'm grateful, thank you very much Professor.

9 **LADY HALLETT:** Thank you very much.

10 Ms Weereratne, please.

11 **Questions from MS WEERERATNE KC**

12 **MS WEERERATNE:** Thank you, my Lady.

13 Professor Whitty, I'm over here.

14 I ask questions on behalf of the Covid-19 Bereaved
 15 Families for Justice Wales group. My questions are
 16 about DNACPR notices and the use of frailty scores and
 17 the escalation of care, which you do not cover in your
 18 current witness statement, so I have to set a bit of
 19 context as follows, so bear with me.

20 At the outset of the pandemic there was widespread
 21 reporting of unacceptable practices around DNACPR and
 22 the use of clinical frailty scores in the escalation of
 23 care and ceilings of treatment. It was made clear to
 24 healthcare professionals through various guidance and
 25 statements that it was unacceptable for advance care

200

1 plans or DNACPRs to be applied to groups of people or on
2 a blanket basis and that decisions must continue to be
3 made on an individual basis according to need.

4 So my question is, are you aware that nevertheless
5 the inappropriate use of DNACPRs notices continued
6 throughout the pandemic?

7 **A.** So, firstly, to give an extremely clear statement that
8 I completely agree that it is unacceptable to have
9 blanket approaches to this for multiple reasons which
10 I didn't need really to spell out. It is not normal
11 practice medically. It is not good practice.

12 I am in favour of advance care planning to be clear.
13 Having the opportunity in advance of an emergency to
14 discuss with someone rationally, with their families,
15 what would you wish to do is entirely good medicine, as
16 all of us should be doing. I want to be clear those are
17 two separate things. Blanket things absolutely not,
18 advance care planning is a very useful thing to do.

19 I have not been involved in any of the areas which
20 were testing whether there was any evidence of this, but
21 certainly anything I have ever said would under no
22 circumstances have done anything other than saying I'm
23 totally against blanket approaches to DNACPR. So I want
24 to be clear about that.

25 **Q.** Thank you. Just so you know, the basis of that question
201

1 The bereaved families group that I represent are
2 concerned that there was some conflation between those
3 sorts of risk assessments and a lowering of the
4 threshold for the use of DNACPR notices, that's one
5 thing, and possibly related to that but the converse
6 issue is raised by Professor Lockey of the Resuscitation
7 Council UK who addresses misunderstandings amongst
8 clinicians conflating DNACPR notices with the use and
9 escalation -- use of DNACPR notices and the escalation
10 of care.

11 Professor Lockey also refers then to the ReSPECT
12 process in England, which he says has been introduced to
13 mitigate such concerns, personalising care and also
14 ensuring alignment of treatment and personal values of
15 patients.

16 The question is, related to the fact that there is
17 no such roll-out of ReSPECT in Wales whilst it does
18 exist in other nations. Would you agree with
19 Professor Lockey that the absence of a nationally
20 standardised process creates patient risk?

21 **A.** I'm not going to comment on Wales because Sir Frank
22 Atherton I think is coming to this Inquiry on Monday, so
23 I think that would be more appropriate if he addresses
24 how Wales is addressing this.

25 The general principle that there is -- the decision
203

1 came from the Parliamentary and Health Service Ombudsman
2 witness statement to this Inquiry in terms of the
3 findings he has made on inappropriate DNACPR practice.

4 But the question I wanted to ask you is, given there
5 was an early flagging of this issue, what was done to
6 monitor compliance with the guidance and to prevent
7 inappropriate practices from occurring?

8 **A.** Well, I mean, I think other than the fact that I don't
9 think any responsible body did anything other than say
10 this is the wrong thing to do, it's making it clear that
11 this was not an area I was immediately responsible for
12 and therefore this wasn't an area I was leading. And
13 that's not -- you know, if I had been asked I would have
14 made a clear statement, as I just made, as I am sure
15 every senior clinician would. And Sir Gregor made the
16 same yesterday in regards to Scotland, for example.

17 But, you know, this wasn't an area I was involved in
18 and therefore I'm not able to give you any more advice
19 than you can get from reading the ombudsman's report and
20 wider reportage on this.

21 **Q.** I'm grateful, thank you very much.

22 My next question is about the use of various scoring
23 systems as a risk assessment tool, such as the clinical
24 frailty score, ISARIC 4C, and you mentioned QCovid in
25 your evidence.

202

1 to have -- for a patient to decide, usually themselves
2 with their families, in an ideal situation, that they do
3 not wish to have resuscitation is unrelated to do you
4 want to go on to do major -- other forms of care. They
5 are -- they should -- you are completely correct, I want
6 to reinforce this, is seen as completely different
7 decision pathways. That -- just to agree, sort of, in a
8 sense, agree with you on that one.

9 On the second one, I think there may be
10 a misunderstanding about what QCovid is if people think
11 that this could in any way have any implication for --

12 **Q.** I'm going to stop you, Professor, simply because my
13 question was about ReSPECT and not about QCovid and
14 whether you think that the absence of a nationally
15 standardised process would affect patient safety?

16 **A.** Well, you did mention QCovid and I wanted to correct
17 a misapprehension. I wanted to be clear that QCovid is
18 a system for trying to ensure that people at the highest
19 risk are aware of that risk. It is in no sense
20 something that would be used for any kind of care
21 decisions of the form you are talking about. I just
22 didn't want that to lie on the record uncorrected.

23 Are there advantages to having national systems?
24 There are advantages to having systems which are widely
25 accepted within medical nursing and other areas. You

204

1 want to have a systemic framework and then you need to
 2 make sure that individual patients have an individual
 3 conversation with individual clinicians, or if they
 4 can't themselves ideally with families or people who
 5 represent them. So a national system is -- and you know
 6 this, but I'm just reinforcing this, is very different
 7 from a national approach to who would get resuscitation
 8 and who would not. That should be an individual
 9 decision.

10 **Q.** So I'm going to take it that that was an answer -- the
 11 answer is yes to a nationally standardised process such
 12 as ReSPECT?

13 **A.** That is one approach to it. I'm not saying that's what
 14 any particular nation should do. But certainly there
 15 should be a systemised framework in my view. It could
 16 be ReSPECT, it could be other forms.

17 **MS WEERERATINE:** I'm grateful.

18 Thank you, my Lady.

19 **LADY HALLETT:** Thank you very much.

20 Mr Wagner.

21 That way.

22 Questions from MR WAGNER

23 **MR WAGNER:** Professor Whitty, my name is Adam Wagner and
 24 I ask questions for the Clinically Vulnerable Families.
 25 I want to ask you about two topics, please. The first
 205

1 parents, laid out over about four pages. We wanted to
 2 lay out the arguments.

3 But, in a sense, those two decisions were both aimed
 4 at trying to support children and their development,
 5 accepting that the children were coming to very
 6 significant harms from some of the social interventions
 7 that were necessary during Covid to reduce the risks of
 8 the kinds that I thought Professor Fong so powerfully
 9 laid out. So that's the children's side.

10 In terms of the adults, yes, consideration was given
 11 to this, and there was a lot of concern about what to do
 12 to maintain, firstly, the reduced risk among adults who
 13 were clinically extremely vulnerable, but also trying to
 14 reduce the impact on the lives of those living with them
 15 and trying to make sure that those two aims, which are
 16 in some sense in tension, to the best of our ability
 17 were balanced against one another. So that -- I mean,
 18 I hope -- I realise that doesn't give you exactly the
 19 answer you wanted but it's, I think, an accurate
 20 reflection of our thinking at the time.

21 **Q.** Thank you.

22 Was any thought given to a more gradual transition
 23 out of shielding, as they had in Scotland, rather than
 24 the sort of cliff edge of just ending it at that point,
 25 or pausing it completely at that point?
 207

1 is shielding.

2 Professor Whitty, shielding was paused on
 3 August 2020 and children returned to school about
 4 a month later. Did you or your office assess the risk
 5 to clinically extremely vulnerable children and
 6 clinically extremely vulnerable adults living with
 7 children, of that double whammy in the timing of
 8 shielding ending and the school restarting?

9 **A.** Well, I mean, firstly, there was -- around that time,
 10 and I can check on the dates but if you will allow me
 11 just to say around that time, there was a decision to
 12 remove the great majority of children from the
 13 clinically extremely vulnerable list, and that was done
 14 on the basis that the risk to the children was now, we
 15 felt, solid enough that the risk was so much lower that
 16 the benefits to them of shielding, with all the
 17 disadvantages in terms of childhood development, and I
 18 think we have heard from Mind, for example, some of
 19 these that accrue if you don't have access to education,
 20 would be denied them, with limited benefit given the
 21 increased physical risk.

22 So the four CMOs wrote to parents about school
 23 starting again in relatively unambiguous terms at that
 24 time. And I would refer you to that letter if you want
 25 to see our views at the time. They were laid out to
 206

1 **A.** Well, I mean, shielding, both to go into it and to come
 2 out of it, was a voluntary issue. So, as some of the
 3 data which has been shown, I think, from the ONS to this
 4 Inquiry demonstrates, many people who were clinically
 5 vulnerable chose, perfectly reasonably, to continue to
 6 do what they had previously done. They did that on
 7 a more informal basis. So the cliff edge, as you put
 8 it, was, in a sense, a choice cliff edge for many
 9 people.

10 Where it was more problematic was around delivery of
 11 some of the services. But this was, as you will recall,
 12 a period when the incidence of Covid was much lower than
 13 it had been at the point that shielding was introduced
 14 and, as we have heard from some of the previous
 15 evidence, the downsides of people being in shielding
 16 were very substantial. So that was the basis on which
 17 this judgment was made.

18 **Q.** Just related to that question about children living with
 19 clinically extremely vulnerable family members, and
 20 a lot of people who shielded obviously lived with other
 21 people in their homes who were not being shielded and
 22 would go out into the community more and potentially
 23 contract Covid, did you consider a design of the
 24 shielding programme, or might you consider if you were
 25 doing it again now, that focused more on the household
 208

1 than the individual? So gave advice and support to all
2 members of that household how to support that ultimately
3 and protect that clinically extremely vulnerable
4 individual?

5 **A.** There was quite a lot of advice to households actually
6 as part of the clinically extremely vulnerable shielded
7 programme. So it wasn't that they were -- there was no
8 advice. I think that would not be an accurate
9 reflection.

10 The difficulty here is the one that I have
11 indicated. What we were trying to do was minimise the
12 disadvantages of shielding for those who didn't need it
13 whilst maximising the protection for those who were
14 considered to need it as part of the -- initially a
15 judgment by the senior clinicians and subsequently, more
16 accurately in my view, the QCovid system.

17 And those -- you know, as I've said in my previous
18 answer, there was some tension between those aims.
19 There is no doubt about that. But that was true for
20 many of the decisions taken during Covid, of course,
21 there was tension between aims.

22 **Q.** Just going back to the pause in shielding and in fact
23 the end of shielding, might it have been desirable or
24 possible to include some additional mitigating measures
25 once shielding was ended? Thinking, for example,
209

1 very significant cold-related risk in the winter months.
2 But that is a solvable problem in engineering terms for
3 most public buildings, although not all.

4 **Q.** My second topic is masks. You have said you are not
5 an IPC expert, as in that's not your background, is that
6 fair?

7 **A.** That is correct.

8 **Q.** I just want to put to you a couple of points that the
9 experts that this Inquiry's instructed relating to IPC
10 have made. Professor Beggs, on the physical science has
11 said:

12 "From the evidence presented above, a consistent
13 emerges that face masks are likely to inhibit the
14 transmission of SARS-Cov-2 in healthcare settings and
15 that respirator masks appear to afford superior
16 protection to healthcare workers as opposed to surgical
17 masks."

18 He also says more research is necessary, which
19 I know you have also agreed with. Do you disagree
20 fundamentally with any of those points?

21 **A.** I would put much more emphasis on the more research is
22 needed than Professor Beggs would.

23 **Q.** The IPC experts that the Inquiry instructed,
24 particularly Dr Shin and Dr Warne, agreed that the IPC
25 guidelines should be updated to recommend routine use of
211

1 about -- at the time shielding ended, the airborne route
2 of Covid was very clear: requirements for better
3 ventilation in public buildings, air filtration, that
4 sort of thing. Might that have been twinned together?

5 **A.** I think we didn't deal with ventilation earlier in the
6 talks, so I'm going to give a slightly longer answer to
7 that because I think it is a really important point.

8 I do think that one of the things that has come out
9 of Covid is we should take ventilation in public
10 buildings in particular much more seriously. Sorry,
11 that is a very important point you have raised.
12 Non-specifically. So that is for Covid, but also for
13 flu, also for RSV, also for many other infections. It
14 also incidentally has an additional benefit for indoor
15 air pollution; something I have written on in a previous
16 annual report.

17 So I think we should be taking indoor ventilation of
18 public buildings a lot more seriously and probably more
19 vigorously than we previously had.

20 There is a slight rider to that which I'm going to
21 put on the record, which is there is a risk that that
22 can lead -- if we are not careful -- to reduced thermal
23 safety. So elderly people are also at risk if they get
24 cold. So what you don't want to do is have something
25 which actually leads to good ventilation but leads to
210

1 FFP3. As a non IPC expert would you defer to that
2 conclusion?

3 **A.** Firstly, my reading of their expert review was they also
4 felt that the evidence was weak. I'm happy to be
5 corrected on that, but that was my reading of it.
6 Therefore, I do not think they were saying definitively
7 that that is what the evidence showed. This is an area
8 where we will have it get some greater consensus. I
9 think some of the questions I was asked earlier I
10 thought were very fair and to the point on this. I
11 don't think from where I sit -- and I am not an expert
12 in this area -- those who are experts in the area have
13 yet to reach a point of sufficient unanimity that making
14 a move to something which is much harder to use is
15 an appropriate one, until I'm instructed otherwise by
16 people whose expertise this is.

17 I would want to add an additional point, I would be
18 very cautious about using FFP3 masks in the general
19 population without fit testing. I think the benefits of
20 that strike me as way, way further down even than the
21 previous ones, in terms of probability, and the down
22 sides of them I think are quite significant. It doesn't
23 mean people shouldn't if they wish to, but I would not
24 want to be implying we are recommending that.

25 **Q.** But it is possible for the members of the public to be
212

1 fit tested?

2 **A.** It is possible and if they wish to there is nothing to
3 stop them doing that. But I think for us to recommend
4 that based on the evidence we have currently got, that
5 could well lead to people who are disbenefitted by FFP3s
6 for a variety of reasons, including communication, doing
7 so. So I think it is sensible to leave it as it is at
8 the moment until the evidence base is stronger.

9 **Q.** Would you say the same about FFP2 masks?

10 **A.** In the UK we have used FFP3 largely because that has
11 been HSE guidance rather than for any other reason.

12 **Q.** On that topic -- you said you would not recommend for
13 the general public, but you said earlier that one of the
14 things you would change going back would be to give
15 healthcare workers the choice to wear FFP3 masks if, for
16 whatever reason, they decided to. Would you extend that
17 to patients and visitors to hospitals? I'm thinking
18 about clinically extremely vulnerable patients and
19 visitors who decided they wanted to wear an FFP3 mask
20 and it wasn't clinically contraindicated?

21 **A.** Firstly, people are free to do what they want in terms
22 of their protection, I think it is an interesting and
23 difficult question for someone on the front door to make
24 sure that everyone is wearing a new face mask when faced
25 with that situation. I saw one of your questions you
213

1 higher quality I presume you mean an FFP3 and for the
2 reasons I have previously said I don't think I go that
3 far. I don't think the evidence base is there to make
4 that statement.

5 **Q.** But what about --

6 **LADY HALLETT:** I think you have asked enough your questions,
7 thank you, Mr Wagner.

8 **MR WAGNER:** Thank you.

9 **LADY HALLETT:** Right, Who is next? I have lost my list.
10 Ms Sen Gupta.

12 Questions from MS SEN GUPTA KC

13 **MS SEN GUPTA:** Thank you, my Lady.

14 Professor Whitty, I represent the Frontline Migrant
15 Healthcare Workers Group. To provide some context, our
16 clients' members include two particular categories of
17 healthcare worker. First, outsourced non-clinical
18 workers, not directly employed by the NHS, such as
19 hospital cleaners, porters, security guards, medical
20 couriers and taxi drivers who were in precarious
21 employment, including zero hours contracts, on low wages
22 and includes ethnic minority and migrant workers.

23 And second migrant clinical workers such as Filipino
24 nurses whose visas prevented recourse to public funds
25 and whose leave to remain in the UK was contingent on
215

1 previously asked, my view is I could see arguments on
2 both sides of that particular argument, but certainly
3 the principle that people should be able to use FFP3s if
4 they wish to and if it is not contraindicated by other
5 considerations, is just a matter of freedom of choice as
6 much as anything else.

7 But I would go back to a previous comment that
8 an FFP3 absent fitness testing -- and it is much easier
9 to access FFP3 than it is to access proper fit testing
10 -- it is not obvious that it necessarily produces
11 benefit over any other mask.

12 **Q.** My final question, linking the two topics of masks and
13 shielding, do you think now that public advice on higher
14 quality masks, combined with a swifter acknowledgement
15 of the risks of airborne transmission, would have helped
16 reduce the impact on the clinically extremely vulnerable
17 of the very stringent shielding measures?

18 **A.** I certainly think that if we were running the way we did
19 things again, we would have emphasised masking in
20 general at an earlier phase of the pandemic than we did.
21 I think that is very clear.

22 I think we would have introduced surgical masks for
23 everybody at an earlier stage within healthcare
24 settings. What I do not think that I would go as far as
25 to say is the evidence is there for -- when you say
214

1 their continued employment.

2 I'm just going to ask you about risk assessment. At
3 paragraph 5.58 of your second witness statement you
4 referred to one of the roles of the Office of Chief
5 Medical Officer as being to assess which groups were
6 most vulnerable to Covid-19. For the transcript, that
7 is statement was produced in Module 2 and is Inquiry
8 reference 184638 but it need not be displayed thank you.

9 Professor, were any of the following categories of
10 healthcare worker assessed by the Office of Chief
11 Medical Officer as being particularly vulnerable to
12 Covid-19? First, low income health workers?

13 **A.** I'm going to stop you at this point because, firstly, it
14 would have been very useful to have had a bit of context
15 for this, to have been able to read the context in which
16 I said that. I think it probably sits slightly outside
17 what I actually think and therefore I suspect it had a
18 context around it. So can I just park that.

19 Secondly, our job, insofar as we were trying to
20 identify particular risks, I think I discussed earlier
21 on that, for example, the QCovid system was the
22 mechanism by which we did that and that looked at
23 multiple issues and one of the reasons, for example, it
24 was highly praised by the Runnymede Trust and others was
25 because it did bring in things like deprivation and
216

1 ethnicity in a way that other risk scores didn't, and
2 that was very much something we wanted to do.
3 But it was definitely not my job or that of my very
4 small team to take every single risk group in the UK and
5 say which individual bits of that risk were relevant.
6 This is not in any sense to belittle the importance of
7 the question you are asking. I fully agree the question
8 you are asking is an important question, but absolutely
9 it is not the role of the Chief Medical Officer to do
10 that and it would be silly for me to start randomly
11 firing out answers on something which it is very
12 obviously not in my area of professional responsibility.

13 **Q.** Professor Whitty, the reason I ask that question is
14 because you refer specifically to the OCMO as being
15 involved in conducting such assessment during the
16 initial waves of Covid-19. But can I take it from your
17 answer that you agree that it would have been helpful
18 for those categories of worker that I mention, low
19 income health workers, precariously employed health
20 workers, outsourced health workers and migrant health
21 workers to have been assessed as being particularly
22 vulnerable to Covid-19?
23 **A.** I think actually what I would have preferred to have
24 happened, and normally I don't stray into areas outside
25 health, but because I made this point multiple times in
217

1 Allison Munroe and I represent the Covid-19 Bereaved
2 Families for Justice UK. As I said, Professor Whitty,
3 just a few matters arising from your evidence and
4 questions of clarification.

5 Firstly, in relation to the issue of technical
6 advice and NHS 111; in an early CAS alert on
7 3 February 2020, the members of the public were advised,
8 if they had been exposed to Covid-19, that they should
9 phone NHS 111 and not be referred to emergency
10 departments unless seriously ill. This alert also
11 highlighted public health advice and guidance including
12 advice for travelers and those who had been to mainland
13 China, etc.

14 The question is this, in terms of your office, what
15 involvement did the Office of Chief Medical Officer have
16 in the development of that advice?

17 **A.** At a high level we had one important contribution to it,
18 but in terms of the actual algorithms behind NHS 111, we
19 haven't had any involvement that I'm aware of, certainly
20 I have had no involvement in it. It is a technical, and
21 an important one, not one for us.

22 The reason for that advice, I hope self-evidently,
23 was to make that sure individuals could access care,
24 very important the patients could access care, but also
25 in a way that minimised the risk to other patients if
219

1 government and publicly, I think what would have been
2 actually more helpful is to make the employment of
3 people less precarious during Covid.

4 I think that solves the problem in a much more
5 sensible and fundamental way than trying to identify
6 someone who is at high risk and then saying you are at
7 high risk. How that is done is very much not for me.
8 That is an economic question. But I think reducing
9 economic precariousness is one of my strong
10 recommendations to my successors, including in the
11 technical report I think that we wrote. I'm pretty sure
12 we made that as a recommendation and I have certainly
13 said that publicly many times.

14 **MS SEN GUPTA:** Thank you very much.

15 Thank you, my Lady.

16 **LADY HALLETT:** That's very kind. Thank you very much,
17 Ms Sen Gupta.

18 I think, Ms Munroe, is it you?

19 **Questions from MS MUNROE KC**

20 **MS MUNROE:** My Lady, thank you. Many of the questions I had
21 intended to ask Professor Whitty have been dealt with,
22 and I'm grateful to Ms Carey KC, during her examination.
23 So I just have a few further matters and some points of
24 clarification, if I may.

25 Good afternoon, Professor Whitty. My name is
218

1 this person was particularly at high risk of Covid
2 particularly early on, and also healthcare workers.

3 The important thing was to allow people to access
4 care in an appropriate way and then they could go -- if
5 they were at low risk of Covid and it was assessed by
6 that to an ordinary place where they could be assessed,
7 that would be convenient for them, meaning their other
8 non-Covid problems be dealt with, recalling that at this
9 point the great majority of people who might have had
10 Covid actually didn't -- that changed over time -- but
11 if they did have Covid, that they could be dealt with in
12 an area which would minimise the risk to other patients,
13 to families, to relatives and to staff. So the logic
14 behind it I hope is reasonably clear, but I think it is
15 worth laying out.

16 **Q.** Thank you very much Professor Whitty. You have answered
17 my second part of that question in terms of, in your
18 capacity as Chief Medical Officer what involvement you
19 had in that advice.

20 Second topic. Preparation for autumn/winter 2020.
21 It would seem, Professor Whitty, that as a result of
22 reports such as the Academy of Medical Sciences Report,
23 entitled "Preparing for a Challenging Winter 2020/2021",
24 which was published on 14th July 2020, and which was
25 endorsed, subject to a minor amendment, by SAGE on
220

1 9th July 2020, that it was known by the summer of that
2 year that the likelihood of a significant wave in terms
3 of infection in the autumn and winter of 2020.

4 Now, Professor, we have heard, in some often very
5 often visceral terms, evidence from bereaved families,
6 and only this morning the evidence from Professor Fong
7 about the devastating impact of the second wave.

8 My question is this, were you satisfied that
9 sufficient steps had been taken in the spring and summer
10 of 2020 by the Office of the Chief Medical Officer and
11 indeed you in your capacity as CMO, to prepare the NHS
12 for that second wave, in particular to maximise
13 infection control in healthcare settings and minimise
14 healthcare acquired infection, which was known to have
15 been a significant factor in the first wave?

16 **A.** Thank you. Firstly, it was in my view highly
17 probable -- and I said this from quite early on in the
18 pandemic -- that there was going to be at least another
19 wave in winter and that was covered in evidence to the
20 last module and it was Patrick Vallance who commissioned
21 the Academy and Medical Sciences report --
22 I co-commissioned it to some extent, but it was really
23 Professor -- now Lord Vallance -- who commissioned it --
24 and we were very aware of the risks to it. The risk was
25 fully acknowledged.

221

1 powerfully illustrated that and incidentally illustrated
2 why some of those who minimised Covid are so wrong. We
3 had learnt a lot and actually some of the other evidence
4 that has been or will be in front of this module
5 demonstrates that the NHS, which is a learning
6 organisation -- I don't mean that in a pap corporate
7 sense, but individuals within it learn very rapidly --
8 I think handled the second wave, despite the fact it had
9 a huge number of cases, a lot better and that's because
10 individuals in wards, in primary care, in other areas,
11 mental health and many other areas, had learnt and did
12 it better.

13 But there was still a lot of nosocomial
14 transmission, there was still many, many deaths and the
15 system was in many cases under extraordinary strain, as
16 was described earlier. So I wouldn't, in any sense,
17 want to be painting a falsely rosy picture and indeed
18 that was not my personal experience working in that
19 environment.

20 **Q.** Thank you very much.

21 Asymptomatic testing. Just one question in relation
22 to this.

23 Professor, in your Module 3 statement -- and
24 my Lady, for reference it is INQ000410237, at page 76,
25 paragraph 8.3 -- you recall that to you wrote to Jeremy

223

1 Secondly, the main thing that was being done by
2 Sir Patrick and me was around trying to minimise
3 the risk of a very large pandemic in terms of government
4 actions. That was the principal foundation of our work,
5 recalling that there were only three senior clinicians
6 in the Office of Chief Medical Officer and a lot in
7 NHS England.

8 NHS England, remember, I also have no statutory
9 responsibility for. So in terms of what I could do
10 within the NHS, the answer is I can advise but it is at
11 quite -- one remove.

12 We were, however, well aware of and very cautious of
13 the risks of nosocomial infection within the NHS.
14 Fundamentally the best way to deal with this was to
15 reduce the amount of infection in society. That is by
16 a very long way the biggest way to get around that and
17 all the other elements are secondary to that. So that's
18 where we put the majority in terms of my team of our
19 effort.

20 Was the NHS prepared for it? Well, the NHS, now
21 speaking as a doctor, I worked through the -- in fact
22 I worked near the peak of the second wave. I was very
23 heavily involved on the wards at that stage. We were
24 a long way away from being in a good place and
25 Professor Fong's evidence this morning I thought very

222

1 Hunt on 18 August 2020 about asymptomatic testing of
2 healthcare workers, expressing the view that this was
3 best implemented as part of a study given the low
4 incident at that stage.

5 Then, some 13 days later, on 1 September 2020, you
6 recognised in an email to Professor Powis and
7 Professor Sue Hill that during an autumn/winter surge
8 regular testing of all patient facing staff would be
9 needed. Now, asymptomatic testing of all patient facing
10 NHS staff begins in the week of 9 November 2020.

11 My question is this, Professor, given the known
12 likelihood of the significant asymptomatic infection,
13 the risk of asymptomatic transmission and the likelihood
14 of a significant imminent second wave, do you feel that
15 sufficient steps were taken to ensure that asymptomatic
16 testing of healthcare staff was initiated quickly
17 enough?

18 **A.** It was pretty obvious that the advantages of
19 asymptomatic testing in principle of staff. But there
20 were two very major limitations and one additional
21 reason we didn't want to do it across the board at
22 an early stage.

23 The first limitation was we did not know how
24 frequently we would need to test to actually achieve the
25 aim, which is to reduce transmission amongst patients

224

1 and staff. That could have been once a week, it could
2 have been once a fortnight, it could have been every
3 other day, it wasn't clear. And having better
4 information on that meant we would have a better
5 targeted approach.

6 Additionally, the PCR testing that was available to
7 us up to around about the end of October had two very
8 major disadvantages. It didn't give an instant result
9 and secondly some people could remain positive for many
10 weeks after in fact they had probably become
11 non-infectious; six weeks or more was possible, which in
12 a highly stressed system, having significant numbers of
13 healthcare workers or care workers removed from the
14 system despite actually not being infectious but because
15 of this problem would have been a limitation. That was
16 an important research question.

17 The third thing, however, was we did not have enough
18 tests. This was the biggest issue by some distance.
19 I can read through, if you wish, but I am sure you don't
20 wish and I am sure her Ladyship even more doesn't wish
21 me to, exactly how many tests we had at various stages.
22 But really going up until early October to do
23 asymptomatic testing of all patient facing staff, let
24 alone wider NHS staff, would have been well beyond the
25 testing capacity we had even though -- although we had

225

1 **Q.** Thank you. That is a very thorough and full answer.

2 My last topic is about shielding. You have been
3 asked a lot about that and most of my questions have
4 been dealt with and it is clear from your evidence we
5 have an idea of your views on shielding, its logic, its
6 effectiveness and indeed its appropriateness or not in
7 a future pandemic.

8 If I may come back to one point in relation to that.
9 Would you agree that the provision -- that there should
10 have been a provision made from the outset as part of
11 the shielding scheme for enhance protective measures for
12 CEV people accessing routine or indeed emergency
13 healthcare, and that the absence of such measures was in
14 fact a fundamental flaw in the shielding scheme?

15 **A.** I mean, noting the bit I said I wasn't so strong on and
16 be able to answer questions on was the operational side.
17 I was responsible for the concept, not personally, but
18 I had a responsibility for the concept and the choice of
19 who was most at risk by two different mechanisms.

20 My understanding of this was that there actually was
21 an attempt to make sure that there was easier access to
22 a variety of forms of information for people who were
23 clinically extremely vulnerable, in addition to help
24 with things like medicines and other things, which was
25 a fundamental part of the package.

227

1 expanded it out. It simply wasn't a practical reality.

2 What turned this into a possibility and really
3 transformed our whole management in a way which was only
4 second to, but a long way second to vaccination, was the
5 ability to do lateral flow testing which was point of
6 care. That allowed people to have an immediate result.
7 It allowed them to do it in multiple areas and even
8 though the lateral flow tests were less effective in the
9 sense of less sensitive than PCR, they actually
10 correlated pretty well with infectiousness. Therefore,
11 people could test themselves quite regularly and
12 quickly, not just in terms of healthcare workers but in
13 a number of other environments and that made possible
14 a whole range of things that previously hadn't been.

15 I did, however, before we had the lateral flow,
16 I was nervous and the email you laid out is an important
17 demonstration of this, that we would get ourselves to
18 winter wishing to be able to test people and without
19 capacity and I wanted to make sure that was not
20 a limitation. So I was saying: look, okay, we don't
21 have the data yet and the rates are low now, that won't
22 be case in two or three months, are we ready for that?
23 Please can we ensure we are ready for that.

24 That was the logic about why those emails were being
25 exchanged.

226

1 Without being able to quote chapter and verse,
2 because this isn't my area of real knowledge, it was in
3 fact done in a different department to the one I'm
4 housed in. So I was much less involved even in sort of
5 corridor conversations on it. My understanding is that
6 there was actually some degree of support but it may not
7 have been insufficient; I don't know. That is not me
8 saying it wasn't sufficient, it is just me saying
9 I don't know.

10 **MS MUNROE:** I understand and appreciate it. Thank you very
11 much Professor Whitty.

12 Thank you, my Lady.

13 **LADY HALLETT:** Thank you, Ms Munroe.

14 That completes the questions for today.
15 Professor Whitty. Yet again I'm extremely grateful to
16 you for all the help which you have given the Inquiry
17 and for the thoughtfulness of the responses that you
18 have given; they have been extremely helpful.

19 I'm sorry I can't promise you we won't meet again.
20 I will give instructions for the teams to limit the
21 demands we make upon you and your office as best we can,
22 but I think, as you probably guess, it is inevitable I
23 think we are going to have to ask you to come again.
24 But thank you for everything you have done today.

25 Very well, 10.30 am, Monday, 30 September.

228

1 (4.17 pm)
 2 (The hearing adjourned until 10.30 am on Monday,
 3 30 September 2024)
 4
 5
 6
 7
 8
 9
 10
 11
 12
 13
 14
 15
 16
 17
 18
 19
 20
 21
 22
 23
 24
 25

INDEX	PAGES
1	
2	
3 PROFESSOR FONG (sworn)	1
4 Questions from LEAD COUNSEL TO THE INQUIRY ... 1	
5 for MODULE 3	
6 Questions from MS MUNROE KC	54
7	
8 PROFESSOR SIR CHRISTOPHER WHITTY (sworn)	61
9 Questions from LEAD COUNSEL TO THE INQUIRY ..61	
10 for MODULE 3	
11 Questions from MR JACOBS	196
12 Questions from MR STANTON	202
13 Questions from MS HANNETT KC	207
14 Questions from MR PEZZANI	213
15 Questions from MS WEERERATNE KC	220
16 Questions from MR WAGNER	226
17 Questions from MS SEN GUPTA KC	236
18 Questions from MS MUNROE KC	240
19	
20	
21	
22	
23	
24	
25	

	117/12 118/23	2	3.00 pm [1] 178/18	70-plus [1] 157/18
LADY HALLETT:	10 [5] 24/19 31/14	2 metres [1] 138/23	3.10 [1] 178/16	76 [1] 223/24
[29] 1/3 14/1 25/2	87/1 194/15 198/15	2 million [1] 91/23	3.10 pm [1] 178/20	8
49/17 55/10 56/6	10.00 [1] 1/2	2.2 million [1] 114/15	3.35 [1] 75/23	8 March [1] 111/15
63/13 98/12 115/21	10.30 [2] 228/25	20 [2] 8/17 39/19	3.45 [1] 70/13	8.3 [1] 223/25
116/11 119/15 120/19	229/2	20 years-plus [1]	30 [4] 16/9 16/15	80-plus [1] 157/18
132/23 133/2 156/20	100 studies [1] 90/10	150/3	16/18 41/18	86 [1] 118/23
178/12 178/21 183/15	100 year [1] 70/7	200 per cent [1]	30 September [1]	88 whole-time [1]
183/19 188/2 188/4	100 years [2] 67/13	16/18	228/25	25/20
193/19 194/21 200/9	68/6	2012 [1] 60/23	30 September 2024	9
205/19 215/6 215/9	11 [1] 52/23	2016 [1] 89/1	[1] 229/3	9 November 2020 [1]
218/16 228/13	11.20 [1] 55/25	2019 [2] 29/6 56/19	32 critical [1] 16/8	224/10
MR JACOBS: [2]	11.35 [2] 55/24 56/2	2020 [51] 3/1 3/10	36 [1] 118/24	9-foot [1] 22/10
178/24 183/13	110 in [1] 25/24	8/4 16/6 25/17 25/22	4	9.23 [1] 118/22
MR PEZZANI: [3]	111 [3] 219/6 219/9	39/6 44/21 53/15	4.109 [1] 96/21	9th July 2020 [1]
193/22 194/23 200/8	219/18	53/22 57/20 59/3	4.17 pm [1] 229/1	221/1
MR STANTON: [5]	117 [1] 31/21	62/12 69/1 71/20	4.30 [1] 178/15	A
183/18 183/22 186/25	118 [1] 85/10	73/24 82/21 85/11	4.43 [1] 155/10	ability [16] 35/11
188/1 188/3	12 [1] 60/8	86/25 87/2 87/5 99/8	4.58 [1] 198/21	42/1 46/16 47/5 52/8
MR WAGNER: [2]	12 hour [1] 33/13	99/9 105/18 107/4	4.60 [1] 198/21	52/12 68/25 93/23
205/23 215/8	12.51 pm [1] 116/8	108/2 109/4 113/5	40 [3] 3/7 41/12	117/23 120/14 131/16
MS CAREY: [18]	128 [1] 52/22	114/25 117/10 118/9	41/18	147/7 149/25 189/2
1/12 1/16 14/18 25/16	13 days [1] 224/5	118/11 132/25 133/2	40 minutes [1] 32/16	207/16 226/5
49/16 56/3 56/12	13 January 2020 [1]	134/2 140/9 163/7	40 people [1] 41/19	able [48] 5/8 8/25
63/16 65/21 98/14	71/20	188/15 188/19 189/11	40-plus [2] 11/23	9/15 14/16 20/18
115/18 116/7 116/12	14 [4] 15/24 37/11	190/7 206/3 219/7	15/25	24/11 37/9 40/15
120/20 133/8 157/10	38/25 159/4	220/20 220/24 221/1	400 hours [1] 14/18	44/18 49/6 52/18 54/1
178/10 178/17	147 [1] 128/11	221/3 221/10 224/1	410237 [1] 56/14	63/22 64/21 77/7
MS HANNETT: [2]	148 [1] 128/11	224/5 224/10	44 [1] 157/11	89/20 89/25 90/2
188/6 193/18	14th July 2020 [1]	2020/2021 [1] 220/23	44 meetings [1]	91/10 98/20 116/13
MS MUNROE: [4]	220/24	2021 [17] 3/1 36/20	82/21	117/19 118/2 118/3
49/21 55/5 218/20	15 [1] 6/4	36/22 37/10 37/14	45 [1] 157/20	118/20 119/9 120/5
228/10	15 September 2021	39/22 40/1 40/11 53/9	474327 [1] 4/17	133/16 144/14 160/3
MS SEN GUPTA: [2]	[1] 120/22	53/22 89/2 117/12	49 [1] 153/22	163/2 163/9 168/19
215/13 218/14	15 years [1] 198/16	118/7 120/22 190/8	497 [1] 91/20	176/7 176/8 176/9
MS WEERERATINE:	151 [1] 39/7	190/9 220/23	4C [1] 202/24	176/11 176/18 177/2
[2] 200/12 205/17	16 March 2020 [1]	2022 [2] 85/12 122/5	4th [1] 36/16	177/22 188/11 195/15
'	134/2	2023 [3] 91/22 187/5	5	202/18 214/3 216/15
'21 [1] 39/23	162 [2] 194/15 195/7	187/10	5 January [1] 74/6	226/18 227/16 228/1
'all [1] 122/19	17 [3] 28/20 29/7	2024 [3] 1/1 91/24	5 October [1] 114/22	about [243]
'in [1] 36/2	118/25	229/3	5.58 [1] 216/3	above [5] 17/21 26/6
'QCovid' [1] 118/23	17 beds [1] 25/20	21 [1] 31/17	50 million [1] 98/19	37/21 144/14 211/12
/	17 million [1] 134/8	22 March [1] 114/12	51 [2] 145/9 153/22	abrogation [1]
/51 [1] 153/22	176 [1] 104/20	24 [1] 52/22	52 [1] 128/6	146/11
0	18 August 2020 [1]	245 meetings [1]	55 [1] 16/16	absence [4] 130/15
0080 [1] 114/5	224/1	86/25	5m [2] 8/22 8/22	203/19 204/14 227/13
0086 [1] 108/20	18 March [1] 114/8	25 square [1] 8/17	6	absent [2] 171/20
1	18-19 [1] 68/7	26 September 2024	60-plus [2] 157/18	214/8
1 August [1] 114/19	184638 [1] 216/8	[1] 1/1	157/22	absolute [3] 95/9
1 August 2020 [1]	19 [24] 6/9 50/4 55/2	26 years [2] 2/3	63 [1] 96/23	155/24 173/7
114/25	60/7 68/7 82/1 82/22	22/25	65 [2] 19/4 86/24	absolutely [23] 42/6
1 October [1] 56/19	128/13 160/8 160/16	28 March [1] 81/22	68 [1] 29/7	53/19 64/10 69/11
1 September 2020 [1]	161/24 184/4 192/6	28 transfers [1]	7	76/2 84/19 95/9 99/23
224/5	192/14 195/10 198/24	17/11	7 July [1] 23/7	102/8 106/15 111/20
1,683 healthcare [1]	199/5 200/14 216/6	286 [1] 87/1	7 May [2] 114/14	117/24 121/15 133/21
66/10	216/12 217/16 217/22	29 [1] 53/5	114/18	156/15 156/25 169/3
1.40 pm [2] 115/23	219/1 219/8	3	7/7 inquest [1] 55/22	176/8 177/18 186/12
116/10	1919 [1] 68/7	3 February 2020 [1]	70 [3] 24/19 134/19	186/21 201/17 217/8
1.7 million [3] 117/2	1999 [1] 23/6	219/7	70 critically [1] 25/24	absorb [1] 87/8
	1:1 [1] 54/16	3 January [1] 33/18		Academy [2] 220/22
	1:2 [2] 27/2 53/24	3 pm [1] 167/20		221/21
	1:3 [1] 53/3	3's [1] 84/14		
	1:4 [2] 26/24 53/3			
	1:6 [1] 9/5			

A	222/4	95/7 99/14 109/7	adviser [7] 2/6 59/21	168/10 172/13 178/4
accelerate [1] 189/1	active [2] 13/1 100/7	113/13 117/12 141/12	71/13 88/1 88/8 88/24	179/10 179/14 183/5
accelerated [3]	actual [6] 35/25	162/12 180/14 209/24	154/20	185/18 187/14 188/18
116/24 162/23 198/7	108/18 121/17 142/16	210/14 212/17 224/20	advises [1] 70/17	189/3 190/4 190/12
accept [2] 190/19	191/20 219/18	Additionally [1]	advocate [4] 43/25	192/12 196/9 201/8
192/6	actuality [1] 24/3	225/6	44/3 44/16 148/9	203/18 204/7 204/8
acceptable [1] 17/6	actually [107] 5/4 8/9	additions [2] 109/15	aeroplane [1] 51/14	217/7 217/17 227/9
accepted [6] 111/10	9/5 10/7 18/13 26/10	114/16	aerosol [9] 138/2	agreed [6] 67/2 75/14
188/14 192/8 192/9	31/4 34/10 37/7 41/7	address [4] 163/11	138/7 138/18 139/3	140/19 155/20 211/19
192/12 204/25	42/16 44/15 54/14	179/12 180/5 181/21	139/7 139/20 145/2	211/24
accepting [1] 207/5	57/5 57/25 58/11	addressed [1]	168/11 169/25	agreeing [1] 196/16
access [8] 76/6	61/23 65/1 66/3 70/17	189/21	aerosol-generating	agreement [1]
206/19 214/9 214/9	73/14 76/6 76/14	addresses [2] 203/7	[2] 145/2 169/25	179/25
219/23 219/24 220/3	76/21 80/14 81/1	203/23	aerosols [2] 144/24	ahead [1] 90/4
227/21	81/12 82/12 84/8 94/3	addressing [1]	170/1	aim [8] 13/7 53/16
accessing [1] 227/12	94/22 97/12 98/6	203/24	affect [1] 204/15	62/20 63/24 64/1
accord [2] 59/23	98/17 103/16 105/24	adequacy [1] 50/17	affected [4] 73/4	116/18 124/8 224/25
133/5	109/25 112/9 113/2	adequate [1] 143/13	99/25 193/3 199/8	aimed [1] 207/3
accordance [1]	113/22 116/2 117/19	adhere [1] 196/11	affinity [1] 167/14	aiming [2] 159/24
135/3	120/7 121/19 124/22	adjourned [1] 229/2	affirmed [1] 25/13	160/5
according [2] 117/9	125/4 127/13 127/16	adjournment [1]	affluent [2] 199/1	aims [3] 207/15
201/3	129/12 129/19 129/20	116/9	199/21	209/18 209/21
account [6] 4/13	130/12 131/11 132/16	administrative [1]	afford [1] 211/15	air [7] 1/23 2/14 2/15
33/22 37/24 187/8	133/14 133/17 138/19	3/2	afraid [5] 94/24 116/3	8/13 55/20 210/3
192/7 196/8	139/6 140/20 142/5	administratively [1]	157/23 159/14 161/20	210/15
accounts [4] 17/23	144/18 146/2 146/16	41/18	after [32] 3/3 10/11	airborne [10] 81/24
18/2 24/23 24/23	148/25 149/3 152/7	Admiral [1] 100/13	19/13 19/17 19/24	82/1 82/10 84/2 138/2
accreditation [1] 2/1	155/10 158/6 162/25	admissions [1] 6/9	21/16 24/22 27/13	138/4 138/7 140/8
accrue [2] 76/5	164/13 165/1 167/5	admit [2] 19/19 19/23	28/9 31/13 33/9 36/24	210/1 214/15
206/19	167/11 167/14 168/4	admitted [2] 7/20	37/3 37/9 40/14 44/18	airline [1] 51/14
accruing [1] 126/3	170/10 172/10 172/13	29/17	48/5 49/11 49/13 57/5	alarming [1] 7/24
accurate [9] 13/24	172/25 175/16 175/21	adolescent [2] 194/1	59/11 88/7 97/4 97/6	alarms [4] 7/23 9/23
57/19 116/17 116/19	177/14 179/17 179/22	198/3	97/22 105/21 139/6	9/24 28/14
118/4 120/17 187/4	180/23 182/9 185/8	adopt [1] 85/14	139/9 178/13 189/21	albeit [1] 176/15
207/19 209/8	186/5 186/23 191/3	adrenaline [1] 18/10	194/4 225/10	alert [5] 115/24 155/9
accurately [2] 112/15	191/5 193/8 195/23	adult [2] 27/5 119/1	afternoon [7] 7/4	156/22 219/6 219/10
209/16	198/2 198/12 209/5	adults [5] 175/25	155/11 156/1 178/11	alerts [1] 155/19
achievable [1]	210/25 216/17 217/23	190/3 206/6 207/10	183/22 193/22 218/25	algorithms [1]
179/23	218/2 220/10 223/3	207/12	afternoon's [1] 9/11	219/18
achieve [2] 124/8	224/24 225/14 226/9	advance [11] 95/15	afterwards [3] 12/9	alien [1] 167/15
224/24	227/20 228/6	112/18 112/23 133/9	20/22 125/3	alignment [1] 203/14
achieved [2] 19/1	actuarial [1] 94/25	181/18 182/3 195/25	again [30] 29/16	all [104] 3/1 3/9 9/12
64/1	acute [5] 10/14 154/2	200/25 201/12 201/13	29/17 29/23 32/11	9/23 11/5 11/15 12/8
acknowledge [3]	154/3 155/10 192/14	201/18	34/6 36/11 36/17 48/2	12/18 16/1 19/24
117/16 148/11 187/16	acutely [1] 158/23	advanced [1] 20/10	56/7 56/7 67/20 91/2	23/10 24/22 26/20
acknowledged [4]	ad [2] 7/25 9/4	advantage [5] 60/11	113/11 117/21 131/3	26/20 29/9 30/21
138/3 140/7 189/4	ad hoc [1] 9/4	60/12 75/25 76/2 89/9	131/18 132/1 139/7	32/22 34/19 34/24
221/25	adage [1] 50/24	advantages [4]	141/21 157/21 157/23	35/1 35/13 37/22 41/7
acknowledgement	Adam [1] 205/23	123/13 204/23 204/24	157/24 174/23 196/4	41/13 41/21 43/21
[2] 44/10 214/14	Adam Wagner [1]	224/18	206/23 208/25 214/19	46/9 46/11 46/15
acknowledging [1]	205/23	advice [28] 60/21	228/15 228/19 228/23	49/16 49/19 51/22
180/16	add [6] 15/13 15/21	61/13 61/16 61/24	against [4] 80/9	55/16 59/3 59/20 60/1
acquired [2] 128/15	51/2 71/14 113/20	62/6 80/22 84/21	173/2 201/23 207/17	63/9 63/9 64/25 66/6
221/14	212/17	103/12 106/12 122/22	age [4] 103/4 134/13	71/7 71/18 73/3 73/10
across [15] 2/22 16/2	added [10] 15/11	126/6 126/12 135/25	158/17 158/25	75/16 76/3 78/1 78/23
66/8 86/13 87/7 87/14	102/9 112/3 112/17	143/6 143/12 144/3	ago [2] 65/22 145/19	82/14 82/15 82/17
93/11 120/20 134/18	113/9 117/2 117/7	168/14 202/18 209/1	AGP [3] 78/23 167/23	83/13 83/16 83/19
136/13 153/3 156/16	117/10 117/12 120/21	209/5 209/8 214/13	170/3	84/11 85/17 85/22
175/11 175/12 224/21	adding [2] 94/2	219/6 219/11 219/12	AGPs [4] 78/6 78/7	86/8 88/15 90/1 91/8
Act [1] 60/23	112/25	219/16 219/22 220/19	167/21 169/24	91/16 95/11 100/12
acted [1] 94/1	addition [5] 11/14	advise [3] 105/2	agree [32] 57/25 78/9	103/14 103/17 108/23
action [1] 74/11	112/5 118/7 176/19	106/16 222/10	78/17 91/21 114/8	111/11 113/3 115/8
actions [2] 35/4	227/23	advised [4] 70/19	129/4 138/5 138/6	118/19 119/17 134/22
	additional [13] 75/7	124/16 144/1 219/7	142/24 150/21 155/22	135/16 140/16 141/10

A	220/2 222/8	118/1 120/9 124/11	83/15 86/17 141/9	118/1 118/2 125/12
all... [28] 141/19	alternative [3] 68/17	126/20 148/15 152/3	145/25	135/20 138/15 146/1
146/10 147/7 149/22	68/18 118/16	164/11 170/18 184/25	anything [17] 18/5	146/7 146/13 146/25
151/24 152/17 153/14	although [16] 43/6	207/17 221/18	18/18 21/14 23/3 45/5	150/16 159/18 164/14
153/14 156/25 157/9	58/21 59/17 60/5	answer [44] 62/8	83/19 85/12 88/15	170/6 170/18 180/17
158/6 164/12 172/20	71/19 83/9 92/18	62/24 63/24 104/16	95/4 104/10 133/12	196/15 197/22 202/11
177/15 179/6 179/24	95/18 98/25 106/7	106/13 128/1 137/2	137/8 173/18 201/21	202/12 202/17 212/7
180/13 191/6 197/10	114/20 123/12 146/10	138/24 141/1 142/13	201/22 202/9 214/6	212/12 212/12 217/12
201/16 206/16 209/1	174/3 211/3 225/25	143/22 144/11 144/13	anyway [1] 52/18	220/12 228/2
211/3 222/17 224/8	altogether [1] 165/24	145/12 151/2 151/2	anywhere [3] 64/12	areas [39] 8/1 8/14
224/9 225/23 228/16	altruistic [1] 175/23	152/24 160/3 160/5	65/17 90/18	8/15 9/4 9/12 9/16
allied [3] 12/16 12/25	always [7] 30/14	160/10 161/6 161/18	apart [6] 43/21 45/18	27/9 47/12 48/21
31/17	41/22 68/23 79/6	162/3 162/14 163/3	47/18 101/12 162/13	72/25 76/4 76/17 78/8
Allison [2] 50/3 219/1	79/23 131/10 177/13	170/12 173/12 180/20	164/25	78/24 79/3 87/14
Allison Munroe [2]	am [27] 1/2 1/17 15/6	182/3 184/10 184/12	apologies [3] 56/7	96/18 114/23 115/6
50/3 219/1	41/19 55/22 55/24	186/10 190/22 191/25	63/15 190/22	115/12 119/8 125/19
allow [7] 13/17	55/25 56/2 61/20	192/1 205/10 205/11	appalling [1] 172/13	129/18 137/11 154/22
151/15 153/10 187/20	97/19 122/23 122/24	207/19 209/18 210/6	apparent [2] 57/16	195/20 196/16 197/4
187/21 206/10 220/3	129/19 137/19 139/22	217/17 222/10 227/1	158/4	199/1 199/13 199/21
allowed [3] 30/25	173/19 174/22 187/24	227/16	appear [4] 61/5	199/23 200/4 201/19
226/6 226/7	189/4 196/16 201/12	answered [2] 49/24	183/22 188/6 211/15	204/25 217/24 223/10
allowing [1] 142/23	202/14 212/11 225/19	220/16	appeared [3] 4/20	223/11 226/7
almost [12] 39/5 67/2	225/20 228/25 229/2	answering [2] 162/5	123/24 148/23	arguably [5] 47/4
71/7 82/12 89/17 90/1	ambiguity [1] 136/18	184/7	appears [3] 135/14	95/3 102/9 116/22
102/23 107/12 121/5	ambulance [4] 1/23	answers [4] 66/2	150/4 187/4	162/18
138/21 153/21 166/19	28/12 47/14 55/21	151/21 174/15 217/11	applied [2] 87/19	argument [8] 70/5
alone [9] 10/9 20/1	ameliorate [1] 45/6	anticipate [2] 175/6	201/1	70/6 138/22 140/4
20/1 24/25 25/5 34/4	ameliorated [1]	200/3	appreciable [1] 59/4	142/22 144/10 144/15
41/23 47/1 225/24	188/20	anticipated [3] 90/21	appreciate [4] 66/8	214/2
along [4] 56/6 88/6	amending [1] 152/20	90/22 92/3	137/16 149/25 228/10	arguments [6] 70/4
176/23 187/6	amendment [1]	anxiety [3] 194/19	appreciated [1]	70/8 95/10 95/15
Alongside [1] 87/15	220/25	195/3 199/25	58/12	207/2 214/1
Alpha [1] 57/5	among [5] 29/19	any [89] 12/22 14/21	approach [8] 131/17	arising [3] 50/13
already [21] 6/13 8/1	83/22 85/5 146/20	14/21 15/6 15/10	132/2 168/18 173/3	197/15 219/3
8/2 9/2 9/14 10/24	207/12	17/12 18/19 21/5 23/3	174/4 205/7 205/13	arose [1] 49/4
15/14 23/21 53/3	amongst [7] 153/13	38/1 38/24 39/21	225/5	around [24] 2/25
57/13 61/10 89/7	167/24 174/11 174/12	40/16 42/13 42/13	approaches [3] 76/7	6/23 9/12 32/21 34/12
113/14 118/14 133/23	175/25 203/7 224/25	44/1 58/9 59/4 62/8	201/9 201/23	38/17 76/11 87/10
137/25 158/10 161/8	amount [4] 88/10	63/23 67/4 69/2 69/8	appropriate [10]	87/12 99/7 107/7
176/17 176/20 177/25	88/15 95/23 222/15	69/18 69/25 71/13	131/18 171/25 172/1	111/15 169/2 169/14
also [72] 1/6 1/22	amounts [2] 90/13	72/1 77/8 80/11 82/9	174/2 191/24 193/3	181/16 181/17 200/21
2/10 11/9 13/1 21/4	170/3	82/23 83/11 84/21	197/10 203/23 212/15	206/9 206/11 208/10
28/6 34/21 34/21 36/5	amplifying [1] 179/25	91/8 93/16 93/17	220/4	216/18 222/2 222/16
55/18 55/20 61/9	anaesthesia [1] 2/2	93/24 95/10 95/15	appropriately [1]	225/7
65/24 76/6 76/14	anaesthetic [2] 5/7	103/5 103/12 103/23	130/24	arrest [3] 3/25 32/14
76/24 77/10 77/18	31/18	105/19 106/12 106/16	appropriateness [1]	33/11
91/5 92/22 99/25	anaesthetist [2] 1/19	107/15 111/18 112/4	227/6	arresting [1] 33/4
100/11 107/9 109/24	5/15	115/9 121/10 135/5	approving [1] 152/20	arthritis [1] 128/14
113/19 119/25 126/1	analysis [2] 130/3	138/7 138/10 139/19	approximately [1]	as [273]
126/2 127/24 141/12	130/23	139/25 140/24 150/11	134/8	as acknowledgement
141/16 141/17 141/18	analytical [1] 130/5	152/19 163/10 166/14	approximation [1]	[1] 44/10
154/25 155/3 155/4	anecdotal [4] 14/4	167/5 167/20 170/24	112/13	Asian [7] 7/7 103/22
156/17 157/8 158/7	14/12 36/1 43/12	171/22 175/6 182/12	April [3] 8/4 87/5	104/11 159/22 160/20
159/23 159/24 160/10	angry [2] 41/7 122/23	184/21 188/15 190/8	113/5	160/22 161/2
161/6 163/21 164/1	announced [2]	192/7 196/15 197/3	April 2020 [2] 8/4	aside [2] 32/20
164/25 166/24 168/14	114/11 122/19	200/5 201/19 201/20	87/5	144/16
169/6 179/10 181/2	announcement [1]	202/9 202/18 204/11	arbiter [1] 148/2	ask [73] 2/9 2/16
183/9 186/22 187/15	114/17	204/11 204/20 205/14	architecture [1]	4/16 6/3 13/5 15/8
191/12 192/8 203/11	annual [1] 210/16	207/22 211/20 213/11	70/16	16/1 16/1 19/3 25/16
203/13 207/13 210/12	another [26] 2/13	214/11 216/9 217/6	are [288]	31/20 33/15 33/17
210/13 210/13 210/14	5/12 9/22 11/21 13/13	219/19 223/16	area [39] 7/5 7/25	37/10 41/10 41/12
210/23 211/18 211/19	21/22 22/5 22/8 32/5	anybody [2] 80/12	27/1 71/8 74/21 79/3	52/7 62/14 63/13
212/3 219/10 219/24	33/11 36/20 40/23	91/7	79/10 79/11 81/6 82/8	65/21 66/2 70/12
	66/23 86/11 97/5	anyone [5] 76/16	87/13 99/23 107/15	79/21 81/20 83/19

A	151/9 152/4 223/21 224/1 224/9 224/12 224/13 224/15 224/19 225/23	138/23 222/24 awful [1] 49/9	110/23 111/8 139/12 150/19 154/19 154/25 163/1 181/11 181/11 190/25 191/19 201/2 201/3 201/25 206/14 208/7 208/16	32/16 34/14 34/15 34/16 35/6 37/22 39/4 47/19 49/24 52/18 53/1 55/21 57/13 59/2 65/18 66/15 67/11 71/1 74/10 77/2 82/8 83/1 84/11 88/18 88/19 94/3 95/17 100/2 101/23 102/16 106/10 112/1 112/7 116/1 116/22 117/15 118/20 119/24 121/11 121/25 122/6 122/18 123/8 124/3 124/12 125/10 127/3 128/25 139/6 140/10 143/18 144/6 145/6 145/19 148/20 151/18 156/10 156/17 168/10 169/18 169/19 171/15 171/18 174/2 174/11 174/14 175/7 176/7 176/8 176/9 176/11 177/8 177/10 177/11 182/12 187/19 188/10 190/8 192/12 192/21 193/14 196/6 198/7 198/12 200/4 201/19 202/13 203/12 208/3 208/13 209/23 210/4 213/11 216/14 216/15 217/17 217/21 218/1 218/21 219/8 219/12 221/9 221/15 223/4 225/1 225/2 225/2 225/15 225/24 226/14 227/2 227/4 227/10 228/7 228/18
ask... [48] 86/22 87/3 88/8 88/22 89/6 91/16 94/11 100/18 103/19 104/18 108/11 115/25 116/5 119/15 120/22 122/1 124/9 125/14 125/15 126/9 126/15 128/3 129/4 135/1 138/1 142/14 147/5 157/10 157/15 159/3 159/25 160/3 163/6 164/7 166/10 166/11 167/21 184/7 193/22 196/20 200/14 202/4 205/24 205/25 216/2 217/13 218/21 228/23	asymptotically [1] 151/7 at [282] at 176 [1] 104/20 at-risk [1] 108/2 Atherton [1] 203/22 attack [2] 7/16 176/13 attacks [2] 7/17 175/5 attempt [1] 227/21 attempts [2] 68/21 126/7 attended [2] 23/7 82/24 attention [4] 20/16 45/19 48/17 82/5 attribute [1] 14/8 audience [1] 176/15 August [6] 85/11 89/2 114/19 114/25 206/3 224/1 August 2020 [2] 85/11 206/3 August 2021 [1] 89/2 authorities [1] 122/25 authority [1] 167/16 automatically [1] 167/16 autumn [9] 16/10 18/1 29/13 53/21 133/2 189/11 220/20 221/3 224/7 autumn/winter [1] 220/20 available [17] 6/21 14/11 42/22 54/21 76/7 101/18 102/16 105/8 105/14 123/6 144/5 144/7 144/15 147/10 186/12 197/9 225/6 average [1] 7/20 avoid [5] 128/18 139/17 156/13 156/15 179/19 avoidable [1] 188/23 avoids [1] 184/2 aware [24] 3/16 6/12 14/21 15/6 72/19 75/13 83/17 86/12 89/18 97/19 102/21 102/23 103/5 103/20 128/7 158/10 163/22 189/6 189/6 201/4 204/19 219/19 221/24 222/12 away [7] 10/3 22/14 29/7 80/1 80/12	back [36] 12/7 13/22 14/1 19/6 28/23 34/24 41/10 41/12 68/7 80/17 85/13 90/16 90/17 90/18 90/21 93/10 98/16 112/24 118/9 119/15 119/16 123/13 125/22 143/4 145/18 147/23 148/6 153/16 183/20 186/13 187/22 198/11 209/22 213/14 214/7 227/8 background [7] 56/17 56/21 61/24 103/22 138/17 198/5 211/5 backwards [1] 64/2 bad [10] 22/8 23/10 34/18 39/4 94/15 94/16 96/1 161/9 166/18 172/13 badly [1] 37/22 bags [4] 22/2 22/4 22/10 42/24 balance [7] 95/3 115/17 142/11 142/12 174/18 174/20 174/22 balanced [1] 207/17 ballistic [1] 138/25 BAME [9] 104/3 160/7 161/14 161/25 164/9 164/13 165/11 165/14 166/16 band [1] 39/14 Bangladeshi [1] 159/23 bank [1] 176/23 barely [1] 18/3 Barr [2] 92/25 97/4 barrier [4] 76/21 141/12 141/18 149/2 barriers [1] 120/12 Barrington [3] 95/11 132/2 132/23 base [6] 123/14 150/22 155/4 189/2 213/8 215/3 based [15] 102/5 105/22 110/15 110/17 110/18 114/2 116/19 118/5 118/19 119/22 135/23 136/5 138/25 172/14 213/4 baseline [5] 6/9 6/18 8/1 25/19 37/20 basic [6] 3/21 3/25 4/7 4/11 4/25 133/3 basically [4] 25/13 130/12 196/16 196/23 basis [18] 10/15	bays [1] 28/4 BBC [1] 166/21 be [296] bear [5] 94/19 137/24 163/10 176/21 200/19 bearing [1] 77/8 became [9] 11/3 56/18 80/21 102/21 116/22 139/20 154/23 158/4 170/23 because [105] 6/20 14/4 16/19 16/20 18/8 22/6 22/12 23/13 24/10 27/5 27/16 30/20 33/3 33/14 34/16 37/3 37/4 39/13 48/3 59/9 61/18 65/21 68/2 68/6 70/22 76/21 81/3 85/7 89/20 90/9 94/8 94/13 95/13 95/21 99/4 99/15 99/24 100/16 101/8 101/13 104/14 105/7 107/5 110/10 111/21 114/22 115/15 117/17 118/13 119/23 121/1 122/1 125/10 126/14 127/16 127/21 129/19 131/8 132/4 135/25 138/1 141/8 141/25 143/12 144/7 144/11 145/13 146/2 148/6 150/10 152/24 160/1 163/1 163/13 164/4 164/7 165/8 166/2 167/9 168/3 170/10 171/5 171/11 173/9 174/9 175/16 184/16 186/17 189/6 191/6 191/20 193/7 195/24 196/5 203/21 204/12 210/7 213/10 216/13 216/25 217/14 217/25 223/9 225/14 228/2 become [3] 62/16 158/23 225/10 bed [12] 6/21 6/21 8/16 16/20 20/2 20/4 22/5 22/6 50/16 51/6 51/12 67/25 beds [11] 6/19 8/23 10/1 16/8 16/12 16/15 16/18 25/20 37/20 50/25 69/14 been [128] 2/3 2/8 5/10 7/14 7/15 8/25 15/23 17/16 18/8 18/14 26/9 29/12 32/8	before [24] 18/8 21/14 28/13 37/6 38/5 42/21 50/22 71/1 80/5 95/22 99/2 107/22 111/2 125/18 156/15 158/11 168/2 186/6 194/12 198/5 198/11 199/15 200/5 226/15 beg [1] 38/14 Beggs [2] 211/10 211/22 Beggs' [1] 169/23 beginning [14] 18/1 57/3 79/15 85/16 94/21 95/5 95/22 104/16 112/7 139/25 144/7 148/3 169/19 177/13 begins [1] 224/10 begs [2] 117/13 169/18 begun [1] 91/1 behalf [8] 50/5 55/6 178/25 183/22 184/24 188/6 193/23 200/14 behaving [1] 59/5

B	225/4	blows [1] 95/9	building [1] 32/6	69/14 69/19 70/6
behaviours [1] 93/17	between [51] 5/3	board [1] 224/21	buildings [4] 210/3	70/10 70/12 71/6 71/7
behind [5] 30/3	5/22 8/14 8/24 9/1	bodies [3] 22/14	210/10 210/18 211/3	74/16 74/20 75/9
174/16 182/25 219/18	10/6 13/21 18/22	169/14 172/6	built [2] 30/19 89/7	75/24 76/4 76/11
220/14	18/23 20/25 42/16	body [8] 22/2 22/4	bullet [1] 108/22	76/12 76/20 79/19
being [62] 10/7 20/18	45/16 46/12 50/14	22/9 42/24 153/4	bunch [1] 130/1	81/18 81/21 86/21
22/12 23/23 27/14	52/3 53/15 58/10 70/5	153/5 168/15 202/9	bundle [2] 122/3	88/8 91/21 92/25
28/21 30/19 35/21	76/21 82/13 82/20	bombing [1] 23/5	168/8	95/12 95/16 96/2 96/5
38/5 40/25 46/14	85/11 86/24 87/2 87/2	bombings [1] 23/7	burden [3] 15/11	97/13 97/20 98/17
50/12 51/7 51/24 52/4	104/2 114/16 137/17	boot [1] 38/9	15/22 40/4	99/20 100/18 102/20
52/4 62/7 62/12 63/4	140/20 141/12 141/18	both [32] 36/11 46/2	burgeoning [1] 36/14	104/18 105/4 105/4
63/8 75/21 77/17	146/15 148/22 148/23	61/21 62/21 63/11	bursting [1] 27/11	106/4 106/16 106/16
78/13 85/7 109/21	149/2 149/3 150/3	72/8 75/14 80/14 85/8	businesses [1]	107/21 108/12 112/13
114/25 115/2 115/4	153/2 160/17 161/16	86/2 87/8 87/9 87/16	151/16	113/6 114/3 114/13
115/7 117/2 117/19	171/14 174/18 177/21	98/12 98/14 99/14	busy [2] 37/8 122/13	115/13 115/24 118/4
121/7 131/11 135/4	182/18 183/11 190/14	101/18 108/4 124/22	but [340]	118/4 120/16 120/16
135/8 136/20 143/13	195/23 196/20 203/2	127/4 136/15 140/4	buttoned [2] 42/22	121/1 121/15 122/4
146/15 147/16 152/20	209/18 209/21	140/16 149/1 155/2	43/4	124/9 126/9 127/25
155/16 157/13 160/13	beyond [7] 35/14	158/25 164/2 168/6	buy [2] 69/14 69/14	128/3 129/4 130/2
160/16 160/19 162/21	40/16 52/16 76/10	190/2 207/3 208/1		130/3 132/3 132/6
162/23 163/2 181/1	163/5 180/12 225/24	214/2	C	133/12 133/25 135/1
185/7 198/23 208/15	bias [1] 130/5	bottom [2] 81/25	cabinet [4] 35/14	135/11 139/9 139/19
208/21 216/5 216/11	biases [1] 130/4	168/22	87/1 88/4 88/13	141/15 141/16 143/16
217/14 217/21 222/1	big [11] 40/25 59/8	bought [1] 41/6	cable [1] 22/11	143/21 144/18 147/21
222/24 225/14 226/24	60/10 60/12 68/7	bougie [2] 4/2 4/3	cagoules [1] 41/5	148/7 149/8 152/23
228/1	117/18 143/14 147/16	bougies [1] 4/1	call [18] 17/8 26/12	153/13 153/19 155/15
belief [1] 42/6	148/25 195/22 196/23	bound [1] 84/17	30/12 33/16 34/7 38/6	156/5 157/6 157/11
believe [4] 106/3	bigger [2] 24/7	brackets [1] 157/18	38/7 38/8 56/3 80/14	158/11 159/3 160/2
106/21 141/9 187/17	175/10	brain [1] 169/8	108/18 109/8 122/4	160/3 160/5 160/5
belittle [1] 217/6	biggest [8] 49/2	break [9] 27/6 49/19	145/9 148/7 153/22	161/19 162/2 162/14
belong [1] 119/14	67/12 158/5 167/8	56/1 107/23 125/19	159/3 183/2	162/20 163/5 163/6
below [2] 65/7 66/17	167/24 176/25 222/16	146/25 178/11 178/13	called [11] 2/17	164/4 164/7 164/16
beneficial [3] 76/6	225/18	178/19	28/19 28/23 101/4	164/25 165/1 165/7
126/19 178/2	bilateral [1] 86/8	breath [1] 27/15	102/25 110/19 125/17	166/14 167/10 167/21
benefit [12] 78/3 98/8	binary [1] 64/22	breathe [1] 4/5	130/1 130/4 150/17	172/4 172/10 172/25
100/1 106/24 110/10	biological [4] 163/1	brief [1] 98/20	173/15	173/13 180/3 180/13
110/13 115/10 115/15	164/3 191/2 191/19	briefly [3] 116/14	calling [1] 26/11	180/17 180/21 181/8
126/2 206/20 210/14	biologically [3]	152/13 167/21	calls [3] 27/20 190/7	182/15 184/17 186/18
214/11	101/16 104/12 161/7	Brightling [2] 189/25	190/15	189/23 196/19 199/24
benefits [4] 75/8	biology [2] 99/15	190/10	came [28] 10/3 14/15	202/19 206/10 210/22
121/8 206/16 212/19	191/10	brilliant [1] 55/23	19/10 34/23 49/5	216/18 217/16 222/10
bereaved [5] 50/4	bit [26] 70/16 87/20	bring [2] 85/13	53/21 80/22 85/18	225/19 226/23 228/21
200/14 203/1 219/1	88/6 92/10 92/20	216/25	85/18 86/5 88/6 90/7	can't [20] 33/5 33/6
221/5	94/20 101/12 118/20	Bringing [1] 51/22	98/23 111/12 111/13	40/13 40/15 40/16
bereavement [1]	122/15 127/5 127/10	brings [1] 145/18	115/9 120/4 121/3	94/7 111/20 121/2
187/9	130/25 137/12 141/14	British [9] 159/23	129/16 135/21 146/23	126/5 129/2 133/1
best [16] 8/11 10/20	146/11 152/17 152/23	159/23 160/14 160/25	155/12 163/6 165/17	146/21 146/24 148/14
23/20 33/24 35/3 35/4	156/9 158/15 158/15	161/2 168/9 183/23	175/4 185/11 185/23	150/5 173/17 189/16
52/10 54/24 93/22	175/10 184/23 192/22	187/5 187/10	202/1	189/16 205/4 228/19
124/19 124/21 131/15	200/18 216/14 227/15	broad [6] 67/21	can [177] 3/13 6/3	cancers [1] 108/24
207/16 222/14 224/3	bits [11] 29/11 64/15	114/2 118/6 119/3	6/11 8/6 9/8 11/7 14/1	cannot [4] 49/14 66/8
228/21	120/3 121/19 142/1	195/14 199/13	14/8 14/10 15/8 16/3	124/2 130/4
better [34] 9/15	142/2 162/15 162/16	broadened [2] 155/3	16/4 22/24 25/11	capabilities [3] 197/6
10/12 18/7 18/7 18/10	162/19 164/19 217/5	155/3	25/12 25/16 27/24	197/11 197/14
36/1 48/16 48/17 70/7	black [5] 7/7 103/21	broader [2] 182/7	30/14 30/15 31/8	capability [3] 195/23
83/14 95/22 106/16	104/10 160/18 160/25	182/14	31/20 33/14 37/10	196/20 196/22
111/11 113/18 114/1	Blackburn [1] 114/21	broadly [5] 68/1	38/19 39/7 41/10	capable [2] 32/3
124/22 143/19 145/19	Blackwood [1]	98/23 162/20 195/7	42/15 43/8 45/5 46/7	148/1
147/3 154/4 157/2	125/21	199/9	49/18 49/21 49/25	capacities [1] 85/23
164/2 164/12 167/7	blanket [5] 51/18	broken [2] 40/12	50/21 50/22 50/23	capacity [49] 2/11
179/24 185/22 187/21	201/2 201/9 201/17	40/13	51/22 52/9 54/22	6/1 6/10 6/18 9/3
193/11 196/15 210/2	201/23	broker [1] 100/13	59/22 60/13 62/10	14/11 16/9 16/19
223/9 223/12 225/3	Blitz [1] 49/5	brought [3] 40/2	62/14 67/9 67/21 68/2	22/18 24/5 25/20 27/2
	block [1] 137/14	154/12 163/10	68/10 69/14 69/14	29/6 33/7 33/7 37/20

C	carry [1] 95/13	97/5 106/10 107/21	190/3 194/13 195/4	11/7 11/10 19/13
capacity... [33] 37/25	cars [1] 40/9	115/21 118/10 118/17	197/16 198/18 199/12	20/24 22/10 23/14
40/2 45/9 45/9 45/10	CAS [3] 155/9 155/18	130/20 139/23 143/9	206/3 206/5 206/7	23/15 48/19 51/17
51/22 51/24 52/6	219/6	143/10 148/19 149/22	206/12 206/14 207/4	53/5 53/14 57/16
52/17 53/20 54/8	case [14] 17/7 65/20	150/12 169/6 175/24	207/5 208/18	61/17 62/4 62/7 74/20
54/10 54/10 65/8	67/11 92/19 95/14	178/12 189/19 201/21	children's [1] 207/9	76/24 79/17 82/7
66/18 67/24 68/10	102/25 152/7 156/7	205/14 214/2 214/18	chime [1] 106/13	82/15 82/18 93/25
68/11 70/9 90/14 91/9	158/16 158/22 166/1	218/12 219/19	China [5] 72/5 73/9	102/4 104/5 104/13
113/24 147/21 147/22	200/6 200/7 226/22	certainty [2] 68/4	74/1 147/15 219/13	121/4 127/10 129/11
171/6 184/16 185/9	caseload [1] 37/7	170/2	Chinese [3] 110/25	136/5 146/8 146/10
195/21 197/22 220/18	cases [10] 24/19	CEV [8] 108/17 112/5	158/8 160/14	146/13 148/3 150/22
221/11 225/25 226/19	37/4 76/10 101/1	114/15 117/7 122/8	choice [13] 68/13	156/18 161/15 182/23
capture [2] 21/12	102/24 109/7 127/24	128/16 133/8 227/12	68/13 68/14 68/14	185/7 186/4 193/1
166/9	147/10 223/9 223/15	chair [6] 63/15 70/23	120/13 124/1 135/16	195/22 198/9 200/2
captured [3] 4/15	cast [2] 102/8 128/18	70/24 71/1 87/16	144/22 185/5 208/8	200/23 201/7 201/12
47/25 126/5	cast-iron [1] 102/8	121/15	213/15 214/5 227/18	201/16 201/24 202/10
car [1] 26/15	catastrophic [1]	chaired [2] 153/2	choose [3] 102/18	202/14 204/17 210/2
cardiac [3] 3/25	64/10	154/15	124/1 127/1	214/21 220/14 225/3
32/24 33/11	catching [1] 74/12	challenge [6] 19/18	chose [2] 121/5	227/4
cardiopulmonary [1]	catchment [1] 7/5	47/18 157/7 168/14	208/5	clearer [3] 80/21
3/24	categories [5] 109/8	168/15 168/19	chosen [3] 27/3 27/4	101/23 181/14
care [99] 1/7 2/2 2/12	111/17 215/16 216/9	challenged [1] 53/25	131/14	clearly [28] 30/10
2/18 5/7 5/14 5/15	217/18	challenges [1] 80/7	Chris [5] 33/23 34/1	54/11 65/7 74/14
6/10 7/13 7/20 7/25	categorisations [1]	challenging [2]	34/11 35/10 178/25	74/21 99/24 101/21
8/1 8/11 8/16 9/3 9/6	118/6	106/12 220/23	Chris Moran [1]	102/17 103/20 106/15
12/19 16/8 16/21 17/6	category [4] 118/14	chance [5] 92/13	35/10	111/17 113/11 115/12
19/15 20/14 20/15	134/5 134/6 199/14	159/18 186/24 191/21	Christmas [1] 57/20	123/20 124/7 135/3
21/13 21/15 23/13	cause [3] 76/20	191/22	Christmas/New Year	136/14 141/1 142/5
23/18 23/20 23/21	178/7 191/20	chances [1] 197/24	[1] 57/20	145/15 147/3 150/8
23/23 26/23 26/24	caused [6] 55/1	change [4] 43/15	Christopher [4] 56/4	162/12 162/16 165/8
27/7 27/8 27/12 27/23	147/18 169/20 169/21	93/20 198/12 213/14	56/5 56/13 230/8	185/13 187/2 195/19
27/25 28/2 28/5 28/7	192/24 198/6	changed [6] 52/3	chronic [5] 97/3	client [1] 179/9
30/1 30/13 30/13	causes [1] 138/9	58/21 60/24 102/11	97/15 97/15 101/3	clients [1] 187/23
32/21 37/7 40/5 44/23	cautious [5] 94/21	102/15 220/10	192/11	clients' [1] 215/16
47/13 47/15 47/16	158/15 197/21 212/18	changes [1] 80/10	chronically [1]	cliff [3] 207/24 208/7
48/25 49/5 49/6 49/7	222/12	changing [1] 80/8	158/23	208/8
49/13 49/14 49/14	caveat [6] 67/6 81/9	channels [3] 86/18	circuit [1] 46/8	clinical [25] 2/6 2/11
51/6 52/6 52/7 52/10	107/18 185/13 194/5	167/4 167/6	circulated [1] 174/11	2/11 6/15 12/22 12/24
54/17 54/22 55/3	194/8	chaos [1] 156/1	circulating [1] 72/5	19/12 20/17 23/4
65/23 66/1 66/12	caveated [2] 129/11	chapter [2] 104/22	circumstance [1]	52/25 53/2 60/21 85/9
66/15 66/19 75/3	130/24	228/1	172/11	85/24 89/12 99/5
87/25 88/2 88/12	caveats [1] 136/2	charities [2] 172/25	circumstances [15]	150/15 161/4 170/21
113/4 127/22 142/7	ceased [1] 3/2	174/12	67/10 70/18 73/23	190/2 192/20 200/22
148/19 162/22 170/22	ceilings [1] 200/23	charity [2] 1/23	77/15 79/5 120/11	202/23 215/17 215/23
171/5 172/5 173/11	cell [4] 80/4 80/21	193/23	126/1 141/17 149/15	clinically [31] 13/1
181/13 185/9 200/17	152/12 152/15	check [5] 48/6 82/1	151/24 151/24 151/25	108/4 108/5 108/12
200/23 200/25 201/12	cell's [1] 152/21	86/15 153/25 206/10	174/5 174/7 201/22	108/15 109/10 109/16
201/18 203/10 203/13	cent [2] 16/18 67/8	chief [23] 26/18	cited [1] 152/20	109/19 109/21 112/22
204/4 204/20 219/23	central [5] 48/14 83/6	26/19 26/19 28/15	civilian [1] 23/8	112/25 122/6 132/13
219/24 220/4 223/10	86/16 113/25 177/18	41/5 56/18 59/19 60/3	claim [1] 180/18	133/24 134/7 134/25
225/13 226/6	centralised [2] 89/23	60/24 87/17 88/24	clarification [2]	135/7 179/16 205/24
cared [4] 44/12 46/25	89/25	126/10 154/20 155/1	218/24 219/4	206/5 206/6 206/13
76/3 97/18	centralised ethics [1]	183/1 189/13 216/4	classic [1] 92/24	207/13 208/4 208/19
career [1] 28/18	89/25	216/10 217/9 219/15	classification [2]	209/3 209/6 213/18
careful [4] 60/16 79/9	centrally [3] 11/13	220/18 221/10 222/6	75/14 77/2	213/20 214/16 227/23
120/1 210/22	124/19 167/10	chief exec [1] 26/18	classifications [1]	clinician [5] 3/14 5/6
carefully [4] 13/10	centre [1] 8/19	chief operating	124/20	6/25 141/18 202/15
15/13 15/21 181/18	CEO [1] 88/24	officer [2] 26/19	classified [1] 75/21	clinicians [18] 3/17
carers [1] 49/14	certain [6] 82/14	28/15	classify [1] 75/12	86/7 106/17 141/13
Carey [3] 1/3 116/11	90/11 95/7 141/17	child [3] 194/1 194/6	clean [1] 8/14	142/20 152/18 152/23
218/22	151/24 159/1	198/3	cleaners [2] 180/8	153/2 154/11 154/14
Carey's [1] 181/24	certainly [32] 16/22	childhood [1] 206/17	215/19	154/22 156/24 158/8
caring [1] 10/2	22/21 47/4 65/2 71/6	children [18] 158/18	cleaning [1] 13/4	177/6 203/8 205/3
	74/9 85/16 93/8 95/6	158/20 158/21 158/22	clear [58] 11/1 11/1	209/15 222/5

C	75/16 76/9 77/16 109/6 110/11 110/12 110/16 110/21 112/24 123/13 129/17 138/17 146/13 148/6 156/6 156/16 169/1 169/15 171/4 176/4 181/15 187/9 191/6 208/1 210/8 227/8 228/23 comes [8] 60/21 63/8 79/9 98/2 131/2 138/14 152/10 170/12 comfort [1] 21/5 comfortable [3] 145/14 145/15 145/17 comfortably [1] 149/9 coming [23] 10/24 17/17 19/17 24/25 25/4 27/19 40/12 44/24 54/4 56/6 58/22 59/9 69/5 73/9 73/25 75/7 82/4 86/4 100/20 147/23 176/3 203/22 207/5 commend [1] 149/19 comment [4] 30/7 187/18 203/21 214/7 commented [1] 104/25 comments [3] 18/15 18/20 184/11 commission [1] 159/7 commissioned [6] 65/25 116/14 159/5 221/20 221/22 221/23 committees [1] 71/7 commodes [1] 27/3 commonly [2] 146/18 167/1 comms [2] 145/19 164/12 communicate [2] 80/14 141/20 communicated [1] 78/25 communication [5] 86/18 88/16 93/14 167/6 213/6 communications [5] 102/5 143/3 143/5 146/13 166/13 communities [5] 7/7 114/12 121/21 164/9 165/17 community [6] 47/15 104/3 105/6 166/16 167/12 208/22 comorbidity [1] 180/2 compare [1] 184/25 compared [7] 18/6 68/11 73/5 118/25	140/14 140/25 199/1 comparison [2] 36/2 72/21 compellingly [1] 123/21 compensation [1] 10/10 competing [1] 184/22 complained [2] 40/25 141/7 complaining [1] 141/7 complete [7] 10/15 10/25 61/1 107/13 119/7 144/12 187/8 completed [1] 90/10 completely [16] 58/21 121/23 131/21 142/24 149/12 154/5 156/14 179/21 182/17 196/8 197/3 197/4 201/8 204/5 204/6 207/25 completeness [1] 10/17 completes [1] 228/14 complex [11] 14/13 14/13 34/4 43/18 45/11 45/11 45/12 48/5 80/2 119/12 129/14 compliance [1] 202/6 complicated [3] 70/16 136/2 159/18 component [4] 43/18 43/19 43/20 94/3 comprehensively [1] 141/3 compression [1] 32/24 comprise [1] 11/19 Computer [1] 168/18 concept [7] 45/8 110/4 123/15 133/3 142/12 227/17 227/18 concepts [1] 110/3 conceptual [2] 121/14 123/13 concern [5] 94/23 136/4 143/11 143/13 207/11 concerned [2] 159/9 203/2 concerning [2] 72/10 73/13 concerns [4] 150/25 172/24 172/25 203/13 concludes [2] 128/10 178/10 concluding [2] 51/20 116/20 conclusion [4] 130/13 169/1 178/4	212/2 conclusions [4] 41/21 128/4 129/5 169/23 concrete [1] 176/19 concur [2] 57/16 149/12 conditions [7] 108/16 108/25 109/14 109/24 134/20 175/9 196/11 conduct [2] 5/11 5/16 conducted [4] 9/10 15/25 26/1 78/7 conducting [2] 91/13 217/15 conference [2] 189/10 189/17 confidence [4] 99/20 119/10 121/1 147/20 confident [7] 78/14 127/7 146/8 170/11 174/22 176/11 200/6 configuration [1] 68/14 configure [1] 198/15 confirm [1] 77/7 confirmed [1] 42/6 conflating [1] 203/8 conflation [1] 203/2 conflict [1] 136/18 confounding [2] 126/14 130/2 confused [3] 61/19 79/15 79/16 confusing [3] 81/10 81/15 129/14 confusion [3] 138/9 143/4 146/6 Congress [1] 179/1 congruent [1] 66/23 conscious [1] 115/3 consensus [2] 111/8 212/8 consent [2] 119/23 120/15 consequence [5] 45/1 74/25 92/7 93/13 94/15 consequences [10] 27/17 91/25 92/17 96/1 96/2 96/4 96/6 101/25 125/9 192/7 consider [19] 59/24 66/22 79/14 80/16 109/10 117/22 126/8 128/4 130/23 140/17 142/9 144/23 174/10 176/18 180/8 182/20 184/7 208/23 208/24 considerably [1] 188/11 consideration [2] 195/4 207/10	considerations [1] 214/5 considered [6] 112/25 128/8 146/6 171/5 171/11 209/14 considering [2] 50/17 72/2 consistent [2] 128/23 211/12 constant [4] 26/3 26/6 31/25 61/7 constantly [2] 7/24 9/25 construct [1] 109/18 constructed [1] 110/5 constructing [1] 110/15 consultant [8] 1/19 30/1 31/19 31/22 33/12 38/4 40/17 56/21 consultants [4] 32/13 40/5 40/6 40/8 consultation [1] 135/5 consumable [1] 3/21 contact [4] 61/7 105/6 122/12 196/13 contacted [3] 3/17 6/13 14/24 contacts [2] 127/1 127/22 contain [1] 1/7 content [1] 116/6 context [11] 47/6 51/2 65/10 86/22 159/25 196/22 200/19 215/15 216/14 216/15 216/18 contextual [1] 193/24 contingent [1] 215/25 continuation [1] 197/17 continue [9] 36/21 37/4 77/11 99/23 99/25 114/21 191/16 201/2 208/5 continued [7] 3/2 53/12 64/23 64/24 125/2 201/5 216/1 continuing [2] 190/15 190/16 contract [2] 104/4 208/23 contracting [1] 102/22 contracts [1] 215/21 contraindicated [2] 213/20 214/4 contrast [1] 158/18 contribute [2] 71/4
----------	---	--	--	---

C	costs [1] 152/11	course [26] 3/5 11/22	207/7 208/12 208/23	damned [2] 155/24
contribute... [1] 71/13	could [80] 5/3 7/10	14/19 49/22 54/12	209/20 210/2 210/9	155/24
contributed [4] 129/9	10/6 10/6 11/25 13/22	68/21 72/18 73/22	210/12 216/6 216/12	dangerous [4] 36/25
178/7 178/8 184/8	20/8 20/9 21/1 23/20	82/10 101/13 107/16	217/16 217/22 218/3	76/25 79/24 145/3
contributing [1] 104/24	29/9 30/5 30/5 33/16	110/14 112/3 113/24	219/1 219/8 220/1	daresay [2] 22/25
contribution [1] 219/17	55/18 59/10 61/17	118/11 120/1 129/1	220/5 220/8 220/10	91/23
contributors [1] 106/11	63/13 66/5 66/7 66/12	131/21 145/23 147/12	220/11 223/2	Darwen [2] 114/22
control [7] 80/4 85/8	74/4 74/11 75/21	155/4 173/3 181/5	COVID-19 [21] 6/9	125/21
130/9 130/10 132/12	77/11 77/11 89/23	184/20 191/1 209/20	50/4 55/2 82/1 128/13	Darzi [1] 65/11
149/25 221/13	93/3 94/15 95/20	Cov [1] 211/14	160/8 160/16 161/24	Darzi's [1] 178/4
controversial [2] 96/13 170/18	95/21 101/4 101/24	cover [2] 167/19	184/4 192/6 192/14	data [82] 4/14 4/21
convene [1] 36/13	102/9 104/19 108/19	200/17	195/10 198/24 199/5	4/22 4/24 4/24 5/23
convenient [3] 115/20 178/11 220/7	113/19 113/21 114/5	covered [5] 74/18	200/14 216/6 216/12	5/24 10/6 10/8 10/16
conversation [5] 12/7 12/8 14/19 19/7	114/24 119/15 122/7	142/1 144/11 152/13	217/16 217/22 219/1	10/18 10/20 10/22
205/3	128/6 133/3 133/12	221/19	219/8	11/1 11/2 11/7 11/9
conversations [1] 228/5	133/21 134/17 135/25	covering [1] 9/21	Covid-like [1] 152/3	11/10 11/12 11/14
converse [1] 203/5	137/19 151/9 156/8	COVID [170] 6/9 6/9	COVID19 [1] 81/24	13/21 14/2 14/5 24/2
convince [2] 42/17	162/7 162/11 162/15	6/19 7/8 8/14 17/13	CPR [1] 169/2	34/4 35/25 42/6 43/7
44/22	163/20 181/21 182/8	20/13 21/13 23/11	crafted [1] 15/21	43/12 44/6 44/20 50/6
convinced [1] 94/5	184/7 186/6 187/22	25/8 27/16 27/17 29/4	crafting [1] 15/15	50/7 50/12 50/14 73/9
coordinated [1] 100/15	193/2 195/25 196/15	29/19 43/3 45/18	create [5] 24/5 29/6	73/19 82/17 100/20
cope [4] 49/18 52/17	200/5 204/11 205/15	48/24 49/11 50/4 55/2	67/24 147/7 147/21	100/22 102/5 103/8
52/18 63/9	205/16 213/5 214/1	55/4 57/10 58/3 58/22	created [1] 32/5	103/11 111/2 113/25
coped [1] 176/5	219/23 219/24 220/4	62/22 63/5 63/10	creates [1] 203/20	117/18 117/20 117/23
copied [1] 169/22	220/6 220/11 222/9	64/16 64/24 65/2 65/2	credibility [1] 118/8	117/25 118/1 119/8
coping [1] 64/15	225/1 225/1 225/2	65/14 65/18 67/7	crescendo [1] 18/1	119/8 119/17 119/21
copy [2] 4/18 34/11	225/9 226/11	68/17 77/3 77/8 78/5	crises [2] 183/11	120/2 120/3 120/4
core [2] 2/7 115/24	couldn't [8] 9/19	82/1 84/3 85/16 89/16	187/22	120/15 133/23 135/23
coroner [1] 55/22	35/15 53/23 66/19	91/18 91/23 93/9	crisis [3] 164/20	135/24 136/5 136/12
corporate [1] 223/6	67/25 150/18 174/23	93/18 95/18 95/23	183/7 183/7	136/16 158/17 159/3
correct [47] 1/21	193/10	95/23 95/24 96/13	CRITCON [3] 173/15	159/25 160/11 166/8
1/25 2/4 2/23 5/9 7/1	council [2] 89/22	96/17 97/6 97/19	173/17 173/19	181/14 182/25 185/19
8/5 10/22 16/11 20/5	203/7	98/11 98/17 98/19	CRITCON 4 [1]	185/23 185/24 186/1
26/2 28/23 31/16	counsel [7] 1/15	99/1 99/13 100/6	173/15	186/11 187/3 187/20
53/11 56/19 59/25	56/11 67/22 183/1	100/7 100/18 100/22	criteria [3] 111/19	187/21 200/5 208/3
60/9 60/10 60/19	188/8 230/4 230/9	101/1 101/2 101/4	114/2 114/9	226/21
60/22 70/23 74/6 77/5	count [5] 3/8 14/8	101/7 101/7 101/8	critical [13] 2/12 6/9	database [1] 120/8
77/6 77/10 84/17	43/9 50/21 50/23	101/8 101/10 101/11	16/8 16/21 16/24 17/4	date [3] 105/15 133/1
84/18 91/14 92/1	counted [3] 14/10	101/19 101/25 102/7	117/24 136/20 136/23	158/11
109/3 109/5 109/12	50/22 186/6	102/7 102/19 102/22	170/22 171/5 172/5	dates [3] 106/7
109/13 117/4 117/8	counter [2] 144/10	103/3 103/7 103/10	173/10	108/11 206/10
120/23 120/24 134/6	144/15	103/13 103/17 103/21	critically [4] 25/24	dating [1] 89/1
144/2 152/16 159/6	counter-argument [2]	103/23 104/1 104/3	28/21 52/10 55/1	day [31] 7/16 7/21
173/11 180/7 195/9	144/10 144/15	104/4 104/6 104/9	criticised [1] 156/17	12/3 12/7 17/4 21/20
204/5 204/16 211/7	countermeasures [4]	104/12 104/17 104/23	criticising [1] 166/22	23/3 23/11 24/22
corrected [1] 212/5	85/20 100/20 198/20	105/7 106/11 107/1	critique [1] 133/6	29/25 38/1 43/21
correctly [4] 17/11	198/24	107/11 107/14 110/18	crockery [1] 20/19	43/22 45/17 47/13
73/24 152/15 173/8	counterpart [2]	115/2 116/17 125/12	crowding [1] 162/8	47/13 48/7 54/4 87/4
correlated [1] 226/10	93/11 100/14	126/24 127/19 128/13	crude [2] 113/17	90/6 114/13 140/19
correspondence [3]	countries [3] 68/12	139/21 145/4 147/1	124/20	141/10 141/10 149/14
82/15 123/5 169/22	85/23 147/14	152/3 160/8 160/16	crudely [1] 101/5	149/14 151/18 156/21
corridor [1] 228/5	country [18] 29/4	161/13 161/24 162/10	current [4] 34/3	157/1 185/24 225/3
cost [4] 54/9 90/19	29/6 41/25 49/3 49/7	168/4 172/12 172/13	73/21 197/5 200/18	day one [1] 151/18
152/9 191/7	52/4 65/16 67/13	175/15 176/9 184/4	currently [3] 101/17	days [6] 17/12 64/8
	76/11 84/21 86/11	188/7 188/13 188/14	180/21 213/4	71/22 81/22 141/10
	87/10 87/13 90/4	188/17 188/19 188/21	cursory [1] 12/4	224/5
	125/11 144/7 147/13	189/12 189/14 189/24	cutlery [1] 20/19	DCMOs [2] 71/23
	191/12	190/1 190/4 190/7		81/2
	counts [3] 14/9 50/22	190/9 190/21 191/3	D	deal [21] 6/4 18/8
	50/23	191/4 191/12 192/6	daily [2] 10/15	38/2 52/23 70/10 75/9
	couple [5] 49/25	192/8 192/14 192/24	151/16	81/19 86/21 91/19
	108/11 114/3 184/11	193/6 193/9 195/10	damage [1] 126/3	104/15 108/12 108/15
	211/8	196/1 196/12 198/20	Dame [4] 43/25 44/5	115/22 130/3 130/5
	couriers [1] 215/20	198/24 199/5 200/14	44/19 61/9	165/15 169/21 184/17

D	declaration [4] 17/8 95/11 132/2 132/24	147/17 198/4	65/12 160/14 166/7	216/22 216/25 219/15
deal... [3] 185/1 210/5 222/14	declared [2] 16/24 17/4	demands [3] 56/8 184/22 228/21	details [2] 1/4 168/23	220/11 223/11 224/23
dealing [9] 13/25 75/5 84/16 84/22 101/22 133/11 138/11 181/9 189/18	declassification [2] 75/15 77/7	dementia [1] 142/4	determinants [4] 161/23 180/4 180/11 181/25	225/17 226/15
deals [1] 188/12	declassified [2] 77/11 78/5	demonstrate [1] 95/16	determine [3] 112/15 148/10 150/1	didn't [60] 15/5 15/16 19/16 24/2 24/2 29/21 31/11 39/17 43/22
dealt [7] 107/24 135/15 141/3 218/21 220/8 220/11 227/4	declassify [1] 75/12	demonstrated [4] 93/5 102/6 112/19 157/12	determined [1] 90/9	60/18 67/4 67/4 70/24
Dear [1] 33/20	decompensation [1] 10/10	demonstrates [5] 123/10 132/1 183/7 208/4 223/5	determines [1] 6/20	81/7 82/3 83/24 86/17 90/10 95/1 96/18
death [18] 20/21 21/10 21/12 21/15 21/17 22/15 22/25 24/17 29/24 30/17 32/12 33/2 33/3 34/14 102/7 118/1 128/17 169/8	decompress [1] 5/2	demonstration [1] 226/17	deterred [1] 176/3	103/11 105/2 105/2
deaths [11] 21/20 21/21 21/23 29/25 63/6 72/15 72/20 73/5 73/12 185/16 223/14	decompression [5] 17/9 18/25 26/6 28/20 29/2	dengue [2] 92/24 97/5	devastating [3] 19/25 54/23 221/7	106/2 106/3 110/8 111/1 119/7 119/9
debatable [1] 154/9	dedicated [1] 190/12	denied [1] 206/20	develop [7] 44/8 45/23 46/18 96/19 140/21 161/4 170/21	125/20 129/2 130/18 131/10 132/21 137/11 137/15 141/8 145/5 146/2 150/7 156/4
debate [7] 93/3 124/18 135/9 142/1 148/3 169/16 172/10	dedication [2] 52/8 54/20	departed [1] 67/1	developed [1] 44/16	158/23 168/18 171/4 171/20 172/8 172/20 173/10 173/23 174/22
debated [2] 85/3 154/9	deemed [5] 109/15 114/15 122/6 167/23 169/24	department [8] 23/6 27/22 28/3 28/11 88/2 121/20 121/21 228/3	development [4] 108/4 206/17 207/4 219/16	175/12 192/6 201/10 204/22 209/12 210/5 217/1 220/10 224/21 225/8
debates [2] 85/2 85/7	default [1] 81/5	departments [3] 32/7 121/18 219/10	developmentally [1] 122/6	die [12] 19/22 19/25 24/16 25/12 30/2 31/7 32/14 58/25 94/14
debilitating [1] 97/16	defence [1] 84/7	departure [1] 147/12	deviates [1] 171/24	110/24 127/20 133/4
debt [1] 135/16	defer [1] 212/1	depend [3] 45/16 131/5 131/20	devise [1] 131/3	died [14] 1/8 24/20 28/12 32/19 33/13 58/16 62/21 158/24 185/21 185/25 186/1 186/17 187/11 187/16
December [4] 16/6 25/17 25/21 32/11	defined [3] 62/14 107/15 112/1	depended [1] 5/25	dexamethasone [1] 177/9	187/16
December 2020 [2] 16/6 25/17	defining [1] 186/3	dependent [1] 199/19	DHSC [2] 71/24 73/8	dietitians [2] 12/18 51/10
decide [4] 10/4 153/23 182/3 204/1	definitely [11] 94/19 131/4 131/7 151/8 158/20 160/15 178/7 178/8 184/13 184/15 217/3	depending [3] 11/24 62/18 77/14	diabetes [1] 161/12	differ [1] 98/9
decided [9] 11/16 28/19 57/3 102/12 102/13 117/6 123/1 213/16 213/19	definition [4] 52/12 108/4 127/17 138/8	depends [3] 48/12 128/1 133/10	diagnosed [4] 160/8 160/16 160/19 193/6	difference [23] 20/25 59/4 59/8 86/19
decides [1] 170/15	definitive [3] 82/19 84/1 180/20	deprivation [7] 7/6 116/20 198/19 198/23 199/9 200/4 216/25	diagnosis [1] 188/20	125/25 126/1 129/23 136/9 136/10 140/14 140/15 140/16 140/20 144/4 150/11 150/11 151/4 160/17 171/13 184/15 190/14 195/23 196/23
decision [26] 44/8 53/14 61/18 62/15 69/7 74/22 74/24 75/11 82/18 120/25 136/1 137/14 152/9 153/4 153/5 153/12 153/14 153/16 153/16 156/4 156/17 175/25 203/25 204/7 205/9 206/11	definitively [1] 212/6	deprived [1] 164/14	diagnostics [1] 193/7	difference [23] 20/25 59/4 59/8 86/19
decision-makers [1] 153/14	definitiveness [1] 84/6	deputy [1] 60/3	diapers [1] 27/5	125/25 126/1 129/23 136/9 136/10 140/14 140/15 140/16 140/20 144/4 150/11 150/11 151/4 160/17 171/13 184/15 190/14 195/23 196/23
decision-making [2] 61/18 137/14	DEFRA [1] 121/21	descend [1] 128/5	did [110] 2/24 3/5 3/14 4/24 7/3 9/8 10/3 12/11 12/22 13/3 18/5 18/18 19/22 28/20 28/25 29/19 30/4 31/22 33/15 34/8 34/23 35/19 36/7 36/8 36/8 36/21 38/19 38/24 39/2 40/21 43/15 50/7 51/3 52/17 55/19 55/20 57/3 57/7 57/19 59/7 60/17 64/24 65/1 82/2 82/6 83/11 83/13 83/19 89/6 91/3 94/22 101/10 102/17 103/12 110/11 110/17 112/15 113/7 113/8 114/21 117/1 118/15 121/10 121/22 125/21 125/23 126/10 127/2 127/13 130/17 133/17 136/4 137/16 145/3 145/12 145/16 147/5 150/8 152/19 157/7 158/9 158/16 158/16 158/21 159/7 161/3 163/19 163/25 166/4 167/7 168/17 171/3 172/18 175/10 193/11 202/9 204/16 206/4 208/6 208/23 214/18 214/20	dietitians [2] 12/18 51/10
decisions [17] 20/8 35/4 46/12 61/14 62/7 71/4 79/18 80/20 89/24 102/12 148/1 154/24 171/17 201/2 204/21 207/3 209/20	degree [15] 10/21 80/25 82/17 84/6 112/9 138/9 144/23 151/8 159/21 170/2 184/16 184/18 185/3 192/23 228/6	described [11] 24/4 25/17 26/5 50/7 50/9 53/8 54/22 57/18 182/1 184/5 223/16	diagnosis [1] 188/20	differences [3] 58/9 104/14 161/16
	dehydration [1] 142/17	descriptions [1] 1/7	diagnostics [1] 193/7	different [59] 9/12 13/19 20/15 25/16 31/17 48/20 51/25 51/25 57/6 59/1 63/1 71/5 77/22 85/23 85/23 93/16 93/17 95/20 98/3 98/3 101/13 101/13 101/15 107/5 118/13 123/7 134/5 137/7 137/11 138/14 138/15 138/16 142/12 148/20 159/21 160/17 161/7 161/17 161/17 163/1 163/2 165/22 165/23 172/3 173/25 179/2 179/18 179/21 187/21 191/2 192/16 197/3 197/4
	delay [3] 117/18 169/5 169/11	deserves [1] 177/1	diagnosis [1] 188/20	
	delayed [1] 188/20	design [2] 13/10 208/23	diagnosis [1] 188/20	
	deliberate [1] 80/11	designed [5] 13/9 15/22 173/14 174/1 191/3	diagnosis [1] 188/20	
	deliberately [1] 48/3	designing [1] 170/9	diagnosis [1] 188/20	
	deliver [4] 16/21 49/13 55/2 90/2	desirable [3] 198/1 198/2 209/23	diagnosis [1] 188/20	
	delivered [2] 23/20 110/6	desire [1] 21/6	diagnosis [1] 188/20	
	delivering [3] 19/15 21/1 21/2	desk [2] 8/20 8/21	diagnosis [1] 188/20	
	delivery [4] 80/4 80/23 121/18 208/10	despite [6] 54/20 54/24 194/17 195/1 223/8 225/14	diagnosis [1] 188/20	
	delta [3] 57/6 58/19 58/20	detail [12] 16/2 20/16 20/16 23/22 23/22 52/8 52/8 53/6 54/17	diagnosis [1] 188/20	
	demand [3] 54/25		diagnosis [1] 188/20	

D	179/9	disregarded [1] 123/4	145/2 149/16 155/16 164/24 165/21 169/4 175/22 177/16 182/21 189/7 190/25 191/13 197/11 201/16 208/25 213/3 213/6	downgrading [3] 78/12 78/15 78/18
different... [6] 197/20 198/14 204/6 205/6 227/19 228/3	disappeared [1] 122/22	disrupted [1] 195/5	213/3 213/6	downs [1] 59/3
differentiate [2] 97/25 179/7	disappointed [1] 106/2	disseminated [1] 134/1	dissemination [1] 155/12	downsides [9] 76/23 110/1 111/22 113/12 115/4 140/24 142/6 142/11 208/15
differently [4] 63/3 104/12 145/20 171/9	disbelief [1] 188/21	dissemination [1] 155/12	disservice [1] 167/20	downwind [1] 139/9
difficult [55] 5/17 8/10 19/10 19/22 21/12 22/23 30/25 38/2 48/8 52/2 57/22 58/2 64/13 79/24 84/9 84/13 101/12 104/25 109/22 111/6 115/17 117/17 118/11 124/15 125/14 125/15 127/15 127/24 130/6 132/5 135/12 135/15 145/24 150/1 150/16 153/9 153/11 164/5 165/25 171/17 171/21 172/17 174/9 179/22 180/5 181/1 185/5 186/2 191/23 192/15 196/11 196/12 199/22 199/22 213/23	disbelieved [2] 188/17 189/12	distance [4] 134/10 134/22 158/5 225/18	dissimilar [1] 130/10	Dr [5] 170/20 189/25 190/10 211/24 211/24
difficulties [3] 69/17 129/12 156/6	disbenefits [1] 121/6	distancing [1] 136/3	distance [4] 134/10 134/22 158/5 225/18	Dr Evans [2] 189/25 190/10
difficulty [5] 31/1 130/8 137/17 184/20 209/10	disbenefitted [1] 213/5	distinction [2] 139/15 196/19	distancing [1] 136/3	Dr Shin [1] 211/24
digital [1] 133/15	disciplines [2] 111/13 138/15	distinguished [1] 187/23	distinction [2] 139/15 196/19	Dr Suntharalingam [1] 170/20
dignity [1] 31/4	discomfort [2] 142/15 142/16	distracted [1] 182/8	distinguish [1] 187/23	Dr Warne [1] 211/24
diluted [3] 9/20 46/14 52/21	disconnect [1] 50/14	distressed [1] 1/9	distracted [1] 182/8	draw [4] 44/23 130/13 139/14 179/15
diluting [3] 23/22 53/11 54/16	discrete [1] 167/19	distressing [3] 1/5 17/24 55/12	distracted [1] 182/8	drawn [1] 11/20
dip [1] 91/6	discuss [4] 36/14 153/10 174/6 201/14	distribution [1] 80/6	distressing [3] 1/5 17/24 55/12	dressed [1] 32/23
dire [1] 132/15	discussed [11] 15/4 79/6 82/23 83/4 84/23 105/7 111/19 125/17 130/15 172/3 216/20	district [3] 3/11 37/15 52/24	distribution [1] 80/6	drew [2] 82/4 179/17
direct [4] 60/19 63/5 63/25 196/2	discussing [2] 82/9 82/16	distrusted [1] 167/16	district [3] 3/11 37/15 52/24	drink [1] 25/2
direction [1] 91/9	discussion [9] 13/14 35/16 35/17 85/1 153/13 153/20 153/21 165/21 173/5	disturbing [1] 33/22	distrusted [1] 167/16	drive [1] 26/15
directly [8] 35/23 36/4 49/24 62/21 63/6 126/11 182/11 215/18	discussions [5] 53/10 83/8 153/19 167/12 191/14	divide [1] 110/3	disturbing [1] 33/22	driver [1] 160/1
director [2] 44/4 154/20	disease [17] 72/25 74/13 74/16 75/1 75/21 76/25 76/25 77/21 78/19 92/22 97/14 102/3 109/2 145/3 161/9 181/16 196/3	divided [1] 162/20	divided [1] 110/3	drivers [4] 9/25 164/5 165/5 215/20
disabilities [2] 92/12 107/8	diseases [8] 56/22 63/9 90/14 99/11 108/25 116/21 191/11 197/8	division [1] 150/3	divided [1] 162/20	drop [1] 48/23
disability [4] 111/19 112/1 172/24 192/23	disinterested [1] 191/19	DNACPR [7] 200/16 200/21 201/23 202/3 203/4 203/8 203/9	divided [1] 162/20	droplet [5] 138/8 138/18 138/25 139/5 139/17
disadvantage [3] 60/14 76/9 166/1	dismissed [2] 14/4 14/5	DNACPRs [2] 201/1 201/5	divided [1] 162/20	droplets [1] 139/1
disadvantaged [1] 199/13	disorders [2] 197/17 198/8	do [241]	divided [1] 162/20	drowning [1] 24/6
disadvantages [7] 75/20 98/7 123/18 141/4 206/17 209/12 225/8	disparate [2] 179/2 182/1	do [241]	divided [1] 162/20	Drs [4] 193/25 194/14 195/9 197/19
disagree [2] 193/10 211/19	disparities [5] 161/24 164/8 178/9 182/18 182/19	doctor [12] 1/18 1/23 5/15 11/20 27/13 69/21 89/17 170/20 186/4 194/6 194/7 222/21	divided [1] 162/20	Drs Northover [1] 197/19
disagreement [1]	disparity [2] 48/20 164/17	doctors [13] 5/11 12/14 12/16 12/24 13/12 14/15 17/16 17/22 51/9 66/14 105/20 137/6 187/11	divided [1] 162/20	drugs [6] 3/21 40/19 48/7 76/7 191/1 191/6

E	46/20 47/2 52/9 85/21 85/22 87/15 89/19 98/25 191/13 222/19	142/6 emphasis [2] 177/1 211/21	206/15 215/6 224/17 225/17	eschew [1] 43/12 essentially [16] 86/4 89/10 109/17 110/3 111/8 113/17 124/4 130/6 137/5 143/12 150/14 151/18 153/8 171/23 173/17 197/23
earlier [14] 17/25 81/23 125/23 146/5 156/9 184/5 186/14 210/5 212/9 213/13 214/20 214/23 216/20 223/16	efforts [3] 54/20 54/24 100/15	emphasise [1] 146/24	ensure [7] 30/17 132/20 184/1 189/20 204/18 224/15 226/23	establish [2] 4/5 4/9 established [2] 30/21 49/8
earliest [1] 186/14 early [38] 4/12 24/20 31/13 36/15 44/20 71/22 72/8 74/7 74/10 74/23 76/25 86/13 87/22 99/17 99/18 102/8 104/8 106/10 108/2 110/25 112/22 137/8 138/4 142/3 143/2 159/1 159/12 162/25 186/18 186/23 189/21 192/22 202/5 219/6 220/2 221/17 224/22 225/22	eg [1] 72/9 eight [1] 7/20 either [28] 11/18 17/16 22/25 27/3 49/24 62/18 66/13 66/16 67/23 68/19 74/12 85/17 94/23 100/25 110/9 122/20 122/23 125/20 135/6 138/8 146/17 147/7 147/20 159/10 173/19 186/6 191/1 191/20	emphasised [1] 214/19 employed [5] 1/18 181/11 181/11 215/18 217/19 employers [1] 136/24 employment [3] 215/21 216/1 218/2	entirety [1] 66/9 entirely [15] 66/22 67/16 79/16 106/4 113/7 113/23 122/22 123/4 123/20 143/16 172/7 175/23 199/7 199/15 201/15	establishment [1] 40/14 estate's [1] 28/16 estimated [1] 91/22 etc [1] 219/13 ethics [1] 89/25 ethnic [16] 7/7 103/22 104/11 119/5 119/14 159/2 159/21 161/10 161/17 163/2 163/15 163/23 165/22 165/23 166/1 215/22
elderly [2] 158/1 210/23 element [9] 45/14 45/14 45/15 120/7 127/13 159/19 162/13 181/7 181/8 elements [6] 45/15 64/14 110/6 120/6 121/13 222/17	eligible [2] 134/8 134/16 else [12] 22/20 22/21 31/8 60/13 67/2 67/3 81/4 83/15 95/12 104/10 132/3 214/6 elsewhere [4] 13/14 18/12 41/25 190/16	encourage [2] 13/14 141/9 end [32] 1/7 6/15 20/21 21/7 24/22 30/10 30/11 30/14 30/24 31/24 32/18 41/16 45/4 57/11 57/20 58/8 58/8 59/5 59/16 68/23 85/20 118/4 119/9 131/11 136/14 158/17 168/18 168/21 168/22 173/7 209/23 225/7	entitled [1] 220/23 entrained [1] 31/9 entrance [1] 7/13 entry [1] 108/10 envelope [1] 185/3 environment [7] 57/6 57/23 71/11 76/14 152/6 180/12 223/19	ethnicity [15] 103/4 103/25 116/20 117/25 118/24 118/25 119/7 119/10 119/12 159/17 160/14 160/18 166/9 177/20 217/1
easily [4] 42/15 50/21 149/9 172/4 easy [10] 32/10 42/11 42/17 55/14 55/14 55/15 120/7 141/11 141/20 165/15	elderly [2] 158/1 210/23 element [9] 45/14 45/14 45/15 120/7 127/13 159/19 162/13 181/7 181/8 elements [6] 45/15 64/14 110/6 120/6 121/13 222/17	ending [4] 56/14 123/3 206/8 207/24 endorsed [2] 172/5 220/25 endorsement [1] 172/20 endoscopy [3] 168/11 168/21 168/22	Environmental [1] 85/4 environments [10] 62/3 71/10 75/3 76/17 165/6 165/8 196/13 197/10 199/21 226/13	Europe [2] 93/11 140/18
eating [2] 197/17 198/8 Ebola [2] 72/9 73/3 economic [2] 218/8 218/9 economy [1] 175/18 edge [5] 34/19 54/8 207/24 208/7 208/8 edged [1] 187/18 education [1] 206/19 effect [10] 28/19 29/1 84/5 91/12 99/22 150/5 191/7 195/8 199/14 200/4 effective [6] 18/25 19/12 98/5 126/17 130/19 226/8 effectively [10] 6/25 30/9 35/22 50/11 65/17 73/25 77/3 78/6 139/14 170/17 effectiveness [6] 126/8 126/11 126/13 126/16 128/19 227/6 effects [12] 53/7 92/23 97/20 98/7 100/1 128/24 178/1 178/2 191/22 192/14 196/2 197/4 efficacy [1] 128/9 efficient [1] 18/25 effort [11] 13/10	email [16] 33/17 34/10 35/18 35/19 36/13 71/23 86/9 86/11 122/2 123/7 124/9 127/11 132/7 136/19 224/6 226/16 emailed [1] 122/5 emails [1] 226/24 embed [1] 12/5 emblematic [2] 37/18 38/3 emerged [1] 95/18 emergencies [2] 27/21 70/5 emergency [28] 1/22 2/7 13/23 23/6 23/9 27/22 28/3 28/11 35/8 45/24 49/2 60/15 65/15 68/16 69/23 69/24 118/2 120/13 169/4 175/1 181/19 184/2 184/18 185/1 197/24 201/13 219/9 227/12 emerges [1] 211/13 EMG [1] 85/4 Emma [1] 44/4 Emma Wadey [1] 44/4 emotions [2] 141/21	ended [10] 111/17 111/22 117/2 122/19 125/2 148/5 179/21 192/19 209/25 210/1 ending [4] 56/14 123/3 206/8 207/24 endorsed [2] 172/5 220/25 endorsement [1] 172/20 endoscopy [3] 168/11 168/21 168/22 endotracheal [1] 4/8 ends [2] 4/17 140/4 engineering [2] 139/8 211/2 England [24] 2/6 2/14 2/22 11/13 14/25 15/1 15/2 15/3 15/17 33/25 35/9 60/22 61/14 80/3 80/23 85/14 133/15 146/7 154/13 154/19 154/21 203/12 222/7 222/8 English [2] 142/4 166/21 enhance [1] 227/11 enormous [3] 58/23 89/15 89/19 enough [18] 8/24 19/17 30/5 43/4 45/19 47/21 82/18 93/14 95/1 162/24 170/12 170/14 171/18 175/12	ensuring [2] 180/25 203/14 enthusiasm [1] 90/24 entire [1] 28/18 entirely [15] 66/22 67/16 79/16 106/4 113/7 113/23 122/22 123/4 123/20 143/16 172/7 175/23 199/7 199/15 201/15 entirety [1] 66/9 entitled [1] 220/23 entrained [1] 31/9 entrance [1] 7/13 entry [1] 108/10 envelope [1] 185/3 environment [7] 57/6 57/23 71/11 76/14 152/6 180/12 223/19	evaluated [1] 128/9 evaluation [1] 126/11 Evans [6] 189/25 190/10 194/1 194/14 195/9 197/19 even [40] 23/1 30/14 37/3 37/25 39/3 53/23 53/24 57/23 58/1 65/13 67/10 68/16 69/14 73/11 73/14 99/2 116/22 119/8 121/19 121/19 125/4 132/9 143/9 149/7 165/23 167/15 169/5 172/11 177/1 177/11 182/8 186/9 198/1 199/22 200/4 212/20 225/20 225/25 226/7 228/4 event [14] 45/4 68/6 69/3 70/7 93/2 93/5 94/12 129/7 131/2 133/13 151/5 170/22 171/7 176/21 events [1] 23/10 eventually [1] 96/24 ever [17] 8/16 12/22 19/12 21/14 22/20 22/22 28/17 37/12 62/14 66/14 76/16 83/11 83/13 96/2 155/17 174/21 201/21 every [28] 7/16 23/11 23/11 24/19 25/12

E	exact [3] 84/11 93/3 133/1	173/6	extensively [1] 85/4	fall [2] 59/24 199/13
every... [23] 30/25	exactly [14] 26/4	expected [5] 55/3	extent [7] 84/2 92/4	falling [2] 43/21 93/9
45/17 48/7 65/13 80/8	31/2 58/5 66/22 71/10	71/12 90/16 112/9	138/2 140/8 184/7	falsely [3] 50/11 51/1
89/17 89/17 90/4	103/2 112/12 120/1	188/2	192/21 221/22	223/17
104/22 104/24 108/10	146/9 146/10 150/9	expecting [1] 170/13	extract [1] 104/21	familiar [2] 81/16
130/10 137/12 141/14	195/25 207/18 225/21	experience [24]	extraordinarily [5]	187/1
147/13 157/15 179/7	examination [1]	15/23 22/17 22/22	55/11 57/22 127/15	families [16] 30/23
179/20 185/24 187/16	218/22	23/1 24/18 30/4 31/23	132/5 137/13	31/6 50/4 175/19
202/15 217/4 225/2	example [51] 61/7	34/25 37/19 38/3	extraordinary [6]	187/8 188/22 199/18
everybody [12] 12/15	69/4 69/16 70/3 73/2	39/17 46/14 49/10	17/7 58/17 65/20	200/15 201/14 203/1
60/12 81/12 103/14	85/3 85/5 85/24 86/6	54/14 59/7 62/9 69/20	123/17 176/2 223/15	204/2 205/4 205/24
119/11 121/5 121/9	87/13 92/24 93/15	76/5 86/2 146/17	extreme [2] 15/9	219/2 220/13 221/5
151/17 157/3 170/15	96/12 97/4 100/14	146/19 169/16 175/21	37/21	family [11] 20/22
179/24 214/23	100/16 103/9 105/4	223/18	extremely [35] 41/20	21/4 30/8 30/11 30/18
everybody's [1]	107/1 111/7 117/25	experienced [13]	79/24 85/24 86/12	30/20 31/3 31/5
18/16	125/19 125/23 131/23	16/4 19/18 21/13	87/21 90/2 90/8 90/13	122/12 174/6 208/19
everyone [8] 44/17	147/22 151/13 159/16	31/19 32/2 39/12	108/5 108/12 109/16	famous [1] 14/9
54/24 54/25 60/13	159/22 163/20 163/21	39/12 69/21 69/21	109/19 109/21 109/22	far [9] 35/14 61/16
67/9 132/3 199/22	165/3 165/22 166/14	153/14 171/17 183/24	113/1 117/17 129/11	113/18 130/21 138/20
213/24	167/3 167/12 172/23	184/4	131/11 140/21 145/24	139/15 167/10 214/24
everyone's [2]	175/4 176/12 179/15	experiences [1]	179/16 179/22 201/7	215/3
194/18 195/2	179/16 181/2 181/13	25/13	206/5 206/6 206/13	Farrar [1] 34/15
everything [13] 14/9	190/18 190/20 197/16	experiencing [5]	207/13 208/19 209/3	fast [6] 50/20 79/18
20/20 30/4 30/5 48/12	199/17 202/16 206/18	2/21 3/12 3/16 18/6	209/6 213/18 214/16	118/3 162/23 177/3
50/22 50/23 52/9 67/2	209/25 216/21 216/23	42/1	227/23 228/15 228/18	189/7
67/3 111/21 176/8	examples [1] 168/5	expert [17] 61/21	eyes [1] 14/16	fast-moving [1]
228/24	exceeded [1] 54/11	71/13 79/10 129/13		79/18
everywhere [6] 85/7	exceeding [1] 52/5	137/20 138/13 140/19	F	faster [3] 118/21
95/12 144/16 159/15	Excel [1] 24/1	141/5 145/25 169/14	face [5] 50/19 54/6	120/15 120/16
173/21 173/22	excellent [3] 18/21	174/13 190/1 193/25	195/5 211/13 213/24	fatality [2] 157/16
evidence [70] 1/4	55/18 172/17	211/5 212/1 212/3	faced [4] 44/12 47/18	157/23
44/22 49/22 51/17	except [1] 128/13	212/11	49/3 213/24	fatigue [3] 97/3 97/15
51/21 52/15 54/12	exception [1] 160/13	expertise [7] 62/9	faces [1] 142/17	105/8
55/8 57/15 59/24 67/1	excess [1] 24/18	71/8 79/5 79/11 81/7	facilitated [3] 17/8	fault [3] 25/7 41/25
67/20 93/24 100/3	exchange [1] 153/7	107/4 212/16	35/11 45/23	98/14
100/9 100/9 101/17	exchanged [1]	experts [10] 14/16	facilities [2] 38/8	favour [1] 201/12
102/2 102/8 110/17	226/25	65/23 79/8 135/20	47/16	fearful [1] 122/24
110/18 111/10 111/11	excluded [2] 166/2	136/1 145/14 170/21	facility [1] 5/2	feature [1] 45/11
123/14 128/8 128/9	166/3	211/9 211/23 212/12	facing [6] 4/14	featured [1] 7/6
128/12 128/14 128/21	excluding [1] 130/17	explain [2] 97/13	143/14 180/23 224/8	features [1] 70/10
129/13 130/16 130/17	exclusively [1]	143/22	224/9 225/23	February [9] 69/1
137/24 139/25 140/16	166/19	explained [2] 62/11	fact [38] 35/19 36/16	69/6 74/11 87/4 88/7
140/20 141/22 144/1	excuse [1] 182/8	162/7	57/21 58/14 63/9	91/22 117/12 122/5
148/25 150/15 150/22	exec [2] 26/18 41/6	explanation [1]	64/25 66/25 71/12	219/7
152/15 152/17 159/12	executed [1] 123/16	162/12	75/16 81/24 82/1	February 2021 [1]
173/8 175/3 181/23	executive [1] 87/17	explicitly [2] 153/3	83/17 88/23 89/17	117/12
188/13 188/14 189/2	exercise [1] 123/18	173/13	94/25 113/25 117/1	February 2022 [1]
189/2 192/5 200/1	exist [4] 140/22	exponential [1]	121/5 140/21 142/15	122/5
201/20 202/25 208/15	182/9 183/3 203/18	171/13	145/16 147/16 147/24	February 2023 [1]
211/12 212/4 212/7	existed [1] 185/24	exponentially [2]	149/8 164/8 165/25	91/22
213/4 213/8 214/25	existence [3] 89/10	64/5 64/7	169/25 182/20 188/24	feed [1] 71/4
215/3 219/3 221/5	179/15 189/14	exposed [4] 73/1	193/6 202/8 203/16	feel [12] 1/9 15/16
221/6 221/19 222/25	exists [2] 47/19	130/9 130/11 219/8	209/22 222/21 223/8	34/8 37/21 91/5 123/3
223/3 227/4	107/4	exposing [2] 76/13	225/10 227/14 228/3	144/4 145/16 167/14
evidence-based [2]	expand [6] 62/23	163/12	factor [2] 159/15	170/11 182/7 224/14
110/17 110/18	79/19 79/20 98/1	exposure [2] 129/23	221/15	feeling [3] 22/13 25/6
evidencing [1] 133/7	141/25 196/21	129/25	factors [3] 126/14	59/5
evidential [2] 149/19	expanded [2] 154/13	express [3] 67/4	130/2 157/10	feels [1] 18/17
190/25	226/1	141/21 142/6	failure [2] 145/16	fellow [2] 34/16
evidently [3] 64/17	expect [4] 1/7 110/23	expressed [2] 67/3	162/24	117/6
65/19 219/22	111/4 112/20	187/7	fair [5] 54/19 80/25	felt [17] 5/2 10/11
exacerbating [1]	expectation [4]	expressing [1] 224/2	157/8 211/6 212/10	16/22 18/13 18/14
180/11	45/17 64/18 120/12	extend [1] 213/16	fairly [4] 92/5 136/24	18/16 34/19 35/7
		extends [1] 136/8	138/4 185/7	35/15 41/23 45/23

F	first [84] 6/3 7/11 10/22 11/6 13/8 13/16 16/12 16/15 17/17 18/5 18/11 18/16 25/24 26/23 27/16 29/12 32/8 33/2 36/2 38/22 38/22 40/8 41/21 42/4 44/11 47/6 50/6 53/15 58/16 61/20 63/4 63/21 68/17 71/19 72/17 73/1 73/22 74/15 102/1 102/20 106/19 110/15 111/3 111/25 112/8 112/12 112/13 117/16 118/18 119/6 123/11 126/21 136/10 140/3 142/4 145/22 147/6 147/24 150/10 151/11 158/7 160/17 160/18 160/24 162/10 163/4 165/19 168/7 177/5 182/16 184/10 188/12 188/25 189/17 189/22 190/7 193/4 194/11 195/19 205/25 215/17 216/12 221/15 224/23	flyby [1] 12/4 focus [5] 2/17 50/16 50/20 50/25 182/13 focused [1] 208/25 follow [6] 84/18 84/21 94/7 145/11 149/18 196/19 followed [8] 20/24 33/3 33/11 122/10 132/24 145/5 145/6 192/19 following [4] 1/6 36/8 196/25 216/9 follows [3] 30/18 54/2 200/19 Fong [27] 1/4 1/13 1/14 1/16 1/17 14/2 49/22 50/1 51/17 52/20 53/9 54/12 54/19 55/5 55/11 57/15 59/13 65/22 69/11 87/11 143/15 171/22 184/6 185/12 207/8 221/6 230/3 Fong's [1] 222/25 food [1] 127/4 foolish [1] 151/10 foot [1] 22/10 foothills [1] 107/19 forces [1] 83/21 Ford [1] 38/9 forefront [1] 187/20 foremost [2] 13/8 13/16 foreseeable [1] 192/10 forget [7] 7/15 26/12 27/14 47/2 64/5 138/2 142/20 forgetting [1] 83/25 forgive [3] 75/18 108/21 136/22 forgotten [1] 18/15 form [7] 43/13 61/20 83/6 83/6 141/2 153/18 204/21 formal [5] 3/3 71/15 71/15 71/16 86/7 formally [2] 2/25 75/13 formed [1] 18/23 forms [7] 3/3 10/22 77/22 140/21 204/4 205/16 227/22 fortnight [1] 225/2 fortunately [4] 102/14 158/16 158/21 171/20 forum [1] 154/23 forward [6] 45/20 49/10 84/9 138/11 180/2 187/9 found [7] 31/10 31/10 85/13 104/25 106/5	128/23 128/25 foundation [1] 222/4 foundations [1] 191/2 four [16] 9/21 11/19 15/4 17/3 26/25 45/21 63/3 63/4 64/8 64/9 136/25 153/3 154/25 170/2 206/22 207/1 fractured [1] 39/8 frailty [3] 200/16 200/22 202/24 framework [2] 205/1 205/15 Frank [1] 203/21 free [3] 90/19 152/9 213/21 freedom [2] 144/13 214/5 frequently [2] 140/13 224/24 Friday [3] 155/11 156/1 157/3 friend [2] 34/17 86/10 friends [3] 34/17 103/18 146/20 frightening [1] 76/15 front [14] 4/18 30/2 42/16 46/9 46/13 56/15 81/13 135/14 143/7 163/20 165/4 166/20 213/23 223/4 frontline [4] 14/20 47/12 146/15 215/14 FRSM [6] 78/8 78/23 144/24 148/10 149/21 150/3 fruition [1] 171/5 fulfil [1] 15/6 fulfilling [2] 122/13 187/2 full [17] 1/16 3/19 8/1 8/2 9/3 12/3 19/18 27/8 27/9 27/10 32/4 56/12 129/8 162/11 173/21 173/21 227/1 fully [10] 57/16 57/24 57/25 58/13 77/17 107/3 158/12 181/15 217/7 221/25 function [2] 63/23 64/21 functioning [3] 65/6 65/7 66/17 functions [1] 153/6 fundamental [7] 76/2 78/4 168/25 169/13 218/5 227/14 227/25 fundamentally [5] 69/18 70/17 189/3 211/20 222/14 funded [2] 190/17 190/20	funder [1] 87/18 funders [1] 89/21 funding [6] 89/24 190/7 190/9 190/12 190/15 190/20 funds [1] 215/24 funnel [2] 86/16 90/12 furniture [2] 6/22 51/8 further [14] 64/3 95/10 102/2 117/1 122/15 132/16 139/3 148/9 154/13 166/7 190/2 190/19 212/20 218/23 future [17] 45/4 46/15 47/5 47/8 67/19 68/3 94/12 94/18 94/20 95/16 171/7 176/22 184/2 185/21 187/22 196/16 227/7
			G	
			gained [1] 42/7 Galaxy [1] 38/10 gap [7] 5/3 5/22 10/5 13/21 14/2 14/3 45/16 gaps [1] 195/20 gastroenterology [2] 168/9 168/20 gather [2] 46/8 119/17 gathered [1] 44/7 gave [4] 60/25 63/4 108/17 209/1 gender [1] 103/4 general [29] 3/11 3/12 37/15 47/15 48/23 52/24 58/12 72/22 73/5 83/2 83/4 84/25 89/13 89/17 93/25 103/3 103/10 112/21 123/23 127/18 156/12 168/5 179/10 180/18 196/7 203/25 212/18 213/13 214/20 generalised [1] 106/25 generally [4] 65/5 84/22 154/15 192/19 generating [3] 145/2 168/11 169/25 generosity [1] 116/3 genesis [1] 3/9 genomics [1] 85/25 genuine [1] 146/3 genuinely [2] 28/16 189/16 geographical [1] 72/11 geographically [1] 11/25 geography [1] 155/3	

G			
Germany [1] 147/22	86/1 98/6 100/9 143/6	221/18 225/22 228/23	183/15 196/18 197/13
get [66] 8/9 12/5	143/12 144/10 166/22	gold [1] 150/14	198/17 200/8 202/21
25/14 26/13 26/15	167/5 167/17	gone [12] 18/11	205/17 218/22 228/15
28/12 35/2 35/12	gleaned [2] 45/2	18/12 34/11 34/13	gratitude [1] 135/16
35/23 35/24 38/12	85/12	37/3 39/10 64/3 79/7	great [14] 54/9 65/3
40/17 45/14 46/21	go [55] 13/22 14/1	81/22 171/12 183/17	93/1 95/11 115/22
58/19 61/18 63/22	18/14 26/9 26/14	186/9	121/22 126/22 132/2
66/19 76/3 76/10 79/4	32/21 38/14 46/16	good [33] 10/9 20/21	132/23 133/17 169/21
80/5 81/8 83/20 83/23	48/6 53/5 53/16 56/25	30/17 43/19 45/14	193/5 206/12 220/9
87/12 87/20 90/16	59/10 59/19 65/12	78/10 78/21 84/8 89/3	greater [12] 127/17
90/18 90/21 94/13	66/7 74/19 77/23	110/4 117/25 121/14	127/18 136/14 147/22
94/14 94/22 95/23	80/17 92/4 92/12 96/7	127/6 127/12 149/17	159/11 159/13 160/21
95/24 96/24 101/7	98/16 108/10 113/2	151/2 155/17 163/25	184/17 198/24 198/25
101/8 101/8 101/10	114/16 114/19 119/15	164/12 166/14 166/18	200/4 212/8
101/10 115/22 117/23	122/7 122/15 123/2	174/13 183/22 191/6	greatest [3] 121/16
124/6 132/12 141/14	130/21 132/13 132/16	191/17 193/22 199/10	127/1 132/20
143/16 150/21 153/25	132/21 134/23 144/14	200/1 201/11 201/15	greeted [1] 7/12
157/25 161/9 167/7	145/9 149/6 151/16	210/25 218/25 222/24	Gregor [2] 149/23
171/20 173/10 173/20	154/6 155/19 157/20	goodwill [1] 40/20	202/15
174/17 175/10 175/12	163/5 168/22 175/2	got [53] 10/1 16/15	grief [3] 31/9 194/20
177/15 186/7 202/19	175/11 194/23 204/4	17/21 17/21 22/1 22/8	195/3
205/7 210/23 212/8	208/1 208/22 214/7	26/12 26/12 26/17	grim [1] 157/24
222/16 226/17	214/24 215/2 220/4	26/17 28/10 28/10	ground [6] 5/5 36/17
gets [2] 74/17 170/15	goal [6] 53/18 53/23	32/11 32/22 38/5	87/21 144/11 155/16
getting [17] 23/18	53/24 53/24 141/16	42/21 43/19 64/19	156/25
23/20 41/24 58/22	141/17	66/20 67/8 69/5 70/14	grounded [1] 87/12
83/25 98/12 101/7	goes [4] 129/1 143/4	77/18 81/2 86/9 90/5	group [38] 36/14
111/16 119/20 120/8	148/17 186/13	90/25 93/21 100/11	42/8 85/4 85/5 92/8
126/2 143/22 167/3	going [117] 3/15 4/16	113/7 114/17 118/2	92/9 97/5 97/21 100/7
167/5 182/25 189/7	6/14 7/17 9/17 9/24	122/2 127/19 130/5	103/1 103/24 112/2
193/7	11/19 13/6 15/8 15/17	133/23 142/3 143/2	119/14 127/16 128/16
give [36] 8/6 8/19	16/1 19/10 24/21	144/15 147/6 147/25	130/9 130/9 130/10
10/9 10/12 10/13	28/14 30/1 38/6 38/12	151/19 151/21 157/4	130/11 134/7 134/17
12/15 13/24 15/17	42/2 42/8 42/12 42/19	161/8 165/8 168/7	137/7 141/2 152/18
20/21 27/6 31/3 38/19	48/19 49/10 58/24	169/1 170/5 171/14	152/23 153/12 153/20
61/16 67/25 98/20	58/24 59/14 59/19	171/21 190/24 213/4	154/11 154/15 158/25
112/13 127/25 131/25	61/8 63/21 64/2 65/12	government [18]	166/20 179/7 179/16
144/12 144/21 161/19	66/6 68/23 69/23	59/21 59/22 59/23	189/18 200/15 203/1
162/2 162/14 166/14	69/25 72/25 73/7	71/2 87/19 88/1 88/9	215/15 217/4
176/18 180/19 184/11	74/19 75/16 78/1 78/7	114/12 121/20 122/25	groups [32] 79/8
184/12 190/22 201/7	79/2 79/21 82/6 82/11	123/25 125/16 126/5	104/11 111/22 112/23
202/18 207/18 210/6	86/22 86/23 87/10	127/3 153/2 154/22	137/6 141/2 159/10
213/14 225/8 228/20	91/7 92/14 96/10	218/1 222/3	159/21 160/7 161/10
given [48] 5/10 5/25	99/21 100/9 101/5	gowns [2] 38/18	161/14 161/17 162/1
23/3 51/18 52/16 55/8	106/24 108/10 108/22	147/11	163/2 163/16 163/22
56/17 72/13 73/6 74/8	109/6 110/9 111/5	GP [4] 105/1 105/2	163/24 163/24 165/5
76/1 84/1 93/2 93/4	112/24 113/13 114/10	105/5 109/15	165/13 165/22 165/23
93/11 95/25 100/8	115/9 115/19 116/2	GPs [13] 105/19	166/2 172/3 172/21
106/14 112/4 113/1	119/16 120/22 126/4	106/4 109/5 109/9	172/24 174/12 179/2
113/3 116/2 119/4	126/15 129/19 130/6	112/24 113/4 113/6	188/7 199/8 201/1
121/4 124/15 133/5	131/19 131/24 138/11	113/12 113/17 113/19	216/5
136/16 137/10 140/7	139/3 144/25 145/9	113/24 120/3 124/21	guaranteeing [1]
143/13 143/14 177/1	146/4 156/23 157/15	grade [2] 27/13 28/5	156/1
181/23 184/21 185/2	161/21 164/17 166/1	gradual [1] 207/22	guards [1] 215/19
185/10 187/15 192/2	166/10 168/8 169/11	grandsons [1]	guess [2] 8/12
192/11 195/4 202/4	169/19 170/6 170/16	122/12	228/22
206/20 207/10 207/22	170/18 170/24 171/6	granted [1] 115/25	guidance [45] 78/6
224/3 224/11 228/16	174/21 175/17 176/1	granularity [1]	78/21 84/17 105/19
228/18	177/15 177/22 185/3	159/22	105/21 133/25 134/1
gives [3] 183/8 183/9	190/22 196/24 198/10	graphic [2] 53/6	134/24 135/4 135/8
184/17	199/16 199/19 200/2	168/23	136/24 137/12 137/15
giving [10] 61/23	203/21 204/12 205/10	grateful [16] 35/21	139/14 145/5 145/5
	209/22 210/6 210/20	41/20 45/25 55/7	145/7 145/11 151/14
	213/14 216/2 216/13	55/11 56/9 172/16	152/12 152/15 152/22
			154/2 155/8 155/10
			155/12 155/14 155/17
			156/15 170/24 171/4
			171/4 171/7 171/11
			172/2 173/9 173/12
			173/13 174/1 174/8
			179/23 200/24 202/6
			213/11 219/11
			guidelines [2] 58/5
			211/25
			Gupta [4] 215/10
			215/12 218/17 230/17
			Guy [1] 194/1
			Guy Northover [1]
			194/1
			gynae [1] 135/6
			gynaecology [2]
			135/20 137/5
			H
			had [271]
			hadn't [5] 30/21 35/6
			88/18 97/21 226/14
			half [3] 12/7 39/18
			66/11
			halfway [1] 90/25
			Hancock [2] 86/25
			88/10
			hand [6] 110/2
			145/25 146/19 155/25
			169/9 198/3
			handled [2] 143/17
			223/8
			hands [3] 8/25
			145/10 165/9
			hanging [1] 18/3
			hangover [1] 91/10
			Hannett [4] 188/4
			188/5 193/19 230/13
			happen [7] 20/11
			25/9 63/19 69/3 96/9
			133/22 142/23
			happened [11] 28/13
			37/13 64/3 93/6
			116/24 119/4 126/25
			129/2 186/9 196/1
			217/24
			happening [9] 5/5
			14/17 23/14 23/15
			36/15 42/16 42/18
			46/25 86/13
			happens [7] 20/13
			27/23 40/22 68/16
			149/13 149/14 153/22
			happy [3] 44/25
			44/25 212/4
			hard [14] 23/24 30/6
			40/4 43/7 44/23 95/3
			113/8 113/14 132/6
			132/10 142/3 182/9
			187/18 193/14
			harder [10] 106/6
			141/20 141/21 146/13
			162/17 175/15 186/10

H	27/16 31/19 33/18 33/23 34/1 34/2 34/19 34/21 34/21 35/21 35/22 36/6 38/5 38/5 38/6 38/9 38/10 40/18 57/18 57/21 67/3 71/1 88/11 88/12 122/8 122/8 122/9 122/9 122/16 178/22 202/3 203/12 203/23 211/18	180/9 180/14 182/5 182/7 182/10 183/24 184/4 185/16 185/19 185/25 186/3 186/15 186/16 187/7 187/16 195/12 200/24 211/14 211/16 213/15 214/23 215/15 215/17 216/10 220/2 221/13 221/14 224/2 224/16 225/13 226/12 227/13	142/19 her [23] 19/13 19/14 44/21 44/22 45/6 53/7 101/21 128/10 129/10 129/12 130/23 130/23 135/16 135/16 137/24 140/19 144/1 176/17 176/21 184/13 195/19 218/22 225/20	his [6] 1/4 38/9 49/22 57/25 143/25 178/4 historically [1] 79/7 hit [5] 6/8 37/22 69/25 158/10 158/20 hits [2] 178/3 196/24 hitting [1] 69/9 HIV [2] 131/22 197/3 hoc [2] 7/25 9/4 hold [4] 8/25 53/24 149/15 176/1 holding [3] 30/8 31/4 177/17 hole [2] 95/9 177/15 home [7] 135/4 174/16 174/19 175/8 176/13 199/17 199/17 homes [2] 47/16 208/21 honestly [1] 131/19 hope [14] 49/25 70/6 103/18 105/21 129/7 173/6 182/2 188/24 189/7 194/2 194/4 207/18 219/22 220/14 hoped [2] 71/12 92/18 hopefully [3] 98/11 131/25 172/9 hopeless [1] 124/8 Hopkins [3] 140/17 144/1 149/12 horrific [1] 30/10 hospital [66] 2/13 3/11 3/12 3/15 4/23 5/20 6/12 7/5 7/22 9/9 9/22 10/18 16/5 16/8 16/14 18/19 18/21 19/2 19/21 19/22 21/17 21/22 22/2 25/18 26/1 26/3 26/5 26/11 26/13 26/21 27/10 27/12 27/14 28/12 28/17 29/8 31/14 31/15 34/12 37/11 37/14 37/16 38/7 38/24 40/1 47/14 52/23 52/24 57/24 58/22 65/1 99/11 128/15 132/14 132/19 132/21 141/6 175/2 175/5 175/11 176/4 176/4 186/4 192/19 192/20 215/19 hospital 11 [1] 52/23 hospital 2 [1] 16/5 hospitalised [5] 126/14 157/21 157/24 193/15 193/15 hospitals [41] 1/19 2/20 6/8 10/14 10/20 13/2 13/6 13/12 20/15 21/19 23/12 24/4 24/6 24/7 26/4 31/24 31/25
harder... [3] 193/8 199/18 212/14 hardest [1] 6/8 hare [1] 150/2 harm [8] 63/4 75/7 110/11 111/25 128/17 188/23 191/6 191/20 harmed [1] 198/23 harming [1] 126/20 harms [8] 63/3 63/4 63/5 63/7 127/11 183/24 184/9 207/6 Harries [2] 135/10 135/12 harrowing [3] 21/4 33/22 59/13 has [60] 3/24 22/24 25/7 25/8 25/8 27/16 32/19 43/18 43/19 48/17 49/3 59/13 60/10 63/1 65/11 65/24 68/11 70/19 76/16 77/16 79/6 93/10 98/25 100/8 101/22 106/10 124/3 126/6 126/25 128/8 128/25 129/6 130/21 133/22 135/14 136/12 139/4 139/6 160/24 161/8 169/7 169/19 174/13 178/22 182/12 187/16 188/8 190/6 191/18 198/7 198/12 198/14 202/3 203/12 208/3 210/8 210/14 211/10 213/10 223/4 hasn't [2] 169/18 190/8 have [408] haven't [6] 41/15 43/2 105/11 132/24 134/13 219/19 having [47] 25/2 38/9 38/13 38/16 40/6 42/8 46/7 46/11 53/7 55/21 63/10 70/6 70/8 74/3 78/2 81/14 82/12 101/6 107/14 110/22 113/2 113/10 129/17 142/5 143/6 147/20 147/21 150/2 150/2 156/8 164/10 164/11 166/13 167/11 170/10 171/16 171/23 177/2 188/17 197/6 197/7 197/21 201/13 204/23 204/24 225/3 225/12 HCID [5] 77/3 77/8 78/5 78/18 78/22 HCIDs [3] 75/9 75/20 77/20 he [36] 7/14 7/15	he'd [1] 71/1 he's [2] 27/15 27/18 head [3] 26/6 87/16 88/24 heading [1] 186/24 headline [1] 114/3 headroom [1] 185/10 heads [1] 17/20 health [75] 39/13 44/5 60/2 62/22 65/6 80/3 80/22 81/17 87/18 87/19 87/25 88/2 88/11 88/25 89/11 94/15 96/10 105/6 121/7 121/20 122/25 123/19 126/18 134/20 140/18 150/15 151/14 151/22 154/12 154/21 161/24 163/21 165/13 167/25 172/25 177/21 178/2 178/6 181/25 182/14 182/15 182/19 183/4 184/2 184/3 184/20 193/23 194/2 194/6 194/8 194/13 194/16 194/18 194/25 195/2 195/11 195/16 196/10 197/4 197/8 198/4 198/19 199/4 199/11 199/12 199/25 202/1 216/12 217/19 217/19 217/20 217/20 217/25 219/11 223/11 health-wise [1] 126/18 healthcare [88] 12/17 12/20 13/1 13/2 22/18 33/7 43/11 45/9 45/10 45/11 48/24 54/19 54/25 62/2 66/9 66/10 67/24 72/7 72/13 72/15 72/18 72/19 73/3 73/7 73/12 73/17 74/1 74/3 74/8 74/12 75/25 78/25 81/10 81/13 102/19 102/21 103/2 103/6 105/1 105/25 106/5 109/23 109/25 135/2 140/11 141/15 148/18 148/20 148/24 149/1 149/4 150/6 163/14 165/11 165/14 179/2	142/19 her [23] 19/13 19/14 44/21 44/22 45/6 53/7 101/21 128/10 129/10 129/12 130/23 130/23 135/16 135/16 137/24 140/19 144/1 176/17 176/21 184/13 195/19 218/22 225/20 her Ladyship [1] 45/6 here [22] 8/20 8/23 29/1 43/14 54/11 73/11 84/1 99/21 106/8 114/6 119/18 132/6 136/17 150/24 160/12 161/6 173/3 178/24 179/17 196/23 200/13 209/10 heritage [1] 160/22 herself [1] 44/6 hesitate [1] 20/12 hierarchy [1] 150/9 high [25] 20/10 65/16 68/12 74/25 75/5 77/22 100/25 114/22 115/7 115/13 120/13 128/21 133/17 150/25 150/25 154/7 160/19 163/23 163/24 179/18 184/25 218/6 218/7 219/17 220/1 high-income [1] 68/12 high-quality [1] 128/21 high-risk [1] 163/24 higher [24] 54/16 63/10 91/24 111/7 112/19 112/20 124/14 128/15 128/25 132/18 144/23 157/13 157/22 160/15 161/1 161/9 161/11 165/18 179/5 180/10 180/10 184/18 214/13 215/1 higher-risk [1] 179/5 highest [1] 204/18 highlight [1] 77/16 highlighted [4] 133/16 163/13 167/9 219/11 highly [9] 75/4 75/4 79/3 98/5 130/19 132/9 216/24 221/16 225/12 Hill [1] 224/7 him [7] 7/14 27/15 35/21 71/24 88/16 88/17 88/18 himself [2] 1/5 27/16 hinged [2] 45/10 51/21 hinges [1] 140/12		

H	I	I definitely [1] 131/7	I hesitate [1] 20/12	I recognise [1] 187/13
hospitals... [24] 32/2	I actually [2] 133/17	I described [2] 24/4	I honestly [1] 131/19	I referred [1] 146/5
37/17 37/18 37/19	216/17	26/5	I hope [9] 49/25	I reiterate [1] 56/7
38/4 38/14 41/8 41/9	I agree [4] 138/6	I did [8] 7/3 34/23	129/7 182/2 188/24	I remember [3] 7/18
41/11 46/17 48/19	150/21 178/4 187/14	36/8 57/3 57/19	194/2 194/4 207/18	9/22 24/20
48/21 48/22 53/21	I agreed [2] 67/2	145/12 147/5 226/15	219/22 220/14	I repeat [1] 48/3
64/14 64/14 69/17	75/14	I didn't [10] 39/17	I identified [1] 6/2	I reported [1] 28/24
120/4 148/19 148/22	I also [2] 55/18 222/8	67/4 67/4 70/24 82/3	I invite [1] 1/12	I represent [5] 50/3
176/4 176/6 176/6	I am [13] 1/17 41/19	86/17 103/11 137/11	I just [24] 8/8 11/9	55/6 203/1 215/14
213/17	61/20 129/19 173/19	145/5 201/10	14/1 25/5 41/10 62/4	219/1
hot [2] 78/7 78/23	174/22 187/24 189/4	I disagree [1] 193/10	66/2 70/10 86/21	I requested [1] 99/3
hour [1] 33/13	196/16 202/14 212/11	I discussed [1]	91/21 115/24 130/20	I said [10] 6/14 26/14
hours [4] 12/8 14/18	225/19 225/20	216/20	135/11 148/7 166/10	75/24 121/13 171/1
24/13 215/21	I and [2] 122/24	I do [12] 56/16 67/23	167/9 167/21 182/22	174/24 216/16 219/2
hours' [1] 38/5	153/1	106/5 131/13 145/2	196/19 202/14 204/21	221/17 227/15
house [1] 165/4	I appear [2] 183/22	148/6 158/13 179/14	211/8 216/18 218/23	I saw [3] 23/10 82/3
housed [1] 228/4	188/6	190/5 210/8 212/6	I knew [2] 6/15 34/16	103/8
household [2]	I ask [26] 6/3 13/5	214/24	I know [5] 31/10	I say [10] 67/21 80/12
208/25 209/2	15/8 25/16 31/20	I don't [24] 43/13	56/17 113/25 146/1	80/25 105/17 107/18
households [1]	37/10 41/12 62/14	64/19 75/11 76/16	211/19	145/21 152/23 161/15
209/5	63/13 65/21 70/12	79/9 84/8 93/16 96/5	I leave [1] 193/18	173/14 193/16
housing [2] 114/11	88/8 100/18 104/18	96/13 118/15 127/6	I like [1] 34/20	I set [1] 188/24
180/4	124/9 126/9 128/3	139/25 146/9 155/20	I looked [1] 28/3	I shall [3] 55/24
how [90] 2/24 3/5	129/4 135/1 160/3	155/21 155/21 174/21	I lost [1] 3/7	115/23 178/16
5/10 6/1 9/8 9/10	163/6 184/7 193/22	175/6 182/2 202/8	I made [5] 133/7	I should [1] 63/2
11/23 12/21 16/12	200/14 205/24 217/13	217/24 223/6 228/7	161/16 168/6 185/13	I show [1] 133/25
17/16 18/5 18/6 18/18	I asked [4] 7/14	228/9	217/25	I sign [1] 155/19
19/22 23/16 25/6 25/6	40/11 99/7 186/25	I expand [1] 79/19	I may [9] 89/14 98/1	I spoke [4] 31/11
25/11 25/12 26/13	I assume [1] 123/5	I feel [1] 123/3	109/8 117/21 170/18	36/8 38/4 105/5
26/15 29/10 31/12	I bank [1] 176/23	I felt [5] 5/2 10/11	187/18 188/12 218/24	I start [3] 16/4 62/10
34/1 34/18 34/18 36/1	I call [2] 56/3 122/4	34/19 35/7 45/23	227/8	83/15
39/8 39/24 40/4 40/5	I came [1] 34/23	I follow [1] 149/18	I mean [16] 70/4	I still [1] 94/22
40/11 40/24 41/3	I can [20] 16/3 22/24	I followed [1] 145/5	70/16 82/3 106/19	I suppose [4] 117/13
41/22 44/17 45/3	49/21 49/25 75/24	I for [1] 122/23	125/15 135/9 147/18	131/2 132/11 133/10
46/21 47/9 47/17	97/13 105/4 106/4	I fully [3] 57/16 57/25	153/8 156/20 166/17	I supposed [1]
47/17 50/7 53/1 53/25	107/21 121/1 121/15	217/7	166/18 167/8 180/16	137/19
54/6 55/12 59/24 66/2	127/25 153/19 161/19	I genuinely [1]	185/24 192/18 227/15	I suspect [3] 103/14
66/20 67/19 67/23	163/5 180/17 189/23	189/16	I mention [1] 217/18	162/2 216/17
74/4 85/12 94/16 96/1	206/10 222/10 225/19	I get [1] 79/4	I mentioned [1]	I take [4] 74/2 84/14
105/2 109/14 111/12	I can't [5] 111/20	I go [1] 123/2	12/25	174/8 217/16
119/17 123/2 124/12	121/2 133/1 146/24	I got [5] 26/12 26/12	I must [1] 35/7	I talk [1] 6/18
124/16 125/12 126/1	189/16	26/17 70/14 86/9	I need [3] 40/17	I talked [1] 9/13
126/3 127/23 133/15	I certainly [3] 118/10	I guess [1] 8/12	144/19 167/19	I tell [1] 94/11
137/10 138/24 140/13	118/17 214/18	I had [21] 6/13 8/16	I noticed [1] 198/20	I tend [1] 138/18
145/19 147/5 168/1	I chaired [1] 153/2	8/23 9/11 26/9 34/11	I obviously [1]	I then [1] 27/12
174/6 182/1 182/3	I co-commissioned	34/13 34/14 34/15	147/18	I think [300]
184/1 185/19 185/24	[1] 221/22	34/16 35/17 41/18	I only [1] 123/24	I thought [13] 113/7
186/22 187/11 192/15	I come [1] 138/17	57/4 57/17 86/10	I ought [1] 4/16	123/15 123/17 129/12
192/16 193/1 198/14	I completely [4]	87/20 103/8 185/24	I paraphrase [2] 78/8	130/25 137/13 141/4
203/24 209/2 218/7	142/24 149/12 196/8	202/13 218/20 227/18	104/18	155/6 168/19 172/17
224/23 225/21	201/8	I hadn't [1] 88/18	I pause [2] 38/19	172/18 207/8 222/25
however [8] 61/2	I consider [4] 66/22	I have [30] 19/12	143/21	I throw [1] 169/23
76/9 95/8 112/1 156/7	130/23 142/9 182/20	22/20 23/4 23/21	I personally [2] 3/7	I tried [2] 61/16 124/6
222/12 225/17 226/15	I considered [1]	28/17 33/23 45/13	144/21	I try [1] 123/6
howling [1] 31/7	146/6	49/16 50/21 114/1	I previously [1] 67/17	I understand [6] 1/3
HSE [1] 213/11	I contacted [1] 3/17	115/25 116/1 128/6	I probably [1] 67/1	15/9 73/24 152/14
huge [5] 51/12 55/22	I could [4] 13/22	157/11 167/19 177/1	I promise [1] 178/14	173/8 228/10
87/7 157/8 223/9	61/17 214/1 222/9	183/23 188/10 191/14	I put [2] 63/3 113/6	I understood [1]
human [4] 43/20	I couldn't [1] 67/25	192/3 198/25 200/18	I read [1] 194/9	26/16
45/13 48/11 54/10	I daresay [2] 22/25	201/19 201/21 209/10	I realise [2] 191/25	I use [2] 144/25
Hunt [1] 224/1	91/23	210/15 215/2 215/9	207/18	145/3
hyperbolic [1] 7/19	I deal [2] 75/9 108/12	218/12 219/20	I realised [1] 9/14	I very [1] 187/17
	I decided [1] 57/3	I heard [1] 129/6	I really [1] 19/9	I want [7] 2/16 91/16
		I helped [1] 100/12	I recall [1] 17/11	

I	I wrote [1] 142/25	204/2	157/4 157/16 157/20	212/24
I want... [5] 138/1	I'd [6] 48/18 71/21	ideally [2] 16/2 205/4	160/3 160/5 163/5	importance [4] 139/4
195/22 201/16 201/23	81/20 122/1 145/6	identification [1]	164/20 169/10 169/11	139/23 196/21 217/6
204/5	152/18	108/16	169/14 170/12 170/18	important [91] 6/20
I wanted [6] 87/3	I'll [3] 81/19 96/24	identified [13] 6/2	173/8 173/20 175/1	10/8 12/3 12/4 15/18
94/11 202/4 204/16	168/5	109/7 119/13 134/17	175/17 176/3 176/23	21/8 23/25 36/23 42/7
204/17 226/19	I'm [111] 15/25 44/4	158/7 158/13 158/13	177/8 177/9 177/20	43/8 43/14 43/16
I was [60] 3/16 4/13	45/25 47/10 47/11	165/3 180/3 189/4	180/8 183/2 184/16	44/14 44/17 45/22
4/16 6/12 7/12 8/10	47/20 59/19 64/2	189/14 189/22 198/22	184/25 185/8 186/3	46/2 46/16 46/17 47/6
14/14 14/24 23/5	64/12 65/3 65/11 66/6	identify [14] 73/22	186/14 186/14 187/18	48/3 53/19 63/7 74/15
34/25 35/7 39/17	74/19 77/21 78/13	99/16 109/9 116/23	187/22 188/12 189/5	74/20 76/1 80/15
39/18 43/10 44/19	78/13 79/2 79/10	117/1 120/17 133/9	189/13 189/23 191/5	81/13 85/15 86/3
44/25 44/25 46/1	79/11 86/22 90/19	133/16 159/20 165/1	196/24 198/1 202/13	87/10 87/12 87/21
57/11 61/7 61/23	94/4 94/20 95/5 95/7	174/23 190/11 216/20	203/23 204/10 205/3	90/13 94/3 97/13
70/24 73/10 75/13	97/11 98/12 98/14	218/5	206/10 206/19 206/24	97/25 98/10 99/4
75/16 79/21 81/7 82/5	101/5 103/19 108/10	identifying [1] 167/2	208/24 210/22 210/23	99/12 102/15 104/8
82/6 83/22 87/16	115/19 116/2 116/3	ie [4] 101/1 124/21	212/23 213/2 213/15	104/13 104/17 106/20
89/18 98/16 102/23	116/4 120/21 121/1	137/21 192/7	214/3 214/4 214/18	107/9 107/10 107/17
105/5 109/6 121/15	126/15 126/22 127/6	if [206] 1/10 3/24	218/24 219/8 219/25	107/20 109/20 116/23
129/16 143/25 144/25	129/7 130/17 130/19	4/18 6/16 7/8 9/15	220/4 220/11 225/19	123/12 124/5 129/20
145/4 146/7 146/8	130/19 130/25 131/5	12/24 13/18 14/3	227/8	131/8 131/12 131/13
159/9 166/21 172/16	131/24 133/6 141/25	14/10 16/3 17/11	ignored [1] 122/23	131/23 132/8 135/24
189/5 189/7 189/7	142/7 143/22 143/22	24/13 25/10 26/15	II [2] 49/3 49/4	136/10 137/9 139/5
189/19 194/7 202/11	144/10 145/9 145/14	35/5 36/4 36/17 37/12	ill [9] 25/24 28/21	139/8 139/24 144/4
202/12 202/17 212/9	145/25 147/19 151/23	41/10 41/12 42/20	55/1 58/15 92/11	151/11 160/2 163/12
222/22 226/16 226/20	156/12 157/15 157/23	42/22 42/25 43/2 43/3	92/17 93/9 93/12	166/23 167/11 167/18
227/17 228/4	159/14 160/10 161/20	48/22 49/13 52/6	219/10	170/8 171/10 175/16
I wasn't [4] 75/13	164/15 166/10 168/8	52/12 59/24 62/7	illusions [2] 69/25	177/18 186/17 186/22
135/9 141/24 227/15	170/5 171/22 176/11	62/23 63/19 64/3	91/8	187/14 187/15 189/3
I went [2] 21/19	179/25 180/19 184/23	64/16 64/18 65/18	illustrated [2] 223/1	192/1 194/5 210/7
40/23	184/23 185/6 188/2	65/19 67/6 67/18	223/1	210/11 217/8 219/17
I will [12] 7/15 26/12	190/22 194/5 194/21	68/16 69/4 69/23	image [1] 13/13	219/21 219/24 220/3
27/14 33/14 144/19	194/23 196/18 197/5	69/23 71/8 71/13 73/2	images [1] 93/10	225/16 226/16
145/11 182/16 183/13	197/13 197/20 198/2	73/11 73/14 73/21	immediate [7] 28/25	importantly [5] 101/9
184/11 194/23 199/17	198/17 198/23 200/8	73/24 74/2 74/17	116/18 139/6 146/17	112/20 129/9 146/18
228/20	200/13 201/22 202/18	75/23 76/15 76/16	164/20 178/1 226/6	154/25
I wish [2] 126/22	202/21 203/21 204/12	79/10 80/8 81/4 81/4	immediately [2] 7/14	imposed [1] 63/19
193/24	205/6 205/10 205/13	82/14 83/15 86/15	202/11	impossible [3] 43/5
I won't [3] 56/25	205/17 210/6 210/20	88/18 89/14 90/3 91/8	imminent [1] 224/14	130/12 172/12
114/16 168/22	212/4 212/15 213/17	91/21 92/10 92/12	immune [1] 111/6	improve [1] 176/7
I wonder [1] 115/19	216/2 216/13 218/11	94/9 94/13 94/14 95/4	immunosuppression	improvement [1]
I wore [1] 58/5	218/22 219/19 228/3	95/10 95/23 96/24	[1] 109/1	107/16
I work [1] 57/24	228/15 228/19	98/1 98/4 99/20 101/2	impact [25] 30/11	improving [1] 179/5
I worked [3] 21/21	I've [10] 23/3 75/19	101/8 101/10 103/5	54/21 68/20 82/12	inaccurate [1] 83/12
23/6 222/22	76/1 131/25 133/5	103/23 104/2 104/19	94/8 94/8 101/24	inadequate [1] 124/7
I worried [2] 94/21	155/20 166/25 176/23	106/2 106/7 106/8	103/20 104/3 113/2	inappropriate [3]
181/8	194/5 209/17	107/21 108/18 109/8	128/21 161/24 164/9	201/5 202/3 202/7
I would [40] 2/9 16/1	I've said [1] 209/17	110/2 114/14 114/19	166/15 181/22 182/1	inbox [1] 82/4
19/3 33/15 33/17	ICNARC [2] 11/9	115/20 117/21 118/3	194/12 195/4 195/16	incidence [8] 101/1
35/23 51/4 61/16 67/6	11/14	122/7 122/15 123/25	198/8 198/19 199/12	101/11 101/18 127/23
71/11 79/13 88/21	ICU [27] 3/18 5/12	125/7 125/7 125/8	207/14 214/16 221/7	161/25 165/18 180/10
89/5 89/14 94/4	6/8 6/21 8/7 9/21 19/3	127/19 127/25 129/2	impacts [5] 106/18	208/12
105/21 106/2 108/11	21/8 26/25 33/13 38/4	130/5 130/9 134/19	179/2 179/13 184/3	incident [5] 16/24
131/4 132/16 140/17	45/7 50/10 51/19 53/1	134/23 137/18 138/23	185/22	17/4 17/8 100/21
141/9 145/3 157/10	53/17 54/22 58/18	138/24 139/2 140/15	impetus [1] 49/8	224/4
158/7 163/3 171/2	58/24 68/10 68/11	142/3 142/3 142/4	implemented [1]	incidentally [3] 63/1
171/9 173/4 176/25	69/21 69/21 70/3 70/9	142/21 143/9 144/4	224/3	210/14 223/1
182/17 193/5 202/13	92/12 92/14	144/15 144/25 145/2	implication [2]	incidents [2] 23/5
211/21 212/17 212/17	ICUs [3] 11/23 15/8	148/2 149/5 149/7	156/13 204/11	23/8
212/23 214/7 214/24	65/4	149/15 150/6 150/10	implications [3] 85/8	include [5] 33/25
217/23	idea [8] 8/6 8/19	150/24 150/24 152/3	139/11 198/14	154/13 197/14 209/24
I wouldn't [3] 130/21	110/4 121/14 182/17	152/14 152/19 153/22	implied [1] 100/20	215/16
180/18 223/16	185/8 190/24 227/5	155/20 155/21 155/24	imploring [1] 31/6	included [3] 3/21
	ideal [2] 119/13	155/24 155/25 156/2	implying [2] 189/5	83/9 108/8

<p>I</p> <p>includes [3] 77/4 140/13 215/22</p> <p>including [12] 2/11 60/2 75/20 85/20 87/1 105/18 154/14 165/25 213/6 215/21 218/10 219/11</p> <p>income [5] 65/16 68/12 180/10 216/12 217/19</p> <p>incorporating [1] 160/11</p> <p>increase [4] 73/12 147/14 147/16 147/17</p> <p>increased [7] 7/8 104/6 104/9 111/25 136/13 160/20 206/21</p> <p>increases [1] 197/16</p> <p>increasing [1] 198/5</p> <p>increasingly [3] 102/25 120/7 125/4</p> <p>incredibly [16] 10/23 22/22 42/3 59/12 64/13 86/3 94/1 94/2 94/24 113/8 113/14 130/12 147/1 171/16 171/21 197/25</p> <p>incubating [1] 28/6</p> <p>incubation [1] 37/4</p> <p>indeed [31] 2/12 7/3 11/3 36/13 43/23 58/16 61/3 67/18 71/1 71/8 71/13 72/24 76/12 77/20 85/16 86/9 107/16 108/5 131/9 134/23 135/22 140/4 162/18 163/15 171/25 199/10 200/6 221/11 223/17 227/6 227/12</p> <p>independence [1] 61/1</p> <p>independent [1] 59/21</p> <p>indescribable [1] 22/17</p> <p>INDEX [1] 229/4</p> <p>indicate [1] 113/13</p> <p>indicated [1] 209/11</p> <p>indication [2] 38/19 74/4</p> <p>indicator [2] 17/1 48/22</p> <p>indicators [1] 186/15</p> <p>indirect [4] 63/7 63/25 73/10 196/3</p> <p>indirectly [1] 62/21</p> <p>individual [25] 51/25 64/14 64/14 64/15 102/24 116/19 116/21 118/5 118/12 119/23 126/1 141/4 150/18</p>	<p>172/14 177/6 179/11 191/7 201/3 205/2 205/2 205/3 205/8 209/1 209/4 217/5</p> <p>individual's [1] 174/5</p> <p>individually [2] 118/19 173/24</p> <p>individually-based [1] 118/19</p> <p>individuals [7] 160/7 161/4 179/5 188/21 219/23 223/7 223/10</p> <p>individuals' [1] 124/23</p> <p>indoor [2] 210/14 210/17</p> <p>inequalities [4] 177/21 181/25 182/6 199/4</p> <p>inevitability [1] 165/19</p> <p>inevitable [5] 92/9 92/10 93/11 125/8 228/22</p> <p>inevitably [1] 132/18</p> <p>infall [1] 32/1</p> <p>infected [5] 7/9 115/2 157/13 157/21 185/20</p> <p>infection [37] 72/8 73/2 74/23 76/5 80/4 92/24 97/7 110/24 111/5 125/11 127/14 128/13 128/15 128/18 131/19 132/5 132/10 132/12 133/4 148/12 148/12 148/15 151/3 152/3 157/16 160/16 161/8 161/13 186/7 186/8 192/25 221/3 221/13 221/14 222/13 222/15 224/12</p> <p>infections [14] 61/22 92/24 93/1 97/18 97/22 100/2 126/25 132/14 132/18 159/15 185/16 192/18 199/10 210/13</p> <p>infectious [10] 56/22 72/25 74/25 77/21 78/19 97/3 97/15 197/7 225/11 225/14</p> <p>infectiousness [1] 226/10</p> <p>influenza [1] 158/19</p> <p>inform [3] 10/12 99/5 99/5</p> <p>informal [3] 6/24 13/11 208/7</p> <p>information [45] 5/23 5/24 5/24 10/13 13/15 13/21 13/21 13/22 25/15 33/16 35/2 35/3 35/6 35/12 36/9 42/7 43/7 43/13 43/14 44/6</p>	<p>46/8 46/9 46/11 73/25 85/18 86/1 86/2 87/8 87/12 102/16 105/14 105/23 106/12 110/25 120/17 122/17 123/23 124/4 124/7 136/3 153/7 167/3 189/8 225/4 227/22</p> <p>informed [3] 44/8 123/1 162/22</p> <p>inhalation [1] 144/24</p> <p>inhibit [1] 211/13</p> <p>initial [9] 74/24 99/10 151/13 154/18 158/17 168/13 192/6 192/25 217/16</p> <p>initially [13] 50/20 51/5 52/25 76/2 98/23 99/2 102/23 135/24 147/17 154/12 166/19 170/1 209/14</p> <p>initiated [1] 224/16</p> <p>injured [1] 23/16</p> <p>injurious [1] 21/2</p> <p>injury [2] 20/24 169/9</p> <p>inpatient [4] 194/16 194/25 195/11 196/8</p> <p>INQ00072310 [1] 33/17</p> <p>INQ000176354 [1] 159/4</p> <p>INQ000223307 [1] 71/21</p> <p>INQ000300579 [1] 81/19</p> <p>INQ000348029 [1] 133/25</p> <p>INQ000410237 [4] 108/20 114/5 157/11 223/24</p> <p>INQ000474233 [1] 104/19</p> <p>INQ000474285 [1] 128/6</p> <p>INQ000499523 [1] 66/5</p> <p>INQ00074822 [1] 122/4</p> <p>inquest [1] 55/22</p> <p>INQUIRY [21] 1/15 56/11 65/25 79/13 79/13 80/16 100/10 103/16 133/6 150/4 183/1 188/8 193/25 202/2 203/22 208/4 211/23 216/7 228/16 230/4 230/9</p> <p>Inquiry's [2] 104/21 211/9</p> <p>insight [7] 5/23 5/24 10/13 13/22 42/7 44/6 51/3</p> <p>insofar [2] 199/24 216/19</p>	<p>inspection [1] 15/16</p> <p>instance [1] 102/19</p> <p>instant [1] 225/8</p> <p>instead [2] 22/10 122/18</p> <p>Institute [2] 87/17 88/25</p> <p>instructed [3] 211/9 211/23 212/15</p> <p>instructions [2] 122/11 228/20</p> <p>insufficient [4] 5/1 5/7 51/2 228/7</p> <p>insult [1] 29/18</p> <p>insurmountable [1] 47/19</p> <p>intended [2] 176/15 218/21</p> <p>intending [1] 130/18</p> <p>intensive [42] 2/2 2/18 5/7 5/14 5/15 7/13 7/20 7/25 7/25 8/11 8/16 9/3 12/19 20/14 20/15 21/13 21/15 23/21 23/23 26/23 26/24 27/7 27/8 27/12 27/23 27/25 28/2 28/4 28/7 28/10 30/1 30/13 37/7 40/5 44/23 47/13 51/6 52/6 52/7 54/17 65/23 185/9</p> <p>interacted [2] 60/25 103/17</p> <p>interacting [2] 80/5 88/3</p> <p>interaction [4] 63/1 70/12 70/21 88/10</p> <p>interactions [2] 87/23 125/8</p> <p>interchangeably [1] 138/8</p> <p>interest [2] 72/2 103/15</p> <p>interested [3] 130/11 194/7 194/8</p> <p>interesting [2] 141/5 213/22</p> <p>internal [1] 147/21</p> <p>international [10] 82/22 83/8 85/6 85/11 85/19 85/21 85/21 98/24 169/16 191/13</p> <p>internationally [6] 83/6 85/18 85/19 87/9 100/12 170/5</p> <p>interpret [1] 130/7</p> <p>interpreted [1] 130/22</p> <p>interrupt [1] 14/1</p> <p>intervention [2] 168/6 168/20</p> <p>interventions [3] 163/10 190/18 207/6</p>	<p>into [84] 2/20 4/4 6/11 7/22 8/2 15/8 17/17 17/21 19/11 20/3 21/19 24/21 28/3 28/12 29/3 29/12 29/14 31/9 32/11 34/14 36/16 36/22 37/3 40/12 40/23 42/19 48/19 48/23 51/8 53/12 53/22 54/4 58/22 62/5 65/12 69/6 69/23 71/4 74/17 74/19 80/5 81/22 82/4 84/7 90/13 91/1 91/7 91/17 92/12 92/14 93/15 95/2 98/17 100/17 110/3 114/13 125/22 132/21 136/2 136/10 138/22 144/25 149/6 161/21 162/21 163/5 167/1 168/23 169/23 175/5 178/5 181/15 189/23 190/7 190/8 190/9 190/18 190/21 190/24 199/13 208/1 208/22 217/24 226/2</p> <p>into 2021 [1] 190/8</p> <p>into ICU [1] 92/12</p> <p>introduced [5] 4/17 141/6 203/12 208/13 214/22</p> <p>intubate [2] 4/4 28/8</p> <p>intubated [2] 9/6 26/25</p> <p>intubating [1] 32/8</p> <p>invariably [1] 153/21</p> <p>invasive [1] 27/9</p> <p>investigated [1] 128/23</p> <p>invite [2] 1/12 79/13</p> <p>invited [2] 5/19 187/8</p> <p>inviting [1] 79/2</p> <p>involve [1] 76/12</p> <p>involved [21] 5/10 20/17 75/11 75/13 78/13 79/4 81/8 88/3 89/18 100/11 100/19 117/18 141/24 146/9 147/18 154/16 201/19 202/17 217/15 222/23 228/4</p> <p>involvement [6] 81/20 121/10 219/15 219/19 219/20 220/18</p> <p>iPad [3] 30/8 30/11 31/4</p> <p>iPads [1] 43/1</p> <p>IPC [17] 77/8 78/6 80/21 139/13 142/19 143/6 148/7 152/12 152/15 152/21 154/2 155/8 211/5 211/9 211/23 211/24 212/1</p>
--	---	--	--	--

I	84/19 It's system [1] 68/14 It's very [1] 76/1 Italy [2] 93/10 158/9 items [4] 3/21 3/25 4/7 4/7 its [19] 9/3 9/4 22/24 26/6 51/14 52/5 60/7 76/25 92/21 93/22 99/15 133/3 133/4 133/15 153/4 154/18 227/5 227/5 227/6 itself [12] 45/18 47/18 51/12 76/20 83/25 95/8 155/14 163/12 166/22 166/23 174/14 191/12	jump [1] 157/19 June [10] 37/10 37/14 39/24 40/11 85/12 86/25 87/2 99/7 163/7 188/25 June 2020 [3] 86/25 87/2 163/7 June 2021 [3] 37/10 37/14 40/11 June 2022 [1] 85/12 junior [2] 39/14 171/16 just [153] 3/13 5/21 8/8 8/15 11/9 11/22 14/1 16/25 17/20 18/2 18/3 19/5 19/6 22/1 22/13 23/16 25/5 26/6 26/17 34/17 34/18 36/6 36/19 41/9 41/10 41/22 42/1 42/12 43/8 46/19 47/13 48/18 49/17 49/25 50/5 51/9 51/12 52/15 62/4 63/10 64/19 65/9 65/11 65/12 65/22 66/2 67/20 70/10 70/20 71/21 74/19 75/19 75/21 76/1 78/2 79/1 79/9 81/19 81/22 84/16 86/21 87/11 89/5 89/14 91/21 95/5 95/12 97/9 98/16 98/18 98/20 102/24 103/1 103/15 106/8 106/14 110/8 111/4 111/18 112/24 113/20 114/3 114/8 114/9 114/14 115/24 116/13 116/21 119/15 120/22 121/17 121/19 124/14 125/25 126/15 129/6 130/20 135/11 139/10 141/25 142/14 144/18 145/13 147/19 147/24 148/7 152/12 152/18 153/23 154/18 155/18 155/22 155/22 156/12 156/15 156/18 157/16 159/7 159/22 160/14 164/7 164/22 165/19 166/10 167/9 167/21 179/25 182/6 182/13 182/22 185/7 192/14 196/19 196/20 198/6 201/25 202/14 204/7 204/21 205/6 206/11 207/24 208/18 209/22 211/8 214/5 216/2 216/18 218/23 219/3 223/21 226/12 228/8 Justice [3] 50/4 200/15 219/2 Justice UK [2] 50/4 219/2	Justice Wales [1] 200/15 K Kamlesh [1] 100/8 KC [11] 49/20 188/5 200/11 215/12 218/19 218/22 230/6 230/13 230/15 230/17 230/18 keen [1] 81/7 keep [6] 3/23 17/20 26/6 94/13 104/17 154/5 keeping [3] 67/16 115/12 123/1 Keith [2] 33/25 35/10 Keith Willett [2] 33/25 35/10 Kent [1] 1/23 kept [1] 103/11 Kevin [5] 1/17 33/20 163/17 163/18 167/12 Kevin Fenton [1] 163/17 key [6] 64/4 69/12 93/18 93/21 162/4 179/4 Khunti [1] 100/8 kicked [1] 39/5 kicking [2] 131/25 132/1 kind [18] 4/3 12/10 23/22 43/12 62/2 68/1 71/10 91/9 100/22 109/17 129/21 150/14 156/5 185/12 186/20 197/1 204/20 218/16 kindly [1] 187/19 kinds [4] 61/15 95/15 131/20 207/8 kit [5] 77/3 77/18 77/19 78/2 78/4 kitchen [1] 20/19 knees [1] 40/3 knew [19] 6/15 6/25 20/25 29/14 34/16 34/21 34/21 37/5 41/7 42/11 42/18 59/8 82/17 99/3 102/24 103/13 132/17 134/15 199/16 knock [1] 91/12 know [114] 5/23 7/8 7/17 7/18 8/14 11/5 13/18 14/7 14/9 15/20 17/25 17/25 19/11 19/16 20/18 22/19 24/23 25/11 25/12 29/11 29/23 30/3 30/16 31/10 33/6 34/24 39/15 39/18 40/10 40/11 40/13 40/21 42/9 42/18 42/19 42/20 42/23	42/25 43/2 43/5 43/8 43/12 44/13 44/19 44/20 46/25 47/1 47/7 47/17 51/13 52/2 52/16 54/7 55/21 56/17 65/6 65/9 65/15 67/15 67/21 73/10 73/21 76/16 82/7 83/8 93/5 93/18 94/8 94/16 98/14 103/16 104/2 104/6 105/2 105/3 105/15 105/20 105/22 112/3 113/18 113/25 125/1 129/2 131/9 131/11 131/19 133/21 143/15 146/1 146/2 146/24 150/21 151/1 162/9 167/16 171/4 175/13 177/23 177/25 181/1 181/13 183/10 187/11 192/15 197/1 201/25 202/13 202/17 205/5 209/17 211/19 224/23 228/7 228/9 know-how [1] 47/17 knowing [4] 59/13 186/16 193/2 193/8 knowledge [4] 47/9 122/22 145/24 228/2 known [6] 92/5 140/8 180/2 221/1 221/14 224/11 knows [1] 81/4
IPCC [1] 153/19 Ireland [1] 14/23 iron [1] 102/8 irrelevant [2] 131/22 151/19 irrespective [1] 104/10 is [744] ISARIC [1] 202/24 isn't [10] 5/24 5/24 42/12 52/2 67/24 138/17 145/11 149/2 170/2 228/2 isolate [2] 95/12 126/22 isolated [1] 25/10 isolation [4] 121/7 194/19 195/2 195/6 issue [17] 83/8 100/4 110/8 115/24 119/12 120/10 121/23 124/2 148/2 166/8 169/14 198/9 202/5 203/6 208/2 219/5 225/18 issued [3] 22/10 155/9 156/8 issues [19] 39/13 80/5 105/8 121/8 121/23 135/15 135/17 153/11 162/17 163/21 163/22 164/25 165/1 166/3 181/17 182/13 183/11 199/25 216/23 issuing [1] 156/15 it [751] it's [75] 6/16 7/15 8/17 16/19 16/20 37/11 42/22 48/3 50/25 55/23 60/14 62/8 62/16 67/18 68/14 68/16 69/24 70/20 71/8 71/23 72/23 73/6 75/22 76/1 76/1 78/17 78/18 79/3 79/4 82/15 84/19 84/20 85/15 97/12 105/18 107/9 115/15 122/18 125/25 126/1 129/20 130/9 130/12 130/12 131/13 131/19 132/14 136/9 138/25 141/21 149/11 149/16 151/2 151/6 151/12 151/23 153/18 153/22 153/22 155/22 155/23 156/5 159/4 161/20 164/5 166/17 167/20 172/2 172/7 178/8 183/19 193/13 198/1 202/10 207/19 It's a [1] 132/14 it's multilateral [1]	J Jacobs [4] 178/21 178/23 183/15 230/11 January [22] 31/13 33/18 36/15 36/20 36/24 39/22 39/25 40/1 53/9 69/4 69/6 71/20 73/24 74/6 74/11 82/16 82/20 86/25 87/2 87/4 88/7 89/1 January 2016 [1] 89/1 January 2020 [1] 73/24 January 2021 [4] 36/20 39/22 40/1 53/9 January 4 [1] 36/24 Jenny [1] 135/10 Jeremy [2] 34/15 223/25 Jeremy Farrar [1] 34/15 job [12] 113/6 113/8 121/22 133/17 136/25 137/1 137/15 145/10 163/25 181/1 216/19 217/3 jobs [1] 153/9 join [1] 83/21 joined [1] 71/2 joint [2] 135/22 137/19 jointly [1] 137/21 journal [3] 172/4 187/6 187/10 judge [1] 174/5 judgment [7] 113/22 114/1 115/5 173/25 175/24 208/17 209/15 judgments [1] 168/10 July [5] 3/1 23/7 82/21 220/24 221/1 July 2020 [1] 82/21 July 2021 [1] 3/1	L lab [4] 149/13 149/19 150/10 150/11 lack [4] 51/20 66/13 66/15 149/1 Lady [25] 1/12 43/7 49/21 55/9 56/3 56/10 115/20 116/7 116/12 133/1 178/10 178/17 178/24 183/14 183/18 186/13 188/8 193/18 200/12 205/18 215/13 218/15 218/20 223/24 228/12 Lady's [1] 8/21 Ladyship [6] 45/6 101/22 176/18 176/21 184/13 225/20 Ladyship's [2] 137/24 195/19 lag [1] 37/6 laid [13] 57/14 59/13 69/11 85/2 107/18 114/2 171/22 183/1 195/18 206/25 207/1 207/9 226/16 land [2] 35/15 94/17 landed [1] 83/18 language [2] 52/3 142/4		

L	69/15 98/21	life [6] 1/7 21/8 30/10 113/23 122/13 175/2	113/16 113/20 114/4 116/18 116/22 117/3 117/7 134/2 134/12 206/13 215/9	98/17 98/19 99/1 99/12 100/1 100/2 100/5 100/7 100/18 100/22 101/1 101/4 101/7 101/8 101/11 101/19 101/25 101/25 102/10 102/19 102/22 103/3 103/6 103/10 103/13 103/16 103/21 103/23 104/1 104/4 104/9 104/12 104/17 104/23 105/7 106/11 106/17 107/1 107/11 107/14 125/3 133/5 144/11 149/9 162/14 180/17 184/11 188/7 188/13 188/14 188/17 188/19 188/21 189/12 189/14 189/23 190/1 190/4 190/7 190/9 190/21 191/3 191/3 191/12 192/3 192/7 192/7 192/9 192/24 196/17 198/13 200/1 222/16 222/24 226/4
languages [1] 167/1	learning [5] 13/18 47/8 57/13 177/6 223/5	life-threatening [1] 175/2	listen [3] 52/15 55/15 167/13	Long Covid [5] 100/7 104/12 188/19 190/7 191/3
large [29] 8/18 16/7 16/14 17/10 17/20 31/15 31/23 42/13 58/18 78/13 83/22 85/15 87/15 87/20 90/13 93/6 93/19 98/24 98/25 99/10 117/15 148/15 148/21 150/17 157/4 160/25 169/5 174/12 222/3	learnt [4] 4/20 18/9 223/3 223/11	lifting [2] 22/4 22/4	listening [2] 31/6 103/14	long-term [18] 91/25 92/11 92/14 92/17 92/23 93/14 96/1 96/1 96/4 96/6 100/1 101/25 102/10 106/17 192/3 192/7 192/9 200/1
largely [2] 160/23 213/10	least [17] 5/14 11/6 44/4 45/20 51/5 59/16 63/8 96/16 104/5 105/24 123/10 123/12 146/7 151/11 153/18 166/4 221/18	light [2] 59/16 90/5	lists [3] 110/5 110/8 113/3	long-winded [1] 196/17
larger [4] 37/17 37/18 48/21 58/14	leave [8] 1/10 125/20 132/3 183/13 192/20 193/18 213/7 215/25	like [66] 2/9 3/25 4/1 5/20 7/14 7/16 8/6 8/9 8/16 9/1 15/16 16/1 16/3 18/16 18/17 19/3 22/13 22/16 22/20 22/21 23/3 25/6 29/25 33/15 33/17 33/24 34/2 34/20 48/18 57/9 62/23 67/19 67/20 71/21 72/16 81/20 87/4 88/21 89/5 89/14 95/10 108/11 116/20 122/1 122/24 124/3 125/21 142/17 152/3 152/18 157/10 158/8 158/19 159/17 161/11 162/7 162/8 162/8 162/8 164/11 170/9 171/2 176/17 177/9 216/25 227/24	literally [4] 27/5 49/25 59/10 61/23	longer [8] 20/10 63/22 90/15 90/20 107/11 107/15 121/12 210/6
largest [3] 60/7 65/14 87/18	leaves [1] 142/16	likelihood [3] 221/2 224/12 224/13	literature [2] 85/6 129/10	longer-term [1] 107/11
last [15] 2/24 30/16 57/15 66/4 68/6 74/18 97/10 125/17 127/11 136/7 156/4 186/1 197/2 221/20 227/2	leaving [1] 144/16	likely [28] 11/6 24/11 24/16 63/18 66/14 110/23 121/8 127/9 127/20 127/22 134/15 138/4 149/7 151/12 152/1 159/10 160/7 160/12 160/13 161/4 161/9 161/13 168/21 181/15 194/18 195/1 200/6 211/13	live [2] 1/11 161/2	look [32] 9/11 19/13 19/17 19/24 21/16 28/9 40/13 40/18 44/18 48/5 49/13 71/21 73/2 90/3 99/3 100/24 104/19 106/9 114/3 157/16 157/17 157/21 163/20 168/3 168/10 169/14 181/18 182/9 183/11 193/12 194/3 226/20
late [6] 25/17 25/21 29/13 32/11 117/14 155/12	led [19] 3/7 7/24 8/12 25/8 32/4 35/7 35/17 46/1 58/25 64/10 80/10 93/17 100/8 104/8 110/19 112/11 112/14 121/15 163/18	limit [3] 44/23 69/18 228/20	lived [1] 208/20	looked [10] 9/1 27/13 28/3 41/11 111/18 114/9 156/8 165/6 181/21 216/22
later [8] 29/23 33/6 88/6 177/9 177/10 193/8 206/4 224/5	left [6] 24/15 25/6 30/2 39/13 90/23 192/3	limitation [4] 60/11 224/23 225/15 226/20	lives [4] 95/13 174/19 176/1 207/14	looking [10] 42/9 42/9 73/25 99/11 99/14 100/23 103/9 103/25 116/1 152/20
lateral [3] 226/5 226/8 226/15	legal [2] 120/9 120/12	limitations [2] 166/7 224/20	living [15] 8/18 106/11 115/5 162/8 164/14 165/17 190/4 196/10 198/19 198/22 199/9 199/20 206/6 207/14 208/18	looks [1] 101/10
launched [1] 164/1	legitimate [1] 165/20	limited [11] 24/12 27/1 40/2 95/13 100/3 105/23 110/10 135/23 136/16 191/21 206/20	loaded [1] 62/17	loosely [1] 142/8
law [1] 120/14	legitimately [1] 156/3	lines [2] 74/14 187/6	loading [1] 95/7	
lay [2] 119/2 207/2	Leicester [2] 114/21 125/21	link [3] 18/23 70/20 104/2	local [8] 38/14 114/12 121/20 124/22 125/25 125/25 143/10 163/21	
layer [1] 141/14	lengthy [1] 116/2	linked [1] 159/14	locality [2] 124/21 143/9	
layers [1] 180/14	less [21] 39/16 57/25 68/15 70/7 92/20 101/11 102/2 104/13 123/23 138/21 141/19 160/13 163/3 165/15 178/5 195/24 199/9 218/3 226/8 226/9 228/4	linking [1] 214/12	locations [1] 51/25	
laying [1] 220/15	lesson [1] 49/9	links [2] 86/8 100/11	lock [1] 8/13	
layman's [1] 6/11	lessons [6] 18/9 45/2 47/8 47/11 49/11 69/15	list [21] 109/10 109/11 109/18 109/21 110/9 110/15 110/18 112/4 112/5 112/18	lockdown [10] 36/16 36/24 62/11 63/19 64/18 68/22 69/7 81/22 93/15 114/13	
lays [1] 123/20	let [5] 79/1 98/16 133/4 142/14 225/23		lockdowns [1] 196/4	
lead [23] 1/15 6/15 19/3 26/10 28/23 52/25 52/25 53/2 53/6 56/11 69/9 88/13 93/20 104/14 108/3 124/20 127/14 137/13 161/13 210/22 213/5 230/4 230/9	letter [1] 206/24		Lockey [3] 203/6 203/11 203/19	
lead-in [1] 69/9	letters [2] 109/3 114/9		logic [4] 132/17 220/13 226/24 227/5	
leaders [5] 19/12 87/24 167/13 185/6 185/6	level [23] 9/20 47/10 47/11 66/12 67/9 76/21 77/23 78/20 94/23 120/12 125/24 127/2 139/22 143/10 143/11 145/23 159/20 180/22 180/25 181/5 184/17 189/20 219/17		logical [1] 145/8	
leadership [5] 18/22 18/24 62/1 88/13 91/4	levels [9] 12/11 29/19 75/6 127/5 161/11 162/9 184/8 184/15 185/1		logistical [1] 123/18	
leading [8] 2/20 135/9 135/18 140/18 146/7 184/22 184/23 202/12	Levine [1] 100/13		London [3] 1/18 125/23 160/24	
leads [6] 129/23 146/21 153/8 167/25 210/25 210/25	lie [1] 204/22		loneliness [1] 123/19	
learn [3] 4/10 49/11 223/7			lonely [2] 153/9 155/4	
learned [4] 45/2 49/9			long [106] 2/24 9/8 9/10 11/23 26/13 26/16 27/17 30/20 59/17 87/6 87/7 90/15 91/17 91/23 91/25 92/6 92/11 92/14 92/17 92/23 93/13 93/14 94/15 95/18 95/24 96/1 96/1 96/4 96/6 96/13 98/11	

L	main [4] 95/21 165/14 193/24 222/1	manifestation [1] 101/12	182/9 182/12 218/23 219/3	88/18 106/19 109/17 111/20 113/6 117/16 121/13 123/6 123/11 123/24 124/6 124/18 125/15 129/9 135/9 137/2 143/19 145/7 147/18 151/1 153/8 153/12 155/18 155/21 156/20 158/22 165/12 166/4 166/17 166/18 167/8 168/3 168/7 170/4 170/5 172/2 174/14 176/6 180/16 182/24 185/24 192/18 195/18 196/21 202/8 206/9 207/17 208/1 212/23 215/1 223/6 227/15
Lord [3] 65/11 178/4 221/23	mainland [1] 219/12	many [73] 3/5 5/10 6/23 9/13 16/12 30/23 33/21 36/23 39/9 40/5 42/3 52/13 52/13 53/7 57/16 58/6 59/15 61/22 64/13 65/4 83/9 85/17 86/9 87/14 97/17 100/10 107/5 118/7 127/23 131/8 131/20 131/23 132/7 135/15 136/2 146/14 147/9 147/9 153/9 156/20 159/9 161/12 162/2 164/22 167/1 169/22 169/25 171/9 173/24 174/24 185/19 185/25 186/5 187/11 188/9 195/20 196/2 196/3 196/9 196/10 196/14 208/4 208/8 209/20 210/13 218/13 218/20 223/11 223/14 223/14 223/15 225/9 225/21	maximise [1] 221/12	meaning [1] 220/7
Lord Darzi [1] 65/11	mainly [2] 60/5 124/2	March [16] 3/10 59/3 62/12 69/1 69/7 81/22 87/4 93/8 109/4 111/15 113/5 114/8 114/12 118/9 134/2 140/9	maximising [1] 209/13	means [7] 16/17 119/3 130/5 153/12 155/22 173/17 185/2
Lord Darzi's [1] 178/4	maintain [3] 17/5 54/1 207/12	March 2020 [7] 3/10 59/3 62/12 69/1 109/4 118/9 140/9	may [70] 1/4 1/12 13/5 14/5 34/4 44/5 44/19 55/21 56/3 61/9 61/12 62/5 78/16 78/16 83/12 89/14 91/13 91/24 92/5 93/12 94/14 96/9 97/4 97/22 98/1 98/3 98/4 99/25 104/14 105/14 106/13 109/8 109/10 110/16 112/7 114/14 114/18 116/4 116/5 117/21 122/9 125/10 140/21 148/19 150/1 150/5 151/25 152/1 155/11 161/24 164/7 169/8 169/8 169/25 170/18 172/14 174/10 178/10 182/7 187/1 187/5 187/8 187/9 187/18 188/12 194/14 204/9 218/24 227/8 228/6	meant [12] 24/5 24/14 53/20 55/2 57/4 59/16 60/15 91/5 101/9 122/11 143/7 225/4
lose [3] 21/6 86/17 86/18	maintained [1] 197/25	mark [4] 95/18 120/3 166/24 167/2	maybe [2] 41/18 97/12	measures [6] 17/7 77/9 209/24 214/17 227/11 227/13
lost [4] 3/7 75/19 141/14 215/9	maintaining [3] 61/17 197/8 197/9	marks [1] 142/16	mayors [1] 163/20	mechanism [13] 46/2 46/2 46/4 46/5 46/7 46/10 128/16 131/14 168/17 177/2 193/4 193/16 216/22
lot [51] 18/10 18/11 34/14 50/7 57/12 64/19 79/22 81/6 83/5 85/18 87/23 99/23 99/24 100/16 103/8 105/8 111/2 113/7 116/1 123/8 124/18 135/14 137/10 137/24 139/16 142/13 144/11 144/17 146/2 149/16 151/13 154/24 157/1 162/7 163/19 167/7 181/2 181/4 181/5 185/23 194/21 196/15 207/11 208/20 209/5 210/18 222/6 223/3 223/9 223/13 227/3	major [14] 23/4 23/8 65/14 68/15 72/16 74/18 82/13 89/21 115/4 151/12 152/2 204/4 224/20 225/8	mask [10] 58/4 58/7 140/15 141/1 141/19 149/8 149/22 213/19 213/24 214/11	me [75] 3/14 3/18 6/14 7/2 7/3 7/24 8/12 9/22 14/10 14/15 19/6 19/22 21/9 22/1 25/13 26/13 26/14 29/24 30/1 33/21 34/10 34/20 35/1 35/4 35/16 36/4 40/10 45/20 49/12 61/4 62/23 66/25 67/15 75/19 79/1 79/2 79/19 80/15 83/24 86/5 86/11 91/21 96/24 98/16 108/21 119/2 122/24 123/7 125/10 136/22 139/19 141/9 142/14 144/9 144/18 145/11 145/18 154/21 155/22 166/13 169/13 170/4 172/15 185/24 197/10 198/1 200/19 206/10 212/20 217/10 218/7 222/2 225/21 228/7 228/8	mechanisms [6] 10/12 43/22 47/3 48/10 195/25 227/19
lots [4] 120/8 125/1 172/3 186/12	majority [11] 49/23 65/3 93/1 102/17 128/24 148/18 175/22 193/5 206/12 220/9 222/18	masking [1] 214/19	meals [1] 181/3	mechanistic [3] 165/15 171/24 174/3
loud [1] 93/25	make [53] 10/16 15/15 20/7 32/20 34/2 48/7 56/8 59/7 59/22 61/14 61/17 62/7 62/18 65/9 71/8 82/18 86/19 89/23 91/24 100/14 107/12 107/21 113/21 116/18 117/21 129/1 129/11 129/19 136/17 138/10 140/14 144/3 147/22 147/23 149/5 153/16 166/12 171/16 172/23 180/17 184/15 185/4 187/18 191/23 205/2 207/15 213/23 215/3 218/2 219/23 226/19 227/21 228/21	masks [16] 77/4 77/14 77/14 147/10 150/3 150/23 211/4 211/13 211/15 211/17 212/18 213/9 213/15 214/12 214/14 214/22	mean [77] 12/24 16/16 16/25 29/11 61/20 64/19 64/22 66/18 66/23 68/1 70/2 70/4 70/16 71/3 72/1 73/18 74/15 81/11 82/3 82/7 84/7 84/19 87/6 87/24 88/11	mechanistically [1] 80/19
low [11] 9/5 68/11 94/25 184/8 197/25 215/21 216/12 217/18 220/5 224/3 226/21	maker [1] 153/16	massive [11] 16/22 17/19 18/4 26/21 26/21 29/18 29/20 32/9 32/12 39/19 147/14	meant [12] 24/5 24/14 53/20 55/2 57/4 59/16 60/15 91/5 101/9 122/11 143/7 225/4	medical [45] 1/22 5/7 23/9 26/19 32/24 49/4 56/18 59/19 60/3 60/24 62/1 65/15 75/3 89/22 102/25 105/25 111/9 126/10 129/7 132/4 138/17 139/1 139/7 140/2 143/5 147/2 154/19 154/20 183/23 187/6 187/10 188/18 189/13 189/13 204/25 215/19 216/5 216/11 217/9 219/15 220/18 220/22 221/10 221/21 222/6
lower [15] 44/23 53/17 58/25 75/6 101/11 121/4 124/14 154/8 158/24 162/9 175/5 180/9 180/24 206/15 208/12	makes [6] 64/22 128/20 129/7 132/4 138/21 152/24	massively [3] 58/25 73/4 127/17	meant [12] 24/5 24/14 53/20 55/2 57/4 59/16 60/15 91/5 101/9 122/11 143/7 225/4	medically [1] 201/11
lowering [1] 203/3	making [25] 61/18 62/15 65/12 74/21 78/4 79/18 123/2 123/6 124/10 127/23 132/11 137/14 137/16 147/19 148/1 150/6 153/4 153/5 156/12 163/19 184/24 187/13 189/6 202/10 212/13	matron [6] 19/3 19/8 21/3 21/9 52/25 53/6	meant [12] 24/5 24/14 53/20 55/2 57/4 59/16 60/15 91/5 101/9 122/11 143/7 225/4	medicine [7] 2/2 56/22 72/24 72/24 136/20 150/15 201/15
lowest [2] 43/13 111/9	managed [2] 47/12 48/4	Matt [2] 86/25 88/10	meant [12] 24/5 24/14 53/20 55/2 57/4 59/16 60/15 91/5 101/9 122/11 143/7 225/4	
lump [1] 98/4	management [6] 1/8 18/19 85/9 98/10 99/5 226/3	matter [4] 107/13 150/7 150/8 214/5	meant [12] 24/5 24/14 53/20 55/2 57/4 59/16 60/15 91/5 101/9 122/11 143/7 225/4	
lunchtime [1] 107/23	manager [1] 28/16	matters [8] 62/5 104/22 104/24 182/7	meant [12] 24/5 24/14 53/20 55/2 57/4 59/16 60/15 91/5 101/9 122/11 143/7 225/4	
M	managers [1] 35/10		meant [12] 24/5 24/14 53/20 55/2 57/4 59/16 60/15 91/5 101/9 122/11 143/7 225/4	
machines [1] 48/6	managing [6] 9/24 18/3 43/20 45/15 76/5 145/23		meant [12] 24/5 24/14 53/20 55/2 57/4 59/16 60/15 91/5 101/9 122/11 143/7 225/4	
macro [1] 125/24			meant [12] 24/5 24/14 53/20 55/2 57/4 59/16 60/15 91/5 101/9 122/11 143/7 225/4	
made [39] 12/13 38/8 40/10 41/13 46/12 54/15 55/7 62/7 65/16 71/4 75/19 96/14 109/11 114/1 125/4 133/7 146/12 149/12 156/4 161/16 166/13 168/6 168/11 175/25 182/24 183/4 185/13 200/23 201/3 202/3 202/14 202/14 202/15 208/17 211/10 217/25 218/12 226/13 227/10			meant [12] 24/5 24/14 53/20 55/2 57/4 59/16 60/15 91/5 101/9 122/11 143/7 225/4	
magic [1] 46/19			meant [12] 24/5 24/14 53/20 55/2 57/4 59/16 60/15 91/5 101/9 122/11 143/7 225/4	

M	125/7	minority [8] 7/7	54/20	135/15 147/1 156/22
medicines [2] 127/5 227/24	methodological [1] 129/12	102/14 103/22 104/11 119/5 161/10 163/15 215/22	moral [1] 20/23	167/10 175/23 183/5
medium [4] 26/8 37/15 84/9 199/25	methodologies [1] 170/11	minutes [3] 32/16 33/11 169/6	morale [1] 142/19	199/8 199/10 199/10
medium-sized [1] 37/15	metres [2] 8/17 138/23	mirror [1] 13/13	Moran [1] 35/10	211/3 216/6 227/3
meet [2] 197/15 228/19	microbiology [1] 79/8	misapprehension [1] 204/17	morbidity [2] 161/25 163/4	227/19
meeting [2] 71/20 88/18	microbiology/virology [1] 79/8	miserable [1] 122/14	more [106] 3/7 4/24 14/18 24/12 28/7	mount [1] 111/6
meetings [14] 82/21 82/22 82/23 83/11 84/22 84/23 85/11 86/21 86/24 86/25 87/1 88/16 111/15 111/18	mid [4] 82/16 140/1 140/5 143/21	mismatch [1] 146/14	29/25 30/15 33/3 33/4 33/12 33/24 35/25	move [5] 78/18 90/19 166/18 189/23 212/14
member [4] 30/9 61/25 71/15 71/16	mid-flow [1] 143/21	miss [1] 98/4	40/16 43/8 45/18	moved [4] 76/11 90/24 152/8 178/22
members [13] 19/20 30/8 32/23 60/8 60/9 61/3 61/4 126/18 208/19 209/2 212/25 215/16 219/7	mid-January [1] 82/16	missing [1] 194/21	49/10 49/17 49/18	moving [4] 24/12 29/14 50/20 79/18
membership [1] 84/20	mid-point [2] 140/1 140/5	misunderstanding [2] 51/6 204/10	51/13 58/1 62/2 64/10 65/1 65/5 66/14 67/24	Mr [16] 122/21 178/21 178/23 183/15
memorable [1] 7/12	middle [4] 19/24 57/12 67/7 183/6	misunderstandings [1] 203/7	68/10 70/2 70/8 76/7	183/16 183/21 188/2
memory [3] 47/22 47/22 99/6	Midlands [1] 161/1	misunderstood [1] 46/6	94/21 96/14 97/12	193/20 193/21 205/20
mental [26] 39/13 44/5 105/6 115/8 121/7 123/19 172/24 184/3 193/23 194/2 194/13 194/16 194/18 194/24 195/2 195/11 195/12 195/16 196/10 197/4 197/8 198/4 198/19 199/12 199/25 223/11	midwives [7] 135/7 135/21 136/21 136/22 137/3 137/6 137/22	mitigate [3] 96/3 163/11 203/13	106/24 110/17 112/15 116/16 116/19 116/23	205/22 215/7 230/11
mentally [1] 109/22	might [28] 7/2 15/11 15/20 29/5 43/4 61/13 79/13 80/16 94/13 94/17 95/25 96/2 99/16 99/17 107/6 107/7 117/22 118/1 123/13 133/10 144/6 164/14 171/15 176/8 208/24 209/23 210/4 220/9	mitigating [1] 209/24	118/19 123/11 126/6 127/19 127/25 133/9	230/12 230/14 230/16
mention [3] 75/9 204/16 217/18	mild [3] 92/22 192/24 193/6	mix [1] 169/23	138/23 139/23 142/15 142/21 146/18 149/7	Mr Jacobs [2] 178/21 183/15
mentioned [6] 12/25 45/13 51/21 88/21 176/20 202/24	milder [1] 92/21	mixed [1] 18/9	149/21 149/22 150/1	Mr Pezzani [1] 193/20
merge [1] 120/15	million [8] 89/15 91/23 98/19 114/15 117/2 117/12 118/23 134/8	mixture [1] 77/14	152/24 156/9 158/15	Mr Stanton [1] 188/2
merged [1] 187/20	millions [2] 122/8 122/24	model [1] 133/20	159/18 160/7 160/11	Mr Vallance [1] 122/21
MERS [3] 72/9 73/3 152/6	mind [9] 94/20 96/8 104/17 137/24 151/4 176/21 193/23 194/9 206/18	Modelling [1] 85/5	160/12 161/4 161/13 164/10 167/14 168/5	Mr Wagner [2] 205/20 215/7
message [8] 3/10 78/24 93/25 166/15 166/23 166/23 167/18 175/10	minds [1] 102/16	moderate [2] 92/22 192/25	168/22 168/25 174/2 177/1 178/13 180/4	Ms [23] 1/3 49/18 49/20 55/10 116/11
messages [5] 93/20 98/12 167/5 167/17 175/14	mine [2] 86/10 121/2	module [18] 1/15 56/11 56/14 62/10 63/16 65/24 74/19 84/14 101/22 125/17 188/14 193/25 216/7 221/20 223/4 223/23 230/5 230/10	181/15 184/13 184/19 185/8 185/9 185/10	181/24 188/4 188/5
messaging [9] 79/14 81/10 81/15 93/14 93/16 94/17 101/21 101/23 174/16	minimise [7] 62/20 63/24 68/20 209/11 220/12 221/13 222/2	Module 2 [3] 62/10 63/16 188/14	186/20 191/6 191/23 191/24 192/23 194/23 199/1 199/20 199/21 199/22 202/18 203/23	215/10 215/12 218/17
messenger [1] 167/18	minimised [2] 219/25 223/2	Module 3 [2] 56/14 223/23	207/22 208/7 208/10 208/22 208/25 209/15 210/10 210/18 210/18 211/18 211/21 211/21 218/2 218/4 225/11 225/20	218/18 218/19 218/22 228/13 230/6 230/13 230/15 230/17 230/18
met [3] 19/12 52/25	minimising [1] 171/22	Module 3's [1] 84/14	210/10 210/18 210/18 211/18 211/21 211/21 218/2 218/4 225/11 225/20	Ms Carey [1] 1/3 Ms Carey KC [1] 218/22

<p>M</p> <p>much... [41] 150/8 150/21 154/8 158/24 162/17 165/14 167/14 168/4 173/4 173/7 174/2 175/15 178/3 179/23 180/24 183/15 186/10 193/7 193/19 199/18 199/20 200/8 200/9 202/21 205/19 206/15 208/12 210/10 211/21 212/14 214/6 214/8 217/2 218/4 218/7 218/14 218/16 220/16 223/20 228/4 228/11</p> <p>multidisciplinary [1] 107/5</p> <p>multidrug [1] 145/1</p> <p>multidrug-resistant [1] 145/1</p> <p>multilateral [1] 84/19</p> <p>multilayered [1] 42/14</p> <p>multiple [20] 77/22 85/17 86/5 90/14 111/13 113/9 117/18 117/20 117/23 119/8 119/18 123/7 126/25 127/22 183/9 184/21 201/9 216/23 217/25 226/7</p> <p>Munroe [10] 49/18 49/20 50/3 55/10 218/18 218/19 219/1 228/13 230/6 230/18</p> <p>must [6] 15/13 35/7 47/9 47/20 175/2 201/2</p> <p>mutual [1] 153/8</p> <p>my [140] 1/12 8/21 10/5 14/25 19/16 23/8 28/17 34/12 34/23 34/25 35/8 35/9 35/11 35/13 42/6 43/7 43/9 47/6 49/21 49/23 50/3 50/6 50/13 53/14 55/5 55/9 56/3 56/7 56/10 57/3 57/13 59/7 61/22 61/24 68/19 70/24 71/6 72/1 75/19 79/5 79/11 80/17 80/19 81/2 81/2 82/4 82/4 83/24 96/12 98/14 99/19 100/13 104/5 105/5 114/1 115/20 116/7 116/12 127/9 129/19 130/14 131/24 132/1 133/1 137/5 138/13 143/4 145/7 148/4 148/7 149/5 152/24 155/2 155/19 166/25 168/13 168/20</p> <p>170/6 173/25 175/4 175/21 175/24 178/10 178/10 178/17 178/24 179/9 180/1 180/17 183/14 183/18 184/24 186/13 187/18 188/8 189/6 193/18 194/11 195/14 198/15 199/3 200/7 200/12 200/15 201/4 202/22 204/12 205/15 205/18 205/23 209/16 209/17 211/4 212/3 212/5 214/1 214/12 215/9 215/13 217/3 217/3 217/12 218/9 218/10 218/15 218/20 218/25 220/17 221/8 221/16 222/18 223/18 223/24 224/11 227/2 227/3 227/20 228/2 228/5 228/12</p> <p>my Lady [21] 1/12 43/7 49/21 55/9 56/3 56/10 115/20 116/7 116/12 133/1 178/10 183/14 186/13 188/8 193/18 200/12 215/13 218/15 218/20 223/24 228/12</p> <p>my Lady's [1] 8/21</p> <p>myself [7] 7/3 34/12 123/3 123/6 124/7 126/22 189/8</p> <hr/> <p>N</p> <p>name [5] 1/16 50/3 56/12 205/23 218/25</p> <p>narrative [1] 35/15</p> <p>narrow [1] 96/5</p> <p>nation [1] 205/14</p> <p>national [14] 2/6 28/24 49/2 52/3 87/17 88/25 114/20 143/10 190/12 190/17 190/20 204/23 205/5 205/7</p> <p>nationally [4] 87/9 203/19 204/14 205/11</p> <p>nations [7] 14/25 15/4 15/7 68/12 153/3 154/25 203/18</p> <p>natural [3] 35/16 50/19 126/23</p> <p>nature [6] 82/22 92/4 144/16 148/10 190/19 192/9</p> <p>near [7] 64/15 65/17 79/14 90/18 138/20 139/14 222/22</p> <p>nearly [5] 16/18 16/19 39/19 39/20 66/4</p> <p>necessarily [3] 105/16 197/6 214/10</p> <p>necessary [7] 10/8</p> <p>24/13 34/8 68/19 125/6 207/7 211/18</p> <p>need [61] 4/19 25/14 25/14 26/5 28/7 35/12 40/17 43/16 45/25 46/10 47/3 47/3 47/24 47/25 47/25 48/8 49/5 49/6 49/7 49/11 51/2 70/2 76/15 95/10 95/11 96/8 96/10 99/23 119/21 120/2 120/5 128/4 132/13 139/13 144/19 148/15 150/10 150/13 150/21 157/5 164/11 167/19 168/3 170/14 172/8 172/9 172/23 179/18 181/18 183/10 183/11 186/19 190/1 198/9 201/3 201/10 205/1 209/12 209/14 216/8 224/24</p> <p>needed [18] 11/16 23/19 26/11 28/6 44/10 48/24 49/1 49/10 80/10 133/13 159/11 169/10 169/12 171/19 183/3 196/14 211/22 224/9</p> <p>needs [7] 48/16 48/17 49/4 107/18 127/22 185/22 197/15</p> <p>negative [1] 125/9</p> <p>neither [2] 12/24 194/5</p> <p>nervous [1] 226/16</p> <p>nervousness [1] 54/5</p> <p>NERVTAG [8] 70/12 70/14 70/17 70/19 70/20 70/24 71/4 71/20</p> <p>net [2] 110/11 110/12</p> <p>never [11] 7/15 23/3 26/12 27/14 30/13 55/14 130/8 156/18 172/9 173/6 190/24</p> <p>nevertheless [3] 146/18 157/2 201/4</p> <p>new [15] 57/20 72/8 76/5 92/1 95/25 101/1 131/2 137/23 147/11 151/5 164/10 186/19 190/8 190/14 213/24</p> <p>newly [1] 39/17</p> <p>next [23] 1/3 24/17 43/2 47/24 66/12 67/9 114/13 140/19 145/20 146/4 147/4 164/16 168/2 170/19 178/2 178/13 181/19 183/16 185/15 197/24 198/15 202/22 215/9</p> <p>NHS [56] 1/19 2/6</p> <p>11/13 14/25 15/1 15/1 15/17 33/25 35/9 42/12 48/15 49/9 60/6 60/20 60/21 60/22 60/25 60/25 61/3 61/4 61/14 62/12 63/2 63/19 64/21 64/23 65/10 65/13 67/7 73/22 80/4 80/24 89/10 90/2 133/15 154/13 154/20 174/18 174/19 174/25 184/23 187/3 215/18 219/6 219/9 219/18 221/11 222/7 222/8 222/10 222/13 222/20 222/20 223/5 224/10 225/24</p> <p>NHS England [9] 2/6 14/25 15/17 33/25 35/9 60/22 61/14 133/15 222/7</p> <p>NHSE [2] 11/8 103/11</p> <p>NICE [1] 105/20</p> <p>night [5] 28/13 28/22 29/7 31/20 34/12</p> <p>Nightingale [1] 69/16</p> <p>nightmares [1] 22/13</p> <p>NIHR [5] 88/25 89/7 164/2 190/6 190/8</p> <p>nine [4] 12/2 28/7 37/20 40/14</p> <p>nine more [1] 28/7</p> <p>no [80] 4/16 5/21 11/4 21/14 22/25 25/7 27/5 28/2 28/8 28/9 32/10 33/3 37/25 38/8 38/16 44/23 48/8 51/13 53/16 53/17 61/1 63/22 66/24 69/19 77/14 78/2 78/3 81/4 82/12 83/24 84/19 84/20 86/5 90/20 92/4 94/7 94/10 105/16 107/16 111/11 116/3 118/10 121/12 121/13 122/17 122/17 122/18 123/6 128/12 131/2 132/4 136/17 137/2 142/10 143/19 145/4 146/16 147/17 149/22 150/11 151/19 163/6 168/18 168/24 177/22 179/9 191/18 194/16 194/24 195/3 195/10 195/15 195/24 201/21 203/17 204/19 209/7 209/19 219/20 222/8</p> <p>nobody's [1] 18/17</p> <p>noise [1] 8/6</p> <p>noisy [1] 8/11</p> <p>non [14] 12/22 12/24 27/9 55/4 78/23</p> <p>118/24 118/25 190/3 193/15 210/12 212/1 215/17 220/8 225/11</p> <p>non-AGP [1] 78/23</p> <p>non-clinical [3] 12/22 12/24 215/17</p> <p>non-Covid [1] 220/8</p> <p>non-hospitalised [1] 193/15</p> <p>non-infectious [1] 225/11</p> <p>non-invasive [1] 27/9</p> <p>non-pharmacological [1] 190/3</p> <p>Non-specifically [1] 210/12</p> <p>non-white [2] 118/24 118/25</p> <p>none [2] 20/13 90/10</p> <p>nonetheless [1] 66/9</p> <p>nor [4] 12/25 79/5 110/11 194/6</p> <p>normal [13] 20/6 20/12 32/19 63/23 65/10 73/23 78/16 86/3 88/14 171/24 174/4 192/20 201/10</p> <p>normally [7] 16/8 65/8 67/14 73/19 111/4 126/21 217/24</p> <p>Northern [1] 14/23</p> <p>Northover [4] 194/1 194/14 195/9 197/19</p> <p>nosocomial [4] 132/12 148/22 222/13 223/13</p> <p>not [310]</p> <p>note [2] 71/25 132/8</p> <p>notes [1] 19/16</p> <p>nothing [12] 8/16 22/20 22/21 23/9 30/15 31/8 122/14 122/16 122/17 164/10 172/7 213/2</p> <p>notice [1] 38/5</p> <p>noticeable [1] 58/9</p> <p>noticed [1] 198/20</p> <p>notices [5] 200/16 201/5 203/4 203/8 203/9</p> <p>noting [1] 227/15</p> <p>notwithstanding [1] 78/22</p> <p>November [3] 105/18 107/4 224/10</p> <p>November 2020 [2] 105/18 107/4</p> <p>now [66] 1/10 1/13 2/3 11/15 11/22 17/17 23/1 23/13 26/15 27/17 29/14 33/14 34/8 36/19 41/10 47/24 64/12 66/18 68/13 71/19 72/4</p>				
---	--	--	--	--

N	147/2 155/1 204/25	132/25 188/15	23/11 25/7 26/4 26/24	120/1 123/5 123/24
now... [45] 73/20	O	odd [1] 83/1	27/5 28/8 28/9 30/7	123/24 139/5 142/10
74/8 80/23 81/15	o'clock [1] 12/2	odds [2] 4/21 4/22	32/10 32/12 38/16	148/12 190/17 191/12
82/20 88/21 90/17	obesity [1] 159/16	off [24] 9/25 20/8	39/14 39/20 39/20	221/6 222/5 226/3
91/6 91/16 91/24	obligation [1] 84/20	28/14 34/23 36/6 39/5	39/21 44/18 44/23	ONS [3] 91/22 103/9
92/23 92/23 101/14	observation [2]	87/20 90/12 93/18	47/5 48/8 49/12 52/23	208/3
106/5 106/16 107/4	10/17 171/3	95/17 137/9 137/12	53/17 54/4 54/4 59/7	onset [1] 69/24
115/19 120/11 124/14	observational [4]	149/7 152/14 154/19	60/5 62/11 66/23	onto [4] 12/5 17/21
125/5 134/5 135/4	129/22 149/20 149/23	157/5 166/18 166/19	66/25 68/6 68/24 70/7	26/17 42/25
141/7 147/8 149/5	150/13	166/24 167/2 186/24	72/13 72/17 72/23	onwards [1] 82/16
150/4 150/7 152/4	observationally [1]	offer [5] 6/25 12/13	73/6 73/13 74/9 76/1	open [10] 12/13 27/1
152/8 152/17 161/8	141/23	15/3 24/24 30/15	76/1 77/16 77/21 79/4	94/4 96/8 104/17
169/19 170/2 172/4	observations [4]	offers [1] 144/23	81/1 81/4 82/18 83/5	172/2 172/8 173/4
176/18 187/10 198/13	53/10 54/18 138/10	office [17] 56/8 59/18	83/24 87/13 89/3	174/18 174/25
206/14 208/25 214/13	159/12	60/1 87/1 108/3	89/23 91/9 91/16 92/8	opening [2] 106/9
221/4 221/23 222/20	observed [1] 21/10	126/10 155/13 155/13	92/9 93/9 96/14 96/16	171/1
224/9 226/21	observer [6] 70/25	155/19 206/4 216/4	98/5 102/15 103/25	openly [1] 174/11
nowhere [3] 64/15	71/3 71/5 71/6 71/9	216/10 219/14 219/15	104/7 110/2 113/12	operate [3] 9/19
173/20 173/21	71/11	221/10 222/6 228/21	113/20 118/1 120/8	76/18 124/24
NPIs [1] 68/22	observers [2] 70/14	officer [16] 26/19	122/2 122/8 122/23	operating [7] 8/2
nuance [2] 46/20	191/19	26/19 26/20 28/15	124/9 126/19 126/21	8/15 26/19 28/15 32/7
51/20	obstetricians [2]	56/18 59/19 60/24	130/16 131/18 132/11	32/9 54/8
nuanced [2] 129/17	135/19 137/22	126/10 189/14 216/5	135/13 135/17 137/21	operation [2] 60/20
130/24	obstetrics [2] 135/6	216/11 217/9 219/15	138/22 139/8 140/17	70/18
number [38] 6/19	137/4	220/18 221/10 222/6	141/2 142/17 143/2	operational [7] 10/19
6/20 17/10 17/13	obvious [13] 55/12	officers [2] 60/3	144/20 147/8 147/16	47/10 47/11 47/21
17/20 19/5 23/7 29/5	93/8 95/19 147/2	155/1	147/24 148/14 151/18	110/6 149/15 227/16
34/2 56/24 62/21 63/6	147/19 153/22 154/23	official [1] 172/6	153/6 153/10 154/2	operationally [3]
63/25 71/23 72/15	164/17 184/24 193/13	officials [1] 88/5	154/9 155/25 155/25	11/4 37/8 109/23
76/4 76/10 76/23	196/9 214/10 224/18	offload [1] 173/18	156/11 157/5 157/8	opinion [2] 96/12
83/22 87/1 89/21 90/8	obviously [32] 8/8	often [13] 20/14 72/7	157/15 165/12 166/21	140/2
93/6 111/15 115/1	21/8 23/2 29/21 55/13	72/23 78/2 104/25	168/5 168/7 168/25	opinions [2] 51/19
135/2 140/12 157/12	58/13 60/14 65/21	127/21 139/10 174/24	168/25 169/9 170/23	95/6
161/19 164/1 169/5	71/22 81/12 83/4 88/3	180/24 186/10 196/14	171/10 172/6 172/21	opportunity [2] 194/3
174/12 175/4 176/16	88/12 92/18 95/14	221/4 221/5	174/16 174/22 175/15	201/13
185/11 188/11 223/9	100/11 101/15 102/4	okay [7] 11/16 32/20	176/19 176/25 177/19	opposed [2] 152/5
226/13	115/22 119/12 133/18	42/23 88/20 134/19	178/13 180/23 182/21	211/16
numbers [20] 5/4	135/20 136/8 147/9	139/10 226/20	183/3 184/10 184/25	optically [1] 174/9
16/16 50/25 58/15	147/10 147/18 155/13	old [2] 50/24 191/1	186/2 186/13 186/14	optimal [2] 180/24
58/18 73/7 73/14 87/7	164/18 166/17 170/7	157/25 158/25	190/17 190/21 193/12	181/12
93/2 93/3 93/4 93/19	208/20 217/12	Ombudsman [1]	196/10 197/5 199/24	optimise [2] 179/6
103/5 126/13 147/9	occasion [2] 6/12	202/1	203/4 204/8 204/9	179/24
148/16 157/4 157/22	26/9	ombudsman's [1]	205/13 207/17 209/10	option [3] 29/1 109/9
157/24 225/12	occasions [2] 153/19	202/19	210/8 212/15 213/13	115/12
numerical [1] 43/7	174/17	ombudsman's [1]	213/25 216/4 216/23	or [162] 5/15 9/21
nurse [15] 5/14 9/6	occupation [1] 162/8	202/19	218/9 219/17 219/21	10/4 10/7 10/10 11/13
9/21 21/4 26/25 30/12	occupational [4]	Omicron [4] 57/7	219/21 222/11 223/21	11/18 12/2 13/2 14/22
31/11 39/14 43/24	12/17 51/11 163/21	58/20 101/14 101/14	224/20 227/8 228/3	17/17 18/18 20/9
44/3 44/16 44/24	165/13	Omicron --	onerous [2] 10/16	27/21 27/22 30/25
53/17 69/21 75/2	occur [8] 68/3 71/17	post-Omicron [1]	10/23	31/4 37/5 41/12 41/18
nurses [30] 5/11 9/5	72/20 97/4 97/6 151/9	101/14	ones [15] 58/17	42/1 43/23 44/1 48/12
9/18 9/22 11/20 12/14	151/25 177/23	on [323]	76/18 95/15 97/14	48/16 49/24 51/19
12/16 12/25 13/12	occurred [2] 7/2	on this [1] 202/20	109/15 111/23 118/10	53/16 60/20 62/6 62/8
14/15 17/15 17/22	38/23	on-call [2] 38/7 38/8	153/24 162/11 167/8	62/9 62/19 63/8 66/13
17/22 21/24 21/25	occurring [3] 38/20	once [11] 23/22	167/9 176/23 193/12	66/15 67/18 67/23
22/1 22/11 25/21 27/3	67/20 202/7	59/12 70/18 76/10	193/15 212/21	69/8 69/21 71/4 72/16
27/4 31/1 38/24 39/14	occurs [1] 125/10	122/7 133/23 157/17	ongoing [4] 98/24	73/9 76/16 76/25 78/3
39/21 40/20 44/11	OCMO [5] 70/11 71/3	199/16 209/25 225/1	100/5 103/23 184/3	78/7 78/16 80/9 82/12
51/10 54/5 70/3	73/8 154/12 217/14	225/2	online [2] 1/10	82/13 82/18 83/15
215/24	October [6] 56/19	one [171] 2/13 3/17	174/14	83/20 84/21 85/14
nursing [11] 9/5	114/22 132/25 188/15	5/12 5/14 6/8 7/3 7/13	only [25] 1/5 12/14	85/18 87/1 88/16
10/23 26/19 26/24	225/7 225/22	9/6 9/20 13/2 15/12	18/3 29/1 37/20 55/18	88/24 92/21 92/22
27/6 44/5 53/4 79/7	October 2020 [2]	18/15 18/15 19/11	60/8 68/2 75/2 93/10	93/14 94/25 97/4 98/6
		20/4 21/11 21/25	111/22 112/13 118/3	98/7 100/9 100/21

<p>O</p> <p>or... [93] 101/25 102/12 103/12 105/1 106/3 106/12 106/24 107/6 107/8 107/12 107/16 118/8 122/20 122/21 122/23 124/1 124/10 124/14 124/14 124/21 125/13 125/21 126/8 126/16 127/18 128/17 128/23 129/5 130/16 131/23 133/11 134/3 134/19 134/20 135/6 137/14 138/2 138/10 138/20 146/17 147/7 147/21 150/22 150/25 154/5 156/10 157/14 159/7 159/11 160/8 160/12 162/24 163/11 163/24 164/8 167/4 167/15 167/23 169/8 170/3 171/12 173/18 173/20 176/19 182/8 182/13 184/2 188/9 188/20 189/10 189/11 191/1 191/22 192/24 193/3 195/11 197/22 198/11 201/1 201/1 205/3 205/4 206/4 207/25 208/24 209/23 217/3 223/4 225/11 225/13 226/22 227/6 227/12</p> <p>oral [1] 188/13</p> <p>ordeal [1] 55/13</p> <p>ordinarily [2] 33/1 55/3</p> <p>ordinary [7] 29/3 38/1 70/18 79/4 120/11 174/7 220/6</p> <p>organ [1] 108/23</p> <p>organisation [6] 42/13 42/14 60/20 84/19 84/20 223/6</p> <p>organisational [3] 47/22 47/22 121/22</p> <p>organising [1] 2/19</p> <p>Organization [1] 81/17</p> <p>orthostatic [1] 97/8</p> <p>other [105] 3/3 8/8 9/9 14/25 15/7 21/19 29/18 31/8 31/24 32/1 41/14 41/25 56/24 61/4 68/22 70/8 70/10 71/13 71/24 76/17 78/8 82/18 83/9 84/21 86/5 86/22 88/4 90/4 90/14 92/23 96/18 97/18 97/22 97/23 100/2 100/10 100/10 104/11 105/1 105/20 105/25 106/4 111/1</p>	<p>112/23 113/4 113/9 115/8 119/19 120/4 121/18 121/19 125/8 130/3 130/16 131/8 131/23 138/7 144/20 146/15 148/20 152/11 153/25 154/14 154/16 154/25 155/1 155/1 155/11 158/6 158/16 162/16 163/15 163/24 166/3 177/16 177/16 182/21 183/9 185/2 195/11 198/3 199/8 201/22 202/8 202/9 203/18 204/4 204/25 205/16 208/20 210/13 213/11 214/4 214/11 217/1 219/25 220/7 220/12 222/17 223/3 223/10 223/11 225/3 226/13 227/24</p> <p>others [25] 34/1 35/24 85/12 85/25 98/6 103/9 107/8 107/15 121/8 124/21 125/21 125/23 127/23 132/7 133/5 133/9 135/21 157/13 159/9 168/9 174/25 176/1 189/6 191/15 216/24</p> <p>otherwise [14] 44/2 61/18 66/20 91/11 121/24 126/8 126/16 127/3 142/11 147/1 175/8 184/19 189/10 212/15</p> <p>ought [3] 4/16 101/23 140/10</p> <p>our [47] 1/6 8/19 17/2 37/6 47/15 47/16 48/6 48/7 48/9 49/14 68/12 74/7 81/6 85/17 93/10 93/22 99/5 99/5 99/18 107/19 107/22 113/11 115/5 122/3 126/18 137/15 139/19 144/2 145/16 146/8 151/13 152/8 156/7 158/12 165/8 167/6 171/23 177/24 195/20 206/25 207/16 207/20 215/15 216/19 222/4 222/18 226/3</p> <p>ourselves [4] 9/16 42/17 89/22 226/17</p> <p>out [134] 3/20 3/21 4/10 4/25 5/1 5/2 5/8 8/2 10/2 15/24 15/25 17/9 17/20 18/4 20/2 20/6 22/9 24/5 24/8 24/9 24/10 24/19 25/15 25/23 26/2 26/11 27/15 28/21 32/22 37/11 37/12</p>	<p>38/11 38/13 38/15 39/10 40/18 40/18 40/19 40/19 40/20 42/24 43/7 47/13 49/3 49/4 54/5 56/25 57/15 59/13 59/18 68/23 69/5 69/11 72/4 75/17 75/22 81/17 82/20 83/12 85/3 88/23 96/9 96/21 96/24 98/9 98/18 99/16 107/18 108/1 108/22 109/14 111/14 113/3 114/2 114/7 114/10 115/14 118/12 122/8 123/20 124/4 124/13 125/7 125/13 126/7 129/5 129/16 129/22 131/15 132/19 133/4 134/3 134/24 137/21 139/18 141/10 145/12 148/4 149/14 149/16 154/4 154/8 155/9 156/2 160/4 163/7 165/23 166/5 166/9 170/5 171/22 173/5 176/16 177/15 182/18 182/19 183/1 190/6 195/18 199/19 201/10 203/17 206/25 207/1 207/2 207/9 207/23 208/2 208/22 210/8 217/11 220/15 226/1 226/16</p> <p>outcome [4] 129/24 129/25 160/9 187/25</p> <p>outcomes [5] 58/1 187/22 196/1 199/5 199/10</p> <p>outdoor [1] 41/6</p> <p>outliers [1] 140/4</p> <p>outlook [2] 59/1 107/11</p> <p>outlooks [1] 179/24</p> <p>outs [1] 146/16</p> <p>outset [5] 67/22 154/17 192/13 200/20 227/10</p> <p>outside [10] 15/3 17/12 20/13 29/4 46/3 47/4 78/1 176/10 216/16 217/24</p> <p>outsider [1] 123/17</p> <p>outsourced [3] 180/10 215/17 217/20</p> <p>outweigh [2] 115/9 121/8</p> <p>outwith [2] 62/8 115/6</p> <p>over [38] 3/5 11/22 17/10 24/17 27/6 30/20 33/7 57/19 66/4 66/11 80/21 89/15 89/18 91/22 96/19 98/18 100/24 113/8</p>	<p>114/19 134/19 140/2 140/22 148/10 152/20 156/11 158/4 164/21 167/7 174/23 174/23 178/24 183/17 197/25 198/15 200/13 207/1 214/11 220/10</p> <p>overall [3] 128/12 177/4 178/6</p> <p>overcommunicate [1] 124/2</p> <p>overdid [1] 95/4</p> <p>overflew [1] 32/5</p> <p>overflow [2] 27/8 32/5</p> <p>overflowing [1] 3/19</p> <p>overlap [3] 96/17 97/2 97/24</p> <p>overload [1] 93/19</p> <p>overlooked [1] 48/4</p> <p>overpitching [1] 94/23</p> <p>overrepresented [2] 119/6 165/5</p> <p>overriding [1] 19/7</p> <p>overseas [3] 73/19 86/8 167/4</p> <p>oversimplistic [1] 51/20</p> <p>overspeaking [1] 94/9</p> <p>overstretching [1] 120/2</p> <p>overweighs [1] 142/7</p> <p>overwhelmed [16] 22/3 23/16 51/19 51/24 51/24 52/4 52/5 52/12 52/14 62/13 62/14 62/19 63/8 173/21 173/22 173/24</p> <p>overwhelming [2] 111/24 175/21</p> <p>owe [1] 135/16</p> <p>own [28] 14/16 19/20 19/20 19/21 19/23 19/24 21/23 29/16 29/17 34/12 34/25 41/4 42/5 44/12 44/13 44/18 44/21 54/8 54/13 61/24 109/9 129/10 130/23 133/5 140/18 149/5 184/24 187/18</p> <p>oxygen [7] 7/22 7/24 8/7 10/1 20/10 28/14 69/15</p>	<p>page 14 [1] 159/4</p> <p>page 2 [1] 134/3</p> <p>page 24 [1] 52/22</p> <p>page 3 [2] 66/7 134/4</p> <p>page 4 [1] 134/23</p> <p>page 45 [1] 157/20</p> <p>page 63 [1] 96/23</p> <p>page 76 [1] 223/24</p> <p>pages [3] 66/6 207/1 230/2</p> <p>paid [1] 181/14</p> <p>painful [2] 23/2 23/13</p> <p>paint [2] 4/24 50/8</p> <p>painted [2] 50/12 50/14</p> <p>painting [1] 223/17</p> <p>Pakistani [1] 159/24</p> <p>pandemic [84] 2/5 2/21 4/12 23/12 36/25 37/16 38/11 39/5 45/5 45/8 46/3 47/4 47/9 47/12 48/12 48/16 50/20 51/23 52/1 53/13 57/2 67/12 68/3 68/20 69/3 69/4 69/9 72/16 74/4 86/3 86/23 88/12 89/4 89/5 89/7 90/18 94/12 95/16 96/3 106/11 128/17 131/3 131/21 133/19 137/8 140/3 140/9 143/3 156/20 157/12 158/3 158/5 158/19 164/20 168/2 169/20 171/8 176/22 178/5 181/9 181/19 182/4 184/2 184/5 192/13 194/12 194/17 194/25 195/10 195/12 195/17 195/19 196/24 197/1 197/2 197/16 197/18 198/4 200/20 201/6 214/20 221/18 222/3 227/7</p> <p>pandemics [5] 46/15 131/23 177/14 177/21 177/23</p> <p>panel [3] 7/22 170/20 170/25</p> <p>panels [1] 7/23</p> <p>pap [1] 223/6</p> <p>paper [1] 52/18</p> <p>papers [2] 85/3 129/11</p> <p>paragraph [17] 6/4 19/4 31/21 39/7 52/22 53/5 54/2 75/23 96/21 106/9 118/22 122/16 128/11 195/7 198/21 216/3 223/25</p> <p>paragraph 117 [1] 31/21</p> <p>paragraph 128 [1] 52/22</p>
---	--	---	---	--

<p>P</p> <p>paragraph 147 [1] 128/11</p> <p>paragraph 15 [1] 6/4</p> <p>paragraph 151 [1] 39/7</p> <p>Paragraph 162 [1] 195/7</p> <p>paragraph 29 [1] 53/5</p> <p>paragraph 3.35 [1] 75/23</p> <p>paragraph 4.109 [1] 96/21</p> <p>paragraph 4.58 [1] 198/21</p> <p>paragraph 5.58 [1] 216/3</p> <p>paragraph 65 [1] 19/4</p> <p>paragraph 8.3 [1] 223/25</p> <p>paragraph 9.23 [1] 118/22</p> <p>paragraphs [1] 194/15</p> <p>paragraphs 10 [1] 194/15</p> <p>paramedics [2] 66/14 170/10</p> <p>parameters [1] 122/18</p> <p>paraphrase [4] 78/8 78/10 104/18 182/2</p> <p>parents [2] 206/22 207/1</p> <p>park [1] 216/18</p> <p>parliamentary [2] 120/14 202/1</p> <p>part [35] 15/14 17/2 49/5 49/8 49/8 50/16 75/1 75/2 77/2 82/13 84/3 87/21 87/22 89/16 107/1 132/17 132/19 138/3 138/14 151/12 152/2 152/5 152/13 170/20 177/23 180/9 182/16 185/2 196/5 209/6 209/14 220/17 224/3 227/10 227/25</p> <p>partially [1] 79/23</p> <p>participants [1] 115/24</p> <p>particular [37] 15/24 17/23 18/21 35/9 59/12 68/11 70/21 84/12 87/13 91/17 93/20 99/21 99/22 100/21 103/15 103/24 104/23 113/5 129/23 129/24 131/17 144/5 163/14 163/23 163/24</p> <p>164/10 165/21 175/1 177/8 197/22 198/20 205/14 210/10 214/2 215/16 216/20 221/12</p> <p>particularly [27] 38/1 74/22 76/24 94/5 98/2 110/25 144/6 150/24 150/25 155/15 158/20 160/19 163/23 165/18 175/24 176/9 178/8 185/9 185/20 193/4 196/8 196/11 211/24 216/11 217/21 220/1 220/2</p> <p>partly [1] 18/24</p> <p>partnership [1] 18/22</p> <p>parts [3] 85/15 125/11 182/16</p> <p>pass [2] 118/18 151/11</p> <p>passed [3] 35/21 111/3 137/18</p> <p>passing [1] 151/17</p> <p>passively [1] 71/9</p> <p>past [1] 83/24</p> <p>pathways [1] 204/7</p> <p>patient [38] 4/4 5/18 10/2 20/19 21/7 22/6 24/19 27/3 27/24 28/11 30/9 30/17 31/3 31/6 31/6 32/15 32/17 32/18 33/10 43/3 51/9 52/10 67/25 75/8 76/22 109/10 109/11 113/3 119/23 141/19 169/7 180/23 203/20 204/1 204/15 224/8 224/9 225/23</p> <p>patients [68] 3/19 5/8 7/20 8/24 9/7 9/21 9/24 17/10 17/20 18/4 19/17 20/3 20/8 21/16 21/24 22/4 23/14 23/18 24/5 24/7 24/8 24/9 24/10 24/15 25/12 25/24 26/25 28/5 28/6 28/7 28/21 30/2 31/25 32/1 33/13 40/14 44/24 49/15 53/18 55/1 64/23 66/11 76/3 97/2 97/18 108/2 113/18 114/1 117/2 117/3 141/13 141/13 141/16 148/21 148/22 148/23 149/1 181/2 181/3 193/15 203/15 205/2 213/17 213/18 219/24 219/25 220/12 224/25</p> <p>patients' [2] 30/23 119/21</p> <p>Patrick [10] 33/18 34/9 34/10 34/20 34/21 35/20 36/11</p>	<p>123/24 221/20 222/2</p> <p>Patrick Vallance [4] 33/18 34/9 34/21 35/20</p> <p>pattern [1] 58/21</p> <p>pause [8] 1/11 33/14 38/19 46/23 117/1 143/21 148/6 209/22</p> <p>paused [6] 91/13 114/20 114/25 115/11 120/21 206/2</p> <p>pausing [4] 36/19 114/8 121/1 207/25</p> <p>pay [5] 20/16 45/19 89/14 158/8 181/14</p> <p>PCR [2] 225/6 226/9</p> <p>peak [6] 16/15 37/6 70/1 115/3 132/21 222/22</p> <p>peer [9] 2/17 15/19 35/11 45/22 46/5 46/15 54/14 68/12 153/18</p> <p>peers [2] 13/11 153/11</p> <p>pejorative [1] 14/6</p> <p>people [300]</p> <p>people's [3] 102/11 123/19 142/17</p> <p>per [3] 7/20 16/18 67/8</p> <p>perceived [1] 78/11</p> <p>perceives [1] 182/5</p> <p>perfect [1] 174/21</p> <p>perfection [1] 67/22</p> <p>perfectly [8] 137/3 145/8 146/22 149/9 165/20 172/2 174/11 208/5</p> <p>performing [1] 12/11</p> <p>perhaps [13] 5/22 9/15 21/6 41/15 49/12 50/16 104/18 107/22 108/18 117/14 180/2 182/5 189/10</p> <p>period [30] 3/5 7/21 17/14 20/9 30/20 36/24 36/25 37/5 55/4 57/17 57/20 59/6 60/4 89/19 91/10 96/19 110/22 113/9 123/22 125/3 125/16 125/18 139/6 139/9 139/20 140/6 149/10 150/8 198/13 208/12</p> <p>permanent [1] 92/15</p> <p>Permanently [1] 181/11</p> <p>permission [2] 115/25 119/20</p> <p>persistent [2] 114/22 115/13</p> <p>persisting [1] 115/6</p> <p>person [15] 72/11</p>	<p>72/11 123/19 126/2 126/4 126/5 148/2 153/15 163/18 164/13 170/6 179/20 180/19 194/8 220/1</p> <p>person's [1] 113/22</p> <p>personal [5] 34/25 54/8 61/24 203/14 223/18</p> <p>personalising [1] 203/13</p> <p>personally [6] 3/6 3/7 6/16 34/22 144/21 227/17</p> <p>perspective [7] 29/3 52/6 74/9 80/17 122/18 155/15 182/10</p> <p>Pezzani [3] 193/20 193/21 230/14</p> <p>pharmacological [2] 190/3 190/18</p> <p>pharmacology [1] 190/2</p> <p>phase [1] 214/20</p> <p>phases [1] 57/7</p> <p>PHE [2] 73/19 86/6</p> <p>phone [5] 26/12 31/4 31/7 43/1 219/9</p> <p>phrase [2] 20/12 83/14</p> <p>physical [9] 16/20 20/2 50/16 54/9 107/7 142/16 184/3 206/21 211/10</p> <p>physically [2] 181/1 199/19</p> <p>physician [1] 56/21</p> <p>physiotherapist [1] 51/10</p> <p>physiotherapists [1] 12/18</p> <p>Pick [1] 8/19</p> <p>picked [5] 77/17 192/16 192/16 192/17 192/21</p> <p>picture [12] 4/25 10/9 13/24 14/12 14/12 35/25 50/8 50/11 50/14 51/1 51/2 223/17</p> <p>piece [2] 6/22 51/8</p> <p>pieces [1] 8/8</p> <p>pitching [1] 95/1</p> <p>pivot [1] 89/25</p> <p>pivoted [1] 89/5</p> <p>place [22] 4/4 4/8 28/2 69/10 89/8 96/3 106/6 119/9 121/10 131/13 136/6 139/7 143/25 153/17 157/3 171/21 193/2 194/16 194/24 195/11 220/6 222/24</p> <p>placed [1] 11/8</p>	<p>places [7] 52/13 53/3 54/23 64/13 65/3 173/24 185/11</p> <p>plan [9] 28/25 33/24 96/3 133/12 195/23 195/24 196/5 196/23 197/5</p> <p>planning [8] 133/9 192/3 192/6 194/11 195/20 196/20 201/12 201/18</p> <p>plans [6] 194/16 194/24 195/10 195/16 197/12 201/1</p> <p>plastic [3] 8/13 22/11 42/24</p> <p>play [1] 179/11</p> <p>played [3] 21/7 84/3 138/3</p> <p>pleasantly [1] 133/14</p> <p>please [55] 1/10 1/11 1/13 1/16 3/13 6/3 6/14 7/10 16/4 19/4 25/25 31/20 33/16 37/13 50/5 56/3 56/12 57/9 62/7 66/5 70/13 71/21 75/22 81/18 88/22 89/6 91/18 98/17 98/22 104/18 107/21 114/5 114/19 114/19 114/24 116/13 128/6 129/4 133/24 134/4 134/23 137/23 152/19 157/10 157/20 159/3 159/5 160/3 167/21 171/3 176/14 176/24 200/10 205/25 226/23</p> <p>plotted [1] 11/1</p> <p>plugged [1] 51/8</p> <p>plus [11] 11/23 15/25 109/8 109/15 143/11 143/12 150/3 157/18 157/18 157/18 157/22</p> <p>pm [7] 115/23 116/8 116/10 167/20 178/18 178/20 229/1</p> <p>pockets [2] 7/6 125/11</p> <p>podium [3] 174/17 174/25 175/13</p> <p>podiums [1] 166/20</p> <p>point [96] 9/14 11/3 19/9 32/21 33/8 48/2 52/20 54/3 57/25 59/9 62/18 63/22 64/9 65/13 67/23 77/16 82/13 84/15 86/11 91/25 93/17 99/19 102/10 104/14 105/21 105/24 106/22 107/2 107/10 108/22 110/14 111/2 113/10 114/14 115/6 115/10 116/16</p>
---	--	--	--

<p>P</p> <p>point... [59] 119/6 128/20 129/1 129/19 131/24 132/19 132/21 135/11 137/16 139/11 139/19 140/1 140/5 140/23 142/25 143/4 144/8 145/12 147/19 148/17 149/11 152/8 154/18 155/18 155/23 156/12 161/16 164/3 164/3 164/24 164/24 165/2 168/5 173/10 180/1 182/11 182/24 183/4 183/5 184/24 185/25 186/18 186/21 186/22 187/13 193/9 207/24 207/25 208/13 210/7 210/11 212/10 212/13 212/17 216/13 217/25 220/9 226/5 227/8</p> <p>point 1 [1] 108/22</p> <p>pointed [1] 43/6</p> <p>points [13] 71/8 75/19 85/17 125/24 132/11 133/7 173/25 176/10 177/20 180/18 211/8 211/20 218/23</p> <p>policy [2] 59/24 128/19</p> <p>political [3] 68/13 87/23 185/5</p> <p>pollution [1] 210/15</p> <p>poor [1] 137/13</p> <p>poorest [1] 11/2</p> <p>population [11] 48/23 73/5 103/3 103/10 112/21 119/1 119/6 127/19 160/25 161/2 212/19</p> <p>populations [2] 72/21 119/5</p> <p>porter [1] 181/1</p> <p>porters [3] 13/3 180/8 215/19</p> <p>pose [1] 71/7</p> <p>position [7] 45/4 91/4 136/16 144/9 178/3 180/8 181/20</p> <p>positions [2] 136/15 155/5</p> <p>positive [6] 15/23 18/20 50/11 51/1 101/24 225/9</p> <p>possibility [5] 111/21 130/18 192/8 192/11 226/2</p> <p>possible [19] 55/2 69/22 74/17 92/9 103/10 115/10 119/16 119/24 126/12 135/5 140/7 165/10 176/13</p>	<p>190/23 209/24 212/25 213/2 225/11 226/13</p> <p>possibly [2] 84/10 203/5</p> <p>post [8] 97/3 97/14 97/14 97/15 101/2 101/14 197/18 198/4</p> <p>post-infectious [2] 97/3 97/15</p> <p>post-pandemic [1] 198/4</p> <p>post-vaccination [1] 101/2</p> <p>postural [1] 97/8</p> <p>potential [7] 99/17 101/24 106/17 126/2 137/17 194/12 197/15</p> <p>potentially [15] 70/2 73/1 81/15 92/14 104/13 124/24 134/9 136/10 138/9 141/15 150/20 165/9 167/15 181/21 208/22</p> <p>poverty [3] 159/14 159/14 162/8</p> <p>powerful [1] 55/8</p> <p>powerfully [4] 57/14 184/5 207/8 223/1</p> <p>Powis [3] 61/8 174/24 224/6</p> <p>PPE [21] 12/5 17/21 32/23 38/11 38/20 41/1 42/21 43/3 75/6 77/3 77/22 78/12 79/3 141/14 147/8 149/2 154/5 156/3 165/22 181/4 197/9</p> <p>practical [19] 87/19 116/25 117/22 123/2 124/10 124/13 125/2 125/22 127/2 134/11 134/14 138/19 138/22 139/2 139/11 164/22 181/20 198/2 226/1</p> <p>practically [8] 12/1 113/2 124/16 147/12 151/10 151/20 164/13 164/15</p> <p>practice [15] 2/3 32/19 47/15 53/11 70/19 77/24 89/17 146/18 171/25 174/4 180/17 192/20 201/11 201/11 202/3</p> <p>practices [2] 200/21 202/7</p> <p>pragmatic [1] 151/1</p> <p>praised [1] 216/24</p> <p>pre [11] 6/19 67/7 89/1 90/18 96/3 97/19 104/7 133/18 134/17 172/13 176/9</p> <p>pre-agree [1] 172/13</p> <p>pre-Covid [4] 6/19</p>	<p>67/7 97/19 176/9</p> <p>pre-dating [1] 89/1</p> <p>pre-done [1] 133/18</p> <p>pre-identified [1] 134/17</p> <p>pre-pandemic [1] 90/18</p> <p>preamble [2] 79/1 109/20</p> <p>preambles [1] 116/6</p> <p>precarious [2] 215/20 218/3</p> <p>precariously [1] 217/19</p> <p>precariousness [1] 218/9</p> <p>precautionary [1] 142/9</p> <p>precautions [1] 78/20</p> <p>preceded [1] 126/24</p> <p>preceding [1] 137/25</p> <p>precise [2] 92/4 106/7</p> <p>precisely [2] 8/10 164/18</p> <p>precision [1] 160/15</p> <p>precludes [1] 161/20</p> <p>predict [2] 96/6 175/6</p> <p>predictable [8] 92/20 159/14 161/11 164/19 199/3 199/7 199/14 199/16</p> <p>predicted [2] 143/18 159/16</p> <p>prefer [3] 36/4 144/20 144/20</p> <p>preferably [1] 174/5</p> <p>preferred [2] 118/20 217/23</p> <p>pregnancy [4] 136/7 136/8 136/13 136/15</p> <p>pregnant [4] 109/1 134/20 135/1 135/2</p> <p>preparation [2] 177/24 220/20</p> <p>preparations [1] 47/24</p> <p>prepare [1] 221/11</p> <p>prepared [3] 65/24 170/25 222/20</p> <p>preparedness [7] 2/7 13/23 35/8 45/24 194/17 195/1 195/13</p> <p>preparing [2] 47/8 220/23</p> <p>present [3] 30/24 38/6 127/3</p> <p>presentations [1] 161/5</p> <p>presented [1] 211/12</p> <p>preserve [3] 46/18 47/3 47/21</p>	<p>preserved [1] 47/20</p> <p>press [3] 37/17 189/10 189/17</p> <p>pressure [12] 2/21 3/17 4/14 6/13 10/21 15/10 15/13 24/8 26/3 39/3 39/4 174/12</p> <p>pressure: [1] 4/25</p> <p>pressure: out [1] 4/25</p> <p>pressured [1] 10/24</p> <p>pressures [5] 15/20 36/14 38/20 113/4 176/10</p> <p>presumably [2] 10/19 14/3</p> <p>presume [2] 122/25 215/1</p> <p>pretty [12] 34/13 67/12 90/12 94/4 132/15 141/1 158/6 171/1 186/4 218/11 224/18 226/10</p> <p>prevalence [1] 91/22</p> <p>prevent [3] 62/12 67/19 202/6</p> <p>prevented [2] 188/20 215/24</p> <p>prevention [1] 177/7 116/21 143/4 162/5 208/14 209/17 210/15 212/21 214/7</p> <p>previously [15] 67/17 71/1 97/22 122/13 133/6 133/7 142/1 142/9 164/22 185/13 208/6 210/19 214/1 215/2 226/14</p> <p>price [2] 90/7 90/7</p> <p>primary [3] 113/4 148/19 223/10</p> <p>Prime [2] 88/4 88/14</p> <p>Prime Minister [1] 88/14</p> <p>principal [4] 89/23 141/16 141/17 222/4</p> <p>principally [5] 76/19 117/19 136/7 148/23 179/6</p> <p>principle [12] 142/9 142/10 144/8 145/13 152/4 173/18 179/10 186/11 196/7 203/25 214/3 224/19</p> <p>principles [4] 110/15 111/25 112/8 112/12</p> <p>prior [5] 65/13 135/7 149/5 152/1 195/9</p> <p>priori [1] 168/21</p> <p>prioritisation [2] 131/12 170/22</p> <p>prioritised [1] 60/16</p> <p>priority [1] 48/15</p>	<p>private [2] 38/14 60/1</p> <p>privileged [1] 57/23</p> <p>probability [5] 75/6 111/24 154/7 154/8 212/21</p> <p>probable [1] 221/17</p> <p>probably [26] 1/5 8/20 35/24 45/2 67/1 84/14 90/17 95/17 96/16 97/12 97/23 105/18 110/11 115/1 123/11 136/13 142/25 152/13 156/10 164/16 167/24 193/11 210/18 216/16 225/10 228/22</p> <p>problem [22] 6/2 42/12 42/13 42/14 61/5 83/16 88/19 125/1 135/13 138/14 146/3 146/5 148/25 165/8 175/20 178/3 183/8 185/23 193/1 211/2 218/4 225/15</p> <p>problematic [2] 76/13 208/10</p> <p>problems [7] 146/16 147/18 164/6 183/3 190/21 199/11 220/8</p> <p>procedure [2] 145/2 168/12</p> <p>procedures [1] 167/23</p> <p>proceeded [1] 173/9</p> <p>proceedings [1] 1/6</p> <p>process [6] 171/11 172/9 203/12 203/20 204/15 205/11</p> <p>procurement [1] 80/6</p> <p>produce [1] 113/13</p> <p>produced [4] 105/20 169/25 194/3 216/7</p> <p>produces [2] 78/3 214/10</p> <p>producing [1] 147/15</p> <p>product [1] 15/15</p> <p>profession [4] 62/1 78/12 167/25 188/18</p> <p>professional [10] 43/24 44/3 44/16 61/24 137/5 145/10 170/7 189/18 189/20 217/12</p> <p>professionally [1] 144/3</p> <p>professionals [8] 12/17 13/1 66/10 105/25 106/5 143/5 189/19 200/24</p> <p>professions [3] 78/13 147/2 189/13</p> <p>professor [144] 1/4 1/13 1/14 1/16 3/13 4/18 14/2 19/6 23/2</p>
--	--	--	--	---

P	185/12 207/8 221/6 230/3 Professor Fong's [1] 222/25 Professor Harries [1] 135/12 Professor Hopkins [3] 140/17 144/1 149/12 Professor Jenny Harries [1] 135/10 Professor Kamlesh Khunti [1] 100/8 Professor Kevin Fenton [1] 163/18 Professor Lockey [3] 203/6 203/11 203/19 Professor Patrick Vallance [1] 36/11 Professor Powis [2] 174/24 224/6 Professor Sir [3] 56/3 56/5 230/8 Professor Smith [4] 62/25 67/1 130/15 143/24 Professor Snooks [3] 128/8 129/6 130/21 Professor Snooks's [1] 128/3 Professor Steve [1] 61/8 Professor Sue [1] 224/7 Professor Summers [1] 170/19 Professor Van-Tam [2] 70/25 71/12 Professor Whitty [23] 35/20 36/7 36/9 36/12 56/6 88/22 128/7 178/14 188/6 188/10 188/12 192/2 200/13 205/23 215/14 217/13 218/21 218/25 219/2 220/16 220/21 228/11 228/15 profound [4] 85/8 92/22 97/19 171/15 programme [25] 2/20 2/24 2/25 3/4 11/17 15/1 15/2 15/7 41/16 43/25 44/2 44/3 44/9 44/9 44/16 44/17 111/16 114/20 120/23 126/16 128/10 131/3 133/13 208/24 209/7 programmes [2] 14/22 41/4 programming [1] 126/9 progressed [1] 44/15 progressively [1] 69/6	project [1] 190/18 projects [2] 98/19 98/21 promise [2] 178/14 228/19 promote [1] 48/10 prompt [1] 188/18 proof [1] 140/25 proper [5] 126/23 173/5 174/4 184/12 214/9 properly [6] 47/25 54/22 76/20 77/19 100/15 162/22 proportion [8] 58/24 83/7 98/25 101/3 157/8 157/20 160/25 161/1 protect [14] 19/14 43/23 48/10 74/12 76/19 101/6 101/7 131/16 141/15 141/16 174/19 176/1 188/22 209/3 protected [2] 75/4 163/16 protecting [2] 126/17 128/16 protection [9] 140/18 143/14 144/24 150/15 169/10 180/15 209/13 211/16 213/22 protective [6] 148/10 149/21 149/22 150/2 150/5 227/11 protocol [1] 154/3 proud [1] 91/5 prove [2] 158/16 158/21 provide [18] 13/8 13/16 21/5 52/9 52/10 52/13 75/3 86/21 90/14 103/12 120/1 120/16 127/2 127/8 162/11 179/22 180/14 215/15 provided [7] 11/2 11/4 11/11 44/11 52/9 61/13 62/6 provider [1] 89/10 provides [1] 141/18 providing [5] 127/4 127/4 127/5 136/24 181/3 provision [6] 38/8 48/20 109/25 142/7 227/9 227/10 pseudo [1] 138/22 psychiatrist [1] 194/6 public [30] 18/13 58/12 59/23 60/2 80/3 80/22 89/13 93/15 94/1 94/18 123/23	151/13 154/12 154/20 158/14 165/4 188/18 189/9 194/8 199/11 210/3 210/9 210/18 211/3 212/25 213/13 214/13 215/24 219/7 219/11 publicised [2] 158/2 159/1 publicly [3] 37/17 218/1 218/13 publish [1] 155/17 published [6] 135/8 172/4 173/14 174/14 185/19 220/24 pull [5] 114/5 117/19 118/3 120/5 164/25 pulled [2] 81/2 174/9 pulling [1] 119/8 pumps [1] 20/7 purely [1] 60/23 purpose [2] 13/5 187/2 purposes [5] 100/10 125/3 125/22 134/11 139/2 pursuit [1] 180/12 pushed [2] 90/11 175/14 pushing [1] 102/4 put [36] 6/11 12/5 16/3 28/2 29/3 42/24 58/22 63/3 69/14 81/17 83/12 84/7 84/9 96/3 100/16 110/9 111/21 112/17 113/6 124/11 131/13 136/2 137/21 143/24 159/25 169/4 176/1 188/9 188/10 190/6 193/2 208/7 210/21 211/8 211/21 222/18 puts [1] 169/6 putting [10] 10/2 20/3 22/1 22/4 22/5 22/5 42/21 112/22 121/10 177/18 puzzled [1] 189/5	quantitative [1] 159/19 question [59] 50/6 50/13 50/17 62/8 67/21 80/17 82/9 82/11 84/10 94/4 102/17 106/6 106/23 117/13 138/19 140/15 140/24 149/13 149/13 154/3 154/9 155/8 159/11 161/3 161/22 162/4 167/22 167/25 169/13 169/18 179/14 183/23 185/15 186/7 186/10 186/25 189/9 191/8 194/11 201/4 201/25 202/4 202/22 203/16 204/13 208/18 213/23 214/12 217/7 217/7 217/8 217/13 218/8 219/14 220/17 221/8 223/21 224/11 225/16 questions [60] 1/15 2/9 2/16 49/16 49/17 49/20 49/23 50/5 55/5 56/11 67/8 71/7 86/22 104/16 115/25 116/4 160/4 162/6 163/3 163/4 165/25 166/5 178/10 178/23 178/25 179/1 181/24 183/21 188/5 188/9 188/11 188/16 193/21 193/22 200/11 200/14 200/15 205/22 205/24 212/9 213/25 215/6 215/12 218/19 218/20 219/4 227/3 227/16 228/14 230/4 230/6 230/9 230/11 230/12 230/13 230/14 230/15 230/16 230/17 230/18 quick [3] 89/24 95/19 135/11 quickly [8] 39/13 47/2 50/2 94/2 133/15 196/19 224/16 226/12 quite [67] 4/12 32/19 36/3 39/14 59/8 60/14 62/17 64/20 64/22 76/10 76/15 76/20 76/22 77/22 78/16 79/15 79/22 80/2 81/6 81/10 82/5 85/4 85/8 90/15 92/22 93/1 98/25 99/18 100/4 100/16 103/8 115/17 116/2 123/8 125/3 125/10 129/16 133/5 135/9 136/5 136/23 137/7 141/3 142/13 144/17 148/15 149/9 150/5 151/10 151/13
----------	--	---	--	---

<p>Q</p> <p>quite... [17] 152/10 153/21 154/24 159/1 160/1 161/7 165/24 180/16 181/6 181/18 193/14 198/14 209/5 212/22 221/17 222/11 226/11</p> <p>quote [1] 228/1</p> <p>quoted [1] 103/9</p> <p>quotes [2] 19/5 106/8</p> <p>quoting [2] 198/23 198/25</p>	<p>ratios [5] 9/20 52/21 53/4 53/12 54/15</p> <p>re [2] 83/21 154/6</p> <p>re-use [1] 154/6</p> <p>re-write [1] 83/21</p> <p>reach [2] 173/23 212/13</p> <p>reached [2] 134/13 173/23</p> <p>reaches [1] 139/22</p> <p>read [13] 24/1 82/14 88/15 96/24 105/10 132/7 135/3 139/17 173/13 194/5 194/9 216/15 225/19</p> <p>readiness [1] 197/23</p> <p>reading [4] 194/7 202/19 212/3 212/5</p> <p>ready [4] 77/25 96/7 226/22 226/23</p> <p>real [10] 9/2 54/13 69/1 97/16 123/18 133/23 146/14 182/13 183/2 228/2</p> <p>realisation [1] 5/22</p> <p>realise [3] 95/2 191/25 207/18</p> <p>realised [3] 9/14 19/10 42/4</p> <p>realistic [2] 179/23 186/24</p> <p>reality [9] 17/18 45/16 90/23 130/7 144/21 150/12 164/23 180/23 226/1</p> <p>really [71] 2/16 12/20 15/13 17/23 18/2 19/9 21/11 22/12 22/20 23/11 23/24 34/17 34/18 35/7 36/10 37/19 37/22 37/22 37/24 40/2 40/2 43/22 46/25 48/8 53/20 54/24 61/5 62/16 64/20 65/17 68/22 84/9 87/3 93/21 95/3 99/10 100/3 100/24 105/19 107/3 108/16 111/11 123/20 126/5 130/16 131/8 132/6 132/6 135/12 137/13 146/12 150/22 153/6 154/4 163/25 165/2 165/24 167/17 169/1 175/16 177/19 182/23 186/17 193/1 193/9 198/21 201/10 210/7 221/22 225/22 226/2</p> <p>reason [28] 17/2 75/1 75/2 75/2 78/23 79/16 105/17 112/11 112/17 115/11 127/20 143/11 144/22 151/15 169/3 173/8 175/6 186/12</p>	<p>186/25 189/18 191/17 195/15 197/21 213/11 213/16 217/13 219/22 224/21</p> <p>reasonable [14] 92/13 118/17 136/16 141/22 144/9 147/8 151/23 159/18 159/21 165/20 168/15 170/16 175/3 191/22</p> <p>reasonably [11] 80/9 84/4 96/5 121/4 123/16 127/7 168/14 196/15 200/1 208/5 220/14</p> <p>reasons [20] 62/11 81/1 83/13 123/14 134/14 135/14 143/23 145/8 145/17 155/6 161/11 165/12 172/22 187/15 196/9 196/14 201/9 213/6 215/2 216/23</p> <p>reassured [1] 142/21</p> <p>reassures [1] 142/20</p> <p>recall [8] 17/11 102/20 111/20 115/1 189/16 194/14 208/11 223/25</p> <p>recalling [2] 220/8 222/5</p> <p>receive [2] 35/19 172/20</p> <p>received [2] 3/10 122/2</p> <p>receiving [1] 31/25</p> <p>recent [2] 160/11 178/5</p> <p>recently [1] 17/4</p> <p>receptive [1] 36/12</p> <p>recipient [1] 170/24</p> <p>recognise [3] 85/15 162/25 187/13</p> <p>recognised [2] 109/20 224/6</p> <p>recognition [4] 49/5 188/13 188/19 189/10</p> <p>recollection [1] 19/7</p> <p>recommended [1] 37/8</p> <p>recommend [4] 45/5 211/25 213/3 213/12</p> <p>recommendation [4] 79/12 119/17 187/23 218/12</p> <p>recommendations [4] 45/3 176/16 176/19 218/10</p> <p>recommended [7] 54/16 77/9 77/12 108/1 140/10 145/12 145/14</p> <p>recommending [3] 78/23 80/16 212/24</p>	<p>record [6] 104/22 105/10 113/6 194/14 204/22 210/21</p> <p>recorded [3] 106/8 118/24 118/25</p> <p>recording [2] 185/15 185/22</p> <p>recounting [1] 23/1</p> <p>recourse [1] 215/24</p> <p>recover [2] 33/5 33/6</p> <p>recovered [1] 91/6</p> <p>recovery [7] 8/15 9/4 44/11 57/18 98/11 107/13 129/8</p> <p>recurring [1] 22/13</p> <p>recuse [1] 31/2</p> <p>redefining [1] 53/20</p> <p>redeployed [1] 18/12</p> <p>redrawn [1] 139/14</p> <p>reduce [17] 59/15 63/6 74/16 95/23 101/18 127/1 164/16 165/7 177/24 182/21 188/11 199/25 207/7 207/14 214/16 222/15 224/25</p> <p>reduced [9] 10/18 100/21 102/6 138/24 139/1 177/4 185/11 207/12 210/22</p> <p>reducing [3] 102/10 122/13 218/8</p> <p>reduction [2] 127/14 127/15</p> <p>reductions [1] 128/12</p> <p>refer [5] 54/2 168/8 193/24 206/24 217/14</p> <p>reference [7] 34/7 124/10 126/13 153/5 166/12 216/8 223/24</p> <p>referrals [3] 27/19 27/20 28/1</p> <p>referred [5] 44/21 125/18 146/5 216/4 219/9</p> <p>referring [1] 2/8</p> <p>refers [1] 203/11</p> <p>reflect [1] 49/1</p> <p>reflected [1] 85/6</p> <p>reflecting [2] 13/18 84/4</p> <p>reflection [2] 207/20 209/9</p> <p>reflective [1] 29/22</p> <p>reflects [1] 169/16</p> <p>regard [1] 32/3</p> <p>regards [1] 202/16</p> <p>region [2] 11/21 13/13</p> <p>regional [1] 18/23</p> <p>regions [2] 11/14 53/22</p> <p>registrars [2] 7/13</p>	<p>60/2</p> <p>regular [1] 224/8</p> <p>regularly [1] 226/11</p> <p>regulations [1] 39/10</p> <p>reinforce [1] 204/6</p> <p>reinforced [1] 10/5</p> <p>reinforcing [1] 205/6</p> <p>reiterate [1] 56/7</p> <p>reject [1] 182/17</p> <p>related [4] 203/5 203/16 208/18 211/1</p> <p>relates [2] 185/15 194/11</p> <p>relating [1] 211/9</p> <p>relation [16] 65/25 100/5 100/18 101/21 104/23 114/4 132/23 154/11 155/8 166/9 166/15 194/12 198/18 219/5 223/21 227/8</p> <p>relationship [1] 30/19</p> <p>relative [2] 6/9 21/5</p> <p>relatively [20] 26/8 50/1 57/23 75/4 95/19 97/6 97/20 102/1 102/14 106/24 107/13 123/6 158/18 165/15 171/24 185/3 189/21 192/22 193/16 206/23</p> <p>relatives [3] 43/1 58/13 220/13</p> <p>relayed [1] 36/9</p> <p>relevant [9] 59/5 60/4 63/11 139/20 148/12 150/8 172/6 181/25 217/5</p> <p>reliable [1] 185/19</p> <p>relieve [1] 24/8</p> <p>reliving [1] 55/13</p> <p>remain [2] 215/25 225/9</p> <p>remained [1] 136/18</p> <p>remediable [1] 175/9</p> <p>remember [12] 7/18 8/10 9/22 18/15 24/20 64/4 74/6 75/24 121/2 133/1 153/19 222/8</p> <p>remembering [4] 111/1 137/4 171/13 197/2</p> <p>remit [2] 62/4 84/14</p> <p>remoteness [1] 30/21</p> <p>remove [3] 113/19 206/12 222/11</p> <p>removed [1] 225/13</p> <p>repeat [1] 48/3</p> <p>replicated [1] 87/14</p> <p>replied [2] 7/15 7/15</p> <p>report [34] 13/24 65/11 65/23 66/24 142/18 149/18 159/5 159/8 160/4 160/9</p>
--	--	---	--	---

R	resistant [2] 58/6 145/1	33/10 169/4 203/6 204/3 205/7	139/5 142/12 142/12 146/1 146/2 150/25 151/17 154/4 156/9 157/10 157/13 158/1 158/11 158/24 159/2 159/11 159/13 159/15 159/20 160/15 160/19 160/20 160/21 163/23 163/24 165/7 165/14 165/17 169/5 169/7 169/8 169/8 179/5 179/7 179/11 179/17 180/3 180/5 191/5 191/20 202/23 203/3 203/20 204/19 204/19 206/4 206/14 206/15 206/21 207/12 210/21 210/23 211/1 216/2 217/1 217/4 217/5 218/6 218/7 219/25 220/1 220/5 220/12 221/24 222/3 224/13 227/19	27/23 211/25 227/12 routinely [2] 11/15 147/11 row [1] 40/7 royal [10] 86/24 135/6 135/6 135/19 135/21 136/4 136/19 136/21 136/22 137/3 RSV [1] 210/13 rules [1] 39/9 run [11] 6/21 12/19 14/22 16/8 16/18 38/15 40/18 42/24 91/1 154/8 156/2 running [10] 3/20 3/20 4/10 16/12 38/11 38/13 111/16 150/2 154/4 214/18 Runnymede [1] 216/24 rural [1] 162/10 Ruth [4] 44/1 44/5 44/19 61/9 ruthless [1] 90/8
report... [24] 161/20 162/5 162/19 163/6 164/11 166/8 166/10 166/12 166/25 167/22 169/21 170/24 176/14 187/5 190/1 193/25 194/3 194/15 195/19 202/19 210/16 218/11 220/22 221/21	resolved [2] 36/13 168/1	retract [2] 83/20 83/23	risk-assess [1] 124/16	
reportage [1] 202/20	resort [2] 17/6 20/3	retrospect [1] 94/22	risks [25] 72/24 76/21 92/5 92/8 92/9 93/14 102/10 103/3 115/7 123/3 124/10 133/22 134/14 143/14 154/6 158/4 158/6 163/11 175/15 179/21 207/7 214/15 216/20 221/24 222/13	
reported [3] 28/24 66/11 197/19	resource [6] 12/21 15/6 43/20 48/25 60/15 100/16	return [8] 10/15 10/18 10/25 11/6 11/7 55/24 115/23 178/16	risky [1] 168/22	
reporting [2] 105/3 200/21	resourced [3] 41/8 47/25 58/1	returned [1] 206/3	road [3] 2/14 2/15 173/7	
reports [5] 4/21 59/22 69/5 162/5 220/22	resources [5] 16/17 22/9 66/13 66/15 197/15	returns [2] 11/3 11/4	robust [1] 153/13	
repository [1] 86/16	resourcing [1] 48/16	reverse [1] 156/17	role [18] 2/17 14/25 15/1 21/7 23/4 43/10 44/12 59/18 60/19 61/1 62/4 70/10 70/11 89/1 108/3 152/19 179/11 217/9	
represent [7] 50/3 55/6 187/19 203/1 205/5 215/14 219/1	ReSPECT [5] 203/11 203/17 204/13 205/12 205/16	reversed [1] 160/21	roles [4] 2/11 12/10 83/24 216/4	
representative [1] 66/8	respectable [1] 168/15	revert [1] 198/11	roll [1] 203/17	
representatives [1] 14/24	respirator [1] 211/15	review [7] 26/10 99/3 153/18 160/4 178/5 188/25 212/3	roll-out [1] 203/17	
repurposed [1] 191/1	respiratory [8] 20/11 27/10 108/24 131/18 132/5 132/9 138/12 151/5	reviews [2] 105/23 129/18	room [6] 1/9 8/18 62/6 145/1 149/6 185/4	
requested [1] 99/3	respond [1] 89/5	rheumatoid [1] 128/14	rooms [2] 27/1 27/4	
requests [1] 15/5	responded [2] 18/19 104/12	RIDDOR [1] 187/1	rosy [1] 223/17	
require [1] 5/13	response [11] 2/7 13/23 18/24 35/9 45/24 106/17 107/2 111/6 126/23 181/23 184/1	rider [1] 210/20	rota [1] 57/4	
required [4] 12/19 77/4 78/12 134/3	responses [2] 89/4 228/17	rife [1] 125/12	round [2] 146/4 183/20	
requirement [2] 11/7 11/13	responsibility [7] 80/2 80/13 80/20 146/12 217/12 222/9 227/18	right [53] 1/20 2/5 2/22 3/9 3/10 16/10 21/3 25/23 30/3 31/15 32/14 35/3 35/3 40/18 48/9 57/1 59/20 60/1 60/3 61/11 70/15 71/18 75/16 83/19 88/15 90/11 91/16 94/23 112/22 134/19 134/22 136/6 136/23 139/24 144/6 150/10 152/17 156/10 156/14 157/7 157/8 162/22 164/18 167/17 173/3 174/18 178/21 180/6 180/19 186/12 188/4 191/8 215/9	rounded [1] 35/25	
requirements [2] 50/18 210/2	responsible [11] 2/19 72/14 73/16 79/17 79/21 79/23 80/18 182/11 202/9 202/11 227/17	rightly [5] 34/3 69/12 138/13 182/25 186/22	rounds [1] 30/1	
requires [5] 6/22 11/10 45/12 51/9 51/10	responsibly [1] 94/1	rigorously [1] 122/11	route [2] 139/21 210/1	
research [46] 34/16 65/25 85/24 87/18 87/19 88/21 88/25 89/4 89/12 89/18 89/22 90/3 90/13 91/8 91/12 91/17 98/17 98/19 98/21 99/1 99/24 100/5 100/7 104/1 112/14 141/22 164/1 164/10 164/24 170/9 177/2 177/5 189/1 189/23 190/9 190/10 190/12 190/14 190/15 190/17 190/19 190/21 191/13 211/18 211/21 225/16	responsive [1] 44/20	rise [2] 37/4 108/17	routes [7] 73/10 84/22 86/6 86/7 123/7 137/23 196/1	
researchers [1] 128/22	rest [5] 11/18 27/14 36/22 112/18 130/22	rising [2] 64/6 64/7	routine [4] 21/20	
resentful [1] 122/24	restart [1] 91/1	risk [126] 5/17 5/17 5/18 7/8 52/4 52/5 72/3 74/16 78/20 92/6 94/25 95/2 95/7 95/14 96/4 108/2 110/6 110/19 111/7 112/9 112/14 112/15 112/19 112/21 115/15 116/17 116/19 118/4 118/5 118/12 118/12 118/19 120/18 121/16 124/11 124/14 124/14 124/14 124/16 124/20 124/23 125/7 126/3 126/22 127/1 127/17 127/18 131/7 132/20 133/10 133/17 133/20 135/23 136/6 136/13 136/14 138/20 138/20 138/24		
reserve [1] 68/15	restarting [1] 206/8	risk [126] 5/17 5/17 5/18 7/8 52/4 52/5 72/3 74/16 78/20 92/6 94/25 95/2 95/7 95/14 96/4 108/2 110/6 110/19 111/7 112/9 112/14 112/15 112/19 112/21 115/15 116/17 116/19 118/4 118/5 118/12 118/12 118/19 120/18 121/16 124/11 124/14 124/14 124/14 124/16 124/20 124/23 125/7 126/3 126/22 127/1 127/17 127/18 131/7 132/20 133/10 133/17 133/20 135/23 136/6 136/13 136/14 138/20 138/20 138/24		
resident [1] 38/6	restricted [1] 199/20	rightly [5] 34/3 69/12 138/13 182/25 186/22		
residual [1] 136/4	restrictions [3] 37/3 122/19 123/3	rigorously [1] 122/11		
resilience [3] 2/7 13/23 35/8	result [14] 6/24 28/20 92/12 92/13 94/2 95/20 117/5 147/16 154/7 156/3 163/9 220/21 225/8 226/6	rise [2] 37/4 108/17		

S

Sacha [1] 194/1
Sacha Evans [1]
194/1
sacks [2] 22/11
42/24
sacrificing [1]
122/12
sadly [4] 58/16 86/16
185/16 187/11
safe [2] 94/13 180/12
safety [1] 39/9
safety [4] 179/5
179/6 204/15 210/23
SAGE [12] 70/18
70/19 70/23 70/24
85/3 85/4 85/5 87/16
108/1 121/14 121/15
220/25
said [75] 4/20 5/6
6/14 6/14 6/16 14/18
16/7 16/24 18/9 18/11
18/16 20/6 21/3 21/9
21/19 21/25 22/2
23/21 24/24 25/4
25/19 26/14 26/15
34/3 34/19 35/22 38/4
40/12 40/18 41/3 42/3
50/22 60/7 63/2 63/16
63/20 66/24 67/6
67/17 75/24 81/9
85/10 101/17 104/16
106/11 113/19 121/13
126/22 138/14 141/5
145/18 145/19 149/23
151/17 166/25 168/10
171/1 174/8 174/24
174/24 174/25 176/23
199/2 201/21 209/17

S	say: [1] 196/24 say: if [1] 196/24 saying [34] 24/21 35/20 39/15 64/12 67/6 67/25 78/22 79/2 90/19 95/5 97/11 125/5 130/19 130/20 136/23 136/24 142/7 143/15 150/4 151/19 151/23 156/14 158/15 164/11 184/23 193/10 194/21 201/22 205/13 212/6 218/6 226/20 228/8 228/8 says [8] 19/16 33/19 36/13 122/9 122/16 168/18 203/12 211/18 scale [25] 4/14 21/9 21/12 21/17 22/16 22/20 24/17 26/2 29/23 48/18 58/11 60/10 68/3 68/8 68/17 68/20 68/25 69/2 69/13 92/2 92/21 119/24 158/17 175/19 192/9 scale-up [1] 69/13 scaling [1] 69/10 scene [2] 23/5 26/18 scepticism [1] 84/5 scheme [4] 24/21 55/19 227/11 227/14 school [3] 206/3 206/8 206/22 schooling [4] 195/5 199/17 199/18 199/24 science [10] 68/23 83/7 84/10 85/19 87/20 100/12 142/20 177/14 177/17 211/10 Sciences [2] 220/22 221/21 scientific [4] 71/7 88/24 140/2 151/2 scientists [3] 86/7 111/1 158/8 scope [1] 11/21 score [2] 112/14 202/24 scores [3] 200/16 200/22 217/1 scoring [1] 202/22 Scotland [5] 14/22 62/25 143/25 202/16 207/23 screaming [1] 43/1 screen [11] 33/16 66/5 81/18 104/19 108/18 114/3 122/4 128/6 133/25 157/11 159/4 screens [1] 5/4 Screwfix [1] 38/12 scroll [1] 114/14	scrubs [2] 38/13 38/17 seams [1] 27/11 second [49] 18/7 18/14 25/25 29/13 47/7 50/13 51/4 52/20 53/12 58/11 59/12 63/6 65/15 68/18 74/21 118/18 122/7 127/10 136/11 140/15 146/3 146/5 146/19 153/7 160/20 161/1 163/17 165/25 168/25 177/5 177/6 177/7 177/19 181/8 182/24 190/8 204/9 211/4 215/23 216/3 220/17 220/20 221/7 221/12 222/22 223/8 224/14 226/4 226/4 second-hand [1] 146/19 secondarily [1] 13/20 secondary [1] 222/17 seconded [1] 2/5 secondly [9] 111/4 119/7 123/22 131/13 139/4 147/25 216/19 222/1 225/9 seconds [1] 169/5 secretariat [1] 41/17 Secretary [3] 87/24 88/11 114/11 section [2] 105/10 107/24 section 9 [1] 107/24 sector [3] 26/10 28/23 181/13 security [1] 215/19 see [40] 5/19 6/16 7/3 9/16 13/13 14/16 21/20 22/24 29/25 35/18 37/6 39/7 48/23 57/7 67/4 73/11 78/15 78/17 81/21 82/2 82/3 90/5 91/21 100/25 103/11 103/23 105/4 107/16 114/13 115/13 143/16 146/19 146/20 153/25 156/5 158/11 167/15 181/5 206/25 214/1 seeing [7] 5/4 14/4 22/15 42/8 50/9 50/15 51/23 seek [1] 162/22 seeking [2] 162/21 179/12 seem [5] 67/15 83/24 97/6 122/21 220/21 seemed [4] 35/4 82/19 137/8 138/7 seems [6] 80/15 124/14 144/8 169/13	170/4 172/15 seen [23] 8/16 21/14 22/21 22/22 23/3 28/17 33/2 42/15 65/23 65/24 66/24 76/16 85/2 97/21 122/20 132/8 136/19 149/3 187/5 194/4 197/18 198/4 204/6 self [5] 64/17 65/19 119/10 119/13 219/22 self-assigned [2] 119/10 119/13 self-evidently [3] 64/17 65/19 219/22 Sen [4] 215/10 215/12 218/17 230/17 send [1] 81/5 sending [1] 155/9 senior [15] 18/22 54/4 59/20 61/3 61/25 88/5 148/1 152/18 152/23 153/2 154/11 154/21 202/15 209/15 222/5 sense [40] 8/9 10/5 15/10 41/23 41/23 59/10 60/23 60/25 63/23 64/6 80/11 86/20 96/5 110/17 113/24 132/4 133/7 134/16 136/15 138/21 144/25 150/9 152/24 162/4 164/4 167/9 171/22 174/3 180/23 183/8 189/3 204/8 204/19 207/3 207/16 208/8 217/6 223/7 223/16 226/9 sensible [14] 84/11 118/18 123/15 127/7 129/14 131/1 137/11 144/2 148/11 172/15 172/18 190/24 213/7 218/5 sensibly [1] 110/5 sensitive [1] 226/9 sent [3] 29/7 33/18 109/3 sentence [2] 106/9 159/7 separate [4] 11/12 80/6 121/23 201/17 separately [2] 97/2 108/15 September [7] 1/1 91/24 117/10 120/22 224/5 228/25 229/3 September 2020 [1] 117/10 September 2024 [1] 91/24 sequelae [4] 102/10 192/4 192/9 192/11	sequence [1] 78/16 series [2] 102/4 103/1 serious [8] 23/8 88/19 128/17 151/21 177/20 194/18 195/1 198/9 seriously [9] 77/25 92/10 106/3 168/16 183/12 187/24 210/10 210/18 219/10 seriousness [1] 197/3 serve [1] 182/8 served [1] 23/4 service [16] 1/22 23/9 47/14 55/21 62/22 65/7 96/10 182/7 182/10 182/14 182/15 182/20 183/4 184/20 185/20 202/1 services [10] 89/11 105/1 146/15 194/2 194/17 194/25 195/11 196/8 198/15 208/11 session [2] 178/13 178/15 set [36] 11/17 15/24 53/25 56/24 59/18 69/16 75/17 75/21 76/19 80/7 82/20 88/23 96/21 98/18 107/1 107/20 108/1 108/22 111/14 114/6 115/14 122/8 123/16 126/7 129/5 129/18 134/3 145/8 150/2 153/1 163/4 166/9 168/17 181/17 188/24 200/18 sets [6] 11/12 120/15 134/24 160/4 165/21 176/16 setting [1] 34/7 settings [6] 58/1 162/9 162/10 211/14 214/24 221/13 settled [2] 169/15 169/18 settling [1] 169/13 seven [3] 25/12 156/21 157/1 seven-day [1] 156/21 several [6] 14/24 19/20 23/4 24/12 33/12 155/6 severe [14] 2/21 7/8 10/19 72/8 74/4 97/14 99/11 101/11 102/3 102/7 108/24 161/4 184/2 192/18 severely [4] 58/15 92/17 93/9 93/12 severity [4] 4/25 50/8
----------	---	--	---	---

S	56/1 64/13 68/16 72/4 116/9 137/2 161/18 162/14 178/19	signalling [1] 73/11 signed [1] 137/9 significant [25] 3/12 7/6 60/11 75/20 76/9 76/22 88/10 100/4 109/2 110/1 125/7 127/11 152/5 152/10 157/18 169/7 199/4 207/6 211/1 212/22 221/2 221/15 224/12 224/14 225/12	124/23 156/16 six [13] 9/6 9/21 21/21 28/1 32/13 33/13 41/17 69/20 80/8 109/8 157/4 177/8 225/11 size [6] 8/18 11/20 40/23 60/15 84/5 138/8 sized [3] 13/12 26/8 37/15 sizes [1] 139/17 skill [3] 5/13 155/3 197/22 skilled [2] 70/2 75/5 skilled-up [1] 70/2 skills [3] 96/10 96/19 155/1 sky [1] 21/25 sleep [1] 38/9 slept [1] 40/8 slight [2] 161/16 210/20 slightly [16] 31/17 62/23 63/1 63/3 65/9 81/3 83/1 95/22 98/1 127/25 138/16 148/17 177/1 189/5 210/6 216/16 slow [4] 63/13 157/6 166/24 167/2 slowing [1] 98/12 slowly [1] 194/23 small [15] 24/21 31/24 37/15 37/20 37/24 60/1 60/10 60/14 73/11 73/14 76/4 76/10 89/21 102/14 217/4 smaller [12] 24/3 24/6 24/14 24/16 26/5 37/19 38/3 40/1 41/9 48/21 58/1 147/9 Smith [4] 62/25 67/1 130/15 143/24 Snooks [3] 128/8 129/6 130/21 Snooks's [1] 128/3 so [335] social [19] 7/6 37/3 43/18 45/15 47/15 48/6 87/25 88/2 88/12 125/8 127/1 136/3 161/23 164/3 180/11 194/19 195/2 195/5 207/6 socially [3] 134/9 134/22 164/14 societal [4] 120/9 120/13 151/21 152/10 society [13] 124/4 126/18 131/15 162/18 168/9 172/5 175/18 175/23 182/2 182/6	182/14 182/19 222/15 Soho [1] 23/5 solid [2] 102/5 206/15 solution [1] 117/22 solutions [2] 165/9 166/6 solvable [1] 211/2 solves [1] 218/4 some [134] 1/4 2/3 2/9 13/3 13/3 13/17 15/16 16/2 19/2 19/21 21/16 24/18 24/19 27/2 27/4 31/3 33/1 45/1 45/3 51/7 53/3 53/22 54/23 59/16 66/3 66/11 67/3 69/15 70/8 70/10 71/10 75/19 76/21 76/24 78/11 78/14 81/1 82/11 82/13 83/6 86/11 86/21 86/22 92/11 93/12 95/4 96/12 97/2 97/7 99/2 99/16 100/13 105/21 107/12 110/25 116/6 120/3 120/3 120/4 123/12 123/18 124/7 127/5 128/8 128/9 133/3 133/23 136/18 138/13 141/25 142/1 144/13 144/13 144/19 144/20 147/14 151/8 151/21 151/25 153/15 155/2 155/19 155/20 158/5 158/24 159/10 159/13 159/15 159/17 161/10 162/15 162/18 163/11 163/15 164/18 165/1 165/17 168/6 169/24 175/7 178/8 179/12 180/4 180/14 180/17 181/24 184/16 185/2 188/22 191/14 192/8 196/2 196/12 203/2 206/18 207/6 207/16 208/2 208/11 208/14 209/18 209/24 212/8 212/9 215/15 218/23 221/4 221/22 223/2 223/3 224/5 225/9 225/18 228/6 somehow [1] 35/15 someone [22] 3/24 46/25 69/20 71/6 71/9 86/10 90/25 107/6 115/7 122/5 124/3 132/4 138/23 139/6 145/1 149/5 161/8 169/4 176/12 201/14 213/23 218/6 something [49] 8/19 30/14 49/10 59/14 68/7 68/8 68/16 68/25
----------	--	---	--	---

S				
<p>something... [41] 71/14 93/6 94/20 94/24 95/20 96/7 110/19 117/21 126/24 130/14 145/18 147/3 148/14 151/17 153/1 157/5 158/19 162/16 164/21 165/1 169/11 170/4 171/19 180/3 180/19 182/15 184/12 186/13 186/15 186/19 187/12 193/11 197/23 198/10 198/12 204/20 210/15 210/24 212/14 217/2 217/11</p> <p>sometimes [11] 12/14 12/15 20/7 20/11 21/6 22/3 61/23 61/25 130/1 141/14 183/8</p> <p>soon [6] 37/9 37/21 102/23 107/13 154/23 200/2</p> <p>sorry [16] 14/1 37/12 46/5 46/6 58/10 96/22 98/14 105/14 119/15 129/7 130/25 136/22 151/20 194/23 210/10 228/19</p> <p>sort [22] 13/5 61/15 76/18 80/2 90/24 90/25 97/15 105/7 105/19 121/2 133/6 139/17 164/15 170/5 182/12 182/18 182/19 193/6 204/7 207/24 210/4 228/4</p> <p>sorts [4] 83/13 86/8 198/8 203/3</p> <p>sound [2] 64/22 79/10</p> <p>sounds [1] 164/12</p> <p>source [2] 105/22 167/24</p> <p>sources [7] 117/18 117/20 117/23 119/18 120/4 167/3 187/21</p> <p>South [3] 159/22 160/20 160/22</p> <p>southeast [1] 2/13</p> <p>space [6] 16/20 17/10 20/4 33/12 50/16 69/14</p> <p>spaces [1] 20/3</p> <p>spare [2] 10/25 37/25</p> <p>sparing [1] 33/21</p> <p>speak [19] 6/11 12/12 12/22 13/3 33/21 34/8 34/20 36/7 38/24 43/24 66/17 71/22 119/2 119/19 121/15 139/1 142/5</p>	<p>155/12 169/20</p> <p>speaking [9] 12/1 19/2 34/15 34/15 54/18 73/20 81/15 166/21 222/21</p> <p>speaks [1] 53/25</p> <p>specialist [11] 2/1 5/13 5/14 6/22 9/6 9/20 26/25 53/17 76/4 79/3 106/25</p> <p>speciality [1] 60/2</p> <p>specially [1] 5/16</p> <p>specific [13] 96/17 97/7 97/21 106/24 107/7 112/4 133/20 133/22 168/4 194/16 194/24 195/10 195/16</p> <p>specifically [7] 82/25 134/11 191/4 194/11 198/7 210/12 217/14</p> <p>speculative [2] 94/6 94/10</p> <p>speed [5] 69/1 69/24 80/10 90/3 119/25</p> <p>spell [1] 201/10</p> <p>spend [3] 9/8 12/7 13/17</p> <p>spent [4] 14/18 19/2 32/16 98/19</p> <p>spilt [1] 8/2</p> <p>spirit [1] 89/12</p> <p>splash [1] 140/25</p> <p>spoke [11] 5/5 12/10 29/10 30/8 31/11 31/18 36/8 38/4 54/16 105/1 105/5</p> <p>spoken [7] 33/23 50/6 61/10 66/11 121/17 167/1 176/17</p> <p>spot [3] 72/17 78/24 186/23</p> <p>spots [1] 78/7</p> <p>spotting [1] 95/18</p> <p>spread [5] 72/11 72/12 84/3 148/22 181/16</p> <p>spreadsheets [1] 24/1</p> <p>spring [3] 39/5 53/15 221/9</p> <p>square [1] 8/17</p> <p>squarely [1] 136/25</p> <p>squeeze [1] 8/24</p> <p>squeezed [1] 185/3</p> <p>stable [1] 24/10</p> <p>stacked [1] 8/23</p> <p>staff [71] 3/20 5/1 5/1 5/1 5/8 5/18 6/21 6/22 9/13 10/23 12/10 12/11 12/22 12/24 13/4 18/12 19/13 19/14 19/17 19/20 19/23 19/24 20/17 21/8 21/23 23/15</p>	<p>23/15 27/2 27/13 28/5 29/10 29/16 29/18 29/20 29/20 30/8 33/5 39/12 39/12 39/19 41/22 44/12 44/13 45/7 48/9 51/9 51/15 53/8 53/12 54/21 59/2 59/8 60/8 60/9 75/5 76/13 76/19 76/22 90/23 149/6 165/4 171/16 185/1 220/13 224/8 224/10 224/16 224/19 225/1 225/23 225/24</p> <p>staffed [2] 32/3 41/19</p> <p>staffing [6] 50/18 52/21 54/15 184/8 184/15 184/17</p> <p>stage [17] 57/12 74/1 75/10 111/25 115/1 115/9 121/3 121/6 170/23 189/15 189/21 192/22 193/7 214/23 222/23 224/4 224/22</p> <p>stages [3] 109/18 118/15 225/21</p> <p>stairs [1] 27/16</p> <p>stairwell [1] 27/15</p> <p>stand [4] 19/5 41/10 41/12 90/3</p> <p>stand-up [1] 90/3</p> <p>standard [5] 17/6 55/3 78/19 147/8 150/14</p> <p>standard.of [1] 111/9</p> <p>standardised [3] 203/20 204/15 205/11</p> <p>standing [1] 41/4</p> <p>Stanton [4] 183/16 183/21 188/2 230/12</p> <p>start [25] 3/13 16/4 17/17 23/22 32/14 38/10 47/24 62/10 72/2 73/11 74/22 83/15 90/10 98/6 107/22 110/2 112/6 120/16 136/6 140/9 152/4 157/17 158/2 166/17 217/10</p> <p>started [12] 7/16 17/25 18/13 29/13 32/13 74/2 93/18 107/2 114/10 152/7 154/19 166/19</p> <p>starting [8] 6/4 91/19 105/24 106/21 139/11 152/6 152/8 206/23</p> <p>starts [1] 122/16</p> <p>state [10] 7/23 10/10 28/17 52/24 87/25 88/11 114/11 178/6 185/12 189/25</p> <p>statement [49] 2/19 4/17 6/5 7/19 10/14</p>	<p>15/24 25/18 30/7 31/17 33/9 40/10 43/24 52/22 56/14 56/25 59/18 67/16 70/13 75/17 75/18 82/20 85/10 88/23 89/3 91/19 91/25 96/23 98/18 101/17 107/25 108/9 108/19 111/8 111/14 126/7 129/17 134/7 135/22 192/5 194/4 198/22 200/18 201/7 202/2 202/14 215/4 216/3 216/7 223/23</p> <p>statements [5] 51/19 59/23 125/5 179/4 200/25</p> <p>stats [1] 67/19</p> <p>status [1] 108/17</p> <p>statutory [2] 60/23 222/8</p> <p>stay [4] 12/2 31/8 174/16 174/19</p> <p>Stay-at-home [1] 174/16</p> <p>staying [1] 175/7</p> <p>stenographer [1] 194/22</p> <p>step [1] 198/12</p> <p>steps [5] 74/10 180/13 181/20 221/9 224/15</p> <p>Steve [1] 61/8</p> <p>stick [2] 4/3 57/3</p> <p>still [20] 25/16 27/18 29/15 47/19 52/19 58/22 58/22 65/6 94/14 94/22 102/14 115/12 122/16 122/17 139/2 139/22 140/5 175/11 223/13 223/14</p> <p>stock [4] 146/16 147/9 147/20 147/21</p> <p>stock-outs [1] 146/16</p> <p>stocks [5] 144/15 144/17 147/7 147/7 197/9</p> <p>stop [7] 7/17 43/21 47/17 93/22 204/12 213/3 216/13</p> <p>stopped [2] 120/21 198/25</p> <p>stops [3] 23/23 30/13 46/10</p> <p>stories [1] 146/20</p> <p>story [3] 34/5 104/22 104/24</p> <p>straightaway [2] 22/6 178/1</p> <p>straightforward [2] 156/19 193/17</p> <p>strain [4] 58/23 65/13</p>	<p>147/15 223/15</p> <p>strained [1] 65/11</p> <p>stranger [1] 22/25</p> <p>strangers [1] 21/15</p> <p>strategic [2] 47/10 48/15</p> <p>strategy [1] 195/13</p> <p>stratification [3] 110/20 118/5 131/7</p> <p>stray [2] 37/21 217/24</p> <p>stream [1] 1/11</p> <p>stress [5] 8/7 10/19 11/2 194/19 195/3</p> <p>stressed [3] 11/4 113/15 225/12</p> <p>stresses [2] 45/6 115/8</p> <p>stressing [1] 184/18</p> <p>stretch [1] 16/22</p> <p>stretched [2] 16/18 37/25</p> <p>strict [2] 115/4 116/3</p> <p>strike [3] 197/10 198/1 212/20</p> <p>stringent [1] 214/17</p> <p>strong [21] 70/4 70/8 85/24 85/25 89/11 89/12 93/13 95/15 102/2 107/18 125/4 129/17 153/21 159/12 170/12 170/13 173/6 178/6 190/25 218/9 227/15</p> <p>stronger [3] 150/22 178/3 213/8</p> <p>strongly [3] 146/24 175/14 187/17</p> <p>struck [1] 82/10</p> <p>structural [7] 161/23 162/17 162/18 180/11 181/24 182/13 199/4</p> <p>structure [1] 61/2</p> <p>students [1] 32/24</p> <p>studies [19] 89/16 90/5 90/8 90/10 99/14 100/20 103/1 128/24 129/21 129/22 130/8 130/23 148/9 149/20 149/24 150/10 150/13 164/1 191/23</p> <p>study [6] 90/25 99/10 129/10 130/6 163/19 224/3</p> <p>stuff [1] 14/8</p> <p>subdivisions [1] 97/23</p> <p>subgroup [1] 128/14</p> <p>subject [2] 84/12 220/25</p> <p>subsequent [5] 53/16 98/10 136/12 156/16 191/23</p> <p>subsequently [13]</p>

S	Summers [1] 170/19	surprisingly [1] 82/19	systems [8] 22/19 45/11 106/6 119/19 133/15 202/23 204/23 204/24	taught [1] 86/10
subsequently... [13] 61/9 82/3 85/17 88/3 99/6 99/13 101/10 110/16 116/22 118/19 123/14 160/8 209/15	Sunday [1] 7/4	Surrey [1] 1/23		taxi [2] 165/5 215/20
subset [1] 99/12	Suntharalingam [1] 170/20	surveillance [1] 192/13		TB [1] 145/1
substance [1] 48/22	superb [1] 113/6	surveys [1] 44/8		teaching [7] 16/7 16/14 31/15 31/23 37/18 48/21 57/24
substantial [2] 41/16 208/16	superior [1] 211/15	survive [1] 24/11		team [21] 11/18 13/23 17/3 17/3 20/17 28/24 32/20 32/21 32/22 32/23 35/9 39/8 43/10 44/18 45/24 51/12 54/7 81/2 146/8 217/4 222/18
substantially [4] 64/20 111/24 127/18 139/23	supplies [2] 142/23 143/8	suspect [4] 103/14 162/2 193/5 216/17		teams [8] 14/14 14/20 18/24 21/13 22/19 22/21 47/12 228/20
subtle [1] 136/9	supply [3] 7/24 38/15 147/17	Sussex [1] 1/24		tear [1] 45/18
success [1] 191/22	support [38] 2/17 3/2 13/9 13/16 15/17 15/19 18/12 18/13 20/11 29/1 30/18 33/1 35/11 36/1 43/16 44/8 44/10 45/22 46/5 46/7 46/16 55/19 103/12 105/25 106/25 121/10 121/24 122/1 127/2 127/5 131/14 153/8 155/6 171/19 207/4 209/1 209/2 228/6	sustain [1] 53/23		tearing [1] 47/17
succession [1] 181/6	supported [8] 35/8 41/17 41/22 43/10 45/23 46/1 90/9 190/11	sustained [3] 39/3 39/4 128/24		tears [1] 9/14
successive [1] 100/24	supporter [1] 55/22	swifter [2] 95/17 214/14		tease [2] 101/12 162/13
successors [1] 218/10	supportive [1] 42/3	swing [1] 91/8		technical [35] 43/19 43/20 45/14 45/15 48/4 51/8 61/13 61/20 61/23 64/6 79/5 80/22 87/15 120/7 128/1 129/19 130/25 138/22 142/18 149/18 153/11 155/18 155/23 166/12 167/22 168/13 169/21 173/12 176/14 190/22 191/25 192/1 218/11 219/5 219/20
such [21] 4/11 4/22 44/13 51/19 54/3 55/13 129/16 129/17 156/21 171/7 180/4 195/16 202/23 203/13 203/17 205/11 215/18 215/23 217/15 220/22 227/13	supports [1] 142/19	sworn [5] 1/13 1/14 56/5 230/3 230/8		technicalities [1] 128/5
Sue [1] 224/7	suppose [4] 117/13 131/2 132/11 133/10	symptomatic [2] 151/14 151/16		technically [1] 84/13
suffer [2] 93/12 94/14	supposed [3] 8/17 137/19 139/18	symptoms [7] 97/6 97/21 101/3 151/19 181/16 188/17 193/3		teenagers [1] 195/5
suffered [2] 187/9 197/2	suppressed [1] 122/23	syndrome [10] 96/14 97/8 97/14 97/16 99/21 112/3 112/5 112/18 117/7 117/10		television [1] 40/24
sufferers [2] 188/21 189/12	sure [28] 15/15 32/20 34/2 39/8 47/20 48/7 65/3 78/13 94/4 96/17 100/14 136/17 163/19 172/23 173/19 187/24 188/2 198/2 202/14 205/2 207/15 213/24 218/11 219/23 225/19 225/20 226/19 227/21	syndromes [5] 97/3 98/4 98/9 107/20 191/3		tell [22] 3/14 3/14 6/14 7/10 10/6 11/22 16/25 19/6 24/2 24/2 25/25 31/22 34/5 37/13 39/2 57/9 94/11 127/24 144/18 150/7 156/5 186/18
suffering [3] 27/17 103/6 103/13	surge [14] 3/13 17/25 25/8 32/2 37/22 38/1 40/15 40/16 53/21 54/25 67/23 184/16 198/3 224/7	synergistic [2] 124/24 182/20		telling [11] 4/22 4/23 9/18 9/19 9/22 17/16 17/24 37/24 39/24 66/21 174/18
suffers [2] 42/13 42/14	surged [1] 29/19	syringe [1] 9/25		tells [1] 26/3
sufficient [10] 10/9 43/22 88/9 182/13 185/1 197/14 212/13 221/9 224/15 228/8	surges [2] 23/12 197/18	system [64] 6/1 14/13 14/15 42/10 43/18 45/9 45/12 45/13 45/17 46/16 47/17 48/5 54/25 58/23 61/6 63/8 64/15 65/16 67/13 68/14 69/18 69/19 72/19 72/22 78/2 80/2 83/16 86/14 87/7 88/19 89/21 89/25 91/5 112/12 113/15 125/16 137/14 140/11 147/25 151/22 157/2 157/9 162/19 162/24 163/14 164/2 171/24 173/17 173/19 182/22 184/19 185/2 185/6 185/22 187/1 187/12 190/24 204/18 205/5 209/16 216/21 223/15 225/12 225/14		ten [5] 12/2 17/12 21/22 25/12 40/7
sufficiently [3] 49/24 78/21 78/25	surgical [8] 58/6 140/14 141/1 147/10 149/8 150/23 211/16 214/22	systematic [1] 188/25		ten days [1] 17/12
suggest [3] 149/21 179/4 187/11	surging [1] 69/9	systematically [2] 130/10 183/12		tend [5] 76/6 98/7 137/6 138/18 199/9
suggested [3] 158/17 162/19 164/8	surprise [3] 15/16 67/4 67/4	systemic [3] 99/3 105/23 205/1		tended [1] 81/5
suggesting [1] 116/4	surprised [8] 4/10 4/13 41/22 66/25 82/5 92/16 129/16 133/14	systemised [1] 205/15		tendency [1] 43/11
suggestion [2] 117/21 119/16	surprising [4] 67/15 67/18 143/1 192/23			tending [1] 149/20
suicide [1] 23/7				tends [4] 124/20 157/2 157/3 187/11
sum [1] 144/16				tenor [1] 84/25
summarise [3] 50/1 101/5 116/14				tension [6] 167/24 169/20 182/18 207/16
summarised [1] 106/10				
summary [4] 98/20 129/13 129/14 130/22				
summer [7] 2/25 39/3 40/12 44/21 189/11 221/1 221/9				

T	143/20 147/22 148/3 149/7 149/21 149/22 157/13 162/10 163/3 167/14 168/22 172/11 174/4 175/5 177/1 177/11 179/6 180/24 184/13 184/19 186/20 191/6 193/8 193/11 199/8 199/21 201/22 202/8 202/9 202/19 207/23 208/12 209/1 210/19 211/22 212/20 213/11 214/9 214/20 218/5 226/9	38/13 38/16 theatre's [1] 9/4 theatres [2] 8/3 32/9 theatres' [1] 8/15 their [111] 3/9 3/15 3/18 3/22 4/4 7/22 7/23 7/25 8/1 8/2 10/15 10/24 12/6 12/6 14/9 14/16 16/19 17/20 18/2 18/13 19/20 19/20 19/21 20/22 21/23 22/6 22/22 25/7 27/6 27/8 27/9 27/10 29/16 29/17 30/4 31/3 32/4 32/4 32/7 32/9 38/14 38/17 39/20 39/21 40/3 40/8 40/14 41/4 41/24 42/5 43/17 44/8 44/12 44/13 46/14 50/4 52/16 54/4 54/8 71/8 83/16 84/21 86/1 94/25 95/13 102/15 105/1 106/17 109/9 113/3 113/9 113/18 122/13 127/1 127/22 131/15 132/14 135/22 135/25 137/18 137/18 141/6 146/11 146/17 146/20 150/4 151/16 153/11 154/1 157/3 160/24 174/6 175/18 175/18 176/1 176/7 186/8 186/8 187/8 188/17 188/22 189/25 194/15 201/14 204/2 207/4 208/21 212/3 213/22 216/1 220/7 them [128] 4/5 4/5 4/9 6/13 7/19 8/24 9/1 10/25 10/25 11/8 11/19 12/5 13/9 13/17 15/6 15/18 15/23 16/1 16/2 16/22 17/25 18/2 18/6 18/16 19/25 20/20 22/4 22/5 22/17 24/21 24/24 25/6 25/7 27/6 27/25 28/2 28/8 28/9 29/13 29/22 29/22 31/2 31/5 33/1 33/6 38/1 38/14 39/4 40/1 40/2 40/11 42/3 43/23 45/23 45/25 46/24 47/1 47/4 48/8 53/1 53/1 56/25 60/5 70/6 73/10 76/20 77/21 80/22 83/13 83/19 85/5 90/21 96/16 96/19 98/4 101/7 101/7 103/4 103/11 103/17 105/2 106/3 112/22 113/2 113/20 116/1 116/1 116/5 122/11 131/9	131/10 132/15 141/6 141/7 141/8 147/16 149/2 150/7 150/18 155/5 155/19 155/20 155/20 155/21 155/21 155/22 157/16 163/5 163/12 166/6 166/21 167/20 168/6 171/10 174/6 177/15 183/6 183/20 196/3 198/20 205/5 206/16 206/20 207/14 212/22 213/3 220/7 226/7 them's [1] 157/5 themselves [12] 13/13 54/9 75/7 119/14 131/15 131/16 147/15 188/22 196/4 204/1 205/4 226/11 then [85] 5/19 9/9 11/16 12/7 12/25 13/20 14/11 27/12 27/13 31/7 34/19 35/19 48/24 49/18 51/23 52/13 53/5 53/22 53/22 57/5 57/18 72/11 72/11 73/16 80/3 80/23 81/19 86/7 87/6 91/6 96/6 96/9 96/25 97/20 99/13 101/2 102/24 103/1 105/20 106/23 107/9 108/15 109/22 114/10 118/18 120/9 120/20 121/11 121/23 123/22 124/6 124/12 127/13 128/4 130/11 131/25 133/4 140/24 150/13 151/20 153/13 153/15 154/21 157/6 158/9 159/19 159/24 160/2 161/3 163/4 163/19 168/17 174/8 177/7 177/19 178/2 185/21 186/4 186/6 192/2 203/11 205/1 218/6 220/4 224/5 theoretical [1] 139/12 therapeutic [3] 191/9 191/17 191/18 therapeutically [1] 30/16 therapies [2] 109/1 190/3 therapists [2] 12/18 51/11 there [365] there'd [1] 175/6 there's [18] 5/17 5/18 14/21 28/9 30/13 36/20 38/8 61/1 74/21 94/20 141/2 145/9 150/11 150/19 166/8	175/6 181/6 187/12 thereafter [2] 77/9 114/10 therefore [32] 10/20 57/4 59/22 60/20 61/1 68/8 68/15 75/6 88/2 89/23 95/1 103/17 111/7 117/14 121/12 127/14 134/9 139/13 143/24 144/12 165/6 169/9 181/16 185/11 186/16 194/6 200/2 202/12 202/18 212/6 216/17 226/10 thermal [1] 210/22 these [71] 5/16 9/16 9/20 10/11 12/19 13/6 13/9 13/10 13/17 14/11 20/22 22/15 23/12 23/25 24/22 24/23 33/1 40/17 40/25 41/19 42/8 43/15 44/20 45/7 46/21 51/3 52/16 53/20 67/8 68/23 73/9 76/16 76/17 78/1 85/7 98/1 109/14 109/24 114/2 114/23 115/6 117/24 118/3 119/18 120/15 128/18 129/21 139/17 140/21 141/25 146/23 153/24 156/18 161/19 163/11 163/22 164/25 165/5 165/7 165/15 165/24 168/19 175/7 182/11 183/3 183/11 184/8 185/22 196/13 197/10 206/19 they [355] they said [1] 26/15 they'd [5] 7/19 16/15 22/1 38/15 59/2 they're [9] 32/20 37/25 39/24 42/9 62/18 66/22 66/22 71/15 71/16 thing [59] 20/14 23/17 24/3 24/4 28/13 35/2 40/21 42/3 43/16 44/14 46/19 47/6 47/7 48/18 51/4 52/17 59/7 63/21 64/4 64/7 66/25 69/12 69/13 74/20 80/15 93/21 94/19 95/9 95/21 102/1 106/19 107/7 112/22 113/23 117/16 124/19 127/6 127/7 138/25 147/6 156/10 156/22 157/7 163/17 172/15 172/19 173/7 175/18 177/7 186/17 193/13 199/18 201/18 202/10 203/5 210/4 220/3
----------	---	--	---	--

T	154/2 154/10 159/25 160/10 163/3 165/6 167/10 173/1 174/16 176/3 176/20 179/12 180/11 182/3 182/7 182/16 182/20 182/21 184/22 185/21 188/16 189/12 192/10 193/12 197/10 197/14 197/18 199/23 201/16 203/2 207/3 207/14 207/15 209/12 209/13 209/17 209/18 211/20 212/12 217/18 219/12 223/2 226/24 though [12] 2/10 53/24 59/2 61/12 62/10 62/20 122/1 133/20 160/17 172/13 225/25 226/8 thought [42] 15/12 24/25 24/25 25/4 25/5 25/6 51/7 78/14 79/22 110/10 110/12 111/10 111/23 112/4 112/7 112/21 113/1 113/7 113/16 123/15 123/17 124/15 129/12 130/25 133/17 134/14 137/13 141/4 148/8 155/6 159/17 165/6 168/19 170/1 172/17 172/18 174/3 175/22 207/8 207/22 212/10 222/25 thoughtfulness [1] 228/17 thoughts [1] 69/2 thread [1] 148/7 threatening [1] 175/2 three [25] 21/20 28/6 29/25 32/23 37/6 38/10 60/3 64/8 66/4 72/1 72/6 96/16 97/11 98/23 110/3 121/13 145/22 153/6 167/19 170/21 171/12 171/14 177/10 222/5 226/22 three-week [1] 37/6 threshold [2] 134/13 203/4 through [58] 3/1 8/12 9/17 18/8 18/24 19/17 28/4 28/4 29/6 30/18 34/13 37/23 42/2 44/7 44/7 45/21 46/11 49/9 53/21 56/25 59/3 59/20 61/5 66/6 69/6 77/23 79/7 80/22 80/23 86/4 86/5 90/25 105/22 108/10 108/23 111/3 113/3 114/16 115/22 116/1 130/7 133/5 133/15 141/20 141/21 143/7 155/13	155/19 157/1 162/24 166/20 167/6 173/1 174/3 194/23 200/24 222/21 225/19 throughout [15] 2/13 23/12 29/4 29/12 36/21 38/7 47/13 47/14 52/1 53/12 57/1 64/23 64/25 181/9 201/6 throw [2] 20/18 169/23 throwing [1] 22/14 Thursday [1] 1/1 tiers [1] 125/17 ties [1] 22/11 tightly [1] 8/23 time [81] 3/16 5/21 5/21 9/6 9/21 9/23 10/25 12/5 13/17 15/4 15/18 17/2 17/11 17/14 19/2 19/14 20/9 22/7 23/8 25/3 25/20 29/21 30/20 31/2 33/2 33/3 33/8 33/21 34/13 36/24 37/8 39/18 39/21 42/4 44/5 44/11 46/20 47/24 57/21 57/22 58/6 58/19 61/12 61/13 68/6 78/5 80/21 83/23 90/15 96/20 100/2 105/5 105/9 125/20 139/5 140/22 145/20 146/4 147/4 155/17 157/9 158/10 161/20 164/16 167/7 172/8 183/6 184/11 184/13 184/21 191/9 192/2 197/25 198/13 206/9 206/11 206/24 206/25 207/20 210/1 220/10 timeline [3] 108/8 114/6 117/10 times [16] 8/12 19/19 20/12 36/20 51/25 52/13 62/5 64/9 64/25 85/22 105/2 144/12 171/12 171/14 217/25 218/13 timescale [1] 36/18 timing [2] 69/2 206/7 timings [1] 116/3 tired [1] 22/1 today [9] 33/22 51/21 52/16 116/3 172/12 176/17 184/5 228/14 228/24 together [14] 51/22 98/4 111/13 117/20 118/3 119/8 120/5 120/15 121/3 124/25 146/23 154/12 170/15 210/4	toilet [1] 27/6 told [30] 3/18 5/6 16/13 19/22 20/2 20/14 21/3 21/22 22/1 25/7 28/11 29/23 29/24 30/1 31/19 38/5 41/15 44/4 44/17 53/2 53/6 54/13 77/2 116/15 124/13 135/4 144/18 146/16 185/24 195/25 toll [4] 22/19 22/24 194/18 195/1 too [14] 1/9 14/5 27/24 32/9 81/8 113/17 117/14 136/2 146/24 174/9 174/24 175/14 182/2 194/22 took [12] 2/11 13/10 17/3 46/19 46/20 81/3 90/15 90/17 90/20 131/17 156/17 172/16 tool [3] 116/19 170/22 202/23 top [4] 42/15 46/10 46/13 168/21 topic [11] 31/18 83/3 83/4 107/22 137/23 188/12 192/2 211/4 213/12 220/20 227/2 topics [4] 167/19 188/9 205/25 214/12 total [2] 29/11 58/15 totally [1] 201/23 touch [1] 152/12 touched [1] 159/2 tough [1] 90/12 toured [1] 27/12 towards [4] 57/11 58/8 96/11 135/13 track [4] 88/6 90/16 90/17 90/21 tracks [1] 93/22 trade [2] 170/7 179/1 tradition [1] 89/11 Traditionally [1] 109/5 tragically [2] 158/24 185/21 train [3] 20/16 69/20 188/24 trained [9] 5/16 16/21 20/25 69/13 69/19 75/5 77/21 181/4 197/7 training [9] 77/19 77/23 77/24 78/2 78/3 180/22 180/25 181/6 181/20 transcript [1] 216/6 transfer [7] 2/12 5/8 5/11 18/4 24/9 24/10 43/2 transferred [5] 17/9	17/19 25/23 28/21 32/1 transferring [2] 24/4 24/8 transfers [6] 5/2 5/10 17/11 17/13 26/2 29/5 transformed [1] 226/3 transit [1] 76/13 transition [1] 207/22 translate [2] 134/18 148/14 translating [1] 166/25 transmissible [2] 72/9 132/9 transmission [23] 82/10 84/3 84/23 85/1 115/7 137/23 138/3 138/5 139/3 139/21 140/8 148/18 149/3 151/3 151/6 151/9 151/12 152/5 211/14 214/15 223/14 224/13 224/25 transmit [1] 151/7 transmitted [1] 35/13 transpired [1] 112/10 transplants [1] 108/23 transport [1] 165/4 trauma [1] 57/14 traumatic [2] 31/12 34/13 traumatised [1] 22/12 travelers [1] 219/12 treat [3] 21/7 64/23 64/24 treated [2] 74/25 179/18 treatment [14] 61/21 98/2 98/5 98/10 99/16 99/21 104/15 106/13 161/25 162/20 162/21 177/9 200/23 203/14 treatments [8] 98/2 98/6 99/17 162/23 162/25 190/23 191/21 191/24 trend [1] 198/11 trespass [1] 62/5 trial [2] 150/1 191/18 trials [6] 149/19 150/14 150/16 190/2 191/9 191/17 tribute [3] 89/15 158/8 187/6 tricky [4] 76/12 150/19 193/9 196/6 tried [8] 61/16 124/6 132/6 136/17 137/20 159/20 175/12 189/1 triggers [5] 72/1 72/6
----------	---	--	---	--

T	115/19 183/19 turned [3] 52/19 183/20 226/2 turning [1] 29/15 TV [3] 76/16 123/25 167/4 tweak [1] 172/14 tweet [11] 81/16 81/19 82/2 82/23 82/25 83/12 83/24 83/25 84/7 84/11 84/12 tweeted [2] 81/21 175/13 tweeting [1] 84/8 tweets [1] 83/16 twice [1] 16/19 twinned [1] 210/4 Twitter [1] 146/19 two [48] 13/2 20/3 21/23 32/5 37/5 44/24 53/17 57/19 58/16 61/15 62/2 68/2 68/9 69/9 74/14 90/17 99/13 109/18 116/25 118/15 120/6 123/10 124/23 131/4 141/2 153/18 159/7 160/10 160/17 162/10 168/5 171/12 176/19 180/20 181/20 182/16 190/7 197/20 201/17 205/25 207/3 207/15 214/12 215/16 224/20 225/7 226/22 227/19 two years [1] 90/17 twofold [1] 13/8 type [2] 58/3 133/11 types [1] 24/23 typical [1] 123/8 typically [1] 60/8	UK scientists [1] 86/7 UK's [6] 6/8 87/18 91/3 194/17 194/25 195/12 UKHSA [2] 73/20 80/23 UKRI [1] 89/22 ultimate [1] 80/19 ultimately [6] 79/17 80/18 80/20 145/21 177/4 209/2 unable [10] 15/3 17/5 20/23 21/5 62/8 63/9 66/15 67/13 142/5 142/6 unacceptable [4] 185/18 200/21 200/25 201/8 unaffected [1] 158/18 unambiguous [1] 206/23 unanimity [1] 212/13 uncertain [2] 126/20 188/15 uncertainty [8] 80/11 80/13 81/1 81/3 82/8 84/2 95/25 146/3 unclear [1] 81/4 uncomfortable [2] 141/8 141/11 uncontroversial [1] 92/6 unconvinced [1] 197/5 uncorrected [1] 204/22 under [27] 6/13 8/7 10/19 10/21 11/2 15/9 15/11 15/14 15/20 58/11 65/13 70/17 73/23 79/4 88/13 91/7 120/11 132/12 134/19 141/16 147/15 151/23 151/24 164/1 172/10 201/21 223/15 under 70 [1] 134/19 underdid [1] 95/5 underestimate [1] 177/14 underlying [3] 132/14 164/5 191/10 undermines [1] 118/8 understand [22] 1/3 5/3 9/16 10/7 14/12 15/9 46/20 66/18 73/24 74/23 106/4 106/21 107/3 107/10 139/16 152/14 164/2 164/4 164/15 173/8 191/2 228/10 understandable [2]	145/17 146/22 understandably [4] 14/7 30/23 137/3 137/7 understanding [19] 6/1 35/13 42/10 53/14 63/18 74/7 77/1 99/5 99/15 99/18 100/1 104/8 107/17 107/19 124/22 129/20 191/10 227/20 228/5 understands [1] 60/12 understood [13] 15/19 26/16 35/12 43/9 45/25 58/14 71/18 81/9 91/15 95/22 165/11 175/17 175/19 undertake [4] 3/6 17/14 29/5 126/11 undertaken [1] 117/6 undertook [2] 3/7 37/10 underway [1] 158/12 underwear [1] 38/17 undoubtedly [3] 68/19 107/14 140/2 unfairly [1] 182/2 unfortunately [11] 58/24 62/17 72/23 93/7 110/14 119/4 133/23 161/6 183/9 184/10 200/5 unified [1] 147/1 union [2] 179/1 187/19 unique [2] 86/14 89/9 unit [44] 6/19 7/4 9/2 9/3 10/18 11/20 12/13 12/20 12/21 15/11 15/23 17/9 18/23 19/1 19/19 19/23 21/10 21/15 22/8 24/21 24/21 25/10 26/8 26/17 26/23 26/24 27/7 27/8 27/9 27/10 27/13 28/3 28/20 29/10 29/17 30/25 39/11 39/16 40/23 52/4 53/16 54/1 54/3 60/13 units [24] 2/18 8/11 10/11 11/2 11/15 12/6 14/11 24/14 24/16 24/18 32/4 32/5 37/25 39/20 40/22 40/25 41/4 45/7 52/14 52/16 53/16 53/25 55/20 77/21 universal [1] 172/20 University [1] 1/18 unknowable [1] 102/17	unknown [2] 92/23 92/25 unless [5] 42/19 42/23 95/16 164/4 219/10 unlike [1] 21/14 unlikely [2] 98/8 152/7 unpalatable [1] 171/1 unprecedented [2] 17/12 17/13 unpredictable [2] 196/5 199/15 unrealistic [1] 67/10 unreasonable [1] 35/5 unreasonably [1] 113/8 unrelated [1] 204/3 unremediable [1] 164/19 unsuccessful [2] 32/16 33/10 unsure [3] 131/5 139/22 153/24 unsurprising [2] 92/16 119/4 unsurprisingly [4] 67/12 101/6 103/2 104/9 until [16] 3/1 11/3 59/9 102/1 106/6 114/22 133/21 151/6 156/5 173/21 173/22 177/17 212/15 213/8 225/22 229/2 unwell [1] 52/11 up [80] 11/17 11/19 11/24 12/20 17/17 27/19 28/24 28/25 29/15 30/8 30/19 31/4 33/16 34/7 35/13 41/19 42/22 43/4 45/4 46/9 46/19 52/19 66/5 67/23 68/25 69/2 69/10 69/13 69/16 70/2 76/19 77/17 77/17 80/9 81/18 90/3 91/1 96/14 105/17 107/1 108/18 109/11 111/16 111/17 111/22 112/14 114/5 117/2 118/4 119/9 121/11 122/4 123/16 127/12 128/6 129/17 131/11 135/21 139/14 144/14 148/5 149/2 153/1 157/11 159/4 168/17 168/18 170/12 171/12 179/21 183/2 192/16 192/16 192/17 192/19 192/19 192/21 196/19 225/7 225/22 updated [2] 35/21
----------	---	--	--	---

U	using [5] 139/7 147/11 149/14 191/21 212/18 usual [3] 29/25 32/19 57/3 usually [10] 3/23 5/13 12/1 16/14 30/19 41/1 72/20 145/8 175/3 204/1 utility [1] 44/1	versa [2] 148/21 170/14 verse [1] 228/1 version [1] 162/15 versus [1] 48/21 very [207] 1/12 3/25 4/7 4/12 7/12 8/18 13/9 15/21 16/16 17/10 17/24 17/24 19/13 20/24 21/2 21/11 23/8 23/13 23/14 23/16 24/24 31/13 36/12 36/15 37/7 37/20 39/11 39/13 44/19 44/19 46/1 46/1 47/2 48/19 49/21 51/17 53/5 55/6 55/7 55/8 55/10 55/23 56/9 57/6 57/14 57/16 57/21 58/17 58/25 59/10 59/17 60/16 61/19 63/7 65/10 65/10 67/21 68/11 69/12 70/19 71/22 73/12 74/7 74/7 76/1 76/12 76/24 76/25 77/24 78/14 83/22 84/8 85/16 85/25 87/6 87/6 87/9 89/11 89/12 89/24 90/9 91/5 96/17 97/16 97/16 97/19 98/3 98/10 100/3 100/7 102/4 102/4 102/5 102/6 104/8 104/25 105/19 106/2 106/20 107/7 107/12 107/17 112/13 113/15 115/3 115/6 115/22 116/2 118/3 118/5 118/11 120/1 123/12 124/5 124/15 124/20 125/15 125/24 126/4 126/23 127/12 129/7 129/9 130/6 130/23 132/10 132/10 134/15 141/11 143/14 145/3 145/24 150/16 151/21 151/21 152/12 158/23 159/9 163/12 164/5 164/12 171/16 172/4 172/16 173/5 173/6 173/7 174/13 174/13 177/3 177/3 183/11 183/15 183/15 186/2 186/10 186/22 187/17 187/25 188/8 191/11 193/19 195/18 196/12 197/5 197/20 198/9 198/17 200/8 200/9 201/18 202/21 205/6 205/19 207/5 208/16 210/2 210/11 211/1 212/10 212/18 214/17 214/21 216/14 217/2	217/3 217/11 218/7 218/14 218/16 218/16 219/24 220/16 221/4 221/24 222/3 222/12 222/16 222/22 222/25 223/7 223/20 224/20 225/7 227/1 228/10 228/25 via [3] 124/21 148/23 196/3 vice [2] 148/21 170/14 view [46] 34/1 68/19 71/6 72/1 80/19 81/2 83/6 99/20 104/5 113/11 115/10 127/9 130/14 135/22 136/5 138/13 139/20 139/24 145/7 147/1 148/4 151/11 152/1 154/1 156/7 164/3 164/3 168/13 168/21 169/15 171/23 175/4 184/1 187/7 191/19 195/14 198/10 198/15 199/3 199/7 200/7 205/15 209/16 214/1 221/16 224/2 views [7] 36/1 44/1 69/8 138/10 172/1 206/25 227/5 vigorously [1] 210/19 virology [1] 79/8 virtual [1] 30/10 virtually [3] 30/24 90/4 121/9 virus [12] 37/5 72/5 92/1 92/25 95/25 97/4 101/25 114/23 133/11 138/12 151/5 151/7 viruses [1] 101/14 visas [1] 215/24 visceral [1] 221/5 visit [18] 6/3 6/24 7/4 7/11 9/11 10/3 11/24 12/4 17/2 17/15 25/16 25/25 29/21 30/10 31/13 37/10 46/17 53/9 visited [1] 37/13 visiting [9] 6/6 11/18 12/13 13/6 15/10 24/20 30/24 39/24 54/14 visitors [2] 213/17 213/19 visits [30] 2/18 2/20 2/24 3/5 3/9 9/9 11/23 12/23 13/10 14/19 14/22 15/3 15/25 23/25 25/14 34/24 35/11 36/21 37/9 41/13 41/18 41/19	44/7 44/15 45/22 51/3 52/23 54/14 54/18 55/7 visors [1] 38/12 voices [1] 167/13 voluntary [1] 208/2 volunteered [2] 32/25 89/16 volunteering [1] 89/12 vomited [1] 54/5 vote [1] 71/16 voting [1] 71/16 vulnerabilities [1] 163/14 vulnerability [1] 177/24 vulnerable [35] 108/5 108/6 108/13 108/15 109/11 109/16 109/19 109/21 113/1 122/7 126/18 132/3 132/13 133/24 134/7 134/25 135/7 175/23 177/25 179/16 205/24 206/5 206/6 206/13 207/13 208/5 208/19 209/3 209/6 213/18 214/16 216/6 216/11 217/22 227/23
	V		W	
updated... [1] 211/25 upon [9] 5/25 45/10 45/16 48/11 49/1 54/21 56/8 197/19 228/21 ups [1] 59/3 upset [1] 169/21 upsides [1] 76/24 upswell [1] 55/1 urban [2] 162/9 162/11 urgency [1] 183/8 urgent [5] 26/10 26/16 175/1 190/1 190/11 urgently [1] 28/8 us [73] 6/11 7/10 8/6 8/19 9/8 9/19 10/6 10/9 10/12 10/13 10/13 11/22 12/9 12/15 12/21 13/18 16/25 17/24 21/22 25/25 27/24 29/23 37/1 37/13 39/16 41/15 42/11 43/11 44/17 48/25 49/6 49/7 51/18 54/13 55/8 55/12 55/15 57/9 64/10 66/21 75/22 82/10 84/25 90/15 90/17 98/20 100/14 100/15 103/14 103/17 106/14 114/24 116/15 116/23 118/19 131/12 137/10 137/11 137/14 154/23 156/5 157/7 161/20 162/2 167/25 176/18 184/14 197/6 198/13 201/16 213/3 219/21 225/7 use [32] 4/3 12/21 20/12 27/3 51/13 71/5 77/19 77/22 81/14 94/19 130/14 131/18 138/11 138/16 138/18 139/10 144/25 145/3 152/21 154/6 168/5 173/6 200/16 200/22 201/5 202/22 203/4 203/8 203/9 211/25 212/14 214/3 used [6] 22/15 75/5 97/17 138/7 204/20 213/10 useful [17] 7/2 71/14 78/4 85/13 86/1 95/8 99/17 124/19 142/10 149/24 154/23 155/5 172/18 187/25 195/24 201/18 216/14 usefully [1] 35/24 uses [1] 116/25	vaccinated [1] 121/6 vaccination [8] 58/20 101/2 101/9 101/21 116/24 131/12 134/12 226/4 vaccinations [1] 42/22 vaccine [9] 57/6 59/9 102/12 102/13 102/18 104/7 134/9 134/16 177/7 vaccines [8] 68/24 85/20 100/21 101/6 101/18 101/22 101/24 102/6 Vallance [9] 33/18 34/9 34/21 35/20 36/11 122/21 123/24 221/20 221/23 value [3] 14/7 98/21 149/19 values [1] 203/14 Van [2] 70/25 71/12 variation [1] 138/7 variations [1] 120/20 varied [1] 36/3 varies [2] 107/11 191/11 variety [6] 97/14 121/3 150/19 166/3 213/6 227/22 various [17] 57/7 59/3 68/21 77/17 80/4 114/16 125/11 126/14 129/13 129/18 134/20 134/24 168/9 198/8 200/24 202/22 225/21 vary [1] 126/4 vast [1] 49/23 vehicle [1] 24/12 vehicles [1] 43/2 ventilated [3] 9/7 44/24 53/17 ventilating [2] 32/6 32/8 ventilation [6] 27/9 210/3 210/5 210/9 210/17 210/25 ventilator [3] 4/6 4/9 20/9 ventilators [2] 9/25 20/7	versa [2] 148/21 170/14 verse [1] 228/1 version [1] 162/15 versus [1] 48/21 very [207] 1/12 3/25 4/7 4/12 7/12 8/18 13/9 15/21 16/16 17/10 17/24 17/24 19/13 20/24 21/2 21/11 23/8 23/13 23/14 23/16 24/24 31/13 36/12 36/15 37/7 37/20 39/11 39/13 44/19 44/19 46/1 46/1 47/2 48/19 49/21 51/17 53/5 55/6 55/7 55/8 55/10 55/23 56/9 57/6 57/14 57/16 57/21 58/17 58/25 59/10 59/17 60/16 61/19 63/7 65/10 65/10 67/21 68/11 69/12 70/19 71/22 73/12 74/7 74/7 76/1 76/12 76/24 76/25 77/24 78/14 83/22 84/8 85/16 85/25 87/6 87/6 87/9 89/11 89/12 89/24 90/9 91/5 96/17 97/16 97/16 97/19 98/3 98/10 100/3 100/7 102/4 102/4 102/5 102/6 104/8 104/25 105/19 106/2 106/20 107/7 107/12 107/17 112/13 113/15 115/3 115/6 115/22 116/2 118/3 118/5 118/11 120/1 123/12 124/5 124/15 124/20 125/15 125/24 126/4 126/23 127/12 129/7 129/9 130/6 130/23 132/10 132/10 134/15 141/11 143/14 145/3 145/24 150/16 151/21 151/21 152/12 158/23 159/9 163/12 164/5 164/12 171/16 172/4 172/16 173/5 173/6 173/7 174/13 174/13 177/3 177/3 183/11 183/15 183/15 186/2 186/10 186/22 187/17 187/25 188/8 191/11 193/19 195/18 196/12 197/5 197/20 198/9 198/17 200/8 200/9 201/18 202/21 205/6 205/19 207/5 208/16 210/2 210/11 211/1 212/10 212/18 214/17 214/21 216/14 217/2	Wadey [1] 44/4 wages [1] 215/21 Wagner [5] 205/20 205/22 205/23 215/7 230/16 waiting [1] 28/12 wake [1] 183/2 Wales [5] 14/22 200/15 203/17 203/21 203/24 walk [2] 80/1 80/12 walked [1] 135/13 walking [1] 95/2 want [53] 2/16 8/8 11/10 26/14 66/2 73/13 79/9 80/16 83/14 86/17 91/16 93/19 110/9 110/11 110/16 117/22 120/10 138/1 141/8 144/12 144/13 144/18 148/6 152/12 152/21 163/5 164/20 165/13 166/11 169/4 169/9 169/11 171/3 172/21 172/22 180/18 184/14 195/22 201/16 201/23 204/4 204/5 204/22 205/1 205/25 206/24 210/24 211/8 212/17 212/24 213/21 223/17 224/21 wanted [24] 11/5	

W	177/5 193/4 198/5 221/2 221/7 221/12 221/15 221/19 222/22 223/8 224/14 wave 1 [2] 37/12 66/13 wave 2 [3] 36/21 66/13 161/15 waves [12] 16/3 44/24 53/16 58/16 99/13 100/24 101/13 160/18 160/23 161/17 162/10 217/16 way [71] 3/1 25/11 29/22 34/14 35/14 37/23 43/15 45/20 46/8 46/9 46/13 54/5 59/4 60/24 63/2 66/24 67/14 68/19 68/22 69/19 70/20 74/18 80/9 82/18 89/4 90/4 95/21 104/14 106/10 106/16 108/19 108/23 113/20 115/2 118/14 124/8 124/11 126/19 126/20 130/11 130/16 130/21 156/25 163/11 170/15 170/16 177/22 179/19 180/17 186/6 188/15 192/16 195/24 196/17 198/24 198/25 204/11 205/21 212/20 212/20 214/18 217/1 218/5 219/25 220/4 222/14 222/16 222/16 222/24 226/3 226/4 ways [7] 13/19 36/23 68/2 98/23 120/8 138/16 199/24 we [508] we'd [2] 37/3 64/3 we'll [1] 128/4 we're [15] 36/18 36/19 39/8 39/8 40/12 40/12 56/8 71/22 78/23 84/16 119/24 119/25 150/4 150/6 150/22 we've [16] 40/18 41/11 66/3 67/20 77/2 78/22 91/6 93/21 122/2 122/20 142/15 147/6 149/19 151/19 152/8 165/8 weak [4] 140/21 141/22 145/24 212/4 weakness [1] 118/14 wear [6] 27/5 141/10 149/5 149/9 213/15 213/19 wearing [8] 41/1 41/5 58/4 140/25 140/25 142/22 149/8 213/24 web [1] 172/5	wedged [1] 9/1 week [8] 37/6 156/4 156/21 157/2 170/19 186/1 224/10 225/1 weekend [2] 156/15 156/22 weekends [1] 40/7 weeks [8] 24/17 57/19 66/4 69/20 107/14 137/25 225/10 225/11 Weereratne [3] 200/10 200/11 230/15 welfare [1] 186/21 well [119] 1/4 2/10 4/16 7/7 11/25 12/17 21/8 26/14 32/3 32/3 35/7 41/8 43/4 43/9 43/10 45/23 46/1 46/1 63/16 63/21 64/2 64/22 65/7 66/22 68/1 69/11 70/4 71/5 73/18 73/18 74/14 75/8 75/9 75/16 78/13 78/25 79/1 79/22 82/6 82/7 82/10 83/9 83/17 83/18 85/2 85/6 85/11 86/15 87/6 88/4 88/11 88/18 89/9 96/9 97/19 98/3 99/2 100/18 106/19 110/7 111/10 113/20 120/5 121/1 123/16 126/24 128/3 129/6 132/16 136/11 137/19 138/13 140/12 142/1 143/17 145/18 145/21 145/25 146/21 147/6 149/20 151/4 151/25 152/1 154/18 155/18 156/4 158/2 158/6 158/20 159/9 163/3 163/12 165/12 166/17 169/17 171/15 174/3 175/12 182/16 183/4 183/17 184/10 188/24 190/14 193/13 197/1 197/8 197/20 202/8 204/16 206/9 208/1 213/5 222/12 222/20 225/24 226/10 228/25 well-resourced [1] 41/8 wellbeing [5] 43/17 44/7 48/2 48/11 48/14 Wellcome [1] 34/17 went [23] 7/22 16/5 16/9 17/3 17/15 21/19 22/8 26/23 28/3 29/22 31/1 31/13 36/16 38/17 40/23 93/15 101/3 114/12 125/7 125/22 148/18 176/23 178/5	were [442] weren't [14] 10/9 10/21 41/23 41/24 42/4 47/1 71/19 73/4 96/18 143/9 145/15 147/11 158/22 196/5 whammy [1] 206/7 what [246] what's [10] 4/2 6/14 8/6 16/25 19/6 28/19 104/5 150/17 160/1 173/15 whatever [5] 10/1 22/16 23/25 149/6 213/16 when [80] 3/1 3/10 3/17 5/5 6/18 7/17 8/7 10/3 10/18 12/10 16/5 17/15 20/20 22/18 24/9 24/16 26/14 28/10 28/10 30/14 30/24 31/2 33/6 37/13 38/10 38/15 40/11 41/8 47/18 48/8 48/19 58/3 59/8 62/6 66/17 68/15 69/8 74/23 90/22 93/15 93/18 94/25 98/2 102/20 104/25 116/24 120/21 120/21 123/16 123/22 125/2 125/4 125/16 125/24 131/10 132/12 138/11 141/5 145/4 145/9 149/6 149/14 150/7 153/22 156/22 177/22 178/2 179/23 181/15 184/6 189/16 191/1 191/8 191/17 191/18 192/19 198/25 208/12 213/24 214/25 whenever [1] 135/12 where [101] 7/5 9/11 11/25 21/19 21/21 21/25 22/2 22/8 33/13 36/17 38/16 38/23 40/23 48/23 48/25 57/24 61/3 62/17 63/5 63/22 64/7 64/12 64/16 65/3 66/25 71/10 74/22 76/4 78/7 79/8 85/3 90/18 91/10 97/17 98/16 99/20 100/2 105/7 111/23 111/23 113/21 114/17 115/13 119/9 119/13 124/3 125/12 131/21 132/2 135/5 135/17 135/23 135/25 136/9 137/6 140/13 142/10 144/14 145/23 146/19 146/25 147/13 148/1 148/4 152/6 153/24 155/25 156/6 156/16 158/17 159/12 159/17	159/20 160/23 161/1 165/18 168/8 171/14 171/15 172/10 172/11 173/10 178/22 179/14 179/17 179/20 180/19 181/13 186/7 186/8 186/23 193/5 193/12 195/20 196/13 196/15 208/10 212/8 212/11 220/6 222/18 whereas [1] 137/4 whereby [1] 44/12 whether [32] 14/21 48/12 48/15 52/2 74/1 82/9 94/2 95/25 100/19 100/25 102/11 102/15 104/11 110/4 110/5 118/12 124/13 128/1 128/4 129/23 131/17 139/19 139/22 150/1 151/12 168/11 175/14 181/9 182/3 189/9 201/20 204/14 which [220] 3/23 4/17 11/14 16/5 17/5 17/12 19/1 19/9 19/19 20/8 27/1 29/13 32/18 38/20 44/3 46/7 49/25 51/2 51/3 51/8 56/15 57/20 57/24 58/17 59/14 59/23 60/16 60/17 60/24 61/13 62/25 68/18 69/2 69/12 74/21 75/4 76/7 76/11 76/13 76/14 76/17 77/4 77/16 78/6 78/19 80/3 80/6 80/15 80/21 82/22 84/2 84/12 87/18 87/21 90/10 91/4 92/8 92/9 92/14 92/20 94/20 95/9 97/4 97/6 97/6 97/11 97/16 97/21 98/6 98/16 99/10 99/14 101/4 102/7 104/4 104/7 104/7 106/13 107/7 109/24 110/18 110/18 110/19 111/9 112/12 113/12 113/13 113/16 115/6 116/21 119/14 120/7 120/10 121/7 121/14 121/17 122/2 123/11 123/19 124/20 125/17 126/23 126/24 127/3 127/10 127/11 127/13 130/4 130/4 135/13 136/5 137/17 138/2 138/22 141/2 141/3 142/25 143/8 144/2 145/11 145/22 145/22 146/6 148/4 148/17 149/3 149/8 149/12 153/1 153/6 153/7
----------	--	---	--	--

W				Y
which... [89] 153/8 154/7 158/19 159/13 159/15 160/24 161/10 161/12 162/4 162/5 165/1 165/9 165/9 167/1 168/6 168/25 169/11 169/22 170/4 170/15 171/17 172/6 172/25 173/2 173/19 174/4 175/10 176/2 176/13 179/17 180/21 180/21 181/25 183/1 184/8 184/12 184/17 185/11 185/24 186/13 186/14 186/21 187/1 187/19 187/21 189/21 190/11 190/15 191/18 191/21 192/22 196/4 197/18 198/5 198/10 198/12 198/13 199/8 199/19 200/1 200/17 201/9 201/19 203/12 204/24 207/15 208/3 208/16 210/20 210/21 210/25 211/18 212/14 216/5 216/15 216/22 217/5 217/11 220/12 220/24 220/24 221/14 223/5 224/25 225/11 226/3 226/5 227/24 228/16	67/18 109/3 115/25 118/24 whose [6] 106/8 120/25 145/10 212/16 215/24 215/25 why [34] 14/13 15/18 23/1 23/24 30/6 34/8 35/17 37/2 43/6 81/7 87/11 88/9 90/20 94/17 97/13 97/25 106/4 114/24 116/14 132/1 143/16 154/16 159/7 159/25 162/6 169/18 170/2 171/3 173/9 175/17 175/19 190/25 223/2 226/24 wide [1] 154/19 widely [5] 62/2 76/8 147/10 185/10 204/24 widen [1] 9/9 wider [9] 36/13 48/18 65/9 84/14 103/1 134/5 148/17 202/20 225/24 widespread [1] 200/20 width [1] 8/21 will [60] 1/9 7/15 9/9 26/12 26/16 27/14 33/14 34/1 47/2 49/19 49/19 66/7 68/3 72/17 73/1 91/9 91/10 92/6 92/11 92/11 92/13 94/16 96/6 99/25 108/11 110/21 112/24 115/1 122/19 131/9 132/7 135/3 140/14 144/3 144/19 145/11 150/16 156/3 156/16 156/18 172/9 173/6 173/20 177/25 178/3 178/14 182/16 182/21 183/13 184/11 184/13 194/23 197/6 197/18 199/17 206/10 208/11 212/8 223/4 228/20 Willett [2] 33/25 35/10 willing [1] 35/1 winded [1] 196/17 window [1] 39/10 windpipe [2] 4/5 4/9 winter [14] 19/11 29/3 29/14 53/22 65/10 67/7 176/10 211/1 220/20 220/23 221/3 221/19 224/7 226/18 wise [1] 126/18 wish [14] 1/11 116/4 116/5 126/22 150/24 193/24 201/15 204/3 212/23 213/2 214/4 225/19 225/20 225/20	wishing [1] 226/18 with' [1] 36/2 within [31] 32/6 33/10 47/19 60/21 73/16 85/14 97/23 103/24 120/14 120/14 122/19 140/11 143/5 144/22 147/2 161/14 180/9 180/13 182/6 182/6 182/9 182/14 182/14 183/3 187/3 189/18 204/25 214/23 222/10 222/13 223/7 without [10] 5/17 17/6 20/10 46/14 51/14 177/8 184/18 212/19 226/18 228/1 witness [12] 1/3 1/5 52/22 111/14 129/13 141/5 179/4 192/5 198/21 200/18 202/2 216/3 witnessed [1] 34/9 witnesses [3] 77/17 138/13 140/19 women [1] 135/1 won't [6] 56/25 114/16 150/11 168/22 226/21 228/19 wonder [2] 115/19 150/6 wondering [2] 42/22 43/3 word [2] 14/6 72/4 wording [1] 84/12 words [3] 4/21 14/9 40/17 wore [1] 58/5 work [50] 1/22 20/20 32/12 32/22 40/7 45/1 54/4 54/5 55/19 55/19 55/20 55/23 57/24 58/8 64/2 65/17 67/19 77/20 77/20 87/22 90/1 96/9 103/23 112/11 112/19 113/3 113/14 117/5 118/12 124/13 125/13 129/22 130/17 135/4 138/15 139/18 143/6 148/4 156/25 163/19 166/2 166/5 173/5 177/17 180/10 181/15 185/17 186/9 199/19 222/4 worked [7] 21/21 23/6 57/1 57/4 109/14 222/21 222/22 worker [10] 67/25 73/12 165/11 182/5 185/16 186/3 187/16 215/17 216/10 217/18 workers [53] 54/19 72/7 72/14 72/15 72/18 73/3 73/7 73/17	74/2 74/3 74/8 74/12 75/25 78/25 81/10 81/13 102/20 102/21 103/2 103/6 135/2 141/15 148/19 148/20 148/24 149/1 149/4 150/7 165/14 179/3 183/25 184/4 185/20 185/25 186/15 186/16 187/7 211/16 213/15 215/15 215/18 215/22 215/23 216/12 217/19 217/20 217/20 217/21 220/2 224/2 225/13 225/13 226/12 workforce [9] 48/11 48/14 54/10 66/9 142/19 142/21 165/24 180/9 186/20 working [23] 2/10 3/17 57/10 57/10 57/19 58/3 60/5 72/18 76/19 87/4 98/9 113/14 121/25 140/10 141/10 156/21 156/24 157/1 157/9 180/12 182/22 186/4 223/18 workplace [2] 179/8 186/8 works [2] 70/21 80/8 world [7] 49/3 49/4 65/15 68/5 81/17 147/13 169/15 World War II [1] 49/4 worn [1] 77/4 worried [2] 94/21 181/8 worry [2] 94/22 141/24 worse [10] 18/7 29/14 40/13 64/19 64/20 64/20 69/6 150/6 172/11 177/11 worst [1] 160/24 worth [2] 123/1 220/15 worthless [1] 130/7 would [260] wouldn't [9] 12/3 94/7 119/23 127/23 130/21 131/22 172/22 180/18 223/16 write [2] 59/22 83/21 written [1] 210/15 wrong [9] 25/5 41/24 84/6 113/23 143/2 186/15 187/12 202/10 223/2 wrote [5] 142/25 172/1 206/22 218/11 223/25 Wuhan [3] 57/5 58/10 69/5	Yeah [4] 7/12 113/6 158/4 166/17 year [9] 39/25 57/12 57/20 65/13 70/7 140/3 176/10 188/25 221/2 year's [1] 39/17 years [10] 2/3 22/25 59/11 67/13 68/6 90/17 150/3 164/22 170/3 198/16 yes [76] 1/12 2/15 2/23 6/12 12/25 14/7 21/11 31/16 33/9 36/8 36/23 39/1 39/23 40/1 41/2 56/23 57/11 61/11 61/15 70/16 75/24 77/6 77/13 77/16 82/3 91/12 92/2 92/8 96/15 97/1 97/11 98/23 99/9 100/7 101/20 102/1 103/25 105/12 106/15 108/7 108/14 108/21 109/7 115/15 115/16 115/18 117/11 119/3 133/3 134/11 134/21 135/9 141/1 142/24 145/1 145/3 148/13 150/9 152/25 154/3 161/6 161/6 161/15 161/18 162/4 163/8 173/16 176/23 183/18 185/14 186/5 186/25 194/9 195/14 205/11 207/10 yesterday [6] 62/25 67/2 79/6 130/15 149/23 202/16 yet [8] 82/17 94/16 99/19 104/2 132/1 212/13 226/21 228/15 yo [1] 188/1 you [937] you'd [2] 78/14 175/5 you'll [1] 154/8 you're [24] 9/24 10/1 15/8 32/22 33/7 33/8 39/24 42/19 42/20 42/23 42/25 63/5 66/21 69/25 80/8 120/2 129/22 133/11 136/22 139/18 142/11 150/23 152/14 156/14 you've [23] 10/1 32/22 42/21 56/17 65/23 65/24 66/23 77/18 103/9 118/2 133/23 139/1 139/25 141/3 142/3 144/11 147/25 155/2 157/4 183/17 190/24 194/2 194/4

Y
young [11] 32/15
33/10 39/11 39/16
72/20 122/12 190/4
194/13 197/17 198/18
199/12
younger [1] 175/25
youngest [1] 158/21
your [159] 1/16 2/17
2/19 4/17 4/21 5/2 6/3
6/4 6/5 10/14 11/19
11/22 12/22 14/19
15/24 19/4 19/7 19/7
19/23 19/24 20/19
22/25 25/2 25/18
26/15 30/7 30/16
30/16 31/17 31/21
32/20 32/21 33/5 33/9
33/22 36/21 37/11
41/13 43/3 43/24
44/18 45/2 48/1 51/17
51/21 52/12 52/12
52/22 52/23 53/10
53/10 54/12 54/13
54/18 55/20 56/8 56/9
56/12 56/17 56/25
58/8 59/18 62/4 62/9
66/2 70/10 70/12
70/13 74/9 75/17
75/18 80/17 81/20
82/20 83/20 84/15
84/22 85/10 86/21
88/23 89/1 89/3 91/8
91/19 91/25 96/21
96/23 97/10 98/18
107/24 107/24 108/3
108/8 108/18 111/14
117/6 117/9 118/22
122/22 126/7 127/11
132/8 134/6 136/25
138/13 138/24 140/18
141/5 142/4 143/21
143/22 144/4 150/9
152/14 155/13 155/13
155/15 166/12 167/22
171/2 173/8 176/14
177/19 179/4 179/17
182/10 182/10 182/24
183/20 184/1 184/6
186/14 186/14 187/23
188/13 191/9 192/5
194/4 196/7 196/19
198/21 199/7 199/13
200/17 202/25 206/4
211/5 213/25 215/6
216/3 217/16 219/3
219/14 220/17 221/11
223/23 227/4 227/5
228/21
yourself [7] 31/3
50/15 52/7 79/25
94/13 103/12 122/21

Z
zero [2] 144/16
215/21
zip [1] 8/13