

UK Covid-19 Inquiry: Module 2

Written closing statement of the British Medical Association (the BMA)

Introduction

1. This written statement develops the issues addressed within the BMA's oral closing statement provided on 13 December 2023, drawing on wider written and oral evidence before the Inquiry in Module Two and setting out key areas that the BMA would urge the Inquiry to consider as it develops its report and recommendations for this module. The BMA's statement covers the following areas:
 - a. The impact of NHS under-resourcing and lack of capacity on the UK Government's response
 - b. The lack of public health capacity and involvement in the UK Government decision-making
 - c. The impact on doctors and healthcare workers
 - d. The failure to properly consider and act on aerosol transmission impacted the protections afforded to healthcare workers and meant relevant NPIs were slow to be introduced
 - e. The failure to consider inequalities and vulnerabilities
 - f. The consequences of an inadequate test, trace and isolate system
 - g. The timing of early decisions
 - h. Missed opportunities for learning lessons and the failure to prepare for second and subsequent waves
 - i. Public communications
 - j. The process for the development, consideration and implementation of scientific advice within Government
2. It is the BMA's belief that the UK Government was too slow to act, too fast to ease protections, it failed to adequately consider the impact of decisions on those at greatest risk, and its response to the pandemic was significantly hampered and restricted by a lack of NHS and public health capacity.
3. A key factor underpinning the UK Government's approach was a failure to take a sufficiently precautionary approach, across a range of issues including asymptomatic and aerosol transmission, the consequences of which are outlined in more detail in this submission.
4. This statement ends with recommendations for the Inquiry to consider.

A) The impact of NHS under-resourcing and lack of capacity on the UK Government's response

Witnesses widely accepted that the NHS entered the pandemic with a severe lack of capacity

5. It is compelling evidence that, in their evidence to the Inquiry, three consecutive Secretaries of State for Health (whose tenure covers the ten-year period 2012-2022) made clear that the NHS was lacking sufficient capacity. Jeremy Hunt told the Inquiry in Module 1 that he became convinced as Health Secretary that the NHS needed more capacity, while in Module 2 Matt Hancock shared the views of the Chief Medical Officer, Professor Sir Chris Whitty, that the United Kingdom was not well set up *"to meet the challenges of a major pandemic, in part because of the absence of a sophisticated TTI [test, trace and isolate] system"*, and because of the suboptimal investment in health, and public health¹. Similarly, Sajid Javid's oral evidence outlined the lack of hospital beds in the UK².
6. As the third report of the BMA's Covid-19 Review sets out³, the failure to properly resource the UK's health and care systems meant that these systems entered the pandemic understaffed, under-resourced and barely able to cope with pre-Covid levels of demand, let alone a pandemic. Compared to many other OECD nations, the UK entered the pandemic with fewer doctors, hospital beds and critical care beds per 1,000 people (3.0, 2.4 and 7.3 respectively, compared to OECD EU averages of 3.7, 4.6 and 15.9)⁴. Alongside this, there were high staff vacancy rates, frequently unsafe bed occupancy levels and estates that were increasingly unfit to deliver normal levels of care, with growing maintenance backlogs and substandard IT infrastructure.

The Inquiry heard evidence that NHS capacity plays a fundamental role in an effective pandemic response

7. The Inquiry has heard a lot of evidence across Modules 1 and 2, about the importance of NHS capacity in responding to a pandemic, and the BMA has already highlighted numerous sources of evidence from Module 1 (at paragraphs 38 to 52 of its closing written statement in that module⁵).
8. This was described by Sajid Javid in his oral evidence in Module 2:

*"in responding to a pandemic...your available health capacity has a big...determinant...We don't have many beds per head in the UK, in England for example...it's around 100,000. If you look at countries like Germany, France, other comparable countries... they have more than double, triple, sometimes quadruple the number of beds that we've got. Similar for ventilator units, ICU units, doctors and nurses per head...NHS capacity is absolutely key to dealing with the next pandemic"*⁶.

¹ Matt Hancock, 30 November 2023, p.89/15 - p.90/6

² Sajid Javid, 29 November 2023, p.161/23 - p.162/4

³ INQ000185355

⁴ INQ000185355_0011 and _0016

⁵ INQ000235077_0012 to _0016

⁶ Sajid Javid, 29 November 2023, p.161/15 - p.162/13

9. Professor John Edmunds (expert in infectious disease modelling and pandemic planning and member of SAGE, SPI-M-O and NERVTAG) told the Inquiry that it was never clear what the surge capacity in the health service was, but it would not be able to cope. He agreed with sentiments he had expressed in an email to Professor Neil Ferguson (mathematical epidemiologist and member of SAGE, SPI-M-O, NERVTAG and the Environmental Modelling Group) on 12 March 2020 that:

*"The potential surge capacity is absolute bollocks. The level of demand at the peak, even with the mitigations planned, are an order of magnitude higher than the NHS can cope with"*⁷.

During Covid-19 the UK Government's response was significantly impacted by the lack of NHS capacity

10. For many years prior to the pandemic the BMA⁸ and a wide range of other organisations had been raising the alarm about capacity in the NHS, making clear to the UK Government that the UK's health services did not even have enough capacity to run under normal conditions.
11. In addition to these pre-pandemic warnings, lack of capacity in the NHS was communicated to the UK Government again in the early months of 2020. As mentioned during the oral evidence of Lord Simon Stevens (former Chief Executive of NHS England), Operation Nimbus in February 2020 made clear that the Reasonable Worst Case Scenario (RWCS) would overwhelm the NHS⁹. Sir Mark Woolhouse (infectious disease epidemiologist and member of SPI-M-O) had raised concerns about a 'completely overwhelmed health system' from January¹⁰. Other witnesses, such as Professor Graham Medley (co-chair of SPI-M and SPI-M-O)¹¹, Dr Ben Warner (special advisor at Number 10)¹², and Sir Patrick Vallance (former Government Chief Scientific Advisor)¹³, similarly stated that the severe lack of NHS capacity was clear in February 2020.
12. However, despite these warnings, the Government failed to grasp the consequences of this situation and acted too late. The extent of this failure to act in a timely manner is epitomised in the phrase of 'Lost February' referred to during the oral evidence of Professor Woolhouse¹⁴ due to the lack of UK Government action at this time, and others acknowledged that control or containment of the virus was lost by 3 March 2020¹⁵.
13. As a result, when the Government did take action in March 2020, the sole focus became the urgent need to prevent the NHS from collapsing. This failure to take a

⁷ John Edmunds, 19 October 2023, p.119/5-13

⁸ INQ000205177_0025 to 0028; Philip Banfield, 17 July 2023, p.62-63

⁹ Simon Stevens, 2 November 2023, p.37/20-22

¹⁰ Mark Woolhouse, 16 October 2023, p.9/2-8, p.35/19-22; INQ000103352

¹¹ Graham Medley, 12 October 2023, p.131/4 - p.133/3

¹² Ben Warner, 6 November 2023, p.111/16 - p.112/4

¹³ Patrick Vallance, 20 November 2023, p.32/4-7: "What we did know was that the NHS runs at pretty much 100% capacity, which is quite unlikely most other countries. So we knew that the NHS capacity was likely to be very full anyway..."

¹⁴ Mark Woolhouse, 16 October 2023, p.33/24 - p.34/8; see also Steven Riley, 17 October 2023, p.14/6-20

¹⁵ Mark Sedwell, 8 November 2023, p.58/5-12; Anthony Costello, 16 October 2023, p.162/23 - p.163/4; Imran Shafi, 30 October 2023, p.145/12-14

precautionary approach and delays in introducing public health protections compounded the severity of pressures on the NHS.

14. Concerns about NHS capacity, and the ability of these systems to weather the storm of Covid-19, played a critical role in UK Government decision-making during the pandemic and forced the hand of decision-makers on numerous occasions. For example:
 - a. The significance of NHS capacity in connection with decision making is highlighted within the document prepared by the Inquiry, titled, '*Evidence on the Impact of Covid-19 on the NHS produced by the UK Covid-19 Inquiry*', dated 20 November 2023¹⁶. This document records references within government meetings and communications between 14 February and 22 March, to the likely impact of the pandemic on the NHS. There are 47 references to NHS capacity in March alone, including the compelling evidence from 19 March 2020 of Professor Whitty's statement in a meeting at Number 10 that there was, "*no world in which London ICU capacity isn't comfortably exceeded*"¹⁷, and the statement of Sir Patrick Vallance in a Covid-19 Strategy Ministerial Group meeting on 21 March 2020¹⁸ that in the worst-case scenario, Intensive Treatment Unit capacity in London would be overwhelmed in just nine days.
 - b. Multiple witnesses, including Matt Hancock at paragraph 276 of his witness statement¹⁹ and elsewhere, made clear that the lockdown on 23 March 2020 had to happen in order to protect the NHS and prevent it from being overwhelmed. As outlined by Professor Whitty in his oral evidence, it was specifically intensive care capacity that was at the heart of this decision²⁰. As noted earlier in this statement, intensive care capacity at the start of the pandemic was less than half the OECD EU average.
 - c. The lack of capacity contributed to the urgent need to discharge patients from hospital to free up NHS bed space, including the discharge of patients into care homes. While the BMA notes that this issue will receive specific consideration within Module 6, the discharges of vulnerable people in unsafe circumstances was necessitated because of insufficient NHS capacity and this had devastating consequences for those living in care homes and their families.
15. Beyond the first wave, there was a disconnect between broader UK Government decisions and the impact of these decisions on NHS systems and staff. Despite some decisions (e.g. local restrictions in Autumn 2020) continuing to refer to concerns about NHS capacity, other decisions that contributed to an increase in infection levels (for example the timings of lockdown decisions and the speed at which

¹⁶ INQ000274026

¹⁷ INQ000232070

¹⁸ INQ000056263_0003 to 0004

¹⁹ INQ000232194_0065

²⁰ Chris Whitty, 22 November 2023, p.57/7 - p.58/7

restrictions were eased) were made with little or no consideration of the impact on the NHS and the staff that work within it (see section C).

It is vital that NHS capacity is boosted in order to improve the UK's response to a future pandemic

16. It has been stated, for example in the oral evidence of Boris Johnson²¹, Matt Hancock²² and Simon Ridley²³, that the NHS was never overwhelmed. However, as outlined by Lord Stevens in his oral evidence, it is not helpful to frame the issue as a binary between 'overwhelmed' and 'not overwhelmed', it is instead a "*graduated set of negative impacts as Covid pressures increase on the NHS*"²⁴.
17. The NHS was only able to function as a result of unprecedented measures to bring in staff and significant disruptions to non-Covid care. This included calls for retired doctors and nurses to return to service, medical students joining the workforce early and the use of volunteers. Large numbers of staff were redeployed, often starting new roles without training or adequate supervision.
18. Claims that the NHS was not overwhelmed also distracts from the severity of the impacts on patients and staff. Many elective procedures, diagnostic tests and routine outpatient services were suspended so that staff, resources and beds could be utilised for Covid-19 care. The impact of these decisions are still significantly affecting patients and health services today, with historically high levels of waiting lists. It also contributed to a delay in people seeking care, which has led to people presenting later with more severe conditions, including conditions needing timely treatment, such as cancer, and further increasing pressure on health services.
19. The categorisation of the NHS not being overwhelmed should not distract from how close the country came to this situation and the impact that being close to being overwhelmed had on patients and staff. The UK's pandemic response was significantly worse as a result of a lack of NHS capacity, and yet capacity continues to be inadequate, with severe staff shortages, high vacancy rates, unsafe bed occupancy levels and estates in urgent need of maintenance and modernisation. Given the fundamental role that NHS capacity plays in an effective pandemic response, it is vital for both future pandemic preparedness and ongoing healthcare provision that this is addressed.

B) The lack of public health capacity and involvement in the UK Government decision-making

20. As made clear in evidence to the Inquiry for Module 1, the years leading up to the pandemic saw the public health system experience a reduction in health protection expertise, a fragmentation of public health services in England, very significant cuts to public health funding at both central government and local authority level, and significant levels of understaffing.

²¹ Boris Johnson, 7 December 2023, p.100/11-17

²² Matt Hancock, 1 December 2023, p. 17/8-10

²³ Simon Ridley, 7 November 2023, p.88/9-20

²⁴ Simon Stevens, 2 November 2023, p.42/13-17

21. In her evidence for Module 1, Dame Jenny Harries stated that there had been a 40% reduction in the funding of PHE in real terms over the course of its life, while its costs increased²⁵. There were also severe budget cuts affecting local public health services, with the public health grant for local authorities falling by a quarter per person in real terms since 2015. The widespread deterioration of public health funding occurred in concert with an equally concerning decline in the size of the public health workforce. The result was that public health systems across the UK entered the pandemic without the resources, workforce, capacity, structures or voice they needed.
22. This context, combined with a lack of engagement of public health specialists with frontline experience in public health protection in government decision-making during the pandemic, significantly impacted the effectiveness of the UK Government's response. As outlined by Professor McManus (President of the Association of Directors of Public Health) in Module 1, the role of local public health was not valued by UK Government and engagement was hampered by DHSC not even holding contact details for Directors of Public Health at the start of the pandemic²⁶.
23. Within UK Government decision-making, Professor Philip Banfield of the BMA raised concern in his Module 2 witness statement about a lack of independent public health expertise within SAGE²⁷. Similarly, Professor Peter Horby told the Inquiry that it would have been helpful to SAGE to have had greater expertise from frontline public health practitioners because, while there were people in the room with public health expertise, *"that's different from being at the frontline running a public health department in a local council or on the ground"*²⁸. He said that science needs to be placed in both the policy context and the operational context, and that this would have helped refine the advice given²⁹.
24. This context and attitude towards public health had implications for decisions made throughout the pandemic. For example, it contributed to the UK entering the pandemic without existing capacity for anything beyond small-scale contact tracing or the ability to rapidly scale this up. Beyond this, once large-scale testing and contact tracing was finally established, it failed to use local public health expertise (see section F) which limited its effectiveness. Similarly, the Eat Out to Help Out (EOTHO) scheme was launched without consulting public health experts (or indeed undergoing any scientific consultation at all)³⁰. Additionally, there were concerns about the decision to restructure PHE mid-pandemic and the lack of public health expertise sought in that decision.
25. For the UK's future pandemic preparedness, as well as for population health more broadly, it is vital for public health to be sufficiently resourced and staffed, and for

²⁵ INQ000148429_0025; Dame Jenny Harries, 26 June 2023, p.152/10 - p.155/2

²⁶ INQ000183419_0045

²⁷ INQ000228384_0040, at paragraphs 158 to 160

²⁸ Peter Horby, 18 October 2023, p.181/18 - p.182/10

²⁹ Peter Horby, 18 October 2023, p.182/14-23

³⁰ Chris Whitty, 22 November 2023, p.63/1-5; Jonathan Van-Tam, 22 November 2023, p.210/6-10; Patrick Vallance, 20 November 2023, p.92/18-20; Simon Ridley, 7 November 2023, p.59/3-14; Edward Udney-Lister, 7 November 2023, p.172/18-20

independent frontline public health expertise to be valued and included in government-level decision making. There are worrying signs that lessons about the significance of public health capacity have not been learned and that the UK has already started to scale back this capacity (see paragraphs 118 to 122).

C) The impact on doctors and healthcare workers

The Inquiry heard that doctors and healthcare workers were at higher risk of infection

26. The BMA recognises that a pandemic will necessarily be challenging for healthcare and public health systems and their staff. However, the scale and severity of the impact of Covid-19 was not inevitable and was made worse by poor government decisions.
27. Within a healthcare system that was already stretched to breaking point, doctors and healthcare workers were vulnerable and exposed. They were described as the 'canary in the coalmine' by Professor Van Tam³¹ because they are the first group to be infected; and, as identified by an ONS survey³² referenced within Professor Sir Ian Diamond's witness statement, their risk of infection was six times greater than in the general population. They are **the** essential component of the NHS without which numbers of ICU and hospital beds are meaningless, and yet they were inadequately protected throughout.
28. Paragraphs 168k-r of Professor Banfield's statement³³ specify the ways in which healthcare workers were unprotected, including a lack of adequate PPE and RPE such as FFP3 respirators, a lack of training and fitting procedures for PPE/RPE, inadequate IPC procedures and guidance, inadequate availability of testing resulting in exposure to the virus while inadequately protected, inadequate risk assessments, and as detailed in the section above, working within an under resourced health and public health system. Professor Banfield's statement emphasises the BMA's belief that the lack of protection afforded to healthcare workers was "*reflective of wider issues in how governments (and the UK Government in particular) responded to the pandemic*"³⁴.

Decision-making did not consider the impact on doctors and healthcare workers

29. Professor Banfield of the BMA told the Inquiry that:

*"It was very quickly apparent to the profession the seriousness of what was due to happen. There was a recognition that services were likely to be overwhelmed. A number of us went about writing our wills and making sure that our life insurance was up to date, because we had no doubts that we were facing something that was completely unprecedented"*³⁵.
30. There is little evidence that the potential personal impacts on doctors and other healthcare workers were considered in UK Government decision-making. All too often the risks to the NHS were characterised as organisational, for example,

³¹ INQ000151314

³² INQ000271363

³³ INQ000228384_0046 to _0048

³⁴ INQ000228384_0044, at paragraph 168

³⁵ Philip Banfield, 5 October 2023, p.85/5-12

references to the NHS becoming overwhelmed or the need to save the NHS, without consideration of the personal circumstances and risks taken by the people who work in it.

31. Key evidence includes:

a. An email chain between Number 10 and the Cabinet over the 13 and 14 April³⁶ (referred to in the evidence of Simon Ridley, Head of the Covid Taskforce³⁷). The emails raised concerns at reports that 20% of infections, and 10% of deaths were due to infections acquired in hospitals and that while by this time the R number had been brought below 1 within the community, it was still above 1 in hospitals and care homes. Notably these concerns were not raised in the context of patient and staff safety, but with reference to workforce absences, stories about PPE in the media and the need to avoid delaying the lifting of protective public health measures such as lockdowns, social distancing and work from home orders. There was no expression of concern for the safety of the people working and being cared for in these environments and the reported response of the Department of Health and Social Care was that this was not an issue of concern. Meanwhile, and as described by Professor Banfield in the quote above, doctors were updating their wills and making sure their life insurance was up to date.

b. The witness statement of Helen Macnamara demonstrates real insight into this issue:

"We kept being told that NHS capacity was elastic. My concern was that even if it was elastic that was not the same as it being infinite...It was only much later that I realised that what was meant by NHS capacity being elastic was the capacity of people working in the NHS to work themselves into the ground to keep people alive. So yes, they would cope, but the knock-on impact of that would be the consequences for the people involved. We had thought we would see the consequences of a broken NHS in the winter 2020/21. I fear that it took longer for the break to show, and we are living with the consequences of stretching it too far in terms of what is happening now"³⁸.

c. In taking decisions in response to the second wave (which is discussed at section H of this statement), there appears to have been no consideration for the stress under which NHS staff had been working for months. Professor Edmunds encouraged a lockdown on 20 September 2020, so the UK could "get on top of this epidemic". The failure to do so meant that the UK "entered the winter phase with our hospitals full, NHS staff having been under stress for months, as opposed to...doing routine stuff that autumn and clearing the backlog...that was not the case. And then we got hit by the Alpha wave"³⁹.

³⁶ INQ000198046

³⁷ Simon Ridley, 7 November 2023, p.25/23 - p.32/20

³⁸ INQ000273841_0089, at paragraph 181

³⁹ John Edmunds, 19 October 2023, p.142/6-20

The impact on healthcare staff continues to this day

32. The physical and emotional cost of the pandemic on healthcare staff has been enormous. Healthcare staff are continuing to live with the consequences of decisions made by the UK Government, and it is vital that this is addressed within the Inquiry's recommendations.
33. Healthcare workers were at higher risk of infection from Covid-19, and tragically, there was significant loss of life of doctors and healthcare workers, particularly those from ethnic minorities. Their families grieve lost loved ones, and their colleagues will continue to feel the impact of watching colleagues die or undergo acute treatment for many years to come.
34. Consequences also include historically high levels of waiting lists which adds to the pressure on staff, a crisis in staff retention and recruitment, significant numbers of doctors still suffering from Long Covid, and moral distress and injury for doctors and other healthcare workers who felt unable to provide the right level of care, including for their non-Covid patients.
35. In relation to Long Covid, a significant number of doctors who were infected with Covid-19 during the pandemic developed Long Covid. ONS data from 2023 estimates the prevalence of Long Covid to be around 50% higher in those working in the healthcare sector than in the general population⁴⁰. More than 600 doctors who self-identified as suffering the long-term effects of Covid-19 beyond the acute infection, responded to a BMA online survey conducted between December 2022 and January 2023, and the findings have been published in the BMA report *Over-exposed and under-protected: the long-term impact of COVID-19 on doctors*⁴¹ and the independent, peer-reviewed academic journal, *Occupational Medicine*⁴². Around 60% of doctors who responded to the survey reported that post-acute Covid-19 ill health has impacted their ability to carry out day-to-day activities on a regular basis. Around one fifth (18%) of respondents have been left unable to work or train because of their condition.
36. Finally on impact, the Inquiry is aware of the disproportionate impact of the virus on people from ethnic minority backgrounds, and of the shocking statistics in this area, including analysis by the Health Service Journal which found that 94% of doctors who died with Covid up to April 2020 were from ethnic minority backgrounds, even though this group makes up only 44% of NHS medical staff. This issue is considered in more detail in Section E.

⁴⁰ Office for National Statistics (ONS). Prevalence of ongoing symptoms following coronavirus (COVID-19) infection in the UK. 30 March 2023. Estimated prevalence among those employed in the healthcare sector is 4.41%, compared to 2.92% in the general population (Table 4). Available from:

<https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/datasets/alldatarelatingtoprevalenceofongoingsymptomsfollowingcoronaviruscovid19infectionintheuk>

⁴¹ Publicly available: <https://www.bma.org.uk/media/7318/bma-long-covid-report040723.pdf>

⁴² Bland D *et al*, Post-acute Covid-19 complications in UK doctors: results of a cross-sectional survey. *Occupational Medicine*. 11 December 2023. https://academic.oup.com/occmed/advance-article-abstract/doi/10.1093/occmed/kqad120/7468904?utm_source=advanceaccess&utm_campaign=occmed&utm_medium=email

D) The failure to properly consider and act on aerosol transmission impacted the protections afforded to healthcare workers and meant relevant NPIs were slow to be introduced

Instead of a precautionary approach, incorrect assumptions were made in favour of droplet and fomite transmission

37. In her witness statement Professor Dame Jenny Harries⁴³ said that it was predictable in early February 2020 that Covid-19 could be spread by aerosols.
38. The technical report produced by the Chief Medical Officer, Government Chief Scientific Advisers, National Medical Directors and public health leaders in December 2022⁴⁴ (the technical report) confirms that, as a respiratory virus, SARS-Cov-2 carried the potential for transmission via droplets and aerosol⁴⁵, but despite accumulating evidence (including the increasing recognition of the importance of airborne transmission), "...reaching a position of confidence on the full range of transmission routes and their relative importance took longer than expected"⁴⁶.
39. The technical report recognises there was a need for earlier action in response to the risks of aerosol transmission and the very first point of reflection in the first chapter advises that "Scientific and medical advice will often need to be formulated on the basis of limited data", and that "This was the case for SARS-CoV-2 in early 2020 with respect to several areas, including, for example, asymptomatic transmission or spread via aerosols"⁴⁷.
40. The evidence of Professor Catherine Noakes, the Chair of the SAGE Environmental Modelling Group (EMG), supports the view that aerosol transmission was overlooked in favour of droplet transmission. At paragraph 10.5 of her witness statement, Professor Noakes states:

*"I and others were concerned from early April that this [airborne transmission] was being overlooked by the public health bodies who were focussed almost exclusively on exposure to droplets when people were at close proximity and on the role of contaminated hands and surfaces"*⁴⁸.
41. In her oral evidence to the Inquiry, Professor Noakes expressed the view that a precautionary approach to aerosol transmission was warranted, even in the early stages of the pandemic, and when asked whether there were any reasons not to take steps to guard against airborne transmission, she said:

*"I don't see that there were, no...although the evidence at the outset was weak, in truth it was weak for all transmission routes. I think there was just a tendency to assume the other transmission routes and then require the evidence for airborne transmission. So I think from a precautionary basis, it would have been appropriate to indicate that aspects like ventilation mattered, early on and as that evidence base built, it was important that those mitigations were more readily applied..."*⁴⁹.

⁴³ INQ000251906_0119

⁴⁴ INQ000087225

⁴⁵ INQ000087225_0048

⁴⁶ INQ000087225_0050

⁴⁷ INQ000087225_0061

⁴⁸ INQ000236261_0049

⁴⁹ Catherine Noakes, 19 October 2023, p.17/11 - p.18/4

42. Professor Noakes refers in her statement to “a *global reluctance to properly acknowledge airborne transmission*” despite a growing evidence base⁵⁰, and she suggested a number of reasons for the reluctance to fully acknowledge this risk⁵¹ including:
- a. *“The categorisation in healthcare that respiratory virus transmission is traditionally defined as droplet **or** [emphasis added] airborne is long embedded...Changing a very established view can understandably be difficult both from a personal perspective of accepting a new approach and the practical implications”.*
 - b. The significant resource and operational implications it would have for hospital infection control measures; concerns that declaring a disease to be airborne could lead to public alarm; and the complexity of the mitigations required as opposed to the simpler message of “wash your hands”.
43. Professor Halpern (Chief Executive of the Behavioural Insights Team in Cabinet Office), in his paper, ‘*Institutional lessons from Covid*’, points to the risks of “anchoring” within SAGE,
- “with early hypotheses and views stuck with, despite the mounting evidence against...The role of aerosol transmission and corresponding importance of ventilation was underplayed (relative to ballistics [droplets]). Asymptomatic cases and their policy implications were understated. The growing evidence on masks was very slow to be taken on board”⁵².*
44. This reluctance to acknowledge the significance of airborne transmission or to countenance a precautionary approach is evident within a NERVTAG report dated 16 July 2020 titled, ‘*Assessment of transmission of COVID-19 in singing and music events*’, which states:
- “It remains uncertain what the relative contributions from large droplet contact, aerosol inhalation and surface contamination are in the transmission of COVID. It’s likely that all play a role...Nevertheless, most authorities currently state that large droplet and surface contamination are dominant routes for COVID”⁵³.*
45. It is now known that an emphasis on surface contamination was misplaced. The technical report states that the risks of fomite infection are low, and that one study has concluded that there is a less than 1 in 10,000 chance of infection by this route⁵⁴.
46. Recognition and acceptance of the role of aerosol transmission started to be evident in SAGE discussions and papers as 2020 progressed, including of the validity of a precautionary approach in the light of scientific uncertainty; however it is not obvious that this led to the necessary actions to mitigate against aerosol spread of Covid-19 in healthcare settings or the wider population.
47. Following the July 2020 NERVTAG report, the SAGE EMG published a report on 22 October 2020, titled, ‘*Role of Aerosol Transmission in COVID-19*’⁵⁵. Although the

⁵⁰ INQ000236261_0050, at paragraph 10.10

⁵¹ INQ000236261_0050, at paragraph 10.11

⁵² INQ000129093_0003

⁵³ INQ000120541_0001

⁵⁴ INQ000087225_0050

⁵⁵ INQ000192133

report did not define the proportional contribution of different routes, it recognised the significance of airborne transmission and the need to mitigate aerosols with effective RPE (which the BMA does not accept includes fluid-resistant surgical masks):

“The possibility of aerosol transmission of SARS-CoV-2 (outside of aerosol generating procedures in healthcare) has recently been formally acknowledged by WHO and hence interest in airborne transmission has increased”⁵⁶.

“Face coverings are likely to provide some protection for the wearer from exposure to large droplets via the nose and mouth, but are unlikely to reliably protect against the inhalation of small aerosols although laboratory studies show that they may have a small effect...Well-fitting respiratory protective equipment which meets the standards for FFP3 or FFP2 are shown to be effective at stopping small aerosols. However, these are only considered to be appropriate where there is significant risk of aerosol transmission, for example during aerosol generating procedures in a healthcare or dental setting.”⁵⁷

48. SAGE further considered airborne transmission within the paper, ‘Masks for healthcare workers to mitigate airborne transmission of SARS-CoV-2’, dated 9 April 2021⁵⁸, which includes the following statements and findings giving cause for greater precaution to be exercised in respect of the airborne route and mitigations necessary:

- a. *“The precautionary principle has been defined, for example, by the United Nations Conference on the Environment and Development (UNCED) in 1992 as: ‘where there are threats of serious or irreversible environmental damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent degradation’. Thus, the precautionary principle in this context describes an approach that should be adopted for addressing hazards subject to high scientific uncertainty, and **rules out lack of scientific certainty as a reason for not taking preventive action** [emphasis added]”⁵⁹.*
- b. *“SARS-CoV-2 is well recognised to be present in respiratory particles”⁶⁰.*
- c. *“Early data from studies suggests that coughing can produce more aerosols than some AGPs”⁶¹.*
- d. *“Evidence to date suggests that SARS-CoV-2 transmission falls between these two conventional categories, with transmission possible through inhalation and mucous membrane exposure to a range of particle sizes, as well as potentially via fomites. Airborne transmission via very small particles has not been shown to be the primary transmission route”⁶².*
- e. *“**Extending the use of FFP3 across care areas has operational implications** [emphasis added]; for example, it would require sufficient supplies of FFP3 to*

⁵⁶ INQ000192133_0001

⁵⁷ INQ000192133_0006

⁵⁸ INQ000192109

⁵⁹ INQ000192109_0005

⁶⁰ INQ000192109_0006

⁶¹ INQ000192109_0008

⁶² INQ000192109_0008

maintain stock and not compromise supplies for HCWs undertaking AGPs who are at recognised increased risk"⁶³.

49. The BMA recognises that observational data on transmission of Covid-19 has emerged over the course of the pandemic. However, as set out in paragraph 53, there was also relevant evidence about aerosol transmission of other respiratory pathogens from before 2020 that should have led to an increased willingness to pay attention to the potential for Covid-19 to spread via the airborne route. Therefore, the BMA is of the strong view that a more precautionary approach should have been taken at the outset of the pandemic and throughout, with adjustments possible later in response to the evolving evidence. Precautionary measures against airborne transmission should have been put in place, such as mask wearing in public, an earlier and stronger focus on ventilation, and the wider availability of FFP3 respirators in healthcare settings, in the same way that precautionary measures such as handwashing were put in place to mitigate against the risks of fomite transmission. Regardless of whether the scientific evidence is sufficient to confirm aerosol transmission as **the** primary transmission route (referenced at paragraph 48.d above), there is no question that it is **a** significant route of transmission.
50. In the following section, we set out the impact this dual failure: a) to take a precautionary approach to the risk of aerosol spread of Covid-19 and; b) the slowness to act on emerging evidence that aerosols were a significant transmission route, had on healthcare workers and on the decisions made by governments in relation to public health protective measures.

The lack of a precautionary approach had major consequences for healthcare workers

51. These inaccurate assumptions, the failure to take a precautionary approach (which was justified by prior evidence in relation to other viruses) and the inertia demonstrated by authorities to act on real-world evidence and update the position on aerosols, have had particularly acute adverse impacts for doctors and other healthcare workers, leaving them inadequately protected against transmission of Covid-19. This is illustrated starkly by the fact that 40% of respondents to a BMA survey reported as late as July 2021 that they were not being provided with respirators - which provide the most protection against aerosol spread - despite caring for patients with Covid-19.
52. And while aerosol transmission is now widely recognised as a significant route of infection, the provision of adequate protective equipment for healthcare workers and IPC guidance (which throughout the pandemic was set by the four-nation UK IPC Cell and published by PHE/the UKHSA, and is now the responsibility in England of NHS England) has not been realigned and remains inadequate. The current guidance in England, set out in the IPC Manual for England recommends fluid resistant surgical masks rather than FFP2/3 respirators for healthcare workers involved in the routine treatment of Covid-19 positive patients. The more protective respirators are only recommended when undertaking a limited number of so-called 'aerosol

⁶³ INQ000192109_0009 to _0010

generating procedures' (AGPs), despite it being well established that activities such as coughing and talking also generate significant levels of aerosols⁶⁴.

53. Paragraphs 7 to 14 of the BMA's closing statement in Module 1⁶⁵ provide an account of the type of equipment required to provide protection in healthcare settings from airborne transmission. In summary, the position is:

- a. In 2008 the Health and Safety Laboratory produced a report for the Health and Safety Executive⁶⁶ that evaluated the relative levels of protection afforded by surgical masks and respirators against an airborne virus and concluded that surgical masks should **not** be used in situations where close exposure to infectious aerosols is likely.
- b. Best practice was stated to be the use of FFP3 devices.
- c. The report concluded with the prescient warning that, "*the widespread use of respirators might be difficult to sustain during a pandemic unless provision is made for their use in advance*".
- d. Therefore, regardless of the relative contribution of routes of transmission, data for which took time to establish when Covid first arrived in the UK, an important mitigation against an airborne virus was known before the pandemic.
- e. Between 2008 and the outbreak of the pandemic there was scientific consideration of this issue, including within NERVTAG, however, stockpile levels of FFP3 respirators remained at levels that were wholly inadequate for the purposes of protecting healthcare staff against an epidemic or pandemic transmissible by aerosols.
- f. This scientific consideration of mitigations in healthcare settings against pathogens with different transmission routes includes an article published in November 2013 in the Journal of Hospital Infection, titled, '*Guidance on the use of respiratory and facial protection equipment*' co-authored by Professor Sir Jonathan Nguyen-Van-Tam, which recommended that healthcare workers should wear FFP3 respirators when treating patients with SARS coronavirus which was spread by droplet and airborne routes⁶⁷.

54. The inadequate stock of FFP3 respirators at the outset of the pandemic is confirmed in an email of Professor Van Tam dated 23 January 2020 that raises concerns about the potential shortages of FFP3 in the circumstances of a pandemic surge⁶⁸. Professor Van Tam was asked his views in respect of issues raised by the Health and Safety Executive, "*regarding safety advice for health care personnel dealing with potential cases of this novel virus*", and his initial response was in the following terms:

"As usual I will play a straight bat and explain the historical issues here having the experience of having personally advised DHSC on RPPE since approximately 2004.

⁶⁴ National infection prevention and control manual (NIPCM) for England, version 2.7, chapter 2.4, and Appendix 11a

⁶⁵ INQ000235077_0004 to _0006

⁶⁶ INQ000101591

⁶⁷ INQ000130561

⁶⁸ INQ000151353

My understanding is that HCID in conjunction with ACDP already knows what it is doing for treating new cases by way of PPE ensembles. I think it likely that HSE will agree that all that is in place right now is sensible. Where this may break down is if we have to move to surge, and cases of WN-CoV cannot be managed on HCIDUs or even IDUs due to volumes. We would then get into the matter of managing cases in standard ward settings and likely would need to draw down pandemic PPE stockpiles. These are configured for influenza and largely depend on SFMs for most healthcare, and FFP3 respirators (requiring fit-testing) for ICUs and specific AGPs in non-ICU settings. **The historical HSE statutory position is that maximum level RPE is required. This was neither affordable nor practical for pandemic stockpiling. The difference between PH/clinicians and HSE's statutory viewpoint have to my knowledge never been resolved** [emphasis added]. Whilst I recognise surge is a long way off and I very much hope we never get there, but I think this needs very careful handling. I would like a steer please."

55. Despite it being predictable from the outset that Covid-19 could spread by aerosols, and knowing that the, "HSE statutory position" required FFP3 respirators when treating patients with Covid-19, the requirement for FFP3 respirators was not maintained following the downgrade of Covid-19 as a HCID on 16 March 2020. This is reflected in the minutes of a NERVTAG meeting on 13 March 2020, which state, "Members noted that the [IPC] guidance is recommending the use of fluid resistant surgical masks (FRSM) outside of AGP hotspots as per pandemic flu as opposed to the HCID recommendations of FFP3 respirators"⁶⁹.
56. When Professor Van Tam was asked about this downgrade of FFP3 to FRSM in the course of his oral evidence, he replied that,
- "There wasn't the clearest understanding at that stage that there was – that fine droplet transmission was dominant, and I can only surmise that the people who wrote the guidance, Public Health England, felt that the predominant route of infections was droplet and therefore, a surgical face mask was adequate"*⁷⁰.
57. Further, given the emerging evidence from Spring 2020 in support of airborne transmission, and the continuing shortages of FFP3 respirators (confirmed in a BMA survey from July 2020), it is perplexing that a stop order was placed on further procurement of FFP3 respirators from 30 June 2020⁷¹.
58. The BMA's position is that, in line with the precautionary principle (set out at paragraph 48.a above), the known significant risk of airborne transmission of Covid-19 requires the provision of FFP3 respirators to healthcare workers who provide routine care for Covid-19 and that the failure to do so breaches this principle. The BMA invites the Inquiry to consider the extent to which considerations of PPE cost, availability and practicality were and are prioritised over safety.

The lack of a precautionary approach to aerosol transmission also likely impacted wider government decisions

59. It is likely that the failure to recognise and act on the potential for Covid-19 to be transmitted by aerosol routes was not just an issue within healthcare settings. As

⁶⁹ INQ000212195_0004

⁷⁰ Jonathan Van-Tam, 22 November 2023, p.231/20-25

⁷¹ INQ000144792_0070 to _0071, at paragraph 220

noted above, aerosols can be generated by activities such as talking, coughing and singing and, therefore, presented a risk in any situation where people were mixing, particularly in crowded settings or indoor venues with poor ventilation.

60. There are a range of NPIs that can mitigate the risks of aerosol transmission of the virus, with the wearing of face coverings and masks being an obvious one. Yet the government was slow to introduce mask wearing for the general public, well behind many other countries and mask mandates were often only introduced after significant and sustained calls from organisations such as the BMA. In England, the UK Government announced on 4 June 2020 that face coverings would be mandatory on public transport and for patients in NHS settings from 15 June 2020. Prior to this announcement (and as early as 25 April 2020), the BMA had been calling for the introduction of face coverings for the public where social distancing was not possible. The BMA also made repeated calls for face coverings to be introduced in a wider range of settings, beyond the initial requirements of wearing them on public transport and in healthcare settings. However, it was not until 24 July that it became mandatory to wear face masks in shops and supermarkets, and it was September 2020 before they were mandatory in hospitality settings for staff and customers as the UK faced a second wave of Covid-19.
61. There was also little attention given to the issue of ventilation, which can be evidenced by the fact that this was not explicitly included as a consideration in public communications until November 2021 when members of the public were advised to open windows when socialising with other households.

E) The failure to consider inequalities and vulnerabilities

The significant role of inequalities during Covid-19 has been widely accepted by witnesses

62. In evidence submitted to the Inquiry in Modules 1 and 2, it has been widely accepted that the pandemic highlighted and exacerbated existing inequalities within society, and impacted groups differently.
63. In Module 1, Sir Patrick Vallance told the Inquiry that *"there is a terrible, terrible truth, and it's something that we all need to reflect on, which is that all pandemics feed off inequality and drive inequality...that needs to be understood and is relevant, of course, to the many people who suffered during Covid"*⁷².
64. The technical report co-authored by Sir Patrick, acknowledges that:

*"Infectious disease epidemics and pandemics expose and exacerbate existing disparities in society...Some disparities observed in the Covid-19 pandemic would be expected to arise from an airborne respiratory pathogen – such as increased spread among people living in crowded households or individuals working in face-to-face settings with inadequate ventilation or protective equipment..."*⁷³.
65. A similar observation was made in the expert report of Marmot and Bambra, which outlined the five key ways in which existing inequalities resulted in higher mortality

⁷² Patrick Vallance, 22 June 2023, p.165/4-10

⁷³ INQ000087225_0087

and morbidity: unequal exposure, unequal transmission, unequal vulnerability, unequal susceptibility and unequal treatment⁷⁴.

66. The UK's pre-existing health inequalities profoundly impacted outcomes for certain groups in the population. Those who were most at risk of infection, severe symptoms and death were those with the worst health outcomes before the pandemic.
67. Disabled people were one of the most affected groups. The expert report on structural inequalities and disability from Professors Tom Shakespeare and Nick Watson stated that "*not only were disabled people often more susceptible to [Covid-19] virus, but both their pre-existing inequities and the social impact of pandemic control measures put them at increased risk of harm*"⁷⁵. The disproportionate impact of the pandemic on disabled people is shown in findings from ONS research that people with disabilities made up nearly two-thirds (59%) of deaths from Covid-19 in England, despite only 16% of adults in the UK having a disability⁷⁶.
68. In relation to ethnicity, during the first wave the risk of death from Covid-19 was 3.7 times greater for Black African men than for White British men, and during the second wave Bangladeshi men were nearly five times more likely to die than White British men⁷⁷. Professor James Nazroo, the Inquiry's expert on inequalities relating to ethnicity and age, highlighted the intersectional inequality experienced by some ethnic minority groups – they are more often employed in sectors that may increase the risk of exposure to an infectious agent (including healthcare assistants, hospital cleaners, social care workers, nursing and medical jobs), and more likely to be in poor quality or overcrowded housing than white British people⁷⁸.
69. As referred to in the Module 2 oral evidence of Professor Banfield, "*we were all in the same storm, but not in the same boat. There were clear discrepancies about how the pandemic was affecting different parts of our society, the poorest, the homeless, those who were already vulnerable*"⁷⁹.
70. In a report published by the BMA in March 2021 titled, '*Mitigating the Impact of Covid-19 on health inequalities*'⁸⁰, the BMA identified five key priorities for Government to mitigate the impact of the pandemic on at risk and vulnerable groups and prevent widening inequalities: (i) reducing the overall transmission of the virus; (ii) ensuring vaccine access for groups most vulnerable to the virus; (iii) improving financial security to ameliorate the impact of the pandemic on those already on low incomes; (iv) protecting the long-term (health) outcomes of children living in deprivation; and (v) investing in a strong public mental health response⁸¹.

⁷⁴ INQ000195843_75

⁷⁵ INQ000280067_0003, at paragraph 1

⁷⁶ INQ000280067_0012, at paragraph 40

⁷⁷ ONS (May 2021), 'Updating ethnic contrasts in deaths involving the coronavirus (COVID-19), England: 24 January 2020 to 31 March 2021'. Available at:

<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/articles/updatingethniccontrastsindeathsinvolvingthecoronaviruscovid19englandandwales/24january2020to31march2021>

⁷⁸ James Nazroo, 5 October 2023, p.52/21 - p.54/7

⁷⁹ Philip Banfield, 5 October 2023, p.102/18-22

⁸⁰ INQ000099287

⁸¹ INQ000228384_0064, at paragraph 223

There were disproportionate impacts on certain groups of healthcare workers, with missed opportunities to take immediate action

71. The failure to consider existing inequalities and the vulnerabilities of different groups had significant implications for healthcare workers during the pandemic.
72. The first ten doctors to die from Covid-19 were from ethnic minority backgrounds, and data from April 2020 recorded that 95% of doctors who tragically died from Covid-19 in England were from an ethnic minority group, even though they make up only 44% of NHS medical staff⁸². Among the wider healthcare workforce, 63% of deaths from Covid-19 were amongst those from an ethnic minority background⁸³.
73. In a letter to the CEO of NHS England on 9 April 2020, the BMA was one of the first organisations to publicly raise concerns about the disproportionate impact of the pandemic on people from ethnic minority backgrounds, both those working in healthcare roles and the wider public, including the high rates of Covid-19 deaths amongst healthcare workers from these backgrounds⁸⁴.
74. In this letter, and in a media intervention the following day, the BMA called publicly for an urgent review into why people from ethnic minority backgrounds were more vulnerable to Covid-19 so that action could be taken to protect them.
75. The review, announced on 16 April and led by Public Health England, had as one of its objectives *"to suggest recommendations for further action that should be taken to reduce inequalities in risk and outcomes from Covid-19 on the population"*⁸⁵. However, the PHE report, *'Covid-19: inequalities and disparities in risk and outcomes'*⁸⁶, when published on 2 June 2020, failed to include any recommendations or action plan to address the issues and omitted the significant volume of qualitative evidence provided to the review by multiple stakeholders, including the BMA.
76. This failure caused immediate concern for the BMA and other healthcare associations. Given the criticality that action be taken to save lives and reduce race inequalities, and to protect doctors and healthcare workers from ethnic minority backgrounds, the BMA raised specific concerns with the Minister for Equalities and the Secretary of State for Health and Social Care seeking publication of the recommendations and information believed to have been omitted from the published report. A second report, *'Beyond the data: Understanding the impact of Covid-19 on BAME groups'*⁸⁷, was published later in June which contained recommendations and qualitative information from stakeholders.
77. The BMA agrees with the evidence given by Professor Kamlesh Khunti (Chair of the SAGE Ethnicity Subgroup) that the PHE reports were a missed opportunity:

"So, first of all, [the report did not have recommendations on] how to protect these populations, and the wider social determinants of how to ensure that housing is

⁸² INQ000118475_0010

⁸³ INQ000099685_0009

⁸⁴ INQ000097864

⁸⁵ INQ000069013

⁸⁶ INQ000089740

⁸⁷ INQ000179354

*adequate, it's not overcrowded housing, the occupations that people were at higher risk - they weren't protected, the educational elements, communication, how it was to be done, who was going to do it. All of that wasn't there in huge detail. Although they'd identified all the drivers...the detailed recommendations on drivers were missing"*⁸⁸.

There were concerns about the lack of timely, tangible and enduring action to address the disproportionate impact of Covid-19 on ethnic minorities

78. The BMA remains concerned at the lack of tangible actions to address the impact of Covid on people from ethnic minority backgrounds. In a letter dated 7 June 2020 (between publication of the first and second PHE reports), the BMA (and other medical associations) called for:

*"actions that are credible and enduring. These include and are not limited to: fair and equitable implementation of workplace risk assessments, proper PPE for frontline staff...ensuring comprehensive data on protected characteristics are openly available to allow for accountability and monitoring"*⁸⁹.

79. However, concerns relating to risk assessments and PPE, in particular, persisted throughout the pandemic.

Risk assessments

80. In her covering letter with the first quarterly progress report on implementation of the recommendations in the PHE reports in October 2020, the then Equalities Minister stated that *"over 95% of frontline NHS workers from an ethnic minority background have had a risk assessment to ensure good understanding of the necessary mitigating interventions in place"*⁹⁰.

81. However in a BMA Covid Tracker survey the same month⁹¹, 18% of ethnic minority respondents said they had not been risk assessed and felt they needed to be, while a further 39% of ethnic minority respondents reported that, while they had received a risk assessment, they either felt the risk assessment needed updating or that appropriate adjustments had not been made. These issues, including a lack of confidence among ethnic minority doctors towards ineffective assessments, was also outlined in Professor Banfield's Module 2 witness statement.

82. This point is also supported by the impact questionnaire response to the Inquiry by the Federation of Ethnic Minority Healthcare Organisations (FEMHO) who stated that:

*"little progress was made on acting upon the recommendations [of the PHE report] that would have seen ethnic minority health workers better supported. The then Public Health England's recommendation to "Accelerate the development of culturally competent occupational risk assessment tools", translated into minimal and inconsistent changes on the ground to better support health workers of ethnic minority background"*⁹².

⁸⁸ Kamlesh Khunti, 11 October 2023, p.17/4-18

⁸⁹ INQ000117975_0002

⁹⁰ INQ000215047_0002

⁹¹ BMA Covid Tracker survey (England, Wales and Northern Ireland), 22 October 2020. This question was answered by 1,272 respondents who had provided information about their ethnicity.

⁹² INQ000099685_0010

83. The Trades Union Congress (TUC) also raised concerns around the need for specific risks assessments and, in her evidence to the Inquiry, Kate Bell (Assistant General Secretary of the TUC) highlighted the disproportionate impact on ethnic minority workers:

“Around one in six [respondents to a call for evidence] said they'd been put at more risk of exposure to coronavirus because of their ethnic background. And they described things like being forced to do frontline work that white colleagues had refused to do. They also talked about being denied access to proper personal protective equipment, refused risk assessments, and singled out to do high-risk work”⁹³.

84. Ade Adeyemi, General Secretary of FEMHO, told the Inquiry that black and ethnic minority healthcare professionals were not taken seriously or listened to at a local, regional, or national level⁹⁴. Mr Adeyemi also made the following observations about risk assessments highlighting structural discrimination within the NHS:

“the deployment of risk assessments for ethnic minority healthcare workers was confusing, so we saw healthcare managers, we saw ward managers, some doing it and some not doing it...an issue of delay came from, as I said before, the urgency within which that directive and the message came from NHS England that healthcare trusts and care settings were supposed to do risk assessments...We definitely feel it's a racial element, definitely. Again, speaking to the culture and feeling from members of FEHMO, we see British institutions generally, like the NHS, are able to respond to great tragedies...And there is a tragedy here with black and ethnic minority healthcare workers and it's a message from the chief people officer of NHS England: it's not a mandate, it's not a law, it's not a rule. Which again creates the sense and the culture that there's one response for tragedies of a certain type of workers and another response for another type of workers. And that's what led to, yes, that imbalance and the difference of risk assessments across the country”⁹⁵.

85. Professor Nazroo's evidence highlighted that older ethnic minority people were particularly vulnerable, including current and former healthcare workers, and that risk assessments were 'crucial'⁹⁶.
86. Risk assessments are mandatory under health and safety law, and it is the BMA's position that the UK Government failed to ensure that employers met their legal responsibilities and did not provide sufficient guidance or support for employers to undertake effective risk assessments in response to the risks posed to workers by Covid-19, including ethnic minority workers. Healthcare workers were at significantly increased risk of infection from Covid-19 (six times higher than some other occupations⁹⁷) but did not receive timely and adequate workplace risk assessments, which could, if undertaken and acted upon, have prevented the death or long-term illness of some healthcare workers.

⁹³ Kate Bell, 6 October 2023, p.79/2-8; see also p.94/17 - p.95/17

⁹⁴ Ade Adeyemi, 6 October 2023, p.94/25 - p.95/17

⁹⁵ Ade Adeyemi, 6 October 2023, p.99/17 - p.101/22

⁹⁶ James Nazroo, 5 October 2023, p.160/14-22

⁹⁷ INQ000271363

PPE and other equipment

87. Professor Khunti acknowledged the qualitative evidence provided by the BMA and nursing associations which showed there were elements of structural discrimination, for example, in relation to PPE for healthcare workers from ethnic minority backgrounds⁹⁸.
88. As mentioned in the BMA's closing submissions for Module 1⁹⁹, the lack of adequate consideration of healthcare workers and vulnerable healthcare workers can be seen in the severe shortages of PPE, the lack of sufficient supplies of RPE to fit a wide range of face shapes and sizes (including smaller, often female face shapes or staff who wear a beard or hair covering for religious reasons).
89. In April 2020 (in response to a BMA Covid tracker survey), 64% of BAME doctors reported feeling pressured to work in high risk settings without adequate protection compared with 33% of white doctors¹⁰⁰.
90. These sentiments were echoed by Mr Adeyemi in his evidence to the Inquiry:

*"most of the PPE that was procured fit a certain type, and it was mostly industrial, so for people of different race, different genders, some with religious, you know, head scarfs and other ornaments, it was difficult to find the right PPE. And this gave us a sense of a lack of, again, a belief of what we were saying, that the system can pick up signals and noise and disruption in other areas, but when there's noise and disruption of black and Asian ethnic minority workers, it's not heard and it's not responded to immediately"*¹⁰¹.

91. Mr Adeyemi also referred to the wider systemic problem relating to diagnostic technology, such as pulse oximeters, which work off infrared technology to measure pulse and oxygen levels in the blood. They were mostly tested on white skin, so the technology did not work as well on people with darker skin¹⁰². Professor Nazroo referred to the extensive evidence that pulse oximeters are more inaccurate and do not work as well on darker skin¹⁰³.
92. This issue prompted Sajid Javid to commission a review into inequalities in respect of the efficacy of medical equipment for different racial groups. Mr Javid referred in his evidence to the fact that a third of people within ICUs in 2020 - the most seriously ill - were from ethnic minority backgrounds, which was hugely disproportionate, and Mr Javid believes that the manufacturing and calibration of medical equipment may be related to this¹⁰⁴. However, the report commissioned by Mr Javid, which could shed light on these disparities, has not yet been published.

It is vital that the Inquiry makes recommendations to address inequalities now

93. Notwithstanding the stated actions and work undertaken by the Government Equalities Office following the PHE reports, the BMA considers that more work needs

⁹⁸ Kamlesh Khunti, 11 October 2023, p.16/6-11

⁹⁹ INQ000235077_0028, at paragraph 96

¹⁰⁰ INQ000118217_0010, at paragraph 5.9

¹⁰¹ Ade Adeyemi, 6 October 2023, p.106/10-20

¹⁰² Ade Adeyemi, 6 October 2023, p.109/13 - p.110/3

¹⁰³ James Nazroo, 5 October 2023, p.69/17-22

¹⁰⁴ Sajid Javid, 29 November 2023, p.160/5-12

to be done. It agrees with the conclusions reached by Professor Khunti in respect of the four quarterly reports, as follows:

“There are a number of things that could be done. In terms of the detail, again, in some of them is lacking. There’s data on pilot areas that were funded to do evaluations of what worked, what didn’t work. Mention about communications on – for ethnic minority populations. And again they mention a number of things that were done. But to me there were other ways that this could have been done...What we needed was real-time data, real-time data on people being affected in different waves, because we always say local is best, we could have acted on this locally...Similarly, the test, trace and isolation programme...if this data came on a regular basis, in real time, the local public health messaging could have been done. In the reports, you know, there are mentions about the culturally-adapted information that was given out there. Now, giving out a culturally-adapted leaflet doesn’t mean that that’s going to have a major effect. You need to do a lot more than that. You need to work with that community. And there are discussions about the community champions programmes that were funded, but again we’re not sure how these were funded, which areas were funded...”¹⁰⁵.

94. This point is reflected in the technical report, which recommends that research on the causes of disparities and how best to reduce them is required from the outset and includes a dialogue with local communities because larger national data sets may not pick up all risks and vulnerabilities¹⁰⁶.
95. The UK Government must take action to reduce inequalities and the unequal impacts felt by those who are most vulnerable. The reduction of inequalities, and health inequalities particularly, and improving population health, is central to the UK’s future pandemic preparedness.

F) The consequences of an inadequate test, trace and isolate system

96. The UK’s pandemic response was also significantly hampered by the lack of an effective test, trace and isolate system. The Inquiry received evidence about the critical role of testing and contact tracing during a pandemic response.
97. The technical report states that, *“Early, large-scale testing within the population is of course the best way to gauge severity more accurately...”*¹⁰⁷. It also states that testing is a rate-limiting step to optimise clinical care, deploy control measures, develop a clear epidemiological picture, and assess community-based countermeasures, and testing can help keep sectors of the economy open¹⁰⁸.
98. The technical report further notes that a lack of large-scale testing and contact tracing hampers studies about transmissibility¹⁰⁹. While asymptomatic transmission of Covid-19 was known to be possible from the outset¹¹⁰, a number of witnesses

¹⁰⁵ Kamlesh Khunti, 11 October 2023, p.32/13 - p.33/24

¹⁰⁶ INQ000087225_0097 to _0098

¹⁰⁷ INQ000087225_0037

¹⁰⁸ INQ000087225_0185 to _0186

¹⁰⁹ INQ000087225_0049 and _0054

¹¹⁰ John Edmunds, 19 October 2023, p.40/20 - p.41/9: *“Q. In relation to the coronavirus pandemic, that basic data...whether or not it was possible to become infected but not show symptoms, asymptomatic*

acknowledged that the extent of asymptomatic transmission – which, while studies vary is known to be a significant minority of cases - was not recognised early enough. Asymptomatic cases cannot be detected in the absence of testing¹¹¹, and therefore an effective and large scale testing system is essential to deal with a virus that can spread without symptoms.

99. The report of the Royal Society, 'COVID-19: examining the effectiveness of non-pharmaceutical interventions'¹¹² recently published in August 2023, reaches similar conclusions, and finds that test, trace and isolate (TTI):

*"...is a powerful tool for reducing transmission, although its effects may be eclipsed by other control measures such as extreme social distancing measures. When well-resourced compared to the number of infections (such that there is the capacity to rapidly test and obtain test results, rapidly trace contacts and for individuals to comply with isolation), TTI has the potential to interrupt chains of transmission and prevent establishment of infection"*¹¹³.

100. Sir Mark Walport (chair of the Working Group that produced the Royal Society's report, and former Chief Scientific Adviser from 2013-2017) also spoke about the benefits of TTI during his oral evidence and told the Inquiry that "[t]he evidence overall is strong that if test, trace, and isolate is applied early, and effectively, then it's actually quite a powerful measure..."¹¹⁴. However, Sir Mark stressed the importance of early application, because, "it's when you have geographically limited and low levels that you can remain able to test at sufficient scale and bring it under control without locking down everyone"¹¹⁵ and that, "the real challenge for nations is to be prepared"¹¹⁶.

101. A key element of an effective TTI system is the often overlooked component of isolation. Many people in the UK were left in the invidious position of not being able to afford to isolate, and attended work while unwell, spreading the virus further because they could not afford not to. The BMA has consistently called for better isolation/sick pay payments¹¹⁷ to address this problem, the extent of which was acknowledged by Matt Hancock in his evidence to the Inquiry when responding to questions on this issue from the TUC. He said:

*"Sick pay in this country is far, far too low...It encourages people to go to work when they should be getting better...We needed isolation payments from the start, we got them in the end by September..."*¹¹⁸.

infection...all that in general outline was known fairly early on, was it not? A. It was. Certainly by early February, or mid-February...we had probably reasonable estimates of most of these things...";
Yvonne Doyle, 2 November 2023, p.193/4-10: *"...it followed a media interview I had done at the end of January where I said straight that...we were unclear about but were prepared to consider that asymptomatic infection could occur..."*

¹¹¹ INQ000087225_0056

¹¹² INQ000250983

¹¹³ INQ000250983_0035

¹¹⁴ Mark Walport, 11 October 2023, p.126/1-3

¹¹⁵ Mark Walport, 11 October 2023, p.128/7-10

¹¹⁶ Mark Walport, 11 October 2023, p.129/3-4

¹¹⁷ INQ000228384_0035, at paragraph 142 and _0068, at paragraph 231

¹¹⁸ Matt Hancock, 1 December 2023, p.106/7-22

“...the lesson for the future is that self-isolation payments, rapidly delivered, are a necessity when self-isolation or indeed mandatory isolation is required”¹¹⁹.

Pre-pandemic lack of public health capacity significantly impacted ability to scale up test and trace systems

102. There is no doubt that the UK entered the pandemic without the ability to conduct testing and contact tracing at scale, and a key early adverse consequence of this was that testing and contact tracing, which had been carried out for initial cases of COVID-19, was abandoned on 12 March 2020 leaving the UK without any effective measures for controlling the spread of the virus at this critical time. The reason given for this decision was that the UK was moving from the contain to the delay phase of the pandemic response. However, the reality is that there was no meaningful testing capability and what little testing capacity existed at this time was needed for healthcare settings.
103. The technical report states that while strong in areas of scientific research, the UK's relatively small diagnostic industry (compared with many other high-income countries) meant the UK was unable to rapidly step-up large-scale testing, which limited the initial response¹²⁰, and once community transmission rose steeply in early Spring 2020 the existing system could not meet demand¹²¹.
104. Public Health England (PHE) was criticised by some for a lack of testing capacity. Matt Hancock stated in his evidence that by 14 February 2020, he was pushing PHE to build a testing system¹²², and that he took responsibility for testing away from PHE on 17 March 2020 because in his view it wasn't being conducted effectively¹²³. This was also a key reason given for Mr Hancock deciding to disband PHE mid-pandemic, in connection with which Mr Hancock also expressed disappointment at the reluctance of PHE to engage with private sector testing capacity. He said that PHE was a first-rate specialist organisation, but it was incapable of scaling up contact tracing¹²⁴.
105. However, the absence of an effective community test and trace system in the early period of the pandemic was not caused by PHE performance related issues. After a decade of underfunding prior to the pandemic, PHE was in no position to deliver on such a significant undertaking. Further, PHE had not been structured to deliver testing at scale. As explained in the witness statement of Yvonne Doyle: *“At this point [in February 2020] all available PHE staff were working on various elements of the pandemic including on testing and tracing, it was a factual reality that much more capacity would be required than PHE had been commissioned and funded to provide”¹²⁵ and “PHE was never intended to operate at industrial level...”¹²⁶. Moreover, as noted above, PHE did highlight its capacity and funding limitations, with a paper to SAGE on 12 February 2020 which set out PHE's recommendation*

¹¹⁹ Matt Hancock, 1 December 2023, p.110/4-7

¹²⁰ INQ000087225_0108

¹²¹ INQ000087225_0188

¹²² Matt Hancock, 30 November 2023, p.115/9

¹²³ Matt Hancock, 30 November 2023, p.40/13-16, and p.152/7-9

¹²⁴ Matt Hancock, 30 November 2023, p.175/10 – p.176/13

¹²⁵ INQ000273878_0010

¹²⁶ INQ000273878_0016

*“that a practical and reasonable level of enhancement should be to enable a 10-fold increase in Capacity to provide effective CCI [case and contact isolation] controls”*¹²⁷. However, these requests do not appear to have been sufficiently considered or acted upon, despite Matt Hancock’s statement that he was pushing for this capacity at around the same time.

106. And, as already referenced above at paragraph 21, the witness statement of Professor Harries in Module 1, details the 40% reduction in the funding of PHE in real terms over the course of its life¹²⁸. Professor Harries also told the Inquiry in oral evidence that,

*“the organisation therefore, in order to sustain itself, became very dependent on its earned income. It has absolutely brilliant scientists and it can generate some income. But by the end of this period my view would be that, rather than having a system that was a critical system for the UK, founded on a substantial grant that could maintain it, it was trying to pedal fast to keep up, generating income, and often using its scientists to do that rather than perhaps strengthening the wider health protection system”*¹²⁹.

There was a lack of action at the start of 2020 to address the UK’s limited testing capacity, and later decisions failed to get the situation under control fast enough

107. The lack of political awareness of the limitations of testing capacity within the UK at the start of 2020, is striking, and hindered the UK’s response.

108. Politicians, including Matt Hancock and Boris Johnson told the Inquiry that they wrongly assumed that the necessary testing and contact tracing capacity existed, only to find that it needed to be built mid-pandemic.

109. Mr Hancock told the Inquiry that he only realised during February 2020 that the test, trace and isolate system would not be able to cope¹³⁰ and in his witness statement he states that on 18 February 2020, *“PHE told me that the country’s current approach of tracing all contacts of anyone who was infected was unsustainable...I asked for advice on how we could scale up, but wished PHE had told me weeks ago”*¹³¹.

110. And the Prime Minister, the ultimate decision maker, remained unaware that the existing test trace and isolate system was unsustainable as late as 3 March 2020¹³².

111. The evidence of Professor David Halpern addresses the lack of a large-scale testing and contact tracing system from the outset. In his oral evidence Professor Halpern referred to his paper, titled, *‘Institutional Lessons from Covid’*¹³³ which identifies a failure to properly consider the strategy of near-suppression of the virus as a viable option, *“and an expanded tracing system in particular”*. In this context, Professor Halpern told the Inquiry:

¹²⁷ INQ000119729_0002

¹²⁸ INQ000148429_0026

¹²⁹ Jenny Harries, 26 June 2023, p.153/12-22

¹³⁰ Matt Hancock, 30 November 2023, p.89/9-11

¹³¹ INQ000232194_0046

¹³² Boris Johnson, 6 December 2023, p.102/21 - p.103/1

¹³³ INQ000129093

*"...of course the best thing to do would have been to have a much better test and trace system...That is what the South Koreans did, that is what Singapore did, that's what many other countries did. And we didn't do it. We weren't doing it in February, it wasn't on the table..."*¹³⁴.

112. Professor Halpern's paper challenges the UK's initial strategy that, "once early containment had failed, a flu-like wave was inevitable", and that, "the best that could be done was to 'flatten the curve'"¹³⁵. He proposed an alternative approach, "to build a sophisticated test and trace system strong enough to substantially suppress the virus, at least for long enough to enable treatment and vaccines to be developed", a strategy which had been found by some South Asian nations¹³⁶.
113. The dual failure to recognise the need to deploy test, trace and isolate at scale from the outset, and to recognise the limitations of the UK's existing capability in early 2020, meant that action in response was only taken in mid-March 2020, by which time first wave infections were close to their peak.

There was a failure to utilise existing public health resource and expertise in relation to testing and contact tracing

114. In addition to delays in building capacity, large-scale contact tracing, when established, failed to utilise local public health expertise.
- As noted in the technical report, building on and adapting existing research systems and networks is usually much faster than setting up new systems; large-scale contact tracing should where possible build on existing systems and expertise; local teams have important intelligence about their communities and will be more effective in building rapport, and regional teams can bring together epidemiological signals from across their patch and can also support pooling of resource to adapt operations to a fast moving epidemic¹³⁷.
 - However instead of using local expertise, NHS Test and Trace was set up at a national level in England in May 2020 without involving local Health Protection teams.
 - In its first two months England's NHS Test and Trace was unable to reach a large number of Covid-19 cases and their contacts, with only 60% of the non-complex cases being reached and subsequently advised to isolate¹³⁸. In recognition of the need for local expertise, the national service began partnering with local authorities from the summer of 2020 which had a positive impact, as Professor Jim McManus told the Inquiry when he gave oral evidence in Module 1¹³⁹.
115. From a position of late action in mid-March, the processing of 100,000 tests per day by the end of April was a significant achievement. However, as already stated, the

¹³⁴ David Halpern, 1 November 2023, p.192/17-23

¹³⁵ INQ000129093_0002

¹³⁶ INQ000129093_0003

¹³⁷ INQ000087225_0061, and 0228

¹³⁸ INQ000185356_31

¹³⁹ Jim McManus, 5 July 2023, p.57/22 - p.58/18

lack of capacity should have been recognised much sooner, and action taken in January and February to build capacity through the expansion of existing PHE, NHS, and University capability and capacity rather than through an expensive and incompatible new system, much of which is now dismantled.

116. As set out in the BMA's closing statement in Module 1¹⁴⁰ the UK did have existing diagnostic capacity within 44 NHS laboratories that were not fully utilised, which is supported by Dr Kirchhelle's evidence on 10 July 2023 that, "*It's very interesting to see the NHS capabilities perhaps not being used as strongly as some observers would have wanted them to be used in 2020*"¹⁴¹.
117. In this regard the views expressed in the technical report are that while there was "*considerable expertise, existing workforce and technology across multiple smaller labs in universities, research institutes, and the NHS...without a full and integrated system...using such smaller facilities did not easily provide a solution*"¹⁴² However, the BMA's position is that while this may have presented challenges, early action to increase test, trace and isolate capacity through these existing NHS and public health resources and capabilities, in partnership with local Health Protection teams, should have been the government's focus and priority, including to ensure a standing surge capability for the future.

The UK's public health services still lack vital capacity to respond effectively to a future pandemic

118. The technical report makes clear that a contingency response needs to be maintained, at least so that the UK is able to surge in the event of a new variant/pandemic, and that the diagnostic industry should be included in the planning¹⁴³.
119. However, the dismantling of the pandemic infrastructure was raised as a significant concern by Sajid Javid, who states in his witness statement that he
- "made the case for maintaining significantly more investment in preparedness to No.10 at the time, and the relevant budgets will have since reduced further in real terms...It is clear that better preparedness before Covid would have saved a huge amount of reactive resources, not to mention lives - unfortunately it is not clear to me that we have fully learned our lessons from this pandemic in that regard"*¹⁴⁴.

120. Matt Hancock also expressed concern in this regard, telling the Inquiry,
- "From mid-March we did manage to develop this sort of capacity. It was slower than it should have been and it's a vital, vital lesson for the future that we need a testing system ready to go. And I'm worried that that is not there right now in case there's a pandemic"*¹⁴⁵.

121. The witness statement of Lord Stevens mentions similar concerns about a "*dismantling of some community infection surveillance infrastructure*"¹⁴⁶.

¹⁴⁰ INQ000235077_0022

¹⁴¹ Claas Kirchhelle, 10 July 2023, p.41/7-9

¹⁴² INQ000087225_0189

¹⁴³ INQ000087225_0188

¹⁴⁴ INQ000302485_0042

¹⁴⁵ Matt Hancock, 30 November 2023, p.179/2-7

¹⁴⁶ INQ000280647_0024

122. The relative success of South Korea in deploying a more effective test and trace system than in the UK, was partly because of their previous experience of MERS. And just as South Korea learned from MERS, it will be important that the UK learns from the Covid-19 pandemic, and ensures there is sufficient test and trace capacity and capability within NHS and public health systems, so that future decision makers have this essential tool available to them.

G) The timing of early decisions

123. It is the BMA's view that there was a lack of UK Government action in the early months of 2020, with much of February lost to confusion and indecision, and a decision to lockdown that came too late.

124. There was a consensus amongst many of the witnesses in Module 2 that the first lockdown was implemented too late, although views varied on how much earlier this should have happened with some suggesting only a few days, others saying it would have been possible 7-10 days earlier and Matt Hancock stating that, in hindsight, the government should have acted up to three weeks earlier, in early March, and that this would have saved many lives¹⁴⁷.

125. Sir Patrick Vallance was more conservative in his assessment of the earliest moment that lockdown could have been introduced:

*"We got information on 13 March which unambiguously showed that the pandemic was far more widespread and far bigger and moving faster than we had anticipated...Over that weekend, it became very clear that much more stringent measures would be needed to control this and they needed to be introduced quickly"*¹⁴⁸.

*"...frankly on that weekend an in principle decision was taken that lockdown would be required. It then took several more days to work that into a full mandatory process"*¹⁴⁹.

126. The UK did not go into formal lockdown until 23 March, a full 10 days after Sir Patrick Vallance says an in-principle decision was made and 11 days after contact tracing had been abandoned.

127. Several witnesses in Module 2 made reference to the lack of a clear plan within the UK Government in the early months of 2020. The witness statement of Professor Angela MacLean, for example, states *"...in the first few weeks of March 2020, I began to feel that there did not seem to be a plan within government, or a clear sense how many people were going to die"*¹⁵⁰. Professor MacLean further explained her concerns in her oral evidence as follows, *"If everybody could catch it and it spreads quite well, so that you might expect something like three-quarters of the population to get it, even if the infection fatality rate is only 1% that's just an unbelievably large number of people"*, which led Professor MacLean to ask Ben Warner on 10 March 2020, *"have decision-takers really understood what they are*

¹⁴⁷ Matt Hancock, 30 November 2023, p.127/3 - p.128/3

¹⁴⁸ Patrick Vallance, 20 November 2023, p.45/4-15

¹⁴⁹ Patrick Vallance, 20 November 2023, p.46/3-6

¹⁵⁰ INQ000309529_0034

confronting here?". Professor MacLean further stated, *"it's clearly unconscionable [and] not something any politician can conceivably agree to"*¹⁵¹.

128. This lack of a clear plan cannot be separated from the culture of decision-making within the UK Government at the time, which many witnesses have commented on in their oral and written evidence.
129. Multiple specific factors appear to have also contributed to the lack of earlier and more decisive action. These included (but were not limited to):
- a. Some evidence that failure of previous outbreaks such as swine flu, SARS, and MERS, to materialise in the UK, engendered complacency, despite the real-world evidence coming from Italy¹⁵².
 - b. A failure to identify how far along the curve we were, as explained by Professor Peter Horby¹⁵³.
 - c. Unfounded over-reliance on assumptions of behavioural fatigue, although this is not a condition recognised by behavioural science. This significantly impacted the then Prime Ministers' thinking, who at the Inquiry described it as the "prevailing view for a long time"¹⁵⁴.
 - d. the difficulties in expressing and communicating probability and risk and poor comprehension of these by government decision makers. This issue was referred to by several witnesses, including Professor Whitty who said that when probability was expressed in remote terms it can lead to an underestimation of the risk¹⁵⁵.
130. Arguably, these factors, while undeniably complex, may not have led to the delays in action that occurred if the processes for decision making within government was less chaotic and if a precautionary approach, which the BMA called for had been followed. There is a need for future pandemic planning to recognise the learning outlined by Patrick Vallance, who said in relation to these early months that:
- "The most important lesson that I learned and stated repeatedly from the first lockdown onwards in respect of the timing of interventions was that you had to go earlier than you would like, harder than you would like, and broader than you would like"*.¹⁵⁶
131. Sadly, and as is set out in the section below, this lesson and advice was not acted upon by decision makers within Government, with the consequences that a more severe second wave was experienced, and the opportunity to avoid a second lockdown was missed.

¹⁵¹ Angela MacLean, 23 November 2023, p.42/2 - p.44/12

¹⁵² Mark Woolhouse, 16 October 2023, p.38/1-19

¹⁵³ Peter Horby, 18 October 2023, p.201/3-7; p.202/21 - p.203/1

¹⁵⁴ Boris Johnson, 6 December 2023, p.94/25

¹⁵⁵ Chris Whitty, 21 November 2023, p.183/5-22

¹⁵⁶ INQ000238826_0071

H) Missed opportunities for learning lessons and the failure to prepare for second and subsequent waves

132. There is little evidence that the UK Government learned from the mistakes of the first wave leading into the inevitable second wave, despite wide acknowledgement that it had the potential to be even worse than the first, and at a time when vaccines remained unavailable.
133. The BMA recognised early the need for caution when easing restrictions over the summer of 2020, and issued guidance and called on the Government to exercise restraint and to prepare for future waves of Covid-19, including:
- a. A published document on 2 June 2020 titled, '*Easing the lockdown – principles and priorities*'¹⁵⁷. The key points made were that: the easing of restrictions could only be effectively delivered once there was sufficient capacity to test, trace, and isolate; the process should be gradual, flexible, and carefully managed, led by the best available science, data and research and learning from how other countries have relaxed restrictions; there needed to be guaranteed provision of PPE supplies; and actions to prevent people from contracting and spreading the virus when carrying out essential activities.
 - b. On 23 June 2020 the British Medical Journal (owned by the BMA but with editorial independence) sent an open letter to the leaders of UK political parties calling for, "*a transparent rapid review of where we are and what needs to be done to prepare for a second wave*"¹⁵⁸. The BMA, together with many of the Medical Royal Colleges, were signatories to the letter, which stated:

*"Several countries are now experiencing COVID-19 flare-ups. While the future shape of the pandemic in the UK is hard to predict, the available evidence indicates that local flare ups are increasingly likely and a second wave a real risk. Many elements of the infrastructure needed to contain the virus are beginning to be put in place, but substantial challenges remain. The job now is not only to deal urgently with the wide-ranging impacts of the first phase of the pandemic, but to ensure that the country is adequately prepared to contain a second phase"*¹⁵⁹.
 - c. And as set out in the statement of Professor Banfield¹⁶⁰, the BMA's then chair of UK council, Dr Chaand Nagpaul, wrote to the Secretary of State for Health on 26 June 2020 to stress that when ending lockdown restrictions, the protection of the public's health and the need to maintain suppression of the virus must be prioritised.
134. However, instead of heeding this advice, the country opened up too quickly, typified by the reckless EOTH scheme (announced on 8 July 2020) which was decided without scientific input despite the obvious risk of adversely impacting

¹⁵⁷ INQ000117966

¹⁵⁸ INQ000117995_0001

¹⁵⁹ INQ000117995_0001

¹⁶⁰ INQ000228384_0036, at paragraph 143

Covid transmission rates, and in which respect a study from 2022¹⁶¹ suggests it was responsible for between 8-17% of new infections.

135. Professor Edmunds was particularly scathing about this decision, telling the Inquiry during his evidence:

*"To be honest, it made me angry. And I'm still angry about it. It was one thing taking your foot off the brake, which is what we'd been doing by easing the restrictions, but to put your foot on the accelerator seemed to me to be perverse. And to spend public money to do that when 45,000 people had just died"*¹⁶².

136. As already referenced, a striking feature of the EOTH policy decision making process is the failure to take scientific advice on the associated risks. Relevant context can be found in the testimony of Sir Patrick Vallance, when reference was made by Inquiry Counsel to an entry made on 2 July 2020 (just six days prior to the announcement of EOTH) within the notebooks of Sir Patrick which reads, *"In economics meetings earlier in the day they didn't realise CMO was there and [Chancellor] said, 'It is all about handling the scientists, not handling the virus'"*¹⁶³.

137. Once cases began to rise again in the Summer and Autumn of 2020, the Government's response was characterised by further delays and indecision, including the introduction of the tiered system on 12 October 2020 which failed to contain infection levels, and in respect of which Simon Ridley, Head of the Covid Taskforce, told the Inquiry that the tiered system would have stood a greater chance of success had it been introduced in September 2020¹⁶⁴, and that: *"It's certainly the case that if we'd acted more strongly earlier we'd have stood a fairer chance of avoiding a national lockdown"*¹⁶⁵.

138. The current Chief Scientific Adviser, Professor Dame Angela McLean, who had advised the Prime Minister and Chancellor on 20 September 2020 that an immediate lockdown (but keeping schools open) was required¹⁶⁶, describes the September and October 2020 period, as, *"the worst moment of the pandemic"*¹⁶⁷ because, *"we could see what was coming and could not understand why the government did not act upon the science advice by introducing effective interventions"*¹⁶⁸. Professor McLean goes on to state at paragraph 147 of her witness statement:

"I am asked whether I consider the government's approach was sufficiently cautious during this period (i.e. around mid October). I do not think it was. We could see infection rates rising. We knew that a large portion of the population had still not been infected so were still susceptible. It was therefore inevitable that the epidemic would grow larger. The policies of "Eat Out To Help Out", the tier

¹⁶¹ Fetzer T. Subsidising the spread of COVID-19: Evidence from the UK's Eat-Out-to-Help-Out Scheme. *The Economic Journal*. 2022;132(643):1200-1217

¹⁶² John Edmunds, 19 October 2023, p.131/12-19

¹⁶³ Patrick Vallance, 20 October 2023, p.90/3 - p.91/8

¹⁶⁴ Simon Ridley, 12 October 2023, p.99/17 - p.100/6

¹⁶⁵ Simon Ridley, 12 October 2023, p.100/17-19

¹⁶⁶ INQ000309529_0043, at paragraph 143

¹⁶⁷ INQ000309529_0046, at paragraph 153

¹⁶⁸ INQ000309529_0044, at paragraph 144

system...and a failure to implement a circuit breaker all suggested from my perspective a lack of caution on the part of decision-makers"¹⁶⁹

And, at paragraph 150:

*"The poorly conceived nature of the tier system was a symptom of not being cautious enough in this period"*¹⁷⁰.

139. Professor Edmunds told the Inquiry that at the meeting on 20 September he stressed that the decision was not *"to lock down or not, the decision is either you do it now and get on top of this epidemic and control the epidemic or you let it control you, and it will force you into a lockdown at a later date when you'll have to lock down harder and longer and many people will die as a consequence"*¹⁷¹.

140. This failure to take decisive action resulted in a further national lockdown having to be implemented on 5 November 2020.

141. Professor Sir Chris Whitty made the following remarks when asked whether a second lockdown could have been avoided,:

"By the time it had got to the stage of the second lockdown, given the principal aims of ministers to minimise mortality, I couldn't see many options. Whether other decisions could have been taken earlier to have prevented that I think is a separate and quite important question, but in terms of -- once we got to that point, I think the realisation was there wasn't really much choice.

*... I do think there is a strong argument that we could have ended up in a different trajectory between summer and, for the sake of argument, New Year 2020...we were kind of bunny hopping, potentially, where we would accelerate into a bend unnecessarily and then have to slam on the brakes because it was clear we were - - we'd overdone things"*¹⁷².

142. Much of this evidence points to key decision makers being reluctant and slow to act, a lack of decisiveness and the inevitable need to *"slam on the brakes"*, which the BMA argues could have been avoided if a more precautionary approach was adopted from the outset.

143. Professor Edmunds references the precautionary principle throughout his witness statement to the Inquiry, including that:

*"Multiple international comparisons suggest that a precautionary approach could lead to better health and economic outcomes and it should underpin policy-making in this area"*¹⁷³.

144. Sadly, this lack of a precautionary approach and the failure to learn from mistakes continued throughout the pandemic, including through the summer of 2021, when the government encouraged the freedom narrative which contributed to the widespread view that the virus had been fully contained, only for protective measures to be required once again in December 2021 in response to the Omicron variant.

¹⁶⁹ INQ000309529_0045

¹⁷⁰ INQ000309529_0046

¹⁷¹ John Edmunds, 19 October 2023, p.142/3-10

¹⁷² Chris Whitty, 22 November 2023, p.65/8 - p.67/3

¹⁷³ INQ000273553_0102

145. It is accepted that there was a need to take account of the economic impact of the pandemic, however, there was a tendency towards a false dichotomy that the choice was between public health and the economy, when in reality these were inextricably linked. It was possible to have better protected both public health and the economy, and the economy would have been supported not undermined by more precautionary public health measures.
146. This is illustrated in the evidence provided by Matt Hancock when asked about the debate between protecting the economy and keeping the R below 1. He said:
- "...my intense frustration was that the economists at the Treasury and elsewhere couldn't see that although you could protect the economy by not locking down this week or next week...the second round consequence of that would be a firmer, more economically damaging lockdown in the future...it was against the economic interests as well as against the health interests to avoid the action that was necessary"*¹⁷⁴.

I) Public communications

147. Throughout the pandemic, the BMA has highlighted the absence of effective and proactive public health messaging from the UK Government. The Inquiry has heard evidence that the UK Government failed to provide clear, consistent and visible public health messaging particularly as the pandemic progressed.
148. It remains the BMA's position that the frequency and nature of changes to rules, the lack of clarity and consistency in respect of restrictions, and the distinctions between UK countries, undermined the public's understanding of, and confidence in, core public health messaging. The numerous high profile breaches of lockdown rules by government leaders further impacted the effectiveness of NPIs.

There was a lack of clarity and consistency in public health messaging throughout the pandemic

149. The Inquiry heard evidence from a number of witnesses about the importance of clarity and consistency of public health messaging in a pandemic. For example:
- a. Professor James Rubin (Co-Chair of SPI-B) explained to the Inquiry that *"one of the primary tools the government have to help the public to engage in protective behaviour is to communicate with the public as to what those behaviours are, what they should be doing, why they should be doing it, and so on"*¹⁷⁵.
 - b. Sir Mark Walport (former Government Chief Scientific Advisor) emphasised that trust was a major factor impacting upon the effectiveness of communication, *"but clarity, consistency, a balance between, whilst being authoritative in, as it were, the reliability of the information, not being too controlling"*¹⁷⁶.

¹⁷⁴ Matt Hancock, 30 November 2023, p.213/4-15

¹⁷⁵ James Rubin, 18 October 2023, p.7/23 - p.8/2

¹⁷⁶ Mark Walport, 11 October 2023, p.136/10-16

150. The BMA's concerns about the lack of clarity and consistency in public messaging is addressed in detail in the written statement of Professor Banfield¹⁷⁷, and set out in the BMA's opening written statement in Module 2. The BMA's views and concerns were shared by a number of witnesses who provided evidence to the Inquiry during the Module 2 hearings:
- a. Professor Rubin spoke of SPI-B's concerns about the clarity and consistency of government messaging, their 'persistent frustration' around the delay in publishing SAGE minutes, and ongoing difficulties with transparency¹⁷⁸.
 - b. Professor Lucy Yardley (Professor Rubin's Co-Chair on SPI-B) noted that a fundamental problem with government messaging was that they issued rules, used brief slogans, with frequent changes, without fully explaining the rationale, and without properly educating the public¹⁷⁹.
 - c. Steve Rotheram (Mayor of Liverpool City Region) told the Inquiry that "a *single voice and some coherence around [the] message*" was needed but lost because "*things would flip-flop one way and then a different way*"¹⁸⁰.
151. It is the BMA's view that the simplicity of early pandemic messaging 'Stay home, protect the NHS, save lives' contributed to high levels of public compliance, although witnesses have spoken of its unintended effects in terms of people not seeking healthcare when they needed it¹⁸¹, and the lack of consultation with NHS leadership¹⁸².
152. This early messaging was replaced as the pandemic progressed by more ambiguous instructions to the public, in England especially. The BMA's view, that the UK Government slogan of 'Stay alert, control the virus, save lives' from May to September 2020 sent an unclear message to the public about what exactly they needed to do, was shared by a number of witnesses. Professor Yardley told the Inquiry that several members of SPI-B considered this was "*very poor messaging*"¹⁸³, and Professor Halpern described the message as an example of the UK trying to "*have its cake and eat it, and [ending] up with neither*"; "*it tells you to worry and doesn't tell you what to do: the worst combination*"¹⁸⁴.
153. The government campaign around working from home initially encouraged working from home, then required it, then strongly discouraged it, encouraged it again and then required it again. This confusing messaging around working from home came at the same time as messaging on the UK Government's EOTHO scheme, indicating that it was safe for people to socialise before vaccines were available and when the risks of Covid-19 remained high, and is likely to have further confused public health messaging.

¹⁷⁷ INQ000228384_0076 to _0085

¹⁷⁸ James Rubin, 18 October 2023, p.36/1 - p.40/12

¹⁷⁹ Lucy Yardley, 18 October 2023, p.143/4-21

¹⁸⁰ Steve Rotheram, 27 November 2023, p.171/6-12

¹⁸¹ Lucy Yardley, 18 October 2023, p.141/18 - p.152/7

¹⁸² Lee Cain, 31 October 2023, p.42/2

¹⁸³ Lucy Yardley, 18 October 2023, p.144/23-25

¹⁸⁴ David Halpern, 1 November 2023, p.186/23 - p.187/4

154. Sadiq Khan (Mayor of London) told the Inquiry that he was frustrated at the lack of clarity in government messaging: *"Don't use public transport but go to work', 'These shops are closed down but you can go out and about and keep town centres busy'...was leading to confusion"*¹⁸⁵.
155. It is unclear what advice was relied on by the UK Government in determining public messaging. This is illustrated by the following evidence:
- a. Professor Rubin told the Inquiry that SPI-B members were cut out of involvement in government communications. He said:

*"I think particularly around kind of May/June this came to a head. It related primarily to the change in messaging from "stay at home, Protect the NHS, Save lives" to the "Stay alert" messaging, and I think that many participants felt that the advice we had given on issues such as the clarity needed in messaging just wasn't being seen in the output from government communications..."*¹⁸⁶.
 - b. Another member of SPI-B, Professor Susan Michie, raised concerns on email about the 'Stay Alert' messaging, noting that it went *"against several principles we have rehearsed many times in our advice to SAGE/Government...it would be helpful to understand why we were not consulted given we have a bespoke Communications group and have been raising the problem of Government communications for several weeks"*¹⁸⁷. And Professor Yardley, confirmed that *"on the whole, communications tended to go ahead with very little input from SPI-B even, though we were very happy to advise"*¹⁸⁸.
 - c. Sir Patrick Vallance told the Inquiry that he was not aware of the EOTHO scheme until it was announced nor able to consider how it might impact public health messaging¹⁸⁹.
 - d. Even the former Director of Communications at Number 10, Lee Cain, told the Inquiry that he did not agree with, and was not consulted on, some of the slogans used in Government messaging¹⁹⁰.
156. There were also issues about the failure to make communications accessible and understandable to certain groups. For example:
- a. The Inquiry's experts on disabilities, Professors Tom Shakespeare and Nick Watson undertook research with disabled people during the pandemic, and found that people with intellectual disabilities found the public health messages very complicated. Even when they listened to the broadcasts, they did not understand them, and the messaging was changing frequently¹⁹¹.

¹⁸⁵ Sadiq Khan, 27 November 2023, p.44/17-21

¹⁸⁶ James Rubin, 18 October 2023, p.36/1-8

¹⁸⁷ INQ000197167_0008; Lucy Yardley, 18 October 2023, p.145/4-24

¹⁸⁸ Lucy Yardley, 18 October 2023, p.149/23-25

¹⁸⁹ Patrick Vallance, 20 November 2023, p.93/14 - p.94/3

¹⁹⁰ Lee Cain, 31 October 2023, p. 45/9-20

¹⁹¹ Tom Shakespeare and Nick Watson, 9 October 2023, p.37/23 – p.38/3

- b. Rebecca Goshawk, from Solace Women's Aid, referred to the need for "*clear and consistent messaging*"¹⁹², and highlighted the government's failure to mention domestic abuse or the ability to leave lockdown in any public announcements until January 2021. Although an exception was introduced, it was "*hidden in guidance and regulations*"¹⁹³. Her evidence was that the steps taken in relation to messaging, were "*not enough*" and did not think about marginalised women or their ability to understand¹⁹⁴.
157. Professor Banfield referenced a lack of accessibility in public health messaging in his witness statement in Module 1, including a lack of translations for public health guidance into languages other than English and Welsh, the failure to provide sign language interpreters on UK Government television briefings, and the difficulties experienced by some people categorised as Clinically Extremely Vulnerable (CEV) in relation to shielding letters¹⁹⁵.
158. In discussing the need for cultural competence in Module 2, Professor Banfield told the Inquiry that: "*we went into this pandemic with one set of health messages and made no attempt or little attempt to adapt those for different recipients. So it took a long time...for messaging to be worked up...into different languages and to become culturally competent to the communities that were actually subjected to huge discrepancy and bias*"¹⁹⁶.
159. The increasingly prevalent political rhetoric about easing restrictions or 'freedom' 'from the summer of 2021 signalled to the public that the pandemic was over. Ondine Sherwood of Long Covid SOS told the Inquiry that, "*'Freedom Day' just sends a message that we can all just go out and party and it's all over, which of course it wasn't*"¹⁹⁷. This narrative led not just to a reduction in mask wearing but it also made the job of enforcing IPC in healthcare settings more difficult¹⁹⁸. The lack of clear messaging to the public on issues such as mask-wearing had a direct impact on BMA members. In the experience of a worryingly high proportion of doctors who took part in the BMA's research, this led to hostility from some patients if they were asked to wear a mask in a healthcare setting¹⁹⁹.
160. By contrast the BMA was active in calling for the precautionary retention of certain measures and more balanced public health messaging, with a focus on keeping in place relatively low-cost interventions (such as mask-wearing and meeting outdoors wherever possible) to minimise interruptions to people's lives and, as far as possible, limit the spread of Covid-19 and the likelihood of developing long Covid (as well as to protect clinically extremely vulnerable who were understandably very nervous about taking part in public life given they continued to be at high risk from Covid-19).

¹⁹² Rebecca Goshawk, 6 October 2023, p.169/16

¹⁹³ Rebecca Goshawk, 6 October 2023, p.162/4-11

¹⁹⁴ Rebecca Goshawk, 6 October 2023, p.168/3-6

¹⁹⁵ INQ000205177_0016, at paragraph 42(f)

¹⁹⁶ Philip Banfield, 5 October 2023, p.116/7-16

¹⁹⁷ Ondine Sherwood, 14 October 2023, p.149/12

¹⁹⁸ INQ000228384_0045, at paragraph 168(h)

¹⁹⁹ INQ000228384_0081, at paragraph 263

161. The BMA was so concerned about the public communications and the lack of caution that on several occasions, issued statements or guidance for the public, including guidance on safe tourism in summer 2020.

Public trust in the public health messages and those delivering them was also important but undermined by several factors

162. The CMO and CSAs in their technical report acknowledged that the effectiveness of NPIs depends largely on how far individuals are able and willing to adhere, and therefore trust was important in public communications²⁰⁰. They also reflected that:

"There is a major potential for NPIs to create or exacerbate inequalities and have widespread impacts across society in health, economic and social terms. Decisions on whether and how to implement such wide-ranging interventions go well beyond health and rightly sit with elected ministers on behalf of society. Evidence from observation and behavioural sciences shows that major interventions like NPIs must be felt by the public to be fair, and suspicions that some and not others were following rules was damaging to adherence"²⁰¹.

163. It is clear that high-profile failures of MPs and government leaders to adhere to lockdown rules or comply with recommended NPIs, fuelled mistrust and misinformation, and impacted the effectiveness of public health messaging.

164. The way in which changes to the rules and guidance were cascaded and communicated to those responsible for implementation was another factor that undermined the effectiveness of the measures and the public's trust.

165. This particularly affected local public health colleagues who, as outlined earlier in this submission, were often not involved in government decision making but were expected to implement often-changing guidance without prior notice. Announcing highly significant changes in guidance to the public via the media, at the same time as they were being communicated within the public health community, undermined the effectiveness of local public health functions. This approach increased the challenge for public health professionals in interpreting and disseminating information and forming effective, trusting relationships with the public. It also had the effect of undermining relationships with, and trust among, those who were expected to explain current advice or mandated actions, or indeed attempting to manage a local outbreak.

166. Similar difficulties faced enforcement organisations, and Martin Hewitt (Chair of the National Police Chiefs' Council) told the Inquiry of the challenges he faced when new regulations were introduced:

"the challenge that then came with that, of course, a new regulation comes and you – at one minute past midnight and you would then get to 7 o'clock the next morning and the round of people spinning round the TV and radio studios would be talking about this, and I would be then having to go and respond and, at times, make it very clear that we weren't – that will not be getting enforced immediately,

²⁰⁰ INQ000087225_0259

²⁰¹ INQ000087225_0238

*because it was unfair to put the officers in a position where they didn't understand precisely what they were supposed to be doing."*²⁰²

J) The process for the development, consideration and implementation of scientific advice within Government

167. This statement has already addressed the need for better understanding and communication of risks and scientific advice within Government in connection with the timing of key early decisions in the pandemic.
168. However, from the outset of the pandemic the UK Government adopted a noticeably deferential attitude in public towards scientific advice and often the advisers themselves. This gave rise to the now well-rehearsed phrase of 'following the science'. Although this has been regarded by some as an attempt to offer public reassurance that decisions taken were evidence-led²⁰³, it is clear from the evidence heard by the Inquiry that this was neither an effective thought-through strategy or even consistently applied.
169. In evidence to the Inquiry, Professor Sir Chris Whitty described the chaotic nature of the UK Government in the early pandemic and said that hearing elected politicians say they were 'following the science' was initially of some reassurance that expert advice was cutting through. However, he added it soon became 'a millstone round our necks'²⁰⁴, a reflection that the lines between scientific advice and policy had become increasingly blurred.
170. In practice, the Government mantra of 'following the science' was unhelpful. Dr Stuart Wainwright (director of the Government Office for Science during the pandemic) suggested the impact of this approach undermined the protected space in which scientific advice should be given and undercut ministerial accountability at the same time²⁰⁵. Professor Edmunds believed this allowed the Government to hide behind SAGE when difficult decisions had to be made²⁰⁶. Sir Patrick Vallance explained that 'following the science' was a convenient but illogical position for the Government to adopt; scientific understanding is by its nature, cumulative, incremental and changes over time. Scientific information, and the judgements advisers form with it, will contain uncertainty. This is especially true in an emergent health crisis involving a novel virus.
171. Scientific advice should be prioritised within Government decision making in such a crisis. Nevertheless, the Inquiry's expert on political and administrative decision making told the Inquiry that 'following the science', was not a proper reflection of the boundaries between such advice and policy decisions and 'informed by the science' would have been a more appropriate description of policy formation²⁰⁷.

²⁰² Martin Hewitt, 9 November 2023, p.42/15 – p.43/19

²⁰³ Gus O'Donnell, 10 October 2023, p.37/20-24 and p.44/16-19

²⁰⁴ Chris Whitty, 21 November 2023, p.92/22 – p.93/2

²⁰⁵ Stuart Wainwright, 12 October 2023, p.65/16 - p.67/18

²⁰⁶ John Edmunds, 19 October 2023, p.73/21 - p.74/8

²⁰⁷ Alex Thomas, 13 October 2023, p.70/14-21

172. Scientific and medical advisers to Government do not aim to impart their expertise at the expense of others, or in a manner that is divorced from other key priorities. The Inquiry heard from numerous scientific experts who recognised, for example, the need for Government to weigh advice across various aspects including economic, social, legal and political considerations²⁰⁸.
173. Problems of communication went both ways, with scientists sometimes struggling to understand the government's aims, targets, and therefore how they could ensure their advice could effectively inform policy and the Institute for Government Report, '*Science Advice in a Crisis*' found that there was a failure to communicate government priorities to scientific advisors.
174. Most alarmingly, the Inquiry also heard corroborating evidence from the CMO with the CSA that, at a time when the mantra 'following the science' was most frequently used in public, key scientific and medical advice was not explicitly sought or adequately prioritised when developing a critical piece of Government policy, EOTHO. Failure to properly consider expert scientific advice in EOTHO was at best a missed opportunity to demonstrate Government policy was informed by the evolving evidence. At worst, it subjected the population to potential harms that had not been balanced against the policy's risks and benefits.
175. It is accepted that there was a need to take account of the economic impact of the pandemic, however, there was a tendency towards a false dichotomy that the choice was between public health and the economy, when in reality these were inextricably linked. It was possible to have better protected both public health and the economy, and the economy would have been supported not undermined by more precautionary public health measures. Given the inevitability of further pandemics there is an urgent need to find this balance. It will involve increasing NHS and public health capacity, coherent risk-based planning and strategies, and a precautionary approach that protects those most at risk.

Recommendations

176. Based on the issues outlined in this closing submission, the BMA proposes the following recommendations:
 - a. The UK must address the ongoing lack of NHS capacity, including in relation to staff shortages, high vacancy rates, unsafe bed occupancy levels and the maintenance and modernisation of estates.
 - b. The UK must ensure that public health systems are sufficiently resourced and staffed, and that independent frontline public health expertise is valued and included in government-level decision making.
 - c. Urgent action must be taken to reduce health inequalities. This includes the implementation of a 'health in all policies' approach and a cross-government strategy to improve population health and reduce health inequalities in order to reduce the disproportionate impact of future pandemics.

²⁰⁸ For example, Matthew Keeling, 12 October 2023, p.179/9-21

- d. Government decision-making during future pandemics and health emergencies needs to follow a precautionary approach that protects those most at risk. This includes in relation to the timing of decisions, the introduction of public health protections, routes of transmission and the safety of staff and patients in healthcare settings.
- e. In future pandemics and health emergencies decision-makers should consider the impact of decisions on healthcare staff, ensuring their safety is upheld. There must be urgent action to address the continued risk to staff from Covid-19, including updating the UK's IPC guidance to prioritise safety through the provision of RPE to staff working with Covid-19 patients. There must also be improved support for those experiencing the ongoing effects of the pandemic, including those with Long Covid. For healthcare staff, general wellbeing support – including timely and accessible occupational health assessments and support to access psychological support services – must be made available, with specific support also offered to ensure staff can recover from the pressure of delivering care during a pandemic.
- f. For robust cross-government policymaking, scientific and medical advice should be provided in a protected space which allows advisers to give expert and objective views, free from prejudice, and in a framework which clearly maintains ministerial accountability. The parameters for such advice should be clear, where scientific and medical advisers inform those elected with the responsibility to take final decisions, against a set of well described aims.