Witness Name: Sir Christopher Stephen Wormald

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UK COVID-19 INQUIRY

TWELFTH WITNESS STATEMENT OF SIR CHRISTOPHER STEPHEN WORMALD

I, Sir Christopher Stephen Wormald, of the Department of Health and Social Care, 39 Victoria Street, London SW1H 0EU, will say as follows: -

1. I am employed by the Department of Health and Social Care (the Department) as the Permanent Secretary, a post I have held since May 2016.

2. Before joining the Department, I was the Permanent Secretary of the Department for Education (DfE) between 2012 and 2016, and a Director General (DG) within the Cabinet Office (CO) between 2009 and 2012.

3. I make this Statement in response to the request from the UK COVID-19 Public Inquiry (the Inquiry) dated 16 March 2023, under Rule 9 of The Inquiry Rules 2006 (SI 2006/1838), requiring the Department to provide the Inquiry with a Witness Statement in respect of specified matters relating to Module 3. The Inquiry's request focuses on the period 1 March 2020 to 28 June 2022 (the relevant period). In this Statement I address the Inquiry's question relating to internal or external reviews, lessons learned exercises or similar produced or commissioned by the Department within the issues in the Provisional Outline of Scope for Module 3.

Section 1: The Department's approach to lessons learned

4. This Statement addresses Question 84 of the Rule 9 request which concerns lessons that the Department has learned from the response of UK healthcare systems to the COVID-19 pandemic, so far as is relevant to the issues in the Provisional Outline of Scope for Module 3.

5. In my Second Witness Statement to the Inquiry for Module 1 **(CW12/1 - INQ000185190)**, I explained that the vast majority of the Department's lessons learned activity during the pandemic was done in 'real time' through an iterative process. These lessons were reflected in advice to Ministers and were applied to the COVID-19 healthcare response. These lessons were learned through a combination of work commissioned, or produced directly, by the Department, and as a result of reviews conducted externally.

6. In that Statement, I provided examples of some of the ways learnings were applied during the pandemic response. I consider three of the examples provided in that Statement to be of particular relevance to the scope of this Module. These are:

   a. ***NHS resilience and recovery:*** *Initially, the NHS prioritised extra support for critical or ventilated care. For example, increasing ventilation capacity through the joint NHS England (NHSE) and DHSC National Covid Oxygen, Ventilation, Medical Devices & Clinical Consumables (O2VMD&CC) Programme.* **(CW12/2 - INQ000471088; CW12/3 - INQ000471089; CW12/4 - INQ000471090; CW12/5 - INQ000471091)** *As the pandemic progressed, the NHS responded quickly to breakthrough research about care in hospital settings, such as the Oximetry @home pathway virtual Covid wards* **(CW12/6 - INQ000470466; CW12/7 - INQ000193212)**. *As early as April 2020, the NHS focussed on increasing access to healthcare, including the 'Help Us Help You' public awareness campaign, highlighting that services had remained open through the pandemic. As evidence on 'long COVID' emerged, the NHS responded rapidly with specialist care, establishing a new service for people with long term effects of COVID. In addition, hospitals responded to changes in workforce capacity by adjusting ratios, redeploying staff into patient-facing roles and deploying trainees and returnees where appropriate.*

   b. ***Operational Response:*** *The Department's Operational Response Centre (ORC) undertook an internal and rapid lessons learned review in 2020 to*

evaluate how the Department had led the health and care sector response between January and June 2020 ***(CW12/8 - INQ000087227****). The findings of the Review were shared with the Secretary of State as policy advice rather than a formal review. The findings of the Review were also turned into a list of actionable recommendations focused on eight key lines of enquiry. In late 2020 to early 2021, a review of the implementation of the recommendations was undertaken. This exercise was assessed by the Government Internal Audit Agency (GIAA) as part of a follow up review on COVID-19 Advisory work in 2022* ***(CW12/9 - INQ000087236).***

c. ***Vaccine Deployment****: The NHS led on the deployment of vaccines, including monitoring variation in demand between local areas and for different groups of eligible people. Work to identify and pre-emptively address inequalities in COVID-19 vaccine uptake was undertaken from the start of the vaccination deployment programme in December 2020. The approach evolved rapidly during the earlier stages of deployment with further new insight from citizens and trusted stakeholders. The programme also drew on the World Health Organisation's '3Cs' model of vaccine hesitancy (barriers pertaining to confidence, complacency, and convenience). To increase accessibility, flexible and mobile delivery models were employed, while local community champions were also supported.*

Reports undertaken or commissioned by the Department, and The Technical Report

7. Throughout the pandemic, the Department commissioned and produced its own lessons learned reports, which are more fully detailed in section 3 of this Statement.

8. However, the single most important information that the Department has available for understanding lessons learned, including lessons relevant to the scope of this Module, is the 'Technical report on the COVID-19 pandemic in the UK, *A technical report for future UK Chief Medical Officers, Government Chief Scientific Advisers, National Medical Directors and public health leaders in a pandemic',* published on 1 December 2022 **(CW12/10 - INQ000177534** (The Technical Report). This had a wider scope than matters within the Department's remit. As the title suggests, it is a technical report written by the UK Chief Medical Officers (CMOs), Government Chief Scientific Adviser (GCSA), UK Deputy CMOs (DCMOs) most closely engaged with the COVID-19 response, NHS England (NHSE) National Medical Director, and the UK Health Security Agency (UKHSA) Chief Executive. It is written for their successors, who were not part of the public health response to COVID-19, facing a new pandemic in the UK. Its comprehensive content is divided into chapters such as understanding the pathogen and the disease, research,

modelling, testing, tracing, non-pharmaceutical interventions and pharmaceutical interventions. Each chapter sets out what the scientific questions were and how these were answered with reflections and advice for the future. It does not offer a definitive narrative of the COVID-19 pandemic, including policy decisions taken and why, rather the relevant issues on science and public health that might be useful in the future. Extracts of the Technical Report which are most pertinent to this Module are included in section 3 of this Statement ('Reviews undertaken or commissioned by the Department').

Lessons learned through responding to externally produced reports

9. More broadly, the lessons learned process has also involved the Department's Arm's Length Bodies (ALBs) and Parliamentary bodies such as the National Audit Office (NAO) and the Public Accounts Committee (PAC). In order to assist the Inquiry with evidence about these exercises and provide the necessary context, it is necessary for me to make reference to that process as reflecting matters of historical fact. In particular, the Department developed its lessons learned analysis by preparing and submitting material and evidence to Parliamentary committees as part of their investigations, as well as by considering the content of such committees' reports and recommendations. This enabled the Department to reach reasoned conclusions about what it considered to be the right lessons to learn from the pandemic. I do not make reference to the evidence provided to any Parliamentary committees, or the reports of such committees or other bodies protected by Parliamentary privilege, in order to rely on the truthfulness of the content of that material or the accuracy of the opinions expressed, but because it is impossible for me to explain, or for the Inquiry to understand, the Department's lessons learned exercises and outcomes without reference to the evidence or reports.

NAO and PAC inquiries

10. Given the scale of the response to the COVID-19 pandemic across the public sector, the NAO carried out a substantial programme of audit work in relation to COVID-19 activities. This work provides expert insight to help ensure that appropriate lessons are learned for the future. Given the centrality of the Department to the Government's response to COVID-19, a number of significant reports were published covering the healthcare system's response to the

pandemic. These have been invaluable in providing external scrutiny and recommendations to guide the Department's ongoing response to the pandemic.

11. The NAO confirms the factual accuracy and obtains formal clearance of their reports from the Departmental Director General of Finance, Additional Accounting Officer (Second Permanent Secretary) and the Principal Accounting Officer (Permanent Secretary) where the Department is the primary client. Where the Department is a third-party client, the NAO confirms the factual accuracy of references to the Department with the Director General of Finance.

12. The Permanent Secretary, Second Permanent Secretary, Director General of Finance, and other senior officials give evidence to the PAC by appearing at hearings in Parliament. They also have responsibility for approving the subsequent Treasury minutes, which are the Government's response to the recommendations that the PAC makes in its reports.

13. The Department attended a number of PAC hearings during the relevant period, the details of which can be found via the Committee's website. Updates on NAO and PAC activity are provided at the Department's Audit and Risk Committee meetings.

14. Further reference to NAO and PAC inquiries is provided in section 4 of this Statement ('External reviews').

Section 2: Reflections and future plans

Overall reflections and future plans

15. In my Third Witness Statement to the Inquiry for Module 2, dated 29 March 2023 **(CW12/11 - INQ000144792)**, I described four counter measures for responding to a pandemic as follows: '(1) NPIs [Non Pharmaceutical interventions], (2) testing and isolation, (3) pharmaceutical interventions (treatments) and (4) pharmaceutical interventions (vaccines). In the early stages of responding to the COVID-19 pandemic, pharmaceutical interventions did not yet exist, and the Government had to rely on the first two countermeasures, that is NPIs, such as lockdown and social distancing, and testing and isolation of individuals. These interventions and the changes to population behaviour obviously impacted on non-COVID-19 healthcare services, and led to major social and economic disruption. From the start, the Department and others were investing in R&D to develop pharmaceutical interventions, in order to be able to change the approach to one that removed the major disruption. It was also making preparation for the NHS to be ready to implement them as quickly as possible once they were developed. As clinical counter measure became available, the healthcare system was able to roll out effective treatments and vaccines very quickly and to restore de-prioritised services, and the Government was able to move to its Living with Covid strategy from February 2022. This context is helpful when considering the lessons learned in relation to the healthcare response and changes made to pandemic preparedness for the NHS. In particular, the quicker clinical measures can be developed and deployed in a pandemic, the less damage is done to wider health, the economy and society. This reiterates the importance of both having an effective research and development system and surge capacity.

16. The Department has identified five themes within which it has learned lessons and made changes in respect of pandemic preparedness. These are explained in its Module 2 closing submissions **(CW12/12 - INQ000399537)**, and detailed below with relevance to this Module:

    a. *a toolkit of capabilities that can be adapted to any future novel disease or public health risk. By capabilities we mean equipment (for example, stockpiles and countermeasures), skilled people (for example, research, science and*

*laboratory staff) and infrastructure (for example, laboratory, testing and treatment facilities). These can be deployed flexibly in responding to a pandemic, rather than implementing static plan*s. For the NHS this means having sufficient stockpiles for key equipment and the skills and capabilities available to develop and deploy new vaccines and therapeutics. It also means having available and comprehensive data and building on learning about digitally-enabled models of care.

b. *the underlying resilience of the system is central to pandemic preparedness*. For the NHS this means having adequate estate, facilities, equipment, IT systems, workforce and security of medical supplies to maintain services when demand is high. It also means having a resilient level of hospital bed capacity. NHSE has previously set out that a 92% bed occupancy rate is the threshold beyond which deteriorations in A&E performance begin to accelerate **(CW12/13 - INQ000471084)**. As set out in paragraph 31, at the start of March 2020, the NHS was operating at a 93.8% occupancy rate for general and acute beds and 79.4% occupancy rate for critical care beds. While interventions taken in March 2020 to reduce occupancy, and reductions in demand for non-COVID related services, helped provide the capacity needed for the emergency response, part of the trade-off was a rise in the number of people waiting for elective care.

c. *the ability to scale up staffing and equipment quickly is essential*. For the NHS this means having sufficient surge or escalation capacity available to enable services rapidly to scale up in response to anticipated increases in demand, with staff temporarily switching activity if needed, for example from elective care and between specialties. Further capacity can be created with staff returning to practice, students, and other temporary surge measures. For hospital capacity, this can also mean establishing new estate capacity at additional locations, as we saw, for example, with the Nightingale Hospitals.

d. *diagnostics and data are crucial in a pandemic response*. For the NHS this means having the infrastructure and capacity available to respond to a pandemic, while also retaining the ability to rapidly restore de-prioritised services. In relation to diagnostic testing, in 2019 across the NHS and Public Health England (PHE) laboratories there was a low level of diagnostic testing capacity (at around 1,000 tests per day); today there is capacity for around

20,000 tests per day. Testing of symptomatic NHS staff was prioritised from 27 March 2020 and when increased testing capacity was established, testing of staff was managed by the NHS at a local and operational level. A new data system was also established during the pandemic.

e. *preparedness should be along the five routes of disease transmission*. For the NHS this means being properly equipped to deal with all routes of disease transmission, including those, such as Ebola, which are touch-based and present particular challenges in a healthcare setting, whilst also being supported by the development and deployment of Infection Prevention and Control (IPC) guidance documents and measures.

17. In the following paragraphs I provide further detail and examples for each of these themes within the scope of this Module.

A toolkit of capabilities that can be adapted to any future novel disease or public health risk

18. The Department's closing submissions for Module 2 **(CW12/12 - INQ000399537)** summarised this key lesson in the following terms:

"*The Department would suggest that whilst plans are important they are only as good as the core capabilities on which they are based and having a plan that can be 'pulled off a shelf' does not necessarily assist. This is the case in all aspects: science and research and development; surveillance and data; the regulatory system; stockpiles (including vaccines and personal protective equipment, "PPE"); on-shore manufacturing capabilities; and a legislative framework*."

19. With relevance to the scope of this Module, I provide an overview of the capabilities the Department had in place prior to the pandemic, as well as those developed subsequently.

20. The National Institute for Health and Care Research (NIHR) commissioned a portfolio of eight studies in the wake of the 2009 Swine Flu outbreak (referenced in paragraph 37 of the Witness Statement of Matthew Style, Jonathan Marron and Professor Lucy Chappell dated 22 December 2023) **(CW12/14 - INQ000389241)**, all of which (apart from one) were placed on stand-by awaiting activation in the

event of a new influenza pandemic. The portfolio of studies included modelling, surveillance, communications, triage, and clinical management. NIHR reviewed the studies regularly, and in 2018 research teams were asked to consider how their projects could be adapted for a non-flu pandemic. When COVID-19 was declared a pandemic, four studies were activated for COVID-19 by the Deputy Chief Medical Officer and started immediately. The protocol for one other study was used in the RECOVERY trial, referenced in paragraph 26ii of the Witness Statement of Matthew Style, Jonathan Marron and Professor Lucy Chappell dated 22 December 2023 **(CW12/14 - INQ000389241)** and described in further detail in the Recovery Trial Protocol **(CW12/15 – INQ000471099)**. Having research capability supports the healthcare system to organise its response appropriately by ensuring plans, guidance and policies are based on a robust evidence base.

21. The Department learned that investment in infrastructure meant vaccine development and approval could be streamlined while maintaining rigorous standards to respond quickly to an emergency **(CW12/16 - INQ000469740)**. As explained in the Department's Closing Statement for Module 1, dated 2 August 2023 **(CW12/17 - INQ000235083)** and as set out in my Second Witness Statement to the Inquiry for Module 1, dated 10 May 2023 **(CW12/1 – INQ000185190)**, prior to the pandemic the Department invested in the UK Vaccine Network (UKVN) and NIHR research infrastructure to support the development of vaccines. This investment meant that the foundations were in place to create new vaccines at speed, which was integral to protecting the capacity of the NHS. The UK's development and deployment of vaccines also benefitted from already strong capabilities, for example research and development (R&D), clinical trial infrastructure, and large-scale deployment mechanisms via the NHS as for the annual flu vaccine. Industry, academia and public bodies, including the Vaccine Taskforce (VTF), the Department and the broader health family also worked together and were remarkably resilient in facilitating development and deployment of COVID-19 vaccines. The clinical trials process, supported by departmental civil servants, proved both agile and robust owing to their quality. Clinical trials in the UK informed decision-making in the UK and around the world.

22. The Department recognised during the pandemic the importance of a flexible suite of technologies and prototype therapeutics and vaccines which can be pivoted rapidly to respond to a future pandemic. When considering lessons learned in

relation to treatments for the healthcare response, many were addressed within the UK Biological Security Strategy published on 12 June 2023 **(CW12/18 – INQ000208910**. This recognised the need for a capabilities-based approach to pandemic preparedness and sets out a renewed vision, mission, outcomes and plans to protect the UK and its interests from significant biological risks. Outcome 14 of the Strategy commits to scaling up discovery, development and manufacturing of therapeutics and vaccines within 100 days (known as the 100 Days Mission) underpinned by targeted research and development programmes across the range of biological threats. As part of this work, the Department is exploring how it can support industry and academia to develop a range of prototype vaccines and therapeutics against a range of high priority pathogen families, in line with the ambitious timelines outlined in the 100 Days Mission.

23. By supporting early availability of effective vaccines and therapeutics in a future pandemic, the Department aims to minimise transmission and severity of illness, thereby reducing the potential burden on the healthcare system. In addition it is important to recognise that as well as the structures mentioned above, informal, global, clinical networks were and are highly valuable in sharing learning and spreading best practice.

24. Additionally, we have learned that data availability and comprehensiveness are of great importance in the healthcare system's ability to react to changing circumstances and rapid reporting of operational data is critical to shaping and reforming the system's response. In the early phases of the pandemic data availability varied, however the system responded well to requests for new and rapid data collections through established channels for manual collection of daily situational reports known as 'sit reps'. These have been described in more detail in the Department's Statements for this Module. The volume and frequency of data collections was necessarily limited initially, but improved once a national, digital architecture was put in place.

25. As explained above, timely, secure and effective access to population-level health and health related data is essential for the public health response and research. During the pandemic, multiple data infrastructure initiatives were stood up and brought together to enable rapid analysis of health information from various health and care settings. This data was also linked at scale with health-related data such as ONS data. This underpinned lifesaving research and allowed policy decisions

to be made quickly around crucial issues, such as lockdowns, shielding and vaccines. Building on this learning, the NHSE Data for Research & Development (R&D) Programme is a three-year cross government initiative to invest in making health data more accessible and linkable for research. By investing in the NHS DigiTrials service and the interoperable NHS Research Secure Data Environment (SDE) Network, the Programme will deliver secure, rapid access to the world's largest linked health datasets. This will improve care, support innovation, sustain the NHS and will support pandemic preparedness into the future.

26. The Department learned that digitally enabled modes of care can have an important role, during a pandemic and in business as usual healthcare provision. Digitally-enabled models of care were utilised at scale during the Pandemic, especially remote consultation (referred to occasionally in this Statement as 'telemedicine') and remote monitoring/ virtual wards. This utilisation was highly successful and includes 'lower tech' solutions such as audio (e.g. phone calls) as much as perceived 'higher tech' (e.g. video calls) in many cases. Context specific lessons are noted later in this Statement and further detail on implementation of these policies is included in paragraphs 175 to 191 of the Witness Statement of Matthew Style **(CW12/19 - INQ000469724)**, dated 22 March 2024, which provides details of "*enhancing patient access to health services through digital means, including online consultations and electronic health records*".

The underlying resilience of the system is central to pandemic preparedness

27. The Department's closing submissions for Module 2 summarised this lesson in the following terms: "*Higher resilience means that the National Health Service ("the NHS"), adult social care and public health will be more likely to be able to cope effectively and respond to shocks of any kind, including pandemics. Levels of core capacity include specialist and scalable laboratories, NHS general and critical/intensive care beds and sustainable bed occupancy levels, sustainable adult social care services, security of medical supplies and a resilient workforce.*" **(CW12/12 – INQ000399537)**.

28. By April 2020, to address the increased demand for hospital care during the pandemic, NHS hospitals had freed up more than 33,000 beds, the equivalent of 50 new hospitals **(CW12/20 - INQ000106324)**. In addition, the private sector had

agreed to put up to 8,000 extra beds, as well as staff and equipment, at NHSE's disposal. Whilst this meant that capacity still existed to deal with COVID-19, NHSE also worked with the military to build several Nightingale hospitals, to provide further capacity if needed (further information on Nightingales, in relation to surge capacity, follows in this Statement). In addition to this, on 2 October 2020, it was announced that 40 new hospitals would be built to further enhance hospital capacity. **(CW12/21 - INQ000471093)** Also in terms of building capacity, temporary morgues were set up across the UK as part of contingency planning.

29. As well as physical capacity, work was undertaken to ensure adequate oxygen supply during the pandemic **(CW12/22 - INQ000226892** We worked with oxygen suppliers to introduce several measures nationally, but also issued guidance to hospitals on oxygen supply, so that hospital trusts could work with their supplier, estates team and clinical engineers to ensure the resilience of bulk and cylinder oxygen supply. In addition, staff capacity was managed in part by flexibility and switching between roles. Staff were at times required to work beyond their existing scope of practice, or in unfamiliar contexts. On 30 April 2020, NHSE issued guidance entitled 'COVID-19: Deploying our people safely' **(CW12/23 – INQ000269941** which provided recommendations around early deployment, building competence and confidence, supervision and other relevant considerations.

30. Further details of the areas of relevance to this Module, sustainable bed occupancy levels, a resilient workforce and security of medical supplies are included below.

Sustainable bed occupancy levels

31. England has one of the lowest rates of hospital beds per person out of the countries which are members of the OECD (Organisation for Economic Co-operation and Development) and runs with little spare capacity. According to the latest OECD data **(CW12/24 - INQ000471100)**, in 2022 the UK had 2.4 hospital beds per 1000 inhabitants, whereas Germany had 7.8 beds, France had 5.7 beds and South Korea had 12.8 beds per 1000 inhabitants. The only European OECD country with fewer beds than the UK was Sweden, with 2 beds per 1000 inhabitants. The UK's relatively low rates of hospital beds per person reflects a change over time where the NHS has reduced its bed base as some services have been shifted out of hospital, as well as through efficiency gains made within the acute setting. There

has also been a reduction in the average length of stay and an increase in the use of day-case surgeries. As part of business as usual, the NHS has to flex capacity in times of demand. Prior to the first wave of the pandemic, the NHS was operating at high occupancy levels. As of 1 March 2020, there were 97,868 general and acute (G&A) beds open, of which 91,780 were occupied: an occupancy rate of 93.8%. There were 3,636 adult critical care beds open of which 2,888 were occupied: an occupancy rate of 79.4%. As explained in paragraphs 128 to 144 of the Witness Statement of Matthew Style, dated 22 March 2024, significant interventions were taken in March 2020 to reduce occupancy. Whilst this provided the capacity needed for the emergency response the trade-off was a rise in the number of people waiting for elective care.

Resilient workforce

32. National actions and frameworks to increase available staff, like work to support volunteers, returners and the emergency register, did make a valuable if limited contribution and some emergency actions taken have now become permanent policy, including some NHS pension scheme changes.

33. The NHS employs the majority of doctors and nurses in England, particularly those specialising in the care needed in response to COVID-19. Given this, the NHS largely looked to its own staff when responding to COVID-19. However, overall NHS workforce supply has not kept pace with demand in recent years. The Government commissioned and backed the NHS Long Term Workforce Plan. This was published in June 2023, and commits £2.4 billion in funding to deliver 50,000 more nurses and 9,200 more doctors through training more staff, retaining more staff and reforming the way that staff work and train in order to put NHS staffing on a sustainable footing. **(CW12/25 - INQ000292664)**

34. Another lesson learned on workforce is in relation to the need to further support staff who are at greater risk owing to diversity characteristics. As set out in NHSE's equality, diversity and inclusion improvement plan (published June 2023) **(CW12/26 - INQ000471097),** the Department is aware of evidence of inequality in treatment of ethnic minority staff working in health and social care during the pandemic, and notes that NHSE has recommended 6 high impact actions, with corresponding success metrics, to address this.

Security of medical supplies

35. Understanding of supply chains before disruption occurred was crucial in enabling action to be taken in order to mitigate that disruption. This lesson was learned from responding exercises during preparation for a potential 'no deal' EU Exit. Changes made in response to these pre-pandemic exercises, meant there was valuable additional business-as-usual medical product supply resilience in place at the start of the pandemic.

    a. *Use of The National Supply Disruption Response (NSDR).* **(CW12/27 - INQ000107089)** The NSDR was initially established in March 2019 as part of a multi-layered plan to mitigate risks to the continuity of supply of medical products from a no deal EU Exit. The NSDR acts as a single point of contact. It was designed to support the management of potential supply disruption incidents related to medical products where normal procedures were unable to provide a resolution and when a health or care provider, supplier or research body has exhausted all other options available to them to maintain supply. It was then operational throughout the pandemic and was effective in expediting delivery of a range of medical products into the UK. It has been retained as a key Department-led medical supply contingency and continues to help support the NHS and industry in the event of supply issues.

    b. *Developing an understanding of supply chains and developing strategic relationships with suppliers and manufacturers.* In the first months of the pandemic, work was undertaken to ensure suppliers and wholesalers were aware of the medicines most under pressure to enable them to respond as required. The Department also worked closely with industry bodies to monitor issues in key countries for UK medicines manufacturing and to spot problems which might affect UK supply of both COVID-19 medicines and medicines in general, and then worked with the relevant government and/or suppliers to resolve them.

36. With regards the resilience of supply, another key lesson was the value of standardisation to achieve consistency across design, specification and components of consumables used in the provision of health and care services. This

is because it enables staff and services to more easily adapt to using different equipment and so provides greater supply resilience in allowing use of products from varied sources. This lesson is included in the first priority of the Department's 2023 Medical Technology Strategy **(CW12/28 - INQ000469760)** which states: "*we must clearly identify areas of care where proprietary models are unwarranted. As far as possible, the health system should adopt clinically appropriate standardisation specifications to support interoperable systems. Where this is not possible, we should work with industry to establish minimum supply resilience standards for proprietary systems*".

The ability to provide surge capacity by scaling up staffing and equipment quickly is essential

37. The Department's closing submissions for Module 1 **(CW12/17 - INQ000235083)** summarised this key lesson in the following terms: "*The Department has reflected that a key lesson learnt from the pandemic is the need for plans and the ability to scale up staffing and equipment necessary to address and mitigate the spread of a disease quickly assuming that it will impact all of society. In advance of a pandemic taking place, goods, equipment and other protective measures which we can predict will be necessary in any pandemic (e.g. diagnostic facilities and skills, science and research, and potential non-pharmaceutical interventions ("NPIs") need to be ready to be used, with plans in place as to how they can be scaled up quickly* […] *While the importance of this is evident, as already highlighted, the extent of any latent surge capacity can only be determined after society asks itself what proportion of available resources we are willing to invest in "insurance" against a future pandemic. To answer this question, technical advisers need to be explicit with political leaders about how much varying levels of insurance will cost to reduce the impact of a pandemic by varying amounts, and in turn political leaders need to be transparent with society about the choice between having insurance against future events and investing in immediate pressures and emergencies. As previously identified, the Department's view is that to make that decision easier, investment in scaled up capacity should, where possible and relevant, be used in non-pandemic periods and be helpful in addressing multiple potential risks".*

38. With relevance to the scope of this Module, below is an overview of the lessons learned about additional or surge capacity which was enabled by the establishment of the Nightingale Hospitals and by use of the Independent Sector healthcare

providers to provide additional hospital capacity. Significant lessons on scaling up were also learned, and described below, in relation to equipment (in particular, ventilators) and staffing capacity.

Scaling up capacity: establishing the Nightingale Hospitals and use of the Independent Sector

39. The lessons learned with regards the Nightingale Hospitals are explained in Chapter 10 of the Technical Report, and as such the relevant extract is included in full in section 3, paragraph 65, below. The need to bring in additional staff and equipment to support an expansion in capacity is cited as a key lesson, alongside the need to balance the establishment of a new setting against the existing staffing and system needs. The value of co-location is also highlighted, to make sure staff and patients could move between sites easily and as required. The report identifies the need for flexibility as a key lesson with regards to the establishment of a new healthcare setting – allowing for a rapid response as priorities change over time.

40. Nightingale Hospitals were established early in the pandemic (with the first one opening at the ExCel Centre on 3 April 2020) and were specifically designed to provide extra national surge capacity. At the beginning of the pandemic, the NHS's focus was on ensuring that extra support was available for critical care or ventilated care. The Nightingale Hospitals were therefore set up to provide overflow support for the most critical patients requiring ventilated care, rather than being designed to provide routine NHS care. Due to the success of the demand and capacity interventions, the Nightingales were never required to function to their initial planned capacity. As knowledge of COVID-19 grew, capacity interventions changed. Nightingale surge hubs, set-up to respond to the Omicron variant, established Nightingale facilities within hospital grounds to expand existing on-site facilities, making it easier to flex staff and equipment.

41. Crucial to the success of independent sector provider (ISP) contracting was the combination of national contractual mechanisms, together with locally-led commissioning and decision-making, which ensured the most effective use of the Independent Sector was made in order to maximise the capacity and capabilities available to NHSE. In March 2020, NHSE secured national contracting arrangements with 26 ISPs to block book 100% of their capacity from specific listed facilities which could be used flexibly to meet local needs. The contracts provided for reimbursement of the ISPs on an at-cost basis, with open book accounting and

independent auditing. The working arrangements between the NHS and the ISPs in question was organised on a local level in accordance with local need.

42. ISP contracting is overly burdensome for local commissioners however without local decision making the Department learned that it is challenging to identify and contract for local needs. In the future we can draw on this lesson as well as the experience of close and effective working with the independent sector to shape future healthcare responses.

Scaling up staffing

43. As detailed in paragraphs 32-34, the Department learned that whilst in the main the pandemic response has to be provided by existing NHS staff (and that therefore building resilience in existing staffing capacity is key) alongside this, actions taken that supported workforce supply were successful in building surge capacity to allow for faster vaccine rollout and a number of these programmes and actions were successful and should be retained in light of this success. These actions included;

    a. Volunteers: The NHS Volunteer Responders programme was launched in 2020 mobilising large numbers of volunteers to support the NHS and healthcare providers across England during the pandemic. The programme was relaunched in April 2023 and remains in place to provide volunteer surge capacity in the event of another pandemic, as well as supporting patients and services on a day-to-day basis.

    b. Pensions Changes: During the pandemic, the Department temporarily suspended pension rules to allow retired and partially retired staff to return to NHS work or increase their working commitments without it affecting their pension. We learned that this allowed skilled and experienced staff to do more work for the NHS during peak periods of the pandemic response. To further support capacity, the Department subsequently made some of these changes permanent.

    c. Emergency registers: Estimates suggest between 49,272 and 60,811 former healthcare professionals (doctors, nurses, midwives, Allied Health Professionals and pharmacists) were on the temporary emergency registers held by the healthcare professional regulators at any one time during the

pandemic, which enabled many to return to practice to support the pandemic response. Consideration needs to be given to the flexibility of roles and shift patterns for returning staff in the event of a future pandemic, to support increased deployment.

44. National frameworks on volunteers, returners and emergency registers were helpful, but a key lesson learned was that workforce resilience and deployment of surge capacity initially lies with existing staff in the NHS. This is largely due to the challenge of deploying and role-matching volunteers and returners which necessarily had to happen at a local level, where understanding of need best sat.

45. The Department also adopted measures and enacted plans to increase the size and resilience of the workforce through encouraging former staff to return to the NHS, as well as allowing medical students in their final year of training to take on more roles. In the first wave of COVID-19 in Spring 2020, nearly 4,000 final year medical students graduated early from their degrees and joined the NHS in Foundation Interim Year One (FiY1) roles.

Scaling up equipment

46. One piece of learning on oxygen and ventilators was that it was challenging to ensure standardised approaches given the rapidly changing picture on the ground. Whilst the programme was a joint DHSC/NHSE programme, this activity was primarily an NHSE operational matter, therefore the lessons learned for the Department are limited. NHSE is responsible for producing, publishing and updating technical guidance on the design, installation, validation, verification and operation of medical gas pipeline systems (MGPS). This guidance **(CW12/29 - INQ000469761; CW12/30 - INQ000469762)** supports managers of healthcare premises in considering the right factors when installing and operating such systems, to take account of local operational priorities and needs. Responsibility for the effective and safe operation of MGPS remains with the managers of healthcare premises at all times.

47. To support NHSE in exercising this responsibility and recognising this learning about standardised approaches, a range of additional advice was produced by organisations and professional groups on oxygen provision and management. The Department, supported NHSE, under the National Covid Oxygen, Ventilation,

Medical Devices & Clinical Consumables (O2VMD&CC) Programme, in producing a resource pack **(CW12/31 - INQ000469753)** drawing together key documents and tasks to support health systems improve their oxygen resilience. As an operational NHS matter, NHSE shared this resource pack with NHS staff on the Future NHS platform. Since then, NHSE subsequently refreshed some of the additional advice produced during the pandemic mentioned and published it on its website **(CW12/32 – INQ000469763)**.

48. Paragraphs 81 to 105 of the joint witness statement of Matthew Style, Jonathan Marron and Professor Lucy Chappell for this Module, dated 22 December 2023, provided further detail on the O2VMD&CC Programme, including the objectives, scope and summary of key activities for each of its four phases. The four phases demonstrate how the Programme applied lessons and evolved from the early stages of the pandemic (when the focus was on capabilities, rapidly purchasing equipment and upgrading infrastructure to ensure there was enough capacity in the system to meet the immediate need) to a focus on long-term resilience and planning for surges by establishing a new MedTech Directorate in the Department to oversee key policies, stockpiles, medical technology development, and supply and supplier issues.

Scaling up vaccine research and deployment

49. Finding a safe and effective vaccine and or therapeutic was a key priority for the Department from of the start of the pandemic and also provides key lessons about the ability to scale up. To achieve the objective of development and deployment of a COVID-19 vaccine, the Department scaled up its support for scientific research very quickly, building on the foundational investment that it had made over previous decades. Once it became apparent that a vaccine could be deployed, preparation by the Department meant that deployment took place at scale very quickly. Substantial pre-planning meant that the UK was ready to deploy as soon as vaccines were available and required careful coordination across a wide range of bodies. There was a well-established system of advice, approvals and distribution for national vaccine programmes which could be built on and scaled effectively. The seasonal influenza campaign delivers millions of vaccines each year to adults and children and was an effective base on vaccine roll out on which to build.

50. The Department's support for vaccine development over many years meant that the scientific community was able to scale up research efforts at pace, because of strong investment in and underlying infrastructure for scientific research collaboration. The establishment of the UKVN in 2015 in particular was crucial in terms of development of scientific knowledge about mRNA vaccines and establishing research infrastructure. In addition, UKRI (UK Research and Innovation) and the FCDO (Foreign, Commonwealth & Development Office) were crucial in vaccine development and deployment UKRI rapidly deployed funding for research to tackle the emergence of COVID-19, which significantly contributed to efforts in the development of vaccines (as well as diagnostics and therapeutics). **(CW12/33 - INQ000471098)** The FCDO played a crucial role in ensuring provision for the international distribution of vaccines, providing £548 million from their aid budget to COVAX (COVID-19 Vaccines Global Access), which was a global initiative to support research, manufacturing, procurement and equitable distribution of COVID-19 vaccines for the benefit of all countries.

51. The Department undertook substantial work so that vaccine deployment could happen as soon as vaccines received regulatory approval. Vaccines were purchased before authorisation and plans for deployment readiness began before the Department knew there would definitely be an approved vaccine. The full description of the toolkits the Department has developed based on existing work can be found in the Department's Module 4 witness statement of Clara Swinson, dated 19 January 2024 **(CW12/34 - INQ000000000)**, on the development and deployment of vaccines.

Diagnostics and data are crucial in a pandemic response

52. A key lesson learnt is the importance of ensuring an ability to quickly scale-up pandemic response capabilities, including testing, or diagnostic, capabilities. This requires a strong industrial and academic base, to support pre-pandemic research and investment in developing new diagnostics. During a pandemic this base will need be scaled up rapidly to support evaluations and improve understanding of the role that testing could play in reducing transmission or containment as part of a broader public health response.

53. The Department's closing submissions for Module 2 (paragraph 15) summarised this key lesson in the following terms:

"*Whilst the country's initial scientific and technical response in genomic sequencing, testing and isolation was strong, and the end-state position of a capacity of over one million tests a day was amongst the best in the world, it was very challenging to scale up testing from the first stage of a small number of tests to the number and speed of testing required in both public and private sectors. The Department recognises that this was an area of significant weakness in the UK's response compared to some international comparators.*" **(CW12/12 – INQ000399537)**

54. At the start of January 2020 there was no test for the novel pathogen, COVID-19, and no dedicated infrastructure for delivering any testing at scale. The UK developed a test quickly and shared this knowledge with the rest of the world. Given the UK's diagnostics infrastructure, it was more challenging to scale up diagnostic capacity to the level required. However, by August 2020, there had been a very significant technical development and scale-up of testing capacity had been achieved. There was capacity for over 200,000 PCR tests and 120,000 antibody tests to be conducted a day. On 28 May 2020, a new NHS organisation, NHS Test and Trace was established in order to provide contact tracing and support for isolation to people testing positive and their contacts. **(CW12/35 - INQ000107094)**. A large network of diagnostic testing facilities was created, with the capacity to carry out 200,000 tests per day, whilst 25,000 dedicated contract tracing staff had the ability to trace the contacts of 10,000 COVID-19 positive people per day, with the ability to scale this up further as required. Further information about testing and tracing will be provided in Module 7. Diagnostic testing capacity significantly exceeded demand from October 2020 onwards.

55. A number of new models for distributing and encouraging uptake and reporting of test results were trialled from September 2020 to December 2020. This work informed the further expansion and rollout of testing from January 2021. The use of pilots and rapid evaluation enabled lateral flow testing to be rolled out rapidly to support the country in 'living with COVID'. More information is provided on this in Chapter 6 and Chapter 7 of the CMO's Technical Report.

56. In addition to clinical diagnostics and clinical data, there is important learning from the healthcare response to the pandemic about the clinical prioritisation of healthcare services. The NHS was successful at maintaining clinical prioritisation

and maintaining priority services, for example, the establishment of COVID-secure cancer hubs, remote consultations, and COVID-friendly treatment options, including the accelerated use of new chemotherapy and radiotherapy treatments, requiring fewer hospital visits, and more at-home or community-based chemotherapy. These measures meant that performance metrics relating to cancer referral and treatment were largely maintained during the pandemic. For example, the percentage of people receiving first or subsequent treatment from March to September 2020 was maintained at 86% of that in the same period in 2019 **(CW12/36 – INQ000399106**. In terms of waiting times, from 2020 to 2021, 88.7% of cases met the target of a two week wait for suspected and diagnosed cancer patients, across all cancers **(CW12/37 - INQ000471094)**. This does not show a significant reduction from the 2019 to 2020 figure of 90.8% **(CW12/38 – INQ000471092)**. Similarly, from 2020 to 2021, in 74.3% of cases, patients for all cancers waited no more than 62 days for first treatment following urgent GP referral. This does not show a significant reduction from the equivalent 2019 to 2020 figure of 77.2%. The NHS' ability to meet the 31-day wait target for first treatment after diagnosis (achieved for 96% of patients in 2019/20 and 95% in 2020/21) also remained largely unaffected. The Department does, however, recognise that restoring de-prioritised activity took longer to recover than expected. One factor in this slower return to normal activity levels may be attributed to the challenges of restoring optimal flow and productive operations across sites which had been used more flexibly for operating under surge conditions, and the time taken to build activity levels back up. This is referenced in paragraph 114 of the fourth statement of Module 3, the Witness Statement of Matthew Style, dated 22 March 2024, which details correspondence with NHSE on 29 April 2020, which asked ""*all NHS local systems and organisations working with regional colleagues to fully step up non-COVID-19 urgent services as soon as possible over the next six weeks*" **(CW12/39 - INQ000087412)**

Preparedness should be along the five routes of disease transmission

57. Paragraphs 12 and 13 of the Department's closing submissions for Module 2 summarised this key lesson in the following terms:

> *"Whilst there has been criticism of preparedness having been geared towards pandemic influenza rather than a coronavirus, both are diseases transmitted*

via the respiratory route. The Department considers that it would, however, be incorrect merely to plan for respiratory diseases, but rather the country should prepare along the five routes of disease transmission: respiratory (covid, flu), touch (Ebola, Lassa), sexual/blood (HIV, Mpox), oral (cholera, BSE/nvCJD) and vector (plague, zika).

"This is important in circumstances where there are greater differences between the other routes of transmission that need to be prepared for. For example, the last major pandemic prior to COVID-19 was HIV, which required a very different response and where the endemic position is not based on an effective vaccine. This is also true in the continuing management of the endemic position." **(CW12/12 – INQ000399537)**

58. The Department considers that evolving knowledge of routes of transmission constituted an important feature of, and learning from, the healthcare system's response to COVID-19, particularly in relation to IPC measures. It is essential that the healthcare system is properly equipped to deal with all routes of disease transmission as it is impossible to predict what type of pathogen a future pandemic may involve.

59. As explained at paragraph 165 of the joint witness statement of Matthew Style, Jonathan Marron and Professor Lucy Chappell in this Module, dated 22 December 2023 **(CW12/14 – INQ000389241)**, when COVID-19 first emerged, PHE classified the virus as a High Consequence Infectious Disease (HCID). This meant that any suspected cases would be managed as inpatients in a small number of full equipped specialist centres around the country pending characterisation of the virus, when guidance and arrangements could be adapted.

60. Various pieces of tailormade COVID-19 IPC guidance were developed to reduce the transmission of COVID-19 in health and care settings, protecting patients, staff and visitors, while supporting the safe delivery of health and care services. Many of the measures recommended across the NHS were known and established IPC practices: standard infection control precautions (SICPs) and transmission-based precautions (TBPs). **(CW12/40 - INQ000469748)** As stated in Chapter 10 of the Technical Report (at page 362), *"The IPC guidelines were initially informed by experience and evidence of responding to the risks posed by other pathogens, including respiratory infectious diseases (notably, influenza). There is good evidence regarding the*

effectiveness of SICPs and TBPs to prevent and control the transmission of known pathogens if applied correctly. The COVID-19 IPC guidance built on this evidence base and added specific measures based on the evidence of the transmission and impact of SARS-CoV-2, such as universal masking in healthcare settings and patient cohorting." **(CW12/10 - INQ000177534**

Section 3: Reviews undertaken or commissioned by the Department

61. As set out in previous Statements, a number of external reviews have been conducted, which focus on or include an aspect of lessons learned. This section provides a list of reviews undertaken or commissioned by the Department since March 2020 which the Department believes lie within the scope of this Module, namely reviews that touch on the impact of the COVID-19 pandemic on healthcare systems in England, Wales, Scotland and Northern Ireland.

Technical report on the COVID-19 pandemic in the UK: *A technical report for future UK Chief Medical Officers, Government Chief Scientific Advisers, National Medical Directors and public health leaders in a pandemic* **(CW12/10 - INQ000177534**

62. The Technical Report on the COVID-19 pandemic in the UK was written by the UK Chief Medical Officers (CMOs), Government Chief Scientific Adviser (GCSA), UK Deputy CMOs (DCMOs) most closely engaged with the COVID-19 response, NHSE National Medical Director, and the UK Health Security Agency (UKHSA) Chief Executive. It was published in December 2022. The following extracts from the report are those most pertinent to this Module.

63. The following extracts from Chapter 4 of the Technical Report, 'Situational awareness, analysis and assessment' (under the sub-heading, 'Reflections and advice for a future CMO or GCSA') are particularly pertinent to the question asked by the Inquiry about lessons learned by the Department relevant to the issues in the Provisional Outline of Scope for Module 3:

    a. "*Good data are essential for an effective pandemic response – otherwise decision-makers, service providers and researchers are flying blind. Lack of even basic data was particularly acute in the early stages of the pandemic but difficulties with accessing, sharing and linking data persisted for much longer, although the situation improved significantly thanks to the efforts of those involved.*

    b. "*Data sharing and linkage is essential from the outset. In any health emergency, data from hospitals, primary care, health protection*

agencies and academic research will need to be shared rapidly between a range of government departments, public sector organisations and academic researchers. This requires data governance processes and interoperable data platforms to support data sharing and inter-organisational collaboration.
The following 4 areas are important to understand:

- *which data are required, with consideration of who 'owns' the data and how data will be accessed;*
- *which disparate data sets need to be linked to enable necessary analyses, and how will this be done;*
- *who will analyse the data to provide insight and inform assessment; and*
- *which data sets will need to be newly created.*

c. *"Data curation and analysis required considerable resource. This was only fully effective once automation allowed multiple data streams to be integrated very rapidly.*

d. *"Surveillance studies, in particular the ONS CIS (COVID-19 Infection Survey)* **(CW12/41 - INQ000233813)** *and REACT (Real-time Assessment of Community Transmission)* **(CW12/42 - INQ000469745)**, *were important to provide consistent, representative data on positivity in the community and in particular settings, and to include those who were asymptomatic.*

e. *"Analyses had to be continually adapted to understand the evolving epidemic. For example, later in the epidemic with high levels of immunity, a less severe variant of concern (Omicron) and high prevalence of infection (from January 2022) meant it was increasingly apparent people were being admitted to hospital 'with' COVID-19, rather than 'for' COVID-19, based on symptoms and reported diagnoses. This was important for risk assessment and the distinction needs to be adequately captured in data.*

f. "*Data lags limited analyses. Some are unavoidable (for example, the natural lag between infection and hospitalisation). Others reflected operational processes – for example, individual data on diagnoses were completed at discharge, affecting the linkage of individual-level hospital data to case data to allow analysis of hospital admissions for specific variants.*

g. *"Transparency of data helped engage the public with public health interventions. The COVID-19 dashboard* **(CW12/43 - INQ000469759)** *was central to this. Data visualisations are important for the public but also help tell the story to and for decision-makers.*

h. *"Rapid collation of data, analysis and assessment of the situation required multidisciplinary working. This included epidemiologists, clinicians, analysts, statisticians and data scientists (including data visualisation experts). Cross-organisational working, including across geographies and within and beyond government (for example, with academia), was also key."*

64. The following extracts from Chapter 10 of the Technical Report, 'Improvements in care of COVID-19' (page 366, under the sub-heading, 'Reflections and advice for a future CMO or GCSA') are also particularly pertinent:

a. *"Improvements in care reflect the extraordinary efforts of medical, nursing and allied staff. Their repeated determination to go well beyond their normal practice over prolonged periods, learn and disseminate best clinical practice and redesign operational systems for the benefit of patients was remarkable.*

b. *"The rapid flow of international experience was absolutely essential, whether through formal routes or through informal networks. UK clinicians and scientists benefited from the experience of colleagues from China, Singapore, South Korea, Japan, India, the USA, many European nations and South Africa, among others. There is a difficult balance between learning from others who are most affected, and taking up their time when they are most under pressure, but the experience was that sharing of information worked well. Publications and group briefings (for example, via WHO) should wherever possible be the mechanism for doing this.*

c. *"Management of PPE and best infection control advice in healthcare settings was very difficult. The balance between what would be ideal and what is possible was one tension which is likely to be repeated in future, as is the balance between keeping up with the global evidence base and keeping routines stable. This issue probably provided the greatest point of tension between individual medical practitioners and those trying to provide a standardised approach to IPC, not made easier by the practical difficulties of getting PPE in the face of unprecedented global demand. We anticipate this difficulty will be repeated in any epidemic and pandemic of any size, noting that IPC and PPE needs are not universal between different infections. Certain items such as gloves and aprons are very likely to be needed. These are operational issues that need to be considered by the operational leads.*

d. *"Training of staff for redeployment was essential, and considering issues of indemnity and registration was central to having staff able to practise safely and legally. Engaging early with the GMC [General Medical Council] was essential. The use of recently retired staff has many great advantages, but in the face of a disease whose greatest risks are to older people, some of those volunteering had to consider risks carefully.*

65. The following extract, also from Chapter 10 of the Technical Report (page 355 under the sub-heading 'Expanding ICU and acute bed capacity and equipment') shared lessons learned from the Nightingale Hospitals:

a. "*There are important lessons to learn from the Nightingale hospitals, such as the need to bring in additional staffing, equipment and digital infrastructure to support expansion of bed capacity. The logistic and staffing pressures of setting up a new clinical setting had to be balanced with existing staffing and system needs across the hospital estate, and the potential disbenefits of moving staff from their usual workplace where they were likely to be maximally effective. That balance was continually evolving. It was also important to ensure these hospitals were as close to existing hospitals as possible so that staff and patients could move between sites easily when needed. Finally, there was a need to remain flexible when setting these up so that if they were not needed, resource could be rapidly returned to existing hospital settings.*"

Care Quality Commission's Review of Do Not Attempt Cardio-Pulmonary Resuscitation orders

66. The Department commissioned the Care Quality Commission (CQC) to undertake a special review of practice regarding the use of Do Not Attempt Cardio-Pulmonary Resuscitation (DNACPR) orders for COVID-19 patients, which resulted in a final report published on 18 March 2021 **(CW12/44 - INQ000235492)**. This review, including the background and response to it, is described at paragraphs 56 to 79 of the Witness Statement of Matthew Style, Jonathan Marron and Professor Lucy Chappell dated 22 December 2023. **(CW12/14 - INQ000389241)** The recommendations highlighted that "*DNACPR decisions need to be recognised as part of wider conversations about advance care planning and end of life care, and these decisions need to be made in a safe way that protects people's human rights*" and made recommendations across 3 categories:
    - Information, training and support
    - A consistent national approach to advance care planning
    - Improved oversight and assurance

Independent review on equity in medical devices

67. In November 2021, the Department announced that it would be launching an independent review ('Equity in Medical Devices: Independent Review') to consider and advise Government on potential bias in items like oxygen measuring devices and the impact on patients from different ethnic groups **(CW12/45 - INQ000339289)**. The announcement noted that there were concerns that the way in which medical devices and technologies were designed could mean that a patient's diagnosis and treatment is affected by their sex or ethnic background, thereby exacerbating existing inequalities in healthcare. This review, including the background and response to it, is described at paragraphs 130 to 133 of the Witness Statement of Matthew Style, Jonathan Marron and Professor Lucy Chappell dated 22 December 2023 **(CW12/14 - INQ000389241)**.

68. This review was published on 11 March 2024. It made 18 recommendations, to each of which the Government has provided a response. They can be read, alongside the detail of the report, at **(CW12/46 - INQ000468614)**. The review additionally made the following conclusion:

a. *"As set out in this report, there is a considerable amount of work already underway, initiated by this government, which address many of the essential elements of the independent review's recommendations.*

b. *"Monitoring and evaluation are key cornerstones of success and understanding how to improve. The programmes and initiatives cited in this report all engage in monitoring and evaluation, and so their contribution is two-fold - as well as generating direct change and contributing to increased equity and a fairer healthcare experience, the learnings from these programmes will be invaluable to government.*

c. *"The* medtech strategy **(CW12/28 - INQ000469760)** *sets out that, as part of the ambition to deliver the right product, for the right price, in the right place, medical devices must be safe and clinically effective for all. We will consider equity issues throughout the medical device life cycle in the implementation of the strategy.*

d. *"To support the progression of the recommendations, DHSC will work alongside counterparts from the devolved administrations and crown dependencies, and meet regularly to monitor the advancement of this work and look to future developments.*

e. *"These are all positive steps towards making medical devices equitable in design and use, but government cannot do this alone. It is important that we are able to work with partners in trade, industry, education and across healthcare to embed best practice and support the NHS in its mission to find the best and most appropriate products so that it can deliver the best possible care".*

PHE review into disparities in outcomes and risks from COVID-19:

69. In April 2020, the CMO commissioned PHE to review disparities in outcomes and risks from COVID-19 **(CW12/47 - INQ000106482; CW12/48 – INQ000089741**. The resulting publication in August 2020, 'Disparities in the risk and outcomes of COVID19' **(CW12/49 - INQ000106459)**, was a rapid review of transmission, hospitalisation and mortality from COVID-19 data.

70. The review showed disparities in the impact of COVID-19 at that time based on age, sex, ethnicity and deprivation.

71. Following the PHE work, the Government commissioned further work through the then Minister for Equalities to improve understanding of drivers of disparities. The Race Disparities Unit, which is part of the Cabinet Office, led this work, with the Department inputting and undertaking periodic commissions and assurance

reviews to ensure that the COVID-19 response was building in adequate responses for vulnerable groups.

Clinical trials and research

Research to Access Pathway for Investigational Drugs in COVID-19 (RAPID C-19)

72. The multi-agency temporary initiative 'Research to Access Pathway for Investigational Drugs in COVID-19' (RAPID C-19), established in response to the COVID-19 pandemic, aimed at ensuring safe and timely patient access to treatments that show evidence of benefit in preventing and treating COVID-19. The Department was one of the agencies involved in its development. Others included NICE, NHSE, Medicines and Healthcare products Regulatory Agency (MHRA), NIHR, Scottish Medicines Consortium (Healthcare Improvement Scotland), All Wales Therapeutics and Toxicology Centre, All Wales Medicines Strategy Group and the Department of Health in Northern Ireland. The group was established on 29 April 2020 and ceased operation in April 2023. The role of the group was to provide advice to the CMO on the strength of the clinical effectiveness evidence underpinning the therapeutics proposed for treating COVID-19 and suggested next steps **(CW12/50 - INQ000399509)**.

73. As the initiative approached its end, a Lessons Learned Programme, focusing on the RAPID C-19 Oversight Group review, was conducted and resulted in a summary report published on 6 September 2022 **(CW12/51 - INQ000469758)**. The Lessons Learned Programme involved three elements:
    a. A diagnostic survey to highlight the experience and lessons learned by those involved in the pathway.
    b. A workshop attended by RAPID C-19 Oversight Group key stakeholders to discuss the results of the survey and how the lessons learned from the initiative could be applied.
    c. A summary report capturing the main themes from the survey and workshop.

74. The summary report sets out (at section four) the key enablers which contributed to the success of the initiative along with the key barriers and challenges as identified by the programme. One of the key successes identified was the perception of a shared purpose during the pandemic, which drove true

collaboration and improved outcomes. The environment in which the Oversight Group had operated was described by members as safe, trusting, and supportive, with everyone committed to doing their best. Collaboration and commitment to the initiative had been experienced throughout. Virtual working was viewed as a key enabler, as it had facilitated inclusive and accessible environments for all partners. It was acknowledged throughout the lessons learned process that members had been working in a rapidly changing environment and alongside their usual roles, which at times had made the work challenging.

75. The report stated that communication and the sharing and transparency of information in the oversight group meetings had helped to break down barriers that had previously existed between organisations. The open and effective communication between agency partners had allowed them to demonstrate a consistent approach, resulting in an effective and efficient unified delivery of agreed actions. At times, the ability to share sensitive information had slowed the pace and for the future it was agreed that it would be helpful to have one explicit non-disclosure agreement for all aspects of work from the beginning. Communication with the CMO had also largely been a smooth process, and this had helped to progress and support decision making. However, the scale and pace of the work had sometimes affected the clarity of communication to the public and to the system and meant that individual organisations had been putting a lot of time and effort into responding to enquiries.

76. The report set out the following 'actions and next steps', as suggested by members of RAPID C-19:

    a. *"Whilst the threat level of the pandemic meant the impetus to work together was strong from the outset, members now need to consider ways to keep their four nations' relationships going, especially as people move on to other roles and 'memory' could be lost.*

    b. *"It may also be worth considering having a KPI that is across the system rather than just at individual organisation levels to maintain a sense of purpose and cohesion for the group.*

    c. *"Agree an overall lead organisation/role that could coordinate the four nations quickly again if needed.*

d. *"Consider a list of people/roles that could be asked to be the independent chair of the group in a future health crisis.*

e. *"Work together before the initiative is disbanded in 2023 to coordinate and create a 'communication and engagement' plan for working with the public and media if there is a future health crisis – develop one route rather than all responding individually to multiple requests for information.*

f. *"Using the knowledge of how work and information flows around the systems in a crisis to create a template for a future health crisis – mitigate the impact of having to move at pace in an uncertain and fast paced environment by having flowcharts of what to do and when.*

g. *"As the sharing of information was key to success, a review of whether it would be possible to have one Non-Disclosure Agreement (NDA) for all the organisations from the four nations in place at least in draft in readiness, could be carried out.*

h. *"Members of the initiative worked well together and now need to consider for the future the inclusion of other bodies ("who else can we listen to?"), perhaps conducting stakeholder analysis.*

i. *"Each member to share the 'Lessons Learned' within their own organisation to support the diffusion of learning at scale across the system."*

77. The National Institute for Health and Care Excellence (NICE) is best placed to comment on the response to the report findings and implementation of lessons learned as the organisation responsible for the development of authoritative, evidence-based recommendations and guidance, including on the use of medicines.

National Institute for Health and Care Research: lessons learned exercises

78. During the pandemic, a number of lessons learned exercises were undertaken by the NIHR.

79. Following the cross agency working that was adopted to handle the funding, prioritisation, set-up and delivery of COVID-19 Urgent Public Health (UPH) studies, a group was convened on 30 June 2020 to evaluate progress and ascertain any lessons learned. The meeting was attended by Departmental officials, as well as representatives from other agencies including the Human Research Authority (HRA) and MHRA. A summary document was produced outlining the strategic and operational learning points **(CW12/52 - INQ000469757)**.

80. For context, the UPH study review process was as follows: Firstly, study leads were asked to apply for UPH status, providing the protocol and details of any study supplies needed. Once designated as UPH, regulatory approval was expedited and access to CRN support prioritised. At this stage the NIHR assisted in identifying sites for delivery and facilitated the set-up processes. The final stage centered around the actual coordination of the study, including how it was managed and monitored **(CW12/53 - INQ000469749)**.

81. In summary, the group identified the following areas as requiring a more strategic direction:

    a. *"Once good collaborative arrangements (had) been established, the community need(ed) to consider how future COVID-19 studies, or studies regarding post-COVID-19 learnings, could be collectively prioritised as business returned to 'normal'.*

    b. *"Platform studies could be designed in advance to enable sufficient time for academic buy-in to the process.*

    c. *"Linking with all external funders of pandemic studies would be beneficial in order to highlight the UPH designation process and enable funders to better understand the criteria for designation.*

    d. *"Develop closer links between MHRA, HRA and NIHR to facilitate joined up decision making regarding UPH designation, and transparency as to how and why UPH designation differs from HRA and MHRA approval.*

    e. *"Access to some data via the NIHR Open Data Platform (ODP) had proven problematic, with data providers exhibiting "embedded cultural views...that*

providing data (would) lead to being 'penalised' for perceived performance issues".

82. Several operational lessons were also raised (listed in Appendix 1 of the summary document), which form part of a new cross-NIHR Standard Operating Procedure for Funding and Delivery, as well as being addressed within individual agencies **(CW12/54 - INQ000469742)**.

83. The UPH designation process continued into 2021 with further studies being added to it. Recruitment to all UPH studies was completed by October 2021 and the UPH priority designation was recognised until that point. There are ongoing pandemic preparedness activities in collaboration with other funders and agencies to update the UPH process for potential future pandemic threats.

84. The 'Restart Framework', introduced by NIHR in partnership with the R&D community, recognised UPH studies as taking priority and provided guidance as to what should be prioritised alongside this. The Restart Framework was launched in May 2020 to guide the restoration of a fully active portfolio of NIHR research, alongside support for COVID-19 research as part of the Government response to the pandemic **(CW12/55 - INQ000469738)**.

85. The G7 Therapeutics and Vaccines Clinical Trials Charter was published in June 2021 following a meeting of G7 health ministers. Its aim was to help deliver high-quality, reliable and comparable evidence from international clinical trials to speed up access to approved treatments and vaccines, benefiting people in the UK and globally. The charter recognised the need to agree core data sets and have data sharing agreements in place **(CW12/56 - INQ000234915** NIHR and the Department have an ongoing pandemic preparedness programme to identify future opportunities for platform studies and cross-agency working.

Section 4: External reviews

86. In this section I set out a list of external reviews relating to any of the issues within the Provisional Outline of Scope for Module 3 since March 2020. By participating in, providing evidence to, or responding, the Department has learned lessons as demonstrated by Government responses to the external reviews outlined below.

Readying the NHS and adult social care in England for COVID-19

87. On 12 June 2020, the NAO published a report entitled 'Readying the NHS and adult social care in England for COVID-19', which provided a factual overview of the response by the Department and other bodies during March and April 2020 to prepare the NHS and adult social care in England for the COVID-19 pandemic **(CW12/57 - INQ000114319**.

Public Accounts Committee report: Readying the NHS and social care for the COVID-19 peak

88. On 22 June 2020, the PAC took oral evidence from a range of individuals from the Department, NHSE, the Ministry of Housing, Communities & Local Government (MHCLG) and **(CW12/58 - INQ000303214** I gave evidence on behalf of the Department.

89. On 29 July 2020, the PAC published its report entitled 'Readying the NHS and social care for the COVID-19 peak', which it identified as its "*first examination of the health and social care response to COVID-19*" **(CW12/59 - INQ000087234**.

Health and Social Care Committee report: Delivering core NHS and care services during the pandemic and beyond

90. On 1 October 2020, the Health and Social Care Committee (HSCC) published a report entitled 'Delivering core NHS and care services during the pandemic and beyond' **(CW12/60 - INQ000070922**

91. I set out in the table below the HSCC's recommendations, and the government's response to each of the recommendations, as appended to the Committee's Second Report of Session 2019–21 **(CW12/61 - INQ000469737)**.

Recommendations	Government response
Waiting times	The Government set out steps that it was taking across the following areas to reduce waiting times and manage the backlog of appointments: • Elective care • Primary care • Mental health • Dental services
Issues facing NHS and care staff: PPE	It was noted that the Government was confident that there would be a consistent supply of PPE over the winter. Since the initial PPE Plan, the UK PPE supply chain had been stabilised. The steps taken by the Department to ensure a resilient FFP3 supply chain were set out, including through developing enhanced supplier relationships with selected mask manufacturers and suppliers to secure a wider range of FFP3 masks. Alongside building and managing a resilient supply chain, it was noted that the Government was improving the availability and quality of fit testing in NHS Trusts to ensure appropriate PPE was available to NHS staff members. The Government had established a Fit Testing Programme in England. The steps being taken by the Government to maximise user comfort and minimise harm caused by wearing PPE were also set out.
The NHS: Long-term support for accident and emergency departments	It was identified that the aim of NHS 111 first was to support the triaging of patients before they attend A&E departments and to help them access the most appropriate service. It was noted that all systems had been nationally assured against a 111 first minimum specification. As part of the 111 service improvements, additional 111 capacity had been put in place. Communications activity, such as the national 'Think 111 first' campaign, had increased to further expand awareness of using NHS 111. There was also additional capital investment provided to support urgent and emergency care, in the form of £150 million funding for 25 major NHS Trust schemes and £300 million funding for 158 smaller NHS Trust schemes.

Recommendations	Government response
The NHS: Technology and digital alternatives ("telemedicine")	It was noted that NHSX had supported health and social care services in accelerating the uptake of pioneering technologies. Remote consultations had become embedded within the NHS. Before COVID-19, survey data suggested that only 3% of GP practices had video capability for remote consultations in place. At the time of the Government response to the HSCC, the figure was thought to be almost 99%. This capability was supported by the increased capacity for calls, texts and data for frontline staff on mobiles, broadband to support clinicians working from home, and the electronic sharing of patient records. It was identified that the public had benefited from the use of the NHS App. The Government also identified progress that had been made in the areas of information security and artificial intelligence.

National Audit Office report: The NHS nursing workforce

92. On 5 March 2020, the NAO published a report on 'The NHS nursing workforce' **(CW12/62 - INQ000113389**

Public Accounts Committee report: NHS nursing workforce

93. On 23 September 2020, the PAC published a report entitled 'NHS nursing workforce' **(CW12/63 - INQ000330887**.

National Audit Office report: Investigation into how government increased the number of ventilators available to the NHS in response to COVID-19

94. On 30 September 2020, the NAO published a report entitled 'Investigation into how government increased the number of ventilators available to the NHS in response to COVID-19' **(CW12/64 - INQ000087456)**.

Public Accounts Committee report: COVID-19: Supply of ventilators

95. On 25 November 2020, the PAC published a report entitled 'COVID-19: Supply of Ventilators' **(CW12/65 - INQ000087194)**.

National Audit Office report: The supply of personal protective equipment (PPE) during the COVID-19 pandemic

96. On 25 November 2020, the NAO published a report entitled 'The supply of personal protective equipment (PPE) during the COVID-19 pandemic' **(CW12/66 - INQ000145895**

Public Accounts Committee report: COVID-19: Government procurement and supply of Personal Protective Equipment

97. On 10 February 2021, the PAC published a report entitled 'COVID-19: Government procurement and supply of Personal Protective Equipment' **(CW12/67 - INQ000145899**.

National Audit Office report: Protecting and supporting the clinically extremely vulnerable during lockdown

98. On 10 February 2021, the NAO published a report entitled 'Protecting and supporting the clinically extremely vulnerable during lockdown' **(CW12/68 - INQ000059879)**.

Public Accounts Committee report: COVID-19: supporting the vulnerable during lockdown

99. On 21 April 2021, the PAC published a report entitled 'COVID-19: supporting the vulnerable during lockdown' **(CW12/69 - INQ000060681)**.

National Audit Office report: Initial learning from the government's response to the COVID-19 pandemic

100. On 19 May 2021, the NAO published a report entitled 'Initial learning from the government's response to the COVID-19 pandemic' **(CW12/70 - INQ000128524**

Public Accounts Committee report: Initial lessons from the government's response to the COVID-19 pandemic

101. On 25 July 2021 the PAC published a report entitled 'Initial lessons from the government's response to the COVID-19 pandemic' **(CW12/71 - INQ000087199)**.

102. In the months following the Government response, I sent the PAC a series of letters updating on various matters arising out of recommendations in the PAC's report. In summary:

a. On 30 November 2021, I wrote to the PAC providing data relating to PPE, as requested by the PAC in the first recommendation set out above **(CW12/72 - INQ000075342**

b. On 2 March 2022, I wrote to the PAC to provide the second quarterly update on data concerning PPE **(CW12/73 - INQ000469746)**.

c. On 14 June 2022, I wrote to the PAC to provide the third quarterly update on data concerning PPE **(CW12/74 - INQ000469750)**.

d. On 1 November 2022, I wrote to the PAC to provide the fourth quarterly update on data concerning PPE **(CW12/75 - INQ000469754)**.

e. On 16 March 2023, I wrote to the PAC to provide the fifth quarterly update on data concerning PPE **(CW12/76 - INQ000471096)**.

f. On 30 March 2023, I wrote to the PAC providing a small point of clarification in relation to the letter that I sent to the PAC on 16 March 2023, setting out the Department's fifth quarterly PPE update **(CW12/77 - INQ000469756)**.

g. On 21 June 2023, I wrote to the PAC to provide the sixth quarterly update on data concerning PPE **(CW12/78 - INQ000339320)**.

h. On 7 November 2023, I wrote to the PAC to provide the seventh quarterly update on data concerning PPE **(CW12/79 - INQ000371236)**.

National Audit Office report: NHS backlogs and waiting times in England

103. On 1 December 2021, the NAO published a report entitled 'NHS backlogs and waiting times in England' **(CW12/80 - INQ000469744)**.

Public Accounts Committee report: NHS backlogs and waiting times in England

104. On 16 March 2022, the PAC published a report entitled 'NHS backlogs and waiting times in England' **(CW12/81 - INQ000469747)**.

Health and Social Care and Science and Technology Committees report: Coronavirus: lessons learned to date

105. On 12 October 2021, the Health and Social Care Committee and the Science and Technology Committee published a report entitled 'Coronavirus: lessons learned to date' **(CW12/82 - INQ000090541**.

Government response

106. The Government published a response to the Health and Social Care Committee and Science and Technology Committee Joint Report on 7 June 2022 **(CW12/83 - INQ000087223**

Health and Social Care Committee report: Workforce: recruitment, training and retention in health and social care

107. On 25 July 2022, the Health and Social Care Committee published a report entitled 'Workforce: recruitment, training and retention in health and social care' **(CW12/84 - INQ000471095)**.

Conclusion

108. For high level reflections, I point the Inquiry to paragraphs 15 and 16 of this Statement.

109. This statement is necessarily a snapshot in time of known lessons about the healthcare response to the pandemic. The Department is continuously seeking to learn lessons from its own, and others', experiences and to put those lessons into best practice. As such, I reserve the right to add further content to this statement on lessons learned in the future.

Statement of Truth

I believe that the facts stated in this witness statement are true. I understand that proceedings may be brought against anyone who makes, or causes to be made, a false statement in a document verified by a statement of truth without an honest belief of its truth.

Signed: Personal Data

Dated: 24 April 2024