



House of Commons

Health and Social Care, and
Science and Technology
Committees

Coronavirus: lessons learned to date

Sixth Report of the Health and Social
Care Committee and Third Report
of the Science and Technology
Committee of Session 2021–22

HC 92



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**Sixth Report of the Health and Social
Care Committee and Third Report
of the Science and Technology
Committee of Session 2021–22**

*Report, together with formal minutes relating
to the report*

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Health and Social Care Committee

The Health and Social Care Committee is appointed by the House of Commons to examine the expenditure, administration, and policy of the Department of Health & Social Care.

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Executive Summary

Covid-19 has been the biggest crisis our country has faced in generations, and the greatest peacetime challenge in a century. It has disrupted our lives to an extent few predicted; separated friends and families; closed businesses and damaged livelihoods; and, most tragically of all, it has been associated with the deaths of over 150,000 people in the UK and nearly 5 million people worldwide to date.¹

The United Kingdom is not alone in having suffered badly because of covid-19 and the pandemic is far from over. Comparing the experience of different countries is not straightforward: covid-related deaths are recorded in varying ways. The effect of the pandemic on particular countries has been different at different times—for example some countries that fared better than others in the early months of the pandemic have subsequently experienced more fatalities.² But in 2020 the UK did significantly worse in terms of covid deaths than many countries—especially compared to those in East Asia even though they were much closer geographically to where the virus first appeared.³ The scale of this early loss requires us to ask why the UK was affected worse than others.

Conversely the success of the vaccine programme—one of the most effective in Europe and, for a country of our size one of the most effective in the world—shows that positive as well as negative lessons should be taken from our handling of the pandemic. All learning needs to happen rapidly because of the likelihood of future pandemics which is why we are producing this Report now. Its purpose is not to point fingers of blame but ensure an accurate understanding of both successes and failures to date so that crucial lessons can be learned for the future.

Our inquiry looked in detail at six key areas of the response to covid-19, which are outlined in more detail in this Report's first Chapter: the country's preparedness for a pandemic; the use of non-pharmaceutical interventions such as border controls, social distancing and lockdowns to control the pandemic; the use of test, trace and isolate strategies; the impact of the pandemic on social care; the impact of the pandemic on specific communities; and the procurement and roll-out of covid-19 vaccines. Across these areas we have identified several key issues which have had a major impact on the UK response to covid-19, and should be a key focus for the Government as it seeks to learn the lessons from the pandemic. This Report, and the evidence we gathered, are principally around the experience and the response to the pandemic in England although we refer to aspects elsewhere in the United Kingdom where relevant.

1 WHO, 'Coronavirus Dashboard', accessed 1 September 2021; GOV.UK, 'Coronavirus (COVID-19) in the UK, deaths with COVID-19 on the death certificate', accessed 14 September 2021; the Science and Technology Committee's first report of Session 2019–21 'The UK response to covid-19: use of scientific advice' discusses the different methods of calculating deaths at box 1, page 33

2 For example, from 20 February 2020 to 31 May 2020, India recorded 5,407 deaths. From 20 February 2021 to 31 May 2021, India recorded 175,593 deaths. For more comparisons, see OurWorldInData, 'Coronavirus (COVID-19) Deaths'

3 Johns Hopkins University and Medicine, 'Mortality Analyses', accessed 2 September 2021

1. The UK's pandemic planning was too narrowly and inflexibly based on a flu model which failed to learn the lessons from SARS, MERS and Ebola. The result was that whilst our pandemic planning had been globally acclaimed,⁴ it performed less well than other countries when it was needed most.
2. In the first three months the strategy reflected official scientific advice to the Government which was accepted and implemented. When the Government moved from the 'contain' stage to the 'delay' stage, that approach involved trying to manage the spread of covid through the population rather than to stop it spreading altogether. This amounted in practice to accepting that herd immunity by infection was the inevitable outcome, given that the United Kingdom had no firm prospect of a vaccine, limited testing capacity and there was a widespread view that the public would not accept a lockdown for a significant period. The UK, along with many other countries in Europe and North America made a serious early error in adopting this fatalistic approach and not considering a more emphatic and rigorous approach to stopping the spread of the virus as adopted by many East and South East Asian countries. The fact that the UK approach reflected a consensus between official scientific advisers and the Government indicates a degree of groupthink that was present at the time which meant we were not as open to approaches being taken elsewhere as we should have been.
3. Whether because of inadequate capacity or deliberate policy, it was also a serious mistake to get to the point where community testing was stopped early in the pandemic. A country with a world-class expertise in data analysis should not have faced the biggest health crisis in a hundred years with virtually no data to analyse. This problem was compounded by a failure of national public bodies involved in the response to share such data as was available with each other, including between national and local government.
4. Even if the decision to stop community testing was taken purely for capacity reasons, it is clear that there should have been more challenge to Public Health England to increase testing capacity right at the outset by Ministers, scientific advisers and the Department of Health and Social Care. Instead testing capacity appeared to be accepted for too long as a *fait accompli*.
5. The initial response to the crisis also exposed some major deficiencies in the machinery of Government. The structures for offering scientific advice lacked transparency, international representation and structured challenge. Protocols to share vital information between public bodies were absent. The Civil Contingencies Secretariat was inadequately resourced, including with specialist expertise which had been removed.⁵ Scientific accomplishment was hampered by operational inadequacy.
6. Accountability in a democracy depends on elected decision-makers not just taking advice, but examining, questioning and challenging it before making their own decisions. Although it was a rapidly changing situation, given the large number of deaths predicted it was surprising that the initially fatalistic assumptions about the impossibility of suppressing the virus were not challenged until it became clear the

4 [Johns Hopkins Global Health Security Index, October 2019](#)

5 See paragraph 32.

NHS could be overwhelmed. Even when the UK strategy did change dramatically in March 2020, it was because of domestic concern about the NHS being overwhelmed rather than a serious decision to follow emerging international best practice.

7. There was a desire to avoid a lockdown because of the immense harm it would entail to the economy, normal health services and society. In the absence of other strategies such as rigorous case isolation, a meaningful test and trace operation, and robust border controls, a full lockdown was inevitable and should have come sooner.

8. Although some criticised the then Secretary of State for announcing it unilaterally, and with little public support from elsewhere in Government and the NHS, the testing target of 100,000 tests a day was important to galvanise the system to drive the massive increase in testing capacity that was required. However it was a significant failing that such a personal initiative was needed in the first place.

9. It was, however, a remarkable achievement for the NHS to expand ventilator and intensive care capacity, including through the establishment of Nightingale hospitals and the ventilator challenge. Overall, the majority of covid-19 patients with a clinical need for hospital care received it. However, the price paid to deliver this was significant interruption to NHS core services including in areas like cancer which are time critical.

10. Despite being one of the first countries in the world to develop a test for covid in January 2020, the United Kingdom failed to translate that scientific leadership into operational success in establishing an effective test and trace system during the first year of the pandemic. The slow, uncertain, and often chaotic performance of the test, trace and isolate system severely hampered the UK's response to the pandemic. This was partly because NHS Test and Trace was only established when daily infections had risen to 2,000. The result was that the Test and Trace operation ultimately failed in its stated objective to prevent future lockdowns despite vast quantities of taxpayers' money being directed to it.

11. The test and trace operation followed a centralised model initially, meaning assistance from laboratories outside PHE—particularly university laboratories—was rebuffed. The same was true for contact tracing, where the established capabilities of local Directors of Public Health and their teams were not effectively harnessed during the initial response to the pandemic, despite local approaches proving effective in places where they were pursued. It is now clear that the optimal structure for test and trace is one that is locally driven with the ability to draw on central surge capacity but it took the best part of a year to get to that point.

12. The UK does now appear to have sufficient testing and tracing capacity, indeed one of the largest such capabilities in Europe. However, the problem of compliance with isolation instructions remains a challenge. We heard evidence that inadequate financial support was a barrier for some people, and that—until recently—the inability of contacts to be released from isolation if they tested negative contributed to lower compliance.

13. The Government and the NHS both failed adequately to recognise the significant risks to the social care sector at the beginning of the pandemic. Until the social care working group was established in May 2020, SAGE either did not have sufficient

representation from social care or did not give enough weight to the impact on the social care sector. Without such input and broader expertise, Ministers lacked important advice when making crucial decisions. This, coupled with staff shortages, a lack of sufficient testing and PPE, and the design of care settings to enable communal living hampered isolation and infection control, meant that some care providers were unable to respond to risks as effectively as they should. This had devastating and preventable repercussions for people receiving care and their families and put staff providing social care at risk.

14. The lack of priority attached to social care during the initial phase of the pandemic was illustrative of a longstanding failure to afford social care the same attention as the NHS. The rapid discharge of people from hospitals into care homes without adequate testing or rigorous isolation was indicative of the disparity. It is understandable that the Government should move quickly to avoid hospitals being overwhelmed but it was a mistake to allow patients to be transferred to care homes without the rigour shown in places like Germany and Hong Kong. This, combined with untested staff bringing infection into homes from the community, led to many thousands of deaths which could have been avoided.⁶

15. It is impossible to know whether a circuit breaker in the early autumn of 2020 would have had a material effect in preventing a second lockdown given that the Kent (or Alpha) variant may already have been prevalent. Indeed such an approach was pursued in Wales, which still ended up having further restrictions in December 2020. In this decision not to have a circuit breaker, the UK Government did not follow the official scientific advice. Ministers were clearly over-optimistic in their assumption that the worst was behind us during the summer months of 2020.⁷

16. At the same time there were important areas where the UK's pandemic performance outperformed other countries. Unlike many governments, UK Ministers were correct to identify that a vaccine would be the long-term route out of the pandemic and presciently supported the research and development of a number of covid-19 vaccines, including the Oxford/AstraZeneca vaccine. A significant part of the success of the Oxford/AstraZeneca vaccine was due to the Government's early investment in research and development which originally started with the UK Vaccines Network set up in 2016. That investment and support through successive governments has clearly paid off.

17. The result has been a UK vaccination programme encompassing discovery, purchase and full vaccination of over 80% of the adult population by September 2021 which has been one of the most effective initiatives in the history of UK science and public administration and which was delivered by the NHS. Millions of lives will ultimately be saved as a result of the global vaccine effort in which the UK has played a leading part. In the UK alone, the successful deployment of effective vaccines has, as at September 2021, allowed a resumption of much of normal life with incalculable benefits to people's lives, livelihoods and to society.

6 See paragraph 311.

7 See paragraphs 124–127.

18. Treatments for covid are another area where the UK's response was genuinely world-leading. The RECOVERY Trial had, by mid-August 2021, recruited just over 42,000 volunteers worldwide to mount randomised trials of covid-19 treatments. Establishing the effectiveness of dexamethasone and the ineffectiveness of hydrochloroquine were vital contributions to the worldwide battle against covid-19 and estimated to have saved over a million lives globally.

19. The UK regulatory authorities—principally the MHRA and the JCVI—approached their crucial remit with authority and creativity. Allowing the results of clinical trials to be submitted on a rolling basis made the UK the first Western country in the world to approve a vaccine. The bold decision to extend the interval between doses allowed more people to be vaccinated more quickly and so protected the population.

20. The establishment—following the suggestion of Sir Patrick Vallance—of the Vaccine Taskforce outside of the Department of Health and Social Care, and comprising a portfolio of experienced individuals from industry, healthcare, science and Government was vital to its success, as was the bold, authoritative leadership of Kate Bingham. The Government was right to act to accelerate the delivery of institutions like the Vaccines Manufacturing Innovation Centre proposed in the Industrial Strategy, and to have invested further in manufacturing capacity.

21. However, existing social, economic and health inequalities were exacerbated by the pandemic and combined with possible biological factors contributed to unequal outcomes including unacceptably high death rates amongst people from Black, Asian and Minority Ethnic communities. Increased exposure to covid as a result of people's housing and working conditions played a significant role. We also heard that Black, Asian and minority ethnic staff in the NHS, who are underrepresented in leadership and management roles, faced greater difficulty in accessing the appropriate and useable Personal Protective Equipment. The experience of the covid pandemic underlines the need for an urgent and long term strategy to tackle health inequalities and to address the working conditions which have put staff from Black, Asian and minority ethnic communities at greater risk.

22. Likewise the disproportionately high mortality rates that people with learning disabilities and autistic people have suffered throughout the pandemic has highlighted the health inequalities faced by this group. While pre-existing health conditions undoubtedly contributed to the increased mortality risk, they were compounded by inadequate access to the care people with learning disabilities needed at a time of crisis. This was a result of restrictions on non-covid hospital activity, and, significantly, because of access restrictions which prevented family members and other carers accompanying people with learning disabilities in hospital to perform their expected advocacy role. "Do not attempt CPR" notices were issued inappropriately for some people with learning disabilities, which was completely unacceptable.⁸ Plans for future emergencies should recognise that blanket access restrictions to hospital may not be appropriate for patients who rely on an advocate to express their requirements.

⁸ See paragraphs 326–329; Care Quality Commission, *Protect, respect, connect - decisions about living and dying well during COVID-19*, 15 April 2021, page 56, figure 15.

HSC Committee Covid 19 timeline 2020 – 21



1 Our joint inquiry

1. Since March 2020 the Science and Technology Committee and the Health and Social Care Committee have been holding separate inquiries examining the Government's response to the covid-19 pandemic. These inquiries began as covid-19 reached the UK and have continued throughout the first wave of the pandemic and beyond, examining the response to the pandemic as it happened. In October 2020, the two Committees launched a joint inquiry, *Coronavirus: lessons learnt*, to consider several key issues that emerged during the first wave of the pandemic and identify what lessons need to be learnt.⁹

2. The majority of our 11 oral evidence sessions were held between October and December 2020, with further sessions held in January, May and June 2021. Our joint inquiry heard from over 50 individuals, including the then Secretary of State for Health and Social Care, Rt Hon Matt Hancock MP, the then Minister of State for Care, Helen Whately MP, the UK Government Chief Scientific Adviser, Sir Patrick Vallance, the Chief Medical Officer for England, Professor Chris Whitty, and the then Deputy Chief Medical Officer, Dr Jenny Harries, and experts on each of our key areas of inquiry. We published over 100 pieces of written evidence from individuals and organisations.

3. Our two Committees have also gathered a significant body of evidence through our own inquiries into covid-19 and its impacts.¹⁰ This includes over 400 written submissions across two inquiries¹¹ and oral evidence sessions, including several sessions held during and after the second peak of the pandemic. Where relevant we have drawn on existing evidence from our individual Committee inquiries in this joint Report.

4. As a result, while most of our evidence, conclusions and recommendations relate to the first wave of the pandemic in the spring and summer of 2020, we continued to gather evidence into the second wave of the pandemic and beyond and our conclusions are reached in light of this new evidence where relevant.

Aims of this Report

5. Our joint inquiry was established in October 2020 with the aim of providing a fuller evaluation of the Government's handling of the covid-19 pandemic that covered the remits of both Committees (Health and Social Care and Science and Technology), building on the evidence each Committee had already received and utilising our areas of focus.

6. The purpose of this Report is not to apportion blame, but we do seek to provide an early assessment of the key decisions, structures and underlying factors which contributed to the extent of the pandemic's impact in the UK. In doing so, we have focused on six key areas:

9 The terms of reference for our inquiry are published on our websites: <https://committees.parliament.uk/work/657/coronavirus-lessons-learnt/>

10 For example, see: Health and Social Care Committee, *Second Report of Session 2019–21, Delivering core NHS and care services during the pandemic and beyond*, HC 320; Science and Technology Committee, *First Report of Session 2019–21, The UK response to covid-19: use of scientific advice*, HC 136; and Health and Social Care Committee, *Second Report of Session 2021–22, Workforce burnout and resilience in the NHS and social care*, HC 22

11 Science and Technology Committee, *UK Science, Research and Technology Capability and Influence in Global Disease Outbreaks*; and Health and Social Care Committee, *Delivering Core NHS and Care Services during the Pandemic and Beyond*

- Chapter two assesses the country's prior preparedness for a pandemic disease;
- Chapter three considers the Government's deployment of 'non-pharmaceutical interventions' such as lockdowns;
- Chapter four explores the adoption of testing and contact tracing throughout the pandemic;
- Chapter five scrutinises the impact of the pandemic on the social care sector;
- Chapter six examines the experience of some communities where the impact of covid fell disproportionately; and
- Chapter seven looks at the research, procurement and initial roll-out of covid-19 vaccines and the use of therapeutics.

7. Many of our recommendations are intended to inform future pandemic and other emergency responses, but there are also several recommendations intended to safeguard the future of our vital public services, and recommendations that will benefit the wider health of the nation.

8. We believe that our recommendations can provide immediate benefit, both to the continued Government response to the covid-19 pandemic, and to the country's recovery from covid-19. However, we are clear that our conclusions cannot be the last word on the covid-19 pandemic, or the Government's handling of it. We note the Prime Minister's announcement to launch a full public inquiry during this parliamentary session.¹² Our findings, and all of the evidence we have gathered, will be available to the public inquiry.

Scope

9. This Report is predominantly focused on the response to the pandemic in England, and in referring to the Government's response we generally refer to the interventions that were adopted in England. While there has often been significant overlap in the policies adopted by the UK Government and the devolved administrations, health and public health are devolved matters and as the pandemic has progressed there has been increasing divergence in response. Where relevant, we highlight similarities and differences between responses across the UK, but our recommendations relate only to the UK Government.

2 Pandemic preparedness

10. When the World Health Organisation announced on 4 January 2020 that a cluster of pneumonia cases had been reported in Wuhan, China, SARS-CoV-2 had not yet been identified as the cause, still less was it known to the UK public health authorities. Yet the UK has had, for many years, policies and procedures in place to be able to respond to new outbreaks of infectious diseases should they occur. Among these preparations were constructing a National Risk Register; preparing plans for responding to outbreaks of infectious diseases; and a set of institutional arrangements—including COBR, SAGE and the Civil Contingencies Secretariat—established to facilitate an effective response in emergencies.

11. It is worth noting that as of October 2019, the Johns Hopkins Global Health Security Index, the most comprehensive global study into pandemic preparedness, had the UK and the US as the best prepared in the world. Yet we know that covid has had a significantly bigger impact on these two countries compared to many others who ranked lower.¹³ Our inquiry found that the UK's preparedness for responding to covid-19 had important deficiencies. The most important was that much of our preparation was for an influenza-like pandemic—notably one that was not characterised by asymptomatic transmission (and for which testing was therefore not so important). As well as this, witnesses told us that aspects of the structure of decision-making proved dysfunctional, and during the early stages of the pandemic the exchange of important information between public bodies was inadequate. That said, it is the nature of preparing to face future risks that there will be much that must be unknown about them. Perfect foresight, and therefore a perfect response, is not available.

12. Nevertheless, important lessons can be drawn and this Chapter considers the following elements of preparedness:

- The National Risk Register;
- Preparations for a pandemic;
- The machinery of decision-making;
- Data sharing;
- The role of the Armed Forces; and
- The capacity of the NHS.

The National Risk Register

13. The National Risk Register (NRR) captures the Government's assessment of the likelihood and potential impact of a range of different civil emergency risks which might occur over the next five years.

14. Since 2019, the National Risk Register has been based on the National Security Risk Assessment (NSRA), which is a classified document. The NSRA is prepared by the Civil Contingencies Secretariat which sits within the Cabinet Office. The latest version of the

13 [Johns Hopkins Global Health Security Index, October 2019](#)

National Risk Register was published in December 2020. Given that our inquiry and the covid-19 pandemic occurred before the latest version of the National Risk Register, our focus will be on an earlier version of the National Risk Register, which was published in 2017.¹⁴

15. The risks identified in the National Risk Register are grouped into the following categories: natural hazards; diseases; major accidents; societal risks; and malicious attacks. The National Risk Register analysed risks through a three-stage process: identification of risks; assessment of the likelihood of the risks occurring and their impact if they do; and comparison of the risks in the National Risk Register. In identifying risks, the Register said that it consulted a wide range of experts both within and outside of Government.¹⁵

16. The 2017 National Risk Register said that “the likelihood of an emerging infectious disease spreading within the UK is assessed to be lower than that of a pandemic flu.”¹⁶ It also said that the consequences for emerging infectious diseases may be “several thousand people experiencing symptoms, potentially leading to up to 100 fatalities”.¹⁷ In the 2020 National Risk Register, this has been revised to say that a pandemic may potentially lead to “hundreds of thousands of deaths across the UK”.¹⁸ It is clear from the covid-19 pandemic that the 2017 version of the National Risk Register underestimated the impact of a non-influenza infectious disease. This appears to have been rectified in the 2020 version of the National Risk Register.

17. There have been a number of international human disease outbreaks in recent years which have been relevant to anticipating future disease threats:

- Severe acute respiratory syndrome (SARS) was discovered in February 2003 following unusual pneumonia cases in China.¹⁹ In March 2003, the World Health Organisation (WHO) issued a global alert of a new infectious disease of unknown origin. According to the WHO, most cases of SARS occurred in China, Taiwan, Hong Kong and Singapore;²⁰
- Swine flu, an influenza, was first discovered in Mexico in April 2009.²¹ On 25 April, the WHO declared a public health emergency of international concern.²² Swine flu was more widespread than SARS and the US Centre for Disease Control and Prevention estimated that worldwide, between 151,700 to 575,400 people died as a result of it.²³ NHS England said that the outbreak was not as serious as predicted as many older people were already immune;²⁴ and

14 GOV.UK, [National Risk Register of Civil Emergencies – 2017 Edition, September 2017](#); GOV.UK, [National Risk Register 2020, December 2020](#)

15 GOV.UK, [National Risk Register of Civil Emergencies 2017, page 69](#)

16 GOV.UK, [National Risk Register of Civil Emergencies 2017, page 34](#)

17 GOV.UK, [National Risk Register of Civil Emergencies 2017, page 34](#)

18 GOV.UK, [National Risk Register 2020, Page 47](#)

19 WHO, [‘Severe Acute Respiratory Syndrome \(SARS\)’](#), accessed 17 September 2021

20 WHO, [‘Summary of probable SARS cases’](#), accessed 17 September 2021

21 NHS, [‘Swine flu \(H1N1\)’](#), accessed 17 September 2021

22 WHO, [‘Swine flu illness in the United States and Mexico’](#), accessed 17 September 2021

23 US Centres for Disease Control and Prevention, [‘2009 H1N1 Pandemic’](#), accessed 17 September 2021

24 NHS, [‘Swine flu \(H1N1\)’](#), accessed 17 September 2021

- Middle East respiratory syndrome (MERS) was first identified in Saudi Arabia in September 2012.²⁵ As at 31 May 2019, there have been an estimated 2,442 cases of MERS.²⁶ Most cases of MERS were concentrated in Saudi Arabia, the Middle East, and South Korea. There have been five cases of MERS in the UK.²⁷

18. What—in the light of covid-19—was an overreliance on pandemic influenza as the most important infectious disease threat clearly had consequences. It meant that the emphasis of detailed preparations was for what turned out to be the wrong type of disease—although, as we will see, some elements of preparing for pandemic flu did have some use in responding to covid-19.

19. The former Chief Medical Officer for England, Professor Dame Sally Davies, told us:

we all, in the UK, US and Europe, as experts and in policy, had a bias to flu, and planning for flu and diseases that had already occurred. As I look back, going back to Winter Willow, which was well before my time, and the national risk assessment, we underestimated the impact of novel and particularly zoonotic diseases.²⁸

Preparations for a pandemic

20. Following the Swine flu outbreak of 2009, the then Government set up an independent review of the UK's response to the 2009 influenza pandemic, which reported in July 2010. The review, led by Dame Deirdre Hine, found that pandemic preparedness was, generally, “impressive”.²⁹ The review recommended that the pandemic preparedness framework be updated in light of the recommendations.

21. As a result the UK Influenza Preparedness Strategy was published in 2011. The 2011 Strategy updated the previous preparedness plan of 2007.³⁰ The Strategy set out five phases: detection; assessment; treatment; escalation; and recovery. The current Government's Coronavirus action plan acknowledged the role of the Strategy in informing its response to covid-19.³¹

22. The prospective national response to an influenza pandemic was tested in an exercise which took place from 18–20 October 2016. Exercise Cygnus was led by Public Health England. As part of the exercise, participants considered their capacity and capability to operate at the peak of a pandemic affecting 50% of the population which could cause between 200,000 and 400,000 excess deaths in the UK. It is important to note that Exercise Cygnus focused on the treatment and escalation phases of the pandemic response. It did not simulate the detection and assessment phases. The then Secretary of State for Health and Social Care acknowledged this in his evidence to our inquiry in November 2020:

25 WHO, ‘Middle East respiratory syndrome coronavirus (MERS-CoV)’, accessed 17 September 2021

26 WHO, ‘Worldwide reduction in MERS cases and deaths since 2016’, accessed 17 September 2021

27 NHS, ‘Middle East respiratory syndrome (MERS)’, accessed 17 September 2021

28 Q705

29 Independent review, *The 2009 Influenza Pandemic: An independent review of the UK response to the 2009 influenza pandemic*, July 2010, page 47

30 Department of Health, *Pandemic Flu: A national framework for responding to an influenza pandemic*, November 2007

31 GOV.UK, *Coronavirus: action plan*, March 2020, paragraph 4.1

The problem with Project Cygnus was [...] that it started from the assumption that we were going to have a pandemic flu that was already rampant and widespread. It was an exercise in what you would do in the period at which lots of people were already dying. What it did not ask were the prior questions, “What type of pandemic is most likely? What are the different characteristics of different pandemics”—flu or coronavirus being two obvious examples—“and can we act to stop getting into the position at which Project Cygnus started off?” Those are the prior questions that I think it is very important for everyone around the world to be asking as part of the lessons from this.³²

23. Another pandemic exercise, Winter Willow, was carried out in 2007. Exercise Winter Willow was five times larger than Exercise Cygnus with 5,000 participants. Winter Willow was more comprehensive than Exercise Cygnus in that its starting point was an announcement of a pandemic by the WHO, whereas Exercise Cygnus only simulated the treatment and escalation phases. Winter Willow identified four broad areas of improvement, under which lessons were identified: crisis management and coordination; public advice and communication; further policy development; and business continuity.

24. Despite carrying out simulation exercises, we heard that the UK did not adequately learn the lessons of previous pandemics.³³ In particular, the SARS and MERS outbreaks contained lessons that the UK could have learnt at an earlier stage. The handling of the covid-19 pandemic in Asia illustrates the value of learning those lessons from SARS and MERS. For example, Professor David Heymann, Professor of Infectious Disease Epidemiology at the London School of Hygiene and Tropical Medicine (LSHTM), told us:

One of the issues in Asia, as you said, was that they had SARS and also a MERS coronavirus outbreak in South Korea, which killed 38 people from one importation of disease. They were well prepared. They learnt lessons and they applied those lessons between the current pandemic and SARS. They developed excess beds for hospitalisation and isolation. In all of those countries, those rooms have renal dialysis capacity and ventilation capacity. They learned and applied the lessons. By 20 January [2020], they were already detecting cases and responding to outbreaks that were occurring.³⁴

25. However, it was not just Asia that learnt from its previous experiences. Professor Devi Sridhar, Chair of Global Public Health at the University of Edinburgh, told us that Europe and the United States had been complacent in their reaction compared to west Africa:

One of the interesting things in February [2020] was the complacency across all rich countries, including the United States, about this virus. The worst thing people could think of was the flu, and the flu kills a lot of people. That is why we got the whole idea and obsession that it was just like a bad flu, whereas in places like west Africa they redeployed their post-Ebola structures towards Covid structures because they knew that an infectious disease can run through society, shut down your schools and hospitals, stop vaccination campaigns and paralyse society for months. There is a sense of

32 Q510

33 Qq706–708

34 Q114

complacency because in European countries or in North America we have not seen infectious diseases cause destruction in the way they have been doing on an ongoing basis in poorer countries, who reacted much faster.³⁵

26. While Asia and west Africa used their learnings from more recent diseases, the UK deployed its Influenza Preparedness Strategy 2011 as the basis of its early response to covid-19. The former Cabinet Secretary, Lord Sedwill, confirmed this:

Essentially, we took the pandemic flu plan and tried to adapt it for Covid-19. Obviously, the adaptation of that plan continued as we learnt more about the disease. [...] for several months the scientists did not know about asymptomatic transmission, and therefore the focus in the early stages was on measures—social controls, social interventions—to try to impede transmission between people who were symptomatic and to identify early those who were symptomatic.³⁶

There were also other aspects of the UK's preparations that helped. Lord Sedwill pointed out that the Coronavirus Act 2020³⁷ had its genesis in a draft influenza Bill which had been recommended by Exercise Cygnus.³⁸

27. The former Chief Medical Officer for England, Professor Dame Sally Davies, told our inquiry:

Quite simply, we were in groupthink. Our infectious disease experts really did not believe that SARS, or another SARS, would get from Asia to us. It is a form of British exceptionalism.³⁹

Dame Sally went on to tell us that more challenge was needed in the thinking of future risks:

We need to open up and get some more challenge into our thinking about what we are planning for [...] In thinking through what could happen, it would be well worth bringing in people from Asia and Africa to think about that as well, to broaden our experience and the voices in the room.⁴⁰

The machinery of decision-making

28. COBR—named after the Cabinet Office Briefing Rooms—is the high-level body that coordinates the central Government response to national emergencies. COBR brings together Ministers and senior officials from relevant UK Government departments and agencies along with representatives from other relevant organisations. SAGE, via its co-chairs, feeds into COBR.⁴¹ On 29 June 2020, the Government updated its list of Cabinet Committees.⁴² Cabinet Committees are sub-groups of the Cabinet. Covid-19 Strategy

35 [Q491](#)

36 [Q744](#)

37 The Public Administration and Constitutional Affairs Committee has published a report on [Parliamentary Scrutiny of the Government's handling of Covid-19](#), which includes the Coronavirus Act 2020

38 [Q753](#)

39 [Q716](#)

40 [Q733](#)

41 There is no public record of how many times COBR met in response to covid-19. The Scottish government has published the COBR meetings it was invited to: Scottish Government, [Written question](#), 12 May 2020

42 GOV.UK, [List of Cabinet Committees](#), accessed 17 September 2021

(Covid-S), a Cabinet Committee chaired by the Prime Minister, looked at the strategic response and the recovery strategy. Covid-19 Operations (Covid-O), a Cabinet Committee chaired by the then Chancellor of the Duchy of Lancaster and Minister for the Cabinet Office, Rt Hon Michael Gove MP, focussed on the delivery and operational response to covid-19.

29. We heard evidence that during the pandemic, COBR was not functioning as effectively as it should have been. Dominic Cummings, former assistant to the Prime Minister, told us that there were leaks from COBR meetings.⁴³ Mr Cummings also told us that the meetings were not conducive for situations that required technology and data:

The Cobra system, as some people will know, is what is called a STRAP environment. That means that it is an environment where you don't have phones. You cannot just take in laptops. It is kept in a certain way, so that the intelligence services know that Russia, China, North Korea or whoever cannot smuggle things in. That kind of system is completely hopeless for a pandemic. This is why we all moved out of Cobra. We had to end up doing it literally in the Cabinet Room and just gerrymander iPads, TV screens and stuff in there, because you could not get the people with the laptops, the internet connections and the data that we needed to look at into the Cobra room, because the Cobra room is a STRAP 3 and above environment, which does not allow such things in. The whole wiring of how the Cabinet Office is set up to deal with this kind of crisis just fundamentally didn't work.⁴⁴

Mr Cummings went on to tell us that “we stopped doing the meetings in Cobra and from the week of the 9th [March 2020], the daily covid meetings were all in the Cabinet Room.”⁴⁵

30. Our inquiry heard that the organisation of preparedness for future emergencies was too thin at the top of Government and constantly prone to being sacrificed to the short-term demands that predominate in Government.⁴⁶

31. The designated body within the Government to manage the National Security Risk Assessment and the National Risk Register is the Civil Contingencies Secretariat (CCS) which assigns risks to lead Departments. We heard evidence that this approach to risk planning was not satisfactory. Alex Thomas, programme director at the Institute for Government and a former civil servant, told us that the plans do not reach into individual Government departments:

Risk planning was in a box marked “Civil Contingencies” in the centre of Government and did not reach into other Government Departments strongly or clearly enough. For example, that meant that the Department for Education was underprepared for even a flu pandemic and what might happen in schools, because foresight, anticipation and contingency planning capability was too low.⁴⁷

43 [Q978](#)

44 [Q1044](#)

45 [Q1107](#)

46 [Qq741-742](#)

47 [Q484](#)

We also heard that there were a range of other time pressures on Ministers and officials which limited their ability to prepare “insurance policies”.⁴⁸ Sir Oliver Letwin told us:

Particularly in a democracy, government—politicians, administrators, civil servants and so on—is completely preoccupied with trying to deal with things that are actually happening [...] The pressure to deal with real problems that are current is overwhelming. The result is that too little attention is paid, in every area, to building appropriate insurance policies against things that are uncertain, and working hard enough to identify all the things that might hit us and all the flexibilities and resilience we need to deal with them.⁴⁹

32. Sir Oliver also told us that during his time in Government, he had set up a new group comprised of officials tasked with identifying potential viruses that may impact the UK. Sir Oliver told us that these resources were redeployed elsewhere:

those people or their successors have been absorbed back into the generality of the CCS [Civil Contingencies Secretariat], and there was no scanning unit of that kind in place at the time this virus first came into partial view. That is quite an interesting, tiny example of the extent to which the mechanisms of government, even including the civil contingencies secretariat and the Cabinet Office itself, are inclined not to invest in long-term insurance and are more inclined to focus on the here and now. No doubt the people who were absorbed were absorbed into some important activity—just then—but that meant they were not available to do what could have been useful when we got there some years later.⁵⁰

33. To counter the issues of lack of time and resources for pandemic preparedness, Sir Oliver proposed setting up an external agency to survey potential threats and prepare for them:

I do not believe that we are anything like as well prepared for future problems as we could be if we were, as a nation, to have some external body that is not subject to the pressures that are on Whitehall’s Ministers and civil servants, that has its funding somehow enshrined in law, and has the sole task of looking at what is not happening but might happen, and to which we could respond better if we were better prepared to do so. At the moment, we do not have that sort of body, in common with very many other countries, and I think we lack it.⁵¹

Data sharing

34. One of the lessons from Exercise Cygnus (Lesson 17) was that: “The process and timelines for providing and best presenting data on which responders will make strategic decisions during an influenza pandemic should be clarified”.⁵² That lesson was in response to an issue identified in the build up to Exercise Cygnus relating to epidemiological data:

48 Q709

49 Q740

50 Q768

51 Q740

52 GOV.UK, *Exercise Cygnus report*, July 2017, page 31

The way in which epidemiological data is produced and disseminated to responding organisations required clarification. PHE was requested to produce a report listing the steps they would go through to provide information about the disease and the timelines for producing this information. They should also consider how these timelines can be reduced to provide the most rapid situation assessment to the response.⁵³

35. Exercise Winter Willow in 2007 also highlighted issues relating to data. The Winter Willow report said that “there is a need to improve linkages between established local and regional resilience structures and their equivalents in the National Health Service”.⁵⁴ The report continued:

The Exercise highlighted the need for the process for the collection of regular data and information at the local level, and its collation into reports to the centre, to be reviewed. There were several possible communication routes between local responders and the centre with the potential to lead to confusion.⁵⁵

36. We note that issues with data sharing arose early on in the covid-19 pandemic. In written evidence to the Science and Technology Committee, Sir Patrick Vallance, the Government Chief Scientific Adviser, highlighted these issues, including availability of data needed to inform advice to Ministers:

- It took until mid-February 2020 for data-sharing agreements to be signed between modellers;
- Data from NHS England was not initially accessible to all groups on SAGE’s modelling sub-group; and
- Data from NHS England was designed to be used for internal management. As such, data lacked granular detail.⁵⁶

Sir Patrick also summarised:

One lesson that is very important to learn from this pandemic, and for emergencies in general, is that data flows and data systems are incredibly important. You need the information in order to be able to make the decisions. Therefore, for any emergency situation those data systems need to be in place up front to be able to give the information to make the analysis and make the decisions.⁵⁷

37. Evidence taken by the Public Administration and Constitutional Affairs Committee (PACAC) also highlighted the issue of data flows between national and local organisations. Jeanelle de Gruchy, then President of the Association of Directors of Public Health, said:

[...] in the early days what happened is that a number of systems were set up outwith either the emergency planning system or the public health systems.

53 GOV.UK, *Exercise Cygnus report*, July 2017, page 32

54 Department of Health, *Exercise Winter Willow: Lessons Identified*, December 2007, page 11

55 Department of Health, *Exercise Winter Willow: Lessons Identified*, December 2007, page 12

56 Written evidence submitted to the Science and Technology Committee, Sir Patrick Vallance, UK Government Chief Scientific Adviser, (C190111)

57 Oral evidence taken before the Science and Technology Committee on 16 July 2020, HC (2019–21) 136, Q1043

What you had is, for instance, a testing system set up outside that and there was no way in which those test results could easily flow into the public health system. Because different systems were being set up in silos outwith the public health or emergency response systems that we had, there were technical issues of different data systems that were not speaking to each other. That was certainly a problem.

Secondly, there was definitely a sense of, “You do not really need that data at a local level,” and use of information governance where you had to justify. You had to make a case for why you needed the data. There was a lot of energy going into why we needed that data and having to make a case for it, when in the middle of an epidemic that should have been clear. The case should have been that local directors of public health needed that data and local systems needed that data to be effective in our response. I think it is a combination of both.⁵⁸

The Greater London Authority also said that local authorities were an afterthought in the designs for data sharing:

Throughout the crisis, there has been a strong sense that local authorities and other local public services have consistently been omitted from central Government’s initial thinking on designs for data sharing.

This has manifested itself in challenges related to shielding lists, volunteering, testing data and tracing of complex cases, plus difficulties in accessing relevant data about people who are furloughed or economically vulnerable. And also the need for bodies such as the GLA to publish a wide range of regional reporting to provide greater transparency to stakeholders such as the media, civil society and the public.⁵⁹

38. The lack of data flows between national and local organisations was most acutely brought to the fore early in the pandemic with Test and Trace. Speaking in November 2020, Jeanelle de Gruchy told the PACAC:

I think directors of public health would say that if we had had all the data we have now in July or earlier, we would have had a stronger response to the epidemic. They would not, in some ways, share the nationally held data with us, even though there was lots of agitation about wanting to get the data. That was very slow. When it did start to come through, again it was only certain types of data that were coming through. This was on test and trace. We started to get more of that kind of data in June and early July, but it was only from early August that we had patient-identifiable data. In other words, names or ways in which we could understand who was getting infected and where and whether there were links between people.

58 Oral evidence taken before the Public Administration and Constitutional Affairs Committee on 5 November 2020, HC (2019–21) 803, Q56

59 Written evidence submitted to the Public Administration and Constitutional Affairs Committee, Greater London Authority and the London Office of Technology & Innovation at London Councils, (DTA24)

It was into later August that we were getting the datasets we had been asking for, the negative testing data. We were just getting positive cases rather than how many people were being tested and coming up negative so that we could understand how many negative tests there were.

In all of that time, a lot of energy and effort was having to be put in to ask for the data, to make a case for the data and to try to improve the data flows.⁶⁰

Further, local directors of public health were not given access to NHS Test and Trace's central repository of positive cases. Greg Fell, Director of Public Health, Sheffield City Council, told the Science and Technology Committee about access to the Contact Tracing and Advice Service (CTAS):

From April/May when it [NHS Test and Trace] was established to approximately September/October. Basically, when we stood up our local contact tracing service, which from memory was in early October, we had access to CTAS. Most of us have been asking for it for quite a considerable time. The problem in the main was technical rather than a political block.⁶¹

The National Audit Office has said that "timely sharing of data has not always occurred" and highlighted the early issues around Test and Trace and shielding.⁶²

39. On 10 May 2020, months after the pandemic hit the UK, the Prime Minister announced the creation of the Joint Biosecurity Centre (JBC).⁶³ The JBC's stated aim was to "provide evidence-based, objective analysis, assessment and advice to inform local and national decision-making in response to covid-19 outbreaks."⁶⁴ It does this by bringing together different datasets, including cases by local authority, testing data by geography, number of outbreaks reported to PHE from local settings such as schools, hospitals or prisons, and the international situation. Dr Clare Gardiner, then Director of the Joint Biosecurity Centre, told us in October 2020 that work had been undertaken to improve data sharing, including its timeliness, with local authorities:

Test and Trace colleagues and Public Health England colleagues have been working incredibly hard over the summer, particularly since May and June, to get as much data in as timely a fashion as they can to local colleagues.⁶⁵

40. It is evident that the sharing of granular data is critical to an effective response to an emergency. We heard evidence that this did not materialise in the covid-19 pandemic and instead, early efforts to analyse the pandemic were "hampered".⁶⁶

60 Oral evidence taken before the Public Administration and Constitutional Affairs Committee on 5 November 2020, HC (2019–21) 803, Q55

61 Oral evidence taken before the Science and Technology Committee on 27 January 2021, HC (2019–21) 136, Q1819

62 National Audit Office, *Initial learning from the government's response to the COVID-19 pandemic*, May 2021, page 20

63 GOV.UK, 'Prime Minister's statement on coronavirus', accessed 17 September 2021

64 GOV.UK, 'Joint Biosecurity Centre', accessed 17 September 2021

65 Q188

66 Q1280

The use of the Armed Forces and volunteers

41. Our inquiry found that many of the deficiencies of the UK's response to covid were operational and logistical rather than scientific—such as in the repeated inadequacies of the testing system. Witnesses to our inquiry were clear about the value of the Armed Forces in supporting emergency responses. For example, Sir Oliver Letwin told us:

My view is that the armed forces are the place in Britain that is overwhelmingly best equipped to deal with logistical problems of the kind you are almost certain to face when unknown things happen to you on a major scale [... ..] I strongly believe that the lesson of all this is that, rather than relying on Serco—I do not mean to besmirch a particular firm—or other private sector providers, or just local authorities, or just Ministries, we need systems in place that mean that flexible responses, where they involve complex rapid logistics in the face of uncertainty, typically bring the Army in, and in a way that we have pre-co-ordinated. I do not believe we have done enough of that kind of planning yet.⁶⁷

Similarly, Lord Sedwill also explained that the Government “sent an awful lot of Army planners into DHSC to help it in the early days of this, for exactly the reasons [Sir Oliver] said”.⁶⁸ Sir Simon Stevens, then Chief Executive Officer of NHS England (now Lord Stevens of Birmingham), also highlighted the role of the Armed Forces in supporting the NHS's response to covid-19:

[The Armed Forces] have played a fantastic role alongside our NHS staff [...] we have selectively been able to benefit from some of the logistics expertise of the armed forces [...] At the moment, we have about 1,800 people from the armed forces working alongside [NHS staff].⁶⁹

42. In particular, the Armed Forces have supported the Government's mass testing programme and the roll-out of covid-19 vaccines. For example, 2,000 Armed Forces personnel were deployed to Liverpool to support mass testing in November 2020, and 320 Armed Forces personnel were deployed to Kent to support the mass testing of hauliers over Christmas 2020.⁷⁰ To support the vaccination programme, military planners were deployed to the Vaccine Taskforce, while other Armed Forces personnel have been deployed to support the logistics of vaccine deployment.⁷¹

43. Sir Oliver Letwin suggested that there should be better “pre-coordinated” plans so that the use of the Armed Forces in emergency situations was better planned for in resource terms.⁷²

67 Q750

68 Q753

69 Q940

70 Department of Health and Social Care, ‘Liverpool to be regularly tested for coronavirus in first whole city testing pilot’, accessed 17 September 2021; Ministry of Defence, ‘COVID Support Force: the MOD's continued contribution to the coronavirus response’, accessed 17 September 2021

71 Ministry of Defence, ‘Armed Forces now working in hospitals, vaccine centres, and testing across all four nations’, accessed 17 September 2021

72 Q750

44. Many members of the public have also played an important role as volunteers. During the first wave of the pandemic, for example, over 750,000 people signed up to the NHS's call for volunteers, against an initial target of 250,000.⁷³ Sir Simon Stevens highlighted the role of volunteers supporting the roll-out of covid-19 vaccines and supporting NHS community care during the pandemic:

Because of the particular handling properties of the Pfizer-BioNTech vaccine, we could not have just distributed it to all 7,000 GP practices or 9,000 pharmacies in England and said, "Off you go." [...] We have supplies nationally; fair distribution across the country; local mobilisation, including of volunteers, such as the St John's Ambulance [...]

Fortunately, not just friends and neighbours but volunteers, and the role of local authorities through the Local Resilience Forums, have played a big part in helping people at home.⁷⁴

45. However, witnesses also emphasised the administrative burden involved in rapidly vetting large numbers of volunteers. For example, Emily Holzhausen, Director of Policy at Carers UK, stated:

Of course things have to work quite quickly and there needs to be a proportionate response, making sure that the people we have operating are bona fide, but at the same time making sure that we get those volunteers out quite quickly.⁷⁵

The preparedness of the NHS

46. The NHS went to extraordinary lengths to ensure that there was enough critical care capacity for people hospitalised with covid-19. In evidence to the Health and Social Care Committee in March 2020, Sir Simon Stevens set out some of the steps the NHS was taking to increase that capacity:

We have 3,700 critical care beds in play for adults at the moment and, obviously, as part of our readiness for the likely influx of more coronavirus patients, we are going to be taking concerted action across the whole of the NHS to free up to a third of the general and acute beds. We want to enable perhaps 30,000 of the 100,000 general and acute beds to be available for coronavirus patients.⁷⁶

47. Beginning in March 2020, the Government and the NHS increased capacity with the opening of Nightingale hospitals across the country, the return of thousands of former NHS staff, and the re-deployment of nearly 20% of existing NHS staff during the pandemic.⁷⁷ This latter point was signalled as particularly important by the then Secretary

73 NHS England, 'NHS army of volunteers to start protecting vulnerable from coronavirus in England', accessed 17 September 2021

74 Q913, Q928

75 Oral evidence taken before the Health and Social Care Committee on 26 March 2020, HC (2019–21) 36, Q278

76 Oral evidence taken before the Health and Social Care Committee on 17 March 2020, HC 36 (2019–21), Qq.119–124

77 NHS England, 'NHS steps up coronavirus fight with two more Nightingale Hospitals', accessed 17 September 2021; NHS England, 'Thousands of former NHS staff are back on the front line in the NHS fight against coronavirus', accessed September 2021, Survey Coordination Centre, [NHS Staff Survey 2020, March 2020](#)

of State for Health and Social Care who acknowledged that the physical capacity built up through the Nightingales relied on the availability of staff.⁷⁸ As the Nightingale hospitals were not extensively used it is difficult to evaluate their true effectiveness. Nonetheless, the speed at which they were created is remarkable.

48. As well as the establishment of the Nightingale hospitals, the NHS acted quickly to increase ventilator capacity, supported by the Government's ventilator challenge to the manufacturing and medical devices industries to produce new ventilators.⁷⁹ Sir Simon Stevens stated that the NHS began the pandemic with 8,175 ventilators (including those repurposed from the private sector and elsewhere) and procured an additional 3,799, which were supplemented by 14,000 additional machines produced through the Ventilator Challenge.⁸⁰

49. This meant the UK largely avoided scenes seen elsewhere around the world of hospitals running out of intensive care beds, albeit with clinicians having to make difficult decisions under intense pressure about who would benefit from intensive care. Initial guidance to clinicians based on the Clinical Frailty Scale was insufficient and had serious consequences, such as for people with learning disabilities discussed later in this Report. However, this guidance was quickly updated and Sir Simon Stevens stated again in January 2021 that no one who would clinically benefit was being denied intensive care or ventilator support.⁸¹ The NHS's ability to respond in this manner demonstrated some aspects of effective preparation. For example, former Chief Medical Officer Professor Dame Sally Davies told us that as a result of Exercise Cygnus the UK "had already prepared for asking staff who had just retired to come back and for how that would work".⁸² This was echoed by former Cabinet Secretary Lord Sedwill.⁸³

50. Sir Simon Stevens praised the flexibility of NHS staff in responding in this manner:

[P]eople, under the most difficult circumstances, have all pitched in with incredible esprit de corps while recognising, frankly, that people across the health service are tired, stressed and frustrated.⁸⁴

However, while Sir Simon stated there were generally few barriers to redeploying staff in this fashion, he did highlight that in normal times it is difficult for NHS staff to develop an adjunct clinical discipline, or to switch specialties or sub-specialties mid-career, despite this being beneficial both for flexible staffing in the NHS and the professional and personal development of staff.⁸⁵

51. The rapid response of the NHS required a significant amount of resources to be repurposed from elsewhere in the system. As the Health and Social Care Committee found in its Report on *Delivering core NHS and care services during the pandemic and beyond*, there has been a "a substantial increase in the number of missed, delayed and

78 Oral evidence taken before the Health and Social Care Committee on 7 January 2021, HC 1121 (2019–21), Q18

79 GOV.UK, 'Ventilator Challenge hailed a success as UK production finishes', accessed 17 September 2021

80 Oral evidence taken before the Health and Social Care Committee on 17 March 2020, HC 36 (2019–21), Qq.124; GOV.UK, 'Ventilator Challenge hailed a success as UK production finishes', accessed 17 September 2021

81 Q867; Letter from the Minister of State for Care to the Chair of the Health and Social Care Committee, 27 November 2020; Sir Simon Steven's claim has been rebutted by Jonathan Calvert and George Arbuthnott in a March 2021 investigation in the *Sunday Times*.

82 Q727

83 Q753

84 Q903

85 Q904

cancelled appointments across essential non-COVID related services.⁸⁶ That Report also found that some areas of care, such as dentistry, were particularly badly affected because of the prevalence of aerosol-generating procedures during routine care.⁸⁷

52. Lord Sedwill and Professor Dame Sally Davies both argued that although the NHS responded well, there was a need to scale back radically usual activity because of the norm for the NHS to run “hot”. For example, Dame Sally told us:

Everyone in the room was used to and aware of the fact that the NHS runs, as I call it, hot in the winter [...] because of winter infections, particularly with a bad seasonal flu, and can almost fall over [...] [If] you look at Europe, we are in the bottom half dozen for number of doctors per head of population, number of hospital beds per head of population and number of ITU beds per head of population. We clearly had a less resilient system.⁸⁸

53. This was echoed in written evidence from organisations including the Royal College of Midwives (RCM), who suggested that the NHS was short of over 3,000 midwives and that 40% of RCM members worked three or more hours of unpaid overtime every week, suggesting that the NHS had been “reliant upon the goodwill of those who staff the system.”⁸⁹ These pressures in midwifery were seen in the disruption to some maternity services including freestanding midwifery units, acknowledged by Sir Simon Stevens.⁹⁰

54. The Nuffield Trust, similarly, stated:

The NHS entered the pandemic in a more fragile state than some other countries’ healthcare systems, running near the limit of bed capacity and with serious staffing shortages. This long term lack of a buffer in resources means coping with and recovering from shocks is more difficult.⁹¹

55. Moreover, the Nuffield Trust also highlighted the impact of low levels of capital investment on the NHS’s ability to respond to the pandemic, particularly in terms of infection prevention and control:

The fact that the UK trails most other countries in capital investment means many parts of the NHS are working with outdated buildings, and will be challenged to take steps such as separate Covid and non-Covid wards which could allow expanded activity while maintaining infection control.⁹²

86 Health and Social Care Committee, *Second Report of Session 2019–21, Delivering core NHS and care services during the pandemic and beyond*, HC 320, para 23

87 Health and Social Care Committee, *Second Report of Session 2019–21, Delivering core NHS and care services during the pandemic and beyond*, HC 320, para 56

88 Q738

89 Royal College of Midwives (CLL0073)

90 Q872

91 The Nuffield Trust (CLL0087)

92 The Nuffield Trust (CLL0087)

This challenge was also highlighted in written evidence, including by the Healthcare Infection Society, who stated:

Ventilation, spacing and isolation facilities in most areas of hospitals were not compliant with recommendations in Health Building Notes (HBN) and Health Technical Memoranda (HTM). No practical solutions were available to address this.⁹³

56. These impediments to effective infection prevention and control made it more difficult for the NHS not only to see patients physically, but also led to widespread restrictions on people accompanying patients, like birth partners or, as we note elsewhere, advocates for people with learning disabilities.⁹⁴ The Healthcare Infection Society also highlighted the issue of bed capacity and staff levels on infection prevention and control (IPC) grounds, not just the delivery of critical care:

Bed occupancy was chronically high with relatively low staffing ratios of qualified staff and an inadequate number of side rooms in most hospitals. These are undesirable in IPC terms. Not only are infections more likely to spread and be more difficult to control, but the deficiencies hinder the ability to respond to unusual IPC challenges.⁹⁵

57. Sir Simon Stevens summed up the broader issue of managing NHS capacity during a health crisis in his evidence to us in January 2021:

Should we try to build more resilience into public services rather than running everything to the optimum just-in-time efficiency? I think that is one of the big lessons from the pandemic. We talked a bit about it earlier in respect of extended supply chains versus domestic manufacturing capacity, but that is just one instance of the broader point, which is that resilience requires buffer, and buffer can look wasteful until the moment when it is not.⁹⁶

Conclusions and recommendations

Conclusions

58. **The UK has established procedures and structures to prepare for the nation's major future risks, including a National Risk Register, the Civil Contingencies Secretariat and the Scientific Advisory Group for Emergencies (SAGE). However, the anticipated future risk of pandemic disease focused too closely on influenza rather than diseases like SARS and MERS that had in recent years appeared in Asian countries.**

59. **Previous exercises to test the national response capability, namely Exercises Cygnus and Winter Willow, did not squarely address a disease with the characteristics of covid-19. Nevertheless, some useful lessons were learned and applied, such as the drafting of legislative measures that might be needed.**

93 Healthcare Infection Society (CLL0071)

94 Q872; Paragraphs 318–19

95 Healthcare Infection Society (CLL0071)

96 Q941

60. The operation of COBR was not well-suited to the modern demands of a pandemic response. It is especially concerning that its culture of confidentiality was considered by some to be so unreliable that alternative meetings were arranged that could command greater confidentiality among participants.

61. The Civil Contingencies Secretariat did not have adequate resources to maintain a substantial standing capability to survey the development of potential threats, and it had a limited reach into the range of Government departments required to respond to a pandemic. The experience has been that this investment in resilience is at risk of being trumped by the day-to-day pressures of Government.

62. Protocols to share data between public bodies involved in the response were too slow to establish and to become functional. This was especially true in the data flows from national to local government.

63. The NHS responded quickly and strongly to the demands of the pandemic, but compared to other health systems it “runs hot”—with little spare capacity built in to cope with sudden and unexpected surges of demand such as in a pandemic.

Recommendations and lessons learned

64. *A greater diversity of expertise and challenge—including from practitioners from other countries and a wider range of disciplines—should be included in the framing of the National Risk Register and the plans that emanate from it. Plans for the future should include a substantial and systematic method of learning from international practice during the course of an emergency.*

65. *A standing capability should be established in Government, or reporting to it, to scan the horizon for future threats, with adequate resource and counting on specialists with an independence from short-term political and administrative pressures.*

66. *The Government should ensure comprehensive plans are made for future risks and emergencies. The UK should aim to be a world leader in co-ordinating international resilience planning, including reform of the World Health Organisation to ensure that it is able to play a more effective role in future pandemics.*

67. *The resourcing and capabilities of the Civil Contingencies Secretariat should be improved. The Civil Contingencies Secretariat should be empowered to ‘stress test’ plans and to ensure that Departments are able to carry out a contingency plan if required. The details and results of these stress tests should be included in the Cabinet Office’s annual report.*

68. *Arrangements should be established and tested to allow immediate flows of data between bodies relevant to an emergency response with a mechanism to resolve immediately and decisively any disputes.*

69. *The Armed Forces should have a more central and standing role in preparing for and responding to emergencies like pandemics, given the depth of capability and experience they have in planning, logistics and rapid mobilisation. The Civil Contingencies Secretariat should work with the Armed Forces to improve operational expertise in emergencies in public bodies.*

70. *The Government and the NHS should consider establishing a volunteer reserve database so that volunteers who have had appropriate checks can be rapidly called up and deployed in an emergency rather than needing to begin from scratch.*
71. *The experience of the demands placed on the NHS during the covid-19 pandemic should lead to a more explicit, and monitored, surge capacity being part of the long term organisation and funding of the NHS.*
72. *The NHS should develop and publish new protocols for infection prevention and control in pandemics covering staffing, bed capacity and physical infrastructure. In developing these protocols the NHS should consider the importance of maintaining access for people accompanying some patients such as advocates for people with learning disabilities and birthing partners.*
73. *Comprehensive analysis should be carried out to assess the safety of running the NHS with the limited latent capacity that it currently has, particularly in Intensive Care Units, critical care units and high dependency units.*
74. *Building on the experience of staff working more flexibly during the pandemic and to enable more flexible staffing in the NHS, NHS England and Health Education England should develop proposals to better enable NHS staff to change clinical specialty mid-career and train in sub-specialties.*

3 Lockdowns and social distancing

75. Much of the impact of covid-19 during the first wave was determined by decisions made during the early weeks of the pandemic, between January and late March 2020. The seriousness of the threat to the UK was recognised in January when the Government's Scientific Advisory Group for Emergencies—SAGE—was convened and met on 22 January 2020.⁹⁷ It is important to record that all decisions taken during those initial weeks were taken in a fog of uncertainty. The UK did not know to what extent covid-19 had entered the country, how many people it was affecting, how quickly it would spread, and what would be the consequences in terms of illness and death. What the UK did know was bleak: from the experience of China and Italy, it was clear that covid-19 was a highly infectious virus, with profound consequences for health, and for which there was no cure nor effective treatments. This meant that the only tools available to affect the spread of the pandemic were isolating people who had contracted the virus and their contacts, and, more generally restricting contacts between people, collectively known as non-pharmaceutical interventions, or NPIs.

76. The veil of ignorance through which the UK viewed the initial weeks of the pandemic was partly self-inflicted. As we examine in depth in Chapter 4, the UK failed to turn an early lead in developing a test for covid in January 2020 into a testing operation that was adequate for the needs of the country—depriving scientists and policymakers of crucial granular data. Our Committees heard that the UK did not take enough advantage of the learning and experience being generated in other countries, notably in East Asia.⁹⁸ The approach the UK took was particular, and in some respects exceptional.

77. The initial UK policy was to take a gradual and incremental approach to introducing non-pharmaceutical interventions. A comprehensive lockdown was not ordered until 23 March 2020—two months after SAGE first met to consider the national response to covid-19.⁹⁹ This slow and gradualist approach was not inadvertent, nor did it reflect bureaucratic delay or disagreement between Ministers and their advisers. It was a deliberate policy—proposed by official scientific advisers and adopted by the Governments of all of the nations of the United Kingdom.¹⁰⁰ It is now clear that this was the wrong policy, and that it led to a higher initial death toll than would have resulted from a more emphatic early policy. In a pandemic spreading rapidly and exponentially every week counted. The former SAGE participant Professor Neil Ferguson told the Science and Technology Committee that if the national lockdown had been instituted even a week earlier “we would have reduced the final death toll by at least a half”.¹⁰¹

78. As a result, decisions on lockdowns and social distancing during the early weeks of the pandemic—and the advice that led to them—rank as one of the most important public health failures the United Kingdom has ever experienced. This happened despite the UK

97 GOV.UK, ‘Precautionary SAGE 1 minutes: Coronavirus (COVID-19) response, 22 January 2020’, accessed 17 August 2021

98 See, for example: Q114, Q473, Q716, Q746 and Q1227

99 GOV.UK, ‘Prime Minister’s statement on coronavirus (COVID-19): 23 March 2020’, accessed 17 August 2021

100 See, for example: On 16 March SAGE advised “that there is clear evidence to support additional social distancing measures be introduced as soon as possible”—GOV.UK, ‘SAGE 16 minutes: Coronavirus (COVID-19) response, 16 March 2020’, accessed 17 August 2021

101 Oral evidence taken before the Science and Technology Committee on 10 June 2020, HC (2019–21) 136, Q883

counting on some of the best expertise available anywhere in the world, and despite having an open, democratic system that allowed plentiful challenge. Painful though it is, the UK must learn what lessons it can of why this happened if we are to ensure it is not repeated.

The initial policy: flattening the peak

79. There has been considerable debate as to whether the early policy of the Government was one of seeking to achieve so-called “herd-immunity”. The US Centres for Disease Control and Prevention defines community immunity/herd immunity as:

A situation in which a sufficient proportion of a population is immune to an infectious disease (through vaccination and/or prior illness) to make its spread from person to person unlikely. Even individuals not vaccinated (such as newborns and those with chronic illnesses) are offered some protection because the disease has little opportunity to spread within the community. Also known as herd immunity.¹⁰²

80. Non-pharmaceutical interventions such as lockdowns, and the testing and isolation of covid cases and their contacts, are tools of temporary application. Once they are lifted, there is nothing to stop transmission resuming. When Sir Patrick Vallance said at a Government press conference on 12 March 2020 “it’s not possible to stop everybody getting it and it’s also actually not desirable because you want some immunity in the population. We need to have immunity to protect ourselves from this in the future”¹⁰³ he was, in a sense, merely stating what were thought to be the facts of the time. Sir Patrick, and Ministers, have insisted that this statement was not a policy to seek herd immunity but a description of the situation. Matt Hancock wrote, as Secretary of State, on 14 March 2020:

We have a plan, based on the expertise of world-leading scientists. Herd immunity is not a part of it. That is a scientific concept, not a goal or a strategy. Our goal is to protect life from this virus, our strategy is to protect the most vulnerable and protect the NHS through contain, delay, research and mitigate.¹⁰⁴

81. From our evidence this appears to have led to a policy approach of fatalism about the prospects for covid in the community: seeking to manage, but not suppress, infection. This amounted in practice to accepting that herd immunity by infection was the inevitable outcome, given that the United Kingdom had no firm prospect of a vaccine, limited testing capacity and there was a widespread view that the public would not accept a lockdown for a significant period.¹⁰⁵ That said, an initial unwillingness to consider seriously and act on the approach being taken in Taiwan, Singapore or Korea was a serious error. But even without an effective test and trace system earlier, social distancing and locking down would have bought much-needed time: time for vaccine research to bear fruit; time for treatments to be developed that could mean that experiencing covid-19 was less serious; time for test and trace systems to be developed and made effective so that the prevalence of the disease could be lowered without the entire population being restricted. The loss of

102 US Centres for Disease Control and Prevention, ‘glossary’, accessed 17 September 2021

103 10 Downing Street YouTube Channel, ‘UK Prime Minister Boris Johnson holds a press conference on coronavirus: 12 March 2020’, timestamp 10:43, accessed 17 August 2021

104 The Telegraph, *We must do everything in our power to protect lives*, Matt Hancock, 14 March 2020

105 See paragraphs 108–111

that time was to prove fatal to many. It would, however, be an overstatement to say that the Government and its advisers were promoting the acquisition of covid-19 to accelerate herd immunity in the population. But, in early Spring 2020, given that no alternative strategy was being implemented, that was the effective consequence. It was principally the threat of the NHS being overwhelmed that forced—belatedly—a change in direction.

82. So in the absence of a vaccine or an effective treatment being available at first, the UK faced a choice of doing everything possible to halt the virus, or seeking instead to moderate the pace of its spread. The UK chose the latter.¹⁰⁶

83. Even as late as 12 March 2020, as noted in paragraph 80, Sir Patrick Vallance, Government Chief Scientific Adviser, told a Government press conference that it was not possible to stop everyone being infected, and nor was that a desirable objective. The following day in a media interview Sir Patrick said that the aim of policy was:

To try and reduce the peak, broaden the peak, not to suppress it completely. Also, because most people, the vast majority of people, get a mild illness, to build up some degree of herd immunity as well so that more people are immune to this disease and we reduce the transmission at the same time we protect those who are most vulnerable from it. Those are the key things we need to do.¹⁰⁷

This reflected the views of the 23 people who participated in the SAGE meeting on 13 March, where the Group “was unanimous that measures seeking to completely suppress spread of Covid-19 will cause a second peak.”¹⁰⁸ In practice this meant that social distancing policies were introduced gradually over a period of weeks.

84. The Government’s action plan of 3 March indicated that there was no intention to bring in a lockdown as strict as had been implemented in some other parts of the world. The action plan, under the heading ‘the Delay phase - next steps’ said:

Action that would be considered could include population distancing strategies (such as school closures, encouraging greater home working, reducing the number of large-scale gatherings) to slow the spread of the disease throughout the population, while ensuring the country’s ability to continue to run as normally as possible.¹⁰⁹

That approach meant that events that may have spread the virus proceeded—such as the football match between Liverpool FC and Atletico Madrid on 11 March—the day the coronavirus was categorised as a pandemic by the WHO—with a reported crowd of over 50,000¹¹⁰ and the Cheltenham Festival of Racing between 10 and 13 March, attracting more than 250,000 people.¹¹¹ Subsequent analysis suggested that there were an additional

106 Evidence to the Science and Technology Committee in June 2020 from Professor Johan Giesecke, Former State Epidemiologist for Sweden and Professor Emeritus, Karolinska Institute, explained Sweden’s approach of a country asking individuals to change their behaviours without legislating for restrictions to be imposed. Q850

107 BBC Radio 4 Today, 13 March 2020—see Tweet by BBC Radio 4 Today (@BBCr4Today), 13/03/2020, 9.04am

108 GOV.UK, SAGE 15, 13 March 2020

109 GOV.UK, ‘Coronavirus: action plan’, accessed 17 September 2021

110 See, for example: ‘Liverpool vs Atletico Madrid: The Champions League match that should never have happened’, inews, 21 April 2020

111 ITV, ‘Coronavirus: Cheltenham festival and Liverpool Champions League game ‘likely increased suffering and death’, 26 May 2020, accessed 2 September 2021

37 and 41 deaths respectively at local hospitals after these events.¹¹² However, it is not clear whether those deaths were as a result of attendance at the events themselves or associated activities such as travel or congregation in pubs. The timeline at pages 11 and 12 of this Report sets out some key events in the UK's experience of handling covid-19.

85. At its meeting of 5 March 2020, SAGE reconfirmed an explicitly gradual approach:

There is epidemiological and modelling data to support implementation—within 1 to 2 weeks—of individual home isolation (symptomatic individuals to stay at home for 14 days) and whole family isolation (fellow household members of symptomatic individuals to stay at home for 14 days after last family member becomes unwell) to delay COVID-19 spread, modify the epidemic peak and reduce mortality rates.

In addition, there is scientific data to support implementation—roughly 2 weeks later—of social isolation (cocooning) for those over 65 or with underlying medical conditions to delay spread, modify the epidemic peak and reduce mortality rates.¹¹³

SAGE had, however, considered advice to take a more robust precautionary approach. It received a paper, one of three, from the London School of Hygiene and Tropical Medicine on the considerations for non-pharmaceutical interventions. The paper said, with moderate confidence, that “NPIs that reduce transmission substantially should be introduced later but before the peak.”¹¹⁴ The same paper stated that:

- Taking all into consideration, building up of NPIs in terms of intensity during the epidemic has many advantages:
 - It provides the opportunity for modification / improvement as we see the epidemic progress, i.e. it is robust to possible futures
 - It leaves room for policy modification during the epidemic, and avoids the situation in late summer if an epidemic has been curbed or greatly reduced that a larger epidemic is still expected.¹¹⁵

86. On 9 March 2020, SAGE set out a number of non-pharmaceutical interventions that could in due course be introduced by the Government. SAGE advised that “measures relating to individual and household isolation will likely need to be enacted within the next two weeks to be fully effective, and those concerning social distancing of the elderly and vulnerable 2–3 weeks after this”.¹¹⁶ On 12 March 2020, the Prime Minister said that anyone with a new continuous cough or a fever should self-isolate for seven days.¹¹⁷ Household isolation was announced on 16 March 2020.¹¹⁸

112 Edge Health, [Understanding the role of large gatherings on the NHS](#), 28 May 2020. The analysis states that their findings cannot be used to establish causality

113 GOV.UK, [SAGE 13](#), 5 March 2020

114 London School of Hygiene & Tropical Medicine, [Considerations for NPI Policy – timing and sub-national targeting](#), 5 March 2020

115 London School of Hygiene & Tropical Medicine, [Considerations for NPI Policy – timing and sub-national targeting](#), 5 March 2020

116 GOV.UK, [Potential impact of behavioural and social interventions on an epidemic of Covid-19 in the UK](#), 9 March 2020

117 GOV.UK, [Prime Minister's statement on COVID-19: 12 March 2020](#), accessed 17 September 2021

118 GOV.UK, [Prime Minister's statement on coronavirus \(COVID-19\): 16 March 2020](#), accessed 17 September 2021

87. It is striking, looking back, that it was accepted that the level of covid-19 infection in the UK could be controlled by turning on particular non-pharmaceutical interventions at particular times. Indeed such was the belief in this ability to calibrate closely the response that a forward programme of interventions was published with the suggestion that they would be deployed only at the appropriate moment.¹¹⁹ In hindsight it seems a dubious and risky assumption to think that a new, unknown and rampant virus could be regulated in such a precise way. Even more so when—due to the early failure to establish a meaningful testing programme—the UK had very little data on the prevalence and spread of the virus across different settings and different groups of people.

88. This was not the only way to proceed, and indeed the UK was an outlier internationally in the gradualist approach that was being taken before late March.¹²⁰ Countries in East Asia were the first to experience covid-19. Their response was a much more rapid and muscular imposition of social distancing and requirements to isolate.¹²¹

89. On 24 February the World Health Organisation published the report of its international mission to Wuhan, and advised that countries should:

- (1) Immediately activate the highest level of national Response Management protocols to ensure the all-of-government and all-of-society approach needed to contain COVID-19 with non-pharmaceutical public health measures;
- (2) Prioritize active, exhaustive case finding and immediate testing and isolation, painstaking contact tracing and rigorous quarantine of close contacts¹²²

The same report identified the virus as highly contagious, and with a prima facie case fatality rate of 3.8%, rising to over 20% among over 80s.¹²³

90. In evidence to the Science and Technology Committee on 25 March 2020, the Editor of The Lancet, Dr Richard Horton, said that his journal had published articles on 24, 29 and 31 January with an analysis of the situation in China.¹²⁴ He told the Committee:

Those papers were truly alarming and showed that the disease caused a serious fatal pneumonia. A third of patients who had been reported in those papers required admission to the intensive care unit. The number of deaths that were being described was rising quickly. The authors of the papers were advocating the immediate provision of personal protective equipment and were urging the importance of testing and isolation. They were describing the fact that there was no effective treatment and also emphasising the pandemic potential.

119 GOV.UK, SAGE 12, [Potential impact of behavioural and social interventions on an epidemic of Covid-19 in the UK](#), 9 March 2020

120 See footnote 108

121 See, for example: [Q113](#), [Q119](#) and [Q474](#).

122 World Health Organisation, [Report of the WHO-China Joint mission on Coronavirus Disease 2019 \(COVID-19\): 16–24 February 2020](#), p21

123 These were estimates of the fatality rate of covid-19 in February 2020

124 Oral evidence taken before the Science and Technology Committee on 25 March 2020, HC (2019–21) 136, [Q39](#)

Those were the people from the frontlines of the epidemic at the end of January. Many of us at The Lancet felt that that was a red flag. We have had seven to eight weeks since that time, and February was the opportunity for the UK to really prepare, based on testing, isolation, quarantine, physical distancing, ICU capacity and so on.

I think you described it as being critical and, yes, it was, in the sense that we missed that opportunity. We could have used the month of February, based on what we knew in January. When I look at the evidence that SAGE posted on the website—there is a lot of evidence and it is great that they have been so transparent—what strikes me is the mismatch between the urgent warning that was coming from the frontline in China in January and the, honestly, somewhat pedestrian evaluation of the likely severity of the outbreak in that evidence. That suggests to me that we did not fully understand what was taking place on the frontline. What I also did not understand is why those three papers were not part of the evidence. Those papers were fully available, openly accessible and published on 24 January, 29 January and 31 January. Why they were not part of the published papers that SAGE considered is somewhat mystifying.¹²⁵

Indeed, a number of European countries went into a national lockdown before the UK did. A national lockdown was announced in Italy on 9 March; in Spain on 14 March; in the Netherlands on 15 March; and in France on 16 March.¹²⁶

91. The UK policy was to change abruptly. During the days before 23 March, multiple people within the Government and its advisers experienced simultaneous epiphanies that the course the UK was following was wrong, possibly catastrophically so. In his evidence to our inquiry Dominic Cummings told us:

On Friday the 13th [of March 2020], we then started to look through all the information and we started to pick apart all the different graphs. Ben [a No. 10 Specialist Adviser] spoke to Patrick; Patrick said, "I am also extremely concerned. It seems that something has gone fundamentally wrong in the wiring of the system. We have these graphs showing that even on the best-case scenario with the official plan, you are going to completely smash through the capacity of the NHS—not by a little bit but multiple times."

The evening of Friday the 13th, I am sitting with Ben Warner and the Prime Minister's Private Secretary in the Prime Minister's study. We were basically saying that we are going to have to sit down with the Prime Minister tomorrow and explain to him that we think that we are going to have to ditch the whole official plan, and we are heading for the biggest disaster this country has seen since 1940.¹²⁷

125 Oral evidence taken before the Science and Technology Committee on 25 March 2020, HC (2019–21) 136, Q39

126 BBC, "Coronavirus: Italy extends emergency measures nationwide", 10 March 2020; BBC, "Coronavirus: Spain set to declare national lockdown", 14 March 2020; Metro, "Netherlands becomes latest country to go into lockdown in battle against coronavirus", 15 March 2020; France24, "Macron announces 15-day lockdown in French 'war' on coronavirus", 16 March 2020

127 Q1003

Mr Cummings went on to tell us that other senior officials were recognising that the UK's approach and epidemiological trajectory was on course for a "disaster":

At this point, the second most powerful official in the country, Helen MacNamara—the Deputy Cabinet Secretary—walked into the office while we are looking at this whiteboard. She says [...] I have come through here to the Prime Minister's office to tell you all that I think we are absolutely [expletive redacted]. I think this country is heading for a disaster. I think we are going to kill thousands of people. As soon as I have been told this, I have come through to see you. It seems from the conversation you are having that that is correct." I said, "I think you are right. I think it is a disaster. I am going to speak to the Prime Minister about it tomorrow. We are trying to sketch out here what plan B is."¹²⁸

Mr Cummings continued:

On the 14th [of March 2020] we said to the Prime Minister, "You are going to have to lock down, but there is no lockdown plan. It doesn't exist. SAGE haven't modelled it. DH [Department of Health and Social Care] don't have a plan. We are going to have to figure out and hack together a lockdown plan [...]"¹²⁹

When he gave evidence to us on 8 June 2021, the then Secretary of State for Health and Social Care told us that he had become aware prior to the national lockdown that the previous policy was inadequate:

I asked for a reasonable worst-case scenario planning assumption. I was given the planning assumption based on Spanish flu, and it was signed off at Cobra on 31 January. That was a planning assumption for 820,000 deaths. [...]

In the week beginning 9 March, what happened is that the data started to follow the reasonable worst-case scenario. By the end of that week, the updated modelling showed that we were on the track of something close to that reasonable worst-case scenario. I think the numbers were slightly below that, but they were of a scale that was unconscionable.¹³⁰

92. In evidence to the Science and Technology Committee in July 2020, Sir Patrick Vallance, said that SAGE advised the Government to implement the remainder of the menu of options for social distancing measures—in essence a full lockdown—on 16 or 18 March 2020:

When the SAGE sub-group on modelling, SPI-M, saw that the doubling time had gone down to three days, which was in the middle of March, that was when the advice SAGE issued was that the remainder of the measures should be introduced as soon as possible. I think that advice was given on 16 or 18 March, and that was when those data became available. Looking

128 Q1003

129 Q1006

130 Q1293

back, you can see that the data may have preceded that, but the data were not available before that. Knowledge of the three-day doubling rate became evident during the week before.¹³¹

On 16 March 2020, SAGE minutes show that the group concluded that additional measures, beyond those already in place, were required: “SAGE advises that there is clear evidence to support additional social distancing measures be introduced as soon as possible”.¹³² Sir Patrick explained that SAGE changed its advice on the basis that case numbers were doubling every three days, which was quicker than initially thought.¹³³ Moreover, at the same meeting, SAGE considered a paper from Imperial College London academics, *Impact of non-pharmaceutical interventions (NPIs) to reduce COVID19 mortality and healthcare demand*.¹³⁴ The paper concluded that “in an unmitigated epidemic, we would predict approximately 510,000 deaths in GB and 2.2 million in the US, not accounting for the potential negative effects of health systems being overwhelmed on mortality.”¹³⁵ It was widely reported that this paper was a key factor in the Government’s decision to impose a full lockdown.¹³⁶ SPI-M-O had also produced a consensus view that “general social distancing and school closures to case isolation, household isolation and social distancing of vulnerable groups would be likely to control the epidemic [...]”.¹³⁷

93. It seems astonishing looking back that—despite the documented experiences of other countries; despite the then Secretary of State referring to data with a Reasonable Worst Case Scenario of 820,000 deaths;¹³⁸ despite the raw mathematics of a virus which, if it affected two-thirds of the adult population and if one percent of people contracting it died would lead to 400,000 deaths—it was not until 16 March that SAGE advised the Government to embark on a full lockdown (having said on 13 March that “it was unanimous that measures seeking to completely suppress the spread of covid-19 will cause a second peak”)¹³⁹ and not until 23 March that the Government announced it.

Border controls

94. The UK did not impose blanket or rigorous border controls at the onset of the covid-19 pandemic as compared to other countries, particularly in East and South East Asia.¹⁴⁰ Instead, the UK implemented light-touch border controls only on countries and regions where there was a recorded high incidence rate. While the UK initially focused on China, Iran, South Korea and Italy, a significant number of cases came from elsewhere. A

131 Oral evidence taken before the Science and Technology Committee on 16 July 2020, HC (2019–21) 136, Q1079

132 GOV.UK, SAGE 16, 16 March 2020

133 Oral evidence taken before the Science and Technology Committee on 16 July 2020, HC (2019–21) 136, Q1079

134 Imperial College COVID-19 Response Team, *Impact of non-pharmaceutical interventions (NPIs) to reduce COVID19 mortality and healthcare demand*, 16 March 2020

135 Imperial College COVID-19 Response Team, *Impact of non-pharmaceutical interventions (NPIs) to reduce COVID19 mortality and healthcare demand*, 16 March 2020

136 For example, see: Financial Times, ‘The shocking coronavirus study that rocked the UK and US’

137 GOV.UK, SPI-M-O: consensus view on behavioural and social interventions, 16 March 2020

138 See paragraph 91.

139 GOV.UK, SAGE 15, 13 March 2020

140 For example, on 28 January 2020, all inbound travellers from Wuhan were subject to isolation; from 26 February 2020, Singapore banned all arrivals from Cheongdo and Daegu in South Korea; from 3 February 2020, Hong Kong began to close border crossing posts.

study found that 33% of cases during the first wave were introduced from Spain and 29% were introduced from France.¹⁴¹ The number of seeding events that occurred early in the pandemic, coupled with the lack of data, made the lockdown almost inevitable.

95. By contrast, other countries implemented more rigorous border controls which were more effective at suppressing the virus and preventing the need for long and repeated lockdowns. However, even though it is not straightforward to make direct comparisons between countries, and it is yet to be seen how countries like New Zealand will fare when their borders are opened, it is reasonable to say that a more precautionary approach would have been beneficial at the start of the pandemic.

Reasons for the delay in full lockdown

96. In the paragraphs that follow we consider some of the potential explanations of why the initial decision-making on lockdowns was wrong, and what lessons can be drawn for the future from this.

Should the Government have unilaterally taken a precautionary view in the first weeks, despite the SAGE advice?

97. The UK's structure of scientific advice in emergencies, in which a group is formed of relevant experts (SAGE) to advise the Government is a prominent feature of our arrangements—much more so than in many other countries. Initially, participation in SAGE was not disclosed, nor the papers on which its advice drew, nor the minutes of its meetings. Following pressure, including from the House of Commons Science and Technology Committee, and supported by the Government Chief Scientific Adviser Sir Patrick Vallance,¹⁴² details of papers considered by SAGE were published from 20 March 2020; the individuals participating in SAGE were published from 4 May 2020; and minutes from 29 May 2020.¹⁴³ Publication revealed that SAGE comprised a large number of scientific experts of high standing—over 85 individuals are listed as having participated in SAGE since its first meeting during the pandemic.¹⁴⁴

98. SAGE provides advice to Ministers, whose responsibility it is to make policy decisions. However, witnesses to our Committees confirmed that during the early months of the pandemic the Government acted on the scientific advice it was given. Sir Patrick Vallance, for example, told the Science and Technology Committee on 25 March 2020 that there had been no significant disagreement between the Government and its scientific advisers on anything material.¹⁴⁵

99. We accept that it is difficult for Ministers to go against a scientific consensus among the body set up to provide scientific advice during a national emergency. We also understand the reluctance to introduce measures with significant negative economic impact. But the

141 Imperial College London, 'COVID-19 transmission chains in the UK traced back to Spain, France and Italy', accessed 17 September 2021

142 Rt Hon Greg Clark MP, Chair, Science and Technology Committee (Qq75–76); Correspondence from the Chair to Sir Patrick Vallance, Chief Scientific Adviser, relating to SAGE Membership, 30 March 2020; and correspondence from Sir Patrick Vallance, Chief Scientific Adviser, relating to transparency of scientific evidence: social distancing, 28 May 2020

143 Science and Technology Committee, First Report of Session 2019–21, *The UK response to covid-19: use of scientific advice*, HC 136, paragraphs 55 and 71–72

144 GOV.UK, 'List of participants of SAGE and related sub-groups', accessed 17 August 2021

145 Oral evidence taken before the Science and Technology Committee on 25 March 2020, HC (2019–21) 136, Q81

early weeks of the pandemic expose deficiencies in both scientific advice and Government action. In the early days of an emergency, formulating the best scientific advice is challenging: there are, for example, inevitable lags in acquiring and analysing data. Other countries took early decisions that were more seen as those of Government leaders rather than from established scientific evidence¹⁴⁶ and it is possible that this provided a greater licence to take decisions more quickly, and on a more precautionary basis than happened in the UK—contributing to better overall outcomes.

Was there sufficient challenge to scientific advice during the first weeks?

100. Several witnesses to our inquiry, reflecting on the early weeks of the pandemic, were rueful that they did not sufficiently question and challenge the advice they were being given. We heard that challenging an established scientific consensus was difficult. Dominic Cummings told us:

It was clear through all the meetings with PHE and everybody that everything was going wrong; everything we pushed, everything we probed—everything was wrong, bad, terrible.

But I was incredibly frightened—I guess is the word—about the consequences of me kind of pulling a massive emergency string and saying, “The official plan is wrong, and it is going to kill everyone, and you’ve got to change path,” because what if I’m wrong? What if I persuade him [the Prime Minister] to change tack and that is a disaster? Everyone is telling me that if we go down this alternative path, it is going to be five times worse in the winter, and what if that is the consequence?¹⁴⁷

101. The then Secretary of State, Matt Hancock MP, made the same point regarding the difficulty of challenging a scientific consensus.¹⁴⁸ On 28 January 2020, SAGE said that testing asymptomatic individuals would “not be useful”.¹⁴⁹ However, at the same meeting, SAGE went on to say that there was “limited evidence of asymptomatic transmission, but early indications imply some is occurring.”¹⁵⁰ Matt Hancock told us that he thought asymptomatic transmission was occurring, but he found it difficult to challenge the scientific consensus:

I was in a situation of not having hard evidence that a global scientific consensus of decades was wrong but having an instinct that it was. I bitterly regret that I did not overrule that scientific advice at the start and say that we should proceed on the basis that there is asymptomatic transmission until we know there is not, rather than the other way round. But when you are faced with a global consensus, and you do not have the evidence that you are right and the scientific consensus is wrong, it is hard to do that.¹⁵¹

146 For example, see “Coronavirus cases have dropped sharply in South Korea. What’s the secret to its success?”, 17 March 2020; and [comments by Prof Balloux and Dr Gropelli, 10 March 2020](#)

147 [Q1008](#)

148 [Q1302](#)

149 GOV.UK, [SAGE 2](#), paragraph 16, 28 January 2020

150 GOV.UK, [SAGE 2](#), paragraph 16, 28 January 2020

151 [Q1302](#)

We also note that Nobel Laureates Sir Paul Nurse and Sir Peter Ratcliffe wrote to the then Secretary of State to warn about asymptomatic transmission and the need for testing in April 2020. However, they did not receive a substantive response until July and only then from a correspondence clerk rather than the then Secretary of State.¹⁵² We continue to await a response from the Department on why action was not taken on asymptomatic transmission and testing earlier.¹⁵³

102. We accept that it is difficult to challenge a widely held scientific consensus. But accountability in a democracy depends on elected decision-makers taking advice, but examining, questioning and challenging it before making their own decisions. We find it surprising that the fatalistic assumptions behind the initial scientific advice were not challenged until it became clear the NHS could be overwhelmed, particularly given alternative strategies were being pursued visibly and successfully in East Asian countries. We heard that ‘red teaming’ and structured challenge was used within the national security community, which may also be of benefit to the scientific community.¹⁵⁴ Kate Bingham also pointed out that the Government may have benefited from more scientists within the Civil Service.¹⁵⁵ We acknowledge that the then Secretary of State told us that he had challenged scientific advice regarding asymptomatic transmission.¹⁵⁶ However, this came after the key moments in mid-March when challenge was needed most, and after the WHO had warned of asymptomatic transmission.

The influence of modelling during the pandemic

103. In his evidence to the Science and Technology Committee during the early weeks of the pandemic, on 25 March, the Editor of the Lancet expressed concern that mathematical modelling was playing too influential a role in UK scientific advice.¹⁵⁷ The prominence of modelling and projections was, and still remains, an important part of the UK’s response to covid-19. Models can be useful and informative to policymakers, but they come with limitations. As Professor Neil Ferguson told the Science and Technology Committee in June 2020, “Models can only be as reliable as the data that is feeding into them.”¹⁵⁸ However, we know that—especially in the early stages of the pandemic—there was an acute shortage of good data.¹⁵⁹ There was also a limited understanding of the virus early in the pandemic. Key questions, such as the length of immunity conferred by infection, were unknown and hampered accurate modelling.¹⁶⁰

104. Evidence to the Science and Technology Committee from other academic disciplines included scepticism of the weight being placed on mathematical models during the pandemic. For example Professor Sir John Kay, Economist and Fellow in Economics, St

152 Correspondence from Rt Hon Greg Clark and Rt Hon Jeremy Hunt to Matt Hancock, 22 June 2021

153 After the Report was agreed by the Committees a response from Rt Hon Sajid Javid MP, Secretary of State for Health and Social Care, was received.

154 Q743

155 Oral evidence taken before the Science and Technology Committee on 4 November 2020, HC (2019–21) 136, Q282

156 Q1300

157 See, for example: oral evidence taken before the Science and Technology Committee on 25 March 2020, HC (2019–21) 136, Q40 and Q42.

158 Oral evidence taken before the Science and Technology Committee on 10 June 2020, HC (2019–21) 136, Q889

159 For example, see: SAGE 14, 10 March 2020, paragraph 36

160 Oral evidence taken before the Science and Technology Committee on 10 June 2020, HC (2019–21) 136, Q841

John's College, University of Oxford, told the Science and Technology Committee in June 2020 that models did not necessarily respond well to change and should not be used to make predictions:

economic models tend to work pretty well as long as nothing much changes, which does not help them to be a great deal of use. What really matters from this point of view is understanding the nature of the underlying change. [...]

In my view, the use of economic models and other models is not so much to make predictions as to give people better insights into what is going on, and that is the way in which models ought to be used.¹⁶¹

Professor Carol Propper, Professor of Economics, Imperial College London and President of the Royal Economic Society, illustrated that assumptions in models had not always borne out and there was a need for up-to-date data:

To give one more example of the need for that data, when we shut down hospitals we did not realise we would have a 50% drop in A&E attendances. Clearly, that has been accompanied by some people who should not have gone to A&E not going to A&E, which is good. On the other hand, some people with things like heart attacks and minor strokes, who should have gone to A&E, did not go. We did not anticipate that, and we have no realtime way of tracking it.¹⁶²

Sir John also indicated that simple models could be more helpful: "A model that focuses on the key parameters is a lot more useful than a more complicated one that tries to bring in everything".¹⁶³

105. Sir John also highlighted concerns about how different academic disciplines did not collaborate sufficiently on models.¹⁶⁴ Professor James Poterba, Mitsui Professor of Economics, Massachusetts Institute of Technology, explained to the Science and Technology Committee that the consequence of this was that some costs were not factored into models earlier in the pandemic:

Many in epidemiology and in the health services area have realised that the economic cost of some of the policies their models suggested were very important to understand, and consequently they have become very concerned about building some more economics into those models in various ways.¹⁶⁵

161 Oral evidence taken before the Science and Technology Committee on 5 June 2020, HC (2019–21) 136, [Qq764–765](#)

162 Oral evidence taken before the Science and Technology Committee on 5 June 2020, HC (2019–21) 136, [Q774](#)

163 Oral evidence taken before the Science and Technology Committee on 5 June 2020, HC (2019–21) 136, [Q768](#)

164 Oral evidence taken before the Science and Technology Committee on 5 June 2020, HC (2019–21) 136, [Q767](#)

165 Oral evidence taken before the Science and Technology Committee on 5 June 2020, HC (2019–21) 136, [Q770](#)

106. Professor Chris Whitty noted that he preferred advice to be given on the basis of observed data, telling the Science and Technology Committee in November 2020: “It is important to say that a lot of the advice that I have given is not based on significant forward modelling. It is based on what is happening and what is observable.”¹⁶⁶

107. Yet despite this, throughout the pandemic, detailed modelled projections have assumed a great prominence and have evidently had great influence on Government decisions. Indeed, the publication of the Imperial study of 16 March, is often cited as one of the main triggers for the abandonment of the initial policy of flattening the peak of covid, and its replacement with the one of suppression, in line with many other countries.¹⁶⁷

Assumptions about behavioural compliance

108. Another potential reason for the late lockdown was the behavioural advice that was being tendered to the Government. Behavioural advice is tendered to the Government through SAGE’s sub-group, the Scientific Pandemic Insights Group on Behaviours (SPI-B).¹⁶⁸ SPI-B’s first publicly known input into SAGE was on 25 February 2020 on the risk of public disorder.¹⁶⁹

109. The initial action plan did not consider the possibility of ceasing all non-essential contact. Dominic Cummings told us that the idea of behavioural fatigue was a part of “false groupthink”:

One of the critical things that was completely wrong in the whole official thinking in SAGE and in the Department of Health in February/March was, first of all, the British public would not accept a lockdown and, secondly, the British public would not accept what was thought of as an east Asian-style track and trace-type system and the infringements of liberty around that.¹⁷⁰

The then Secretary of State for Health and Social Care also indicated to us in June 2021 that “the clear advice at the time was that there was only a limited period that people would put up with it—would put up with lockdown.”¹⁷¹ On 9 March 2020, Professor Chris Whitty told a Government press conference:

It is not just a matter of what you do but when you do it. Anything we do, we have got to be able to sustain. Once we have started these things we have to continue them through the peak and that is for a period of time, and there is a risk that, if we go too early, people will understandably get fatigued and it will be difficult to sustain this over time.¹⁷²

Further, on 10 March 2020, SAGE said that:

166 Oral evidence taken before the Science and Technology Committee on 3 November 2020, HC (2019–21) 136, Q1438

167 Imperial College London, *Report 9—impact on non-pharmaceutical interventions (NPIs) to reduce COVID-19 mortality and healthcare demand*, 16 March 2020; and BBC News, ‘Coronavirus: UK changes course amid death toll fears’, accessed 17 September 2021

168 GOV.UK, ‘List of participants of SAGE and related sub-groups’, accessed 17 September 2021

169 SPI-B, *Risk of public disorder*, 25 February 2020

170 Q1002

171 Q1294

172 10 Downing Street YouTube channel, *PM Boris Johnson holds a press conference on coronavirus: 9 March 2020*, timestamp 8:04, accessed 17 September 2021

A balance needs to be struck between interventions that theoretically have significant impacts and interventions which the public can feasibly and safely adopt in sufficient numbers over long periods.¹⁷³

However, SAGE later said on 16 March 2020—the meeting where the scale of the epidemic became apparent—that its advice on interventions should be based on NHS needs, not on public compliance:

SAGE agreed that its advice on interventions should be based on what the NHS needs and what modelling of those interventions suggests, not on the (limited) evidence on whether the public will comply with the interventions in sufficient numbers and over time.¹⁷⁴

110. It transpired that the UK public were very compliant with the eventual lockdown measures.¹⁷⁵ Professor Chris Whitty also said in November 2020:

Across the board, my reflection is that the great majority of people—and this is reflected in all the polling and a variety of other things—both intend to stick to the rules and do stick to the rules to a remarkable degree. To go back to Patrick's point, were that not the case, we would be in a massively worse place than we are at the moment. My expectation is that R would have shot right up if people had not massively reduced the number of people they have contact with, had not stuck to all the things we need to do in individual actions they can take—such as hands, face and space—and businesses had not done a huge amount to try to make them Covid secure. Without that, we would be in a very difficult place compared with where we are now.¹⁷⁶

111. The restrictions eventually imposed on the UK public because of the pandemic were unprecedented. Even in wartime there had been no equivalent of the order to make it a criminal offence for people to meet each other and to remain in their homes other than for specified reasons. In advance, it may not have been unreasonable to assume that the public would have a limited tolerance of such draconian restrictions. But that assumption turned out to be wrong. In the event, compliance with social distancing measures was at a level and for a duration beyond what was anticipated. If a belief that people would not comply delayed a full lockdown, and caused an initially limited set of non-pharmaceutical interventions to be adopted, this was a poor guide to policy.

Was scientific advice sufficiently internationally diverse?

112. We have referred to early evidence from Dr Richard Horton, the Editor of the *Lancet*, who was concerned that SAGE in its early months was taking insufficient account of international perspectives. At the time he gave his evidence, Dr Horton, like the rest of the public, was not aware of the membership of SAGE. Now we are, and it is notable that

173 GOV.UK, [SAGE 14](#), 10 March 2020

174 GOV.UK, [SAGE 16](#), 16 March 2020

175 Office for National Statistics, 'Coronavirus and the social impacts on behaviours during different lockdown periods, Great Britain: up to February 2021', accessed 17 September 2021

176 Oral evidence taken before the Science and Technology Committee on 3 November 2020, HC (2019–21) 136, Q1517

of the 87 people listed as having participated in at least one meeting of SAGE, all but one person (Dr Pasi Penttinen, European Centre for Disease Prevention and Control) are from UK institutions.¹⁷⁷

113. It is a characteristic of the best UK scientific institutions, and the people that work in them, that much of their research involves extensive international collaboration. However, for a virus that has affected every country in the world and which was experienced first by other countries, it is also right to consider whether our scientific advisory bodies are sufficiently international. This question arises not only in the context of the early decisions on lockdown but, as we will see in Chapter 4, Public Health England's failure to evidence any formal evaluation of the test and trace policies of countries which had experienced covid before the UK.

114. Dr Horton expressed concerns about the evidence base that SAGE in its early meetings drew upon. Referring to scientists in East Asia, Dr Horton told the Science and Technology Committee:

If I had been Chair of SAGE, I would have wanted to go to those scientists on the frontline saying, "Please come and tell us your experience. What is coming for us in the UK? Why are you sending this warning signal?" because it is not there in the SAGE evidence.¹⁷⁸

Local lockdowns: the tier system

115. Although introduced several weeks after it should have been, the national lockdown brought in on 23 March succeeded in reducing the incidence of covid across the country, so that from May 2020 national restrictions were eased. However, tougher restrictions were maintained in areas where infections were higher. For example, the City of Leicester remained in lockdown measures from July to September 2020.¹⁷⁹ The North West of England had stubbornly high levels of covid throughout the summer, and restrictions were imposed on Liverpool, Greater Manchester, Blackburn, and eventually the whole of the region on 29 September 2020.¹⁸⁰

116. The Government sought to agree with local leaders the package of restrictions that would apply in particular areas. However, the consequence of this approach led to political differences between national government and some local leaders as to what measures were appropriate for their area—most prominently, the Greater Manchester Mayor, Andy Burnham, and the Government being in a state of disagreement for 10 days during October before restrictions were imposed unilaterally.¹⁸¹

117. By mid-September 2020, case rates were rising across the country, but there were significant local differences. For example, on 30 September, the incidence of covid ranged from 607 per 100,000 population per week in East Sussex, to 4,318 in Knowsley.¹⁸² To

177 GOV.UK, 'List of participants of SAGE and related sub-groups', accessed 17 August 2021. One participant, Dr Demis Hassabis, attended in a personal capacity, so we do not include them in our analysis.

178 Oral evidence taken before the Science and Technology Committee on 25 March 2020, HC (2019–21) 136, Q40

179 House of Lords Library, 'Leicester lockdown: Changes since July 2020', accessed 17 August 2021

180 House of Commons Library, 'Coronavirus: A history of English lockdown laws', 30 April 2021; Health Protection (coronavirus, Restrictions) (North of England, North East and North West of England and Obligations of Undertakings (England) etc.) (Amendment) Regulations 2020 (SI 2020/1057)

181 HC Deb, 20 October 2020, cols 1015–16 [Commons Chamber]

182 GOV.UK, 'Coronavirus (COVID-19) in the UK: 30 September 2020', web archive, accessed 17 August 2021

rationalise the increasingly disparate sets of restrictions being imposed on different places, on 12 October 2020, the Prime Minister announced a three-tier system of local restrictions:¹⁸³

- Tier 1 maintained the rule of six¹⁸⁴ and a 10pm curfew for hospitality;
- Tier 2 did not permit indoor gatherings (including hospitality) but allowed gatherings of up to six people in outdoor settings; and
- Tier 3 a ban on household mixing and hospitality being closed. Retail, schools, and personal care remained open.

118. As we discuss in Chapter 4, there had been hopes that by Autumn 2020 an effective test, trace and isolate system—promised to be “world-beating”—would allow covid levels to be contained without recourse to extensive lockdown restrictions. Indeed the business case that the Test and Trace organisation put forward for Treasury approval cited the enormous savings that would result from being able to avoid a second lockdown as justifying the expenditure of £12bn requested from the Exchequer in September 2020 (the budget and expenditure of Test and Trace subsequently increased).¹⁸⁵ As with the early failure of the test and trace system in February and March 2020—then under PHE’s management—to be of material assistance in stopping the spread of the pandemic like in East Asian Countries, the national test and trace operation failed once again to deliver the contribution it promised to avoiding social distancing measures from being required to take up the strain.

119. The experience of the tiered system during the autumn was, however, unsatisfactory. In the absence of effective contact tracing, the regional restrictions proved not to be anywhere near watertight enough to prevent infections spreading, compounded by delays in getting test results. Professor John Edmunds, Professor of Infectious Disease Epidemiology and a participant of SAGE, told us that he had concerns about what the tiering system would result in and that he would not have followed such a strategy:

What worries me a little bit is where the strategy leads at the moment. If you think it through, the targeted strategy—the tiered strategy—leads to a high level of incidence everywhere.

Let’s say that tier 3 works and keeps the reproduction number at about 1. I do not think anybody really thinks it will reduce it to less than 1. Let’s assume that it manages to get the reproduction number to about 1. That means that in Liverpool, Manchester and the north-west, we will keep the incidence at that high level, which is putting hospitals under strain and causing significant numbers of deaths. We are going to keep it at that high level for the foreseeable future.

183 HC Deb, 12 October 2020, col 23 [Commons Chamber]

184 The ‘Rule of Six’ means that, apart from limited exemptions such as work and education, any social gatherings of more than six people will be against the law. For more, see: GOV.UK, [Rule of six comes into effect to tackle coronavirus](#), 14 September 2020

185 National Audit Office, [The government’s approach to test and trace in England—interim report](#), 11 December 2020, page 18

A few weeks later, the midlands goes into tier 3, so we then keep the midlands at a high level of incidence for the foreseeable future. London is shortly thereafter, and we keep London there. The logical extension of this means that we all end up at a high level of incidence, where hospitals are really under strain and we have large numbers of deaths. For me, that is the logical conclusion of the strategy we are following. I would not follow that strategy.¹⁸⁶

120. Professor Dame Angela McLean, Chief Scientific Adviser to the Ministry of Defence and a participant of SAGE, told the Science and Technology Committee in February 2021 that the tier system waited until prevalence was high before any action was taken, implying this was a flaw with the tier system:

What we did with the tier system was we waited until prevalence—the number of people in a place—was high before putting it into a more restrictive tier. We should have said, “Ah, look, in this part of the country the number of infections is starting to grow”—we have a rather exquisite tool for measuring that—and put it into a higher tier while its prevalence was still low.¹⁸⁷

Dame Angela’s point was also noted in SAGE minutes. On 19 November 2020, SAGE said that “evidence shows that the earlier and more rapidly interventions are put in place, and the more stringent they are, the faster the observed reduction in incidence and prevalence.”¹⁸⁸

121. Another problem with the tiered restrictions that were implemented during the autumn of 2020 was that it was not fully clear what criteria would cause a particular area to be placed in a given tier, nor what would be required for it to exit a particular tier. At times, these decisions felt arbitrary and untransparent. The newly-formed Joint Biosecurity Centre was the source of data and analysis on which these important decisions were made. However, the Joint Biosecurity Centre is a particularly opaque organisation, lacking even the transparency that had come to be displayed eventually by SAGE.¹⁸⁹ Dr Clare Gardiner, who was appointed Director of the Joint Biosecurity Centre in June 2020 (but who has now resigned from the post) told our inquiry:

The sorts of data that we look at are case rates and positivity—the number of people who have tested positive—in different age groups. [...] we are also looking keenly at the number of people being admitted to hospital.¹⁹⁰

122. There has also been a lack of transparency over the scientific case for particular interventions. After the initial, broad lockdown had been lifted specific prohibitions were introduced in later months. Such restrictions were typically justified by Ministers as

186 Q164

187 Oral evidence taken before the Science and Technology Committee on 17 February 2021, HC (2019–21) 136, Q1990

188 GOV.UK, SAGE 69, 19 November 2020

189 Science and Technology Committee, First Report of Session 2019–21, *The UK response to covid-19: use of scientific advice*, HC 136, paragraphs 59–64. We note that since the publication of the Science and Technology Committee’s Report some information has been published by the JBC. Some of this was outlined in DHSC, ‘The Government’s Response to the Science and Technology Committee report: The UK Response to Covid-19: Use of Scientific Advice’, May 2021, CP 432

190 Q184

being scientifically based. But supporting scientific reasoning and evidence was usually lacking. For example, no SAGE paper, or scientific evidence, was published to support the imposition from 24 September 2020 of a 10pm curfew on pubs—a decision that affected the livelihoods of many people in the hospitality sector.¹⁹¹

123. Scientific advice was cited in justification for increasingly fine-grained restrictions—with which some of the Government’s scientific advisers were often visibly uncomfortable. When Sir Patrick Vallance, the Government Chief Scientific Adviser, was asked on 3 November why children’s outdoor sport was banned, despite by then widespread evidence that outdoor transmission of covid was very rare, Sir Patrick said:

They have had advice from us in terms of the general principles and some of the areas, but, as I say, not down to individual specific activities like that, and the same is true on the medical side as well. [...]

Chair: Would you advise that children’s outdoor sports should be banned?
Sir Patrick Vallance: As Chris said, we just do not go down to that level of individual activities.¹⁹²

124. The two months between September 2020 and 31 October 2020 were an unsatisfactory period in which the comparative simplicity of the rules in place from the evening of 23 March onwards were replaced by a complex, inconsistent, shifting and scientifically ambiguous set of detailed restrictions. The rules had previously been a matter of broad national consent, but that sense of national solidarity began to erode, as the uncomfortable stand-off in Greater Manchester showed.

Proposed circuit breaker

125. Throughout September and October 2020, case numbers and hospitalisations continued to rise nationwide. As the virus started to spread and a second wave appeared to have started, SAGE advised on 21 September 2020 that a two week ‘circuit breaker’, a short and sharp lockdown, could return incidence to manageable levels.¹⁹³ However, the Government resisted that advice and continued to take localised action. This was a key moment when the Government significantly diverged from the scientific advice it received. On 24 September 2020, SAGE said:

SAGE previously advised that a 2 week ‘circuit-breaker’, where more stringent restrictions are put in place for a shorter period, could have additional impact. A shorter break of a week or less is likely to be less effective in reducing the number of infections and slowing the growth of the epidemic.

191 GOV.UK, ‘News story: Coronavirus (COVID-19): What has changed – 22 September’, accessed 17 August 2021. See also: Letter from the Chair of the Science and Technology Committee to Sir Patrick Vallance, Government Chief Scientific Adviser, dated 30 September 2020, and Sir Patrick’s response dated 13 October 2020; and Letter from the Chair of the Science and Technology Committee to the Secretary of State for Health and Social Care, Matt Hancock MP, dated 13 October 2020, and the Secretary of State’s response dated 16 October 2020.

192 Oral evidence taken before the Science and Technology Committee on 3 November 2020, HC (2019–21) 136, Qq1538–39.

193 GOV.UK, SAGE 57, 17 September 2020.

However, while a single circuit breaker has the potential to keep prevalence much lower than no intervention, it is not a long-term solution. Long-term control of the virus will likely require repeated circuit breaks, or for one to be followed by a longer-term period with measures in place to keep R at or below 1. Longer-term sustained measures will also be essential.¹⁹⁴

126. In evidence to the Science and Technology Committee in November 2020, Sir Patrick Vallance added that the intention of the circuit breaker was to enable the test and trace system—which in September had once again been found to be inadequate—to be more effective:

The advice in September was about a circuit breaker with the intention of driving the numbers back to how they were in August, going back to the discussion on test and trace, because that means you have a greater chance of test and trace being effective. That takes more of the load in managing the disease and you may have to do fewer in terms of other non-pharmaceutical interventions. That is the logic behind that suggestion [...].¹⁹⁵

Professor Chris Whitty suggested that the case for a circuit breaker was not conclusive, reflecting “there is a lot of uncertainty in these things.”¹⁹⁶

127. Dominic Cummings told our inquiry that Downing Street held a meeting on 20 September 2020 for the Prime Minister to hear both sides of the argument. He explained that Professor John Edmunds put forward the view that the Government should impose another lockdown while Professors Gupta and Heneghan put forward an opposing view. Professor Gupta and Professor Heneghan have subsequently written to us to highlight their view regarding that meeting, including, in their view, that a number of claims that Dominic Cummings made about their presentation to the Prime Minister were incorrect.¹⁹⁷ Following that meeting, Mr Cummings explained that the Prime Minister was not persuaded about the need to impose another national lockdown.¹⁹⁸

128. It is impossible to know whether a circuit breaker would have had a material effect in preventing a second lockdown, given that such an approach was pursued in Wales, which still ended up having further restrictions in December 2020. But it seems that Ministers were mistaken in the weeks after the first wave abated in taking an optimistic assumption that the worst was behind us.¹⁹⁹

The second lockdown

129. On 31 October 2020, the Prime Minister announced tougher nationwide restrictions in England—the second lockdown.²⁰⁰ The UK public were once again told to “stay at

194 GOV.UK, [SAGE 59](#), 24 September 2020

195 Oral evidence taken before the Science and Technology Committee on 3 November 2020, HC (2019–21) 136, [Q1505](#)

196 Oral evidence taken before the Science and Technology Committee on 3 November 2020, HC (2019–21) 136, [Q1507](#)

197 Professor Carl Heneghan (Director at Centre for Evidence-Based Medicine, Professor of Evidence-Based Medicine at University of Oxford); Professor Sunetra Gupta (Professor of Theoretical Epidemiology at University of Oxford) ([CLL0117](#))

198 [Q1154](#)

199 For example, the changing advice on working from home, the ‘eat out to help out’ scheme and [Q1093](#).

200 GOV.UK, [‘Prime Minister’s statement on coronavirus \(COVID-19\): 31 October 2020’](#), accessed 17 September 2021

home". However, unlike the first lockdown, schools remained open. The Prime Minister announced the second lockdown to the House of Commons on 2 November (having announced it to the nation on 31 October), where he imposed a clear time limit on the lockdown:

Let me stress that these restrictions are time limited. After four weeks, on Wednesday 2 December, they will expire, and we intend to return to a tiered system on a local and regional basis, according to the latest data and trends.²⁰¹

On 2 December 2020, the second lockdown ended, and England went back into the three-tier system. However, case numbers remained high (at 14,879 on 3 December 2020)²⁰² and started rising again. As a result, on 19 December 2020, the Prime Minister added a tier 4 to the tiering system.²⁰³ This followed the discovery of the new UK variant (B.1.1.7) of covid-19, or the "Alpha" variant.

130. The circumstances of the lockdown announced on 31 October were controversial. A Downing Street press conference had been hastily convened on the Saturday evening following leak to newspapers of the Government's likely intention to bring in a further lockdown.

131. At the press conference, modelling projections were presented which warned of a risk to the ability of the NHS to cope with likely hospital admissions unless the proposed measures were taken. Sir Patrick Vallance in evidence to the Science and Technology Committee on 3 November said:

You would expect the number of hospitalisations to breach the first wave probably towards the end of November. You would expect the number of deaths, potentially, to equal, the first wave numbers sometime in mid-December.²⁰⁴

132. However, it emerged during the following days that the modelling that was presented at the press conference was based on data that had been superseded by more up-to-date information. It also emerged that the forecasts did not include the impact of the regional restrictions that had been brought in on 9 October.²⁰⁵ In practice, the advice of the Government's most senior scientific advisers that the NHS was likely to be overwhelmed if the advised second lockdown was not imposed made it almost inevitable that it would go ahead:

Chair: We come to the importance of the inquiries into these forecasts. Accepting that Ministers decide and advisers advise, in practice, if the advice from advisers to the Prime Minister is that the capacity of the NHS is likely to be overrun within weeks, that is quite difficult advice to gainsay, is it not? That is why there is an interest in understanding the basis of the advice. It is not optional advice in that sense, is it?

201 HC Deb, 2 November 2020, col 24 [Commons Chamber]

202 GOV.UK, 'Coronavirus (COVID-19) in the UK', accessed 22 June 2021

203 GOV.UK, 'Prime Minister's statement: 19 December 2020', accessed 17 September 2021

204 Oral evidence taken before the Science and Technology Committee on 3 November 2020, HC (2019–21) 136, Q1438

205 See, for example: Correspondence from Ed Humpherson to Sir Patrick Vallance regarding transparency of data related to COVID-19, 5 November 2020

Sir Patrick Vallance: That was the forecasting from the NHS. That is what they said.

Chair: It is also what you said.

Sir Patrick Vallance: Yes. It is what we say from the modelling. As I said, we cannot deal with NHS capacity. I do not have insight into NHS capacity.

Chair: But your advice to the Prime Minister and the Government, based on NHS data and the modelling data, was that this is a serious prospect and a serious risk.

Sir Patrick Vallance: Yes.²⁰⁶

The Kent or 'Alpha' variant

133. Whilst it is clear the first lockdown was called too late, it is not however possible to make such a clear cut judgement about the second lockdown from 31 October for two reasons. First, since the advice was taken and lockdown measures were introduced, the counterfactual—what would have happened to infections, hospital admissions and deaths if the second lockdown had not been instigated—is unknowable. The second reason is that unknown to advisers at the time, a new variant of covid (B.1.1.7) which came to be described first as the Kent variant and later as the Alpha variant, was already transmitting within the population. We were eventually to learn that this variant was significantly more transmissible than the initial strain of covid-19.

134. Following genomic sequencing, PHE found that the Alpha variant first appeared in Kent in September 2020 and rapidly became the dominant variant in Kent, and subsequently, the rest of England.²⁰⁷ The new variant was first brought to the attention of the Government on 11 December 2020.²⁰⁸ On 18 December, the Government was warned that the variant was significantly more transmissible than the initial strain of covid-19.²⁰⁹ The eventual knowledge of this new variant and its heightened transmissibility explained what had been observed earlier: that North Kent and neighbouring areas were experiencing unaccountably high and persistent levels of covid infections during the late autumn. For example, on 30 November 2020, the rate of confirmed covid-19 cases in Swale, in North Kent, was 568 per 100,000 population—over three times as high as the UK rate of 154 per 100,000.²¹⁰

135. Leading virologists who gave evidence to the Science and Technology Committee on 23 December said that the Government had acted quickly in response to the new evidence. For example, Professor Peter Horby, Chair of the New and Emerging Respiratory Virus

206 Oral evidence taken before the Science and Technology Committee on 3 November 2020, HC (2019–21) 136, Qq1443–1445

207 GOV.UK, 'COVID-19 (SARS-CoV-2): information about the new virus variant', accessed 17 September 2021

208 Susan Hopkins, Strategic Response Director, COVID-19, PHE, explained in a media interview on 20 December that the Government was first notified of the new variant on 11 December: @RidgeonSunday Twitter, [20 December 2020, 12.53pm](#)

209 Following work by modellers and academics, Dr Susan Hopkins explained to The Andrew Marr Show on 20 December that, a difference in transmissibility and infectiousness was identified and the Government was notified of this on 18 December and "immediately started to take action": BBC One, 'Professor Susan Hopkins on the new coronavirus variant', accessed 17 August 2021.

210 GOV.UK, 'Coronavirus (COVID-19) in the UK', web archive, accessed 17 August 2021

Threats Advisory Group (NERVTAG),²¹¹ gave a positive assessment of the timeliness of Government action on the new variant: “We sent our first note to them raising a significant concern on the 18th, and on the 19th measures were put in place.”²¹² The Government moved to cancel most of the previously announced relaxations of restrictions at Christmas, and thereafter introducing a third national lockdown from 6 January 2021.²¹³

136. The second wave of the pandemic was more numerous in terms of hospital admissions and deaths than the first wave. It peaked on 8 January 2021 with 68,053 new infections per day reported in the UK,²¹⁴ and on 20 January with 1,820 deaths.²¹⁵ This wave was dominated by the Alpha variant. The Alpha variant was dominant at the time of the peak infections and deaths, and had represented over 50% of UK covid infections from 4 January 2021.²¹⁶ Of the total deaths during second wave,²¹⁷ 56.9% took place after the Alpha variant was the dominant form.

137. Due to the much higher transmissibility of the Alpha variant, in the absence of a test, trace and isolate system capable of arresting the spread of the virus, a circuit-breaker in September and an earlier, more stringent lockdown, would likely have reduced deaths. Had more stringent social distancing measures been adopted during the autumn they could have reduced the seeding of the Alpha variant across the country, slowed its spread and therefore have saved lives. However, this is something we know now, but was not knowable at the time lockdown decisions were taken during the autumn: the existence of the Alpha variant was known only in December 2020.

138. But these decisions were taken before the existence of the Alpha variant was known. So the justification for an earlier lockdown is greatly influenced by information that was not available at the time. It serves to illustrate that, in a pandemic whose course is unknown, some decisions will be taken which turn out to have been wrong, but which it was not possible to know at the time.

Public health messaging and communication

139. Several public health experts stressed to us that an effective messaging and communications strategy was a crucial part of the response to a pandemic. In July 2020, Sir Paul Nurse argued in evidence to the Health and Social Care Committee that “communication, messaging and keeping trust” should be one of the core focuses of the Government’s strategy.²¹⁸ This was echoed by Sir Jeremy Farrar, who explicitly linked consistent messaging to public compliance with other NPIs:

211 NERVTAG is an expert committee of the Department of Health and Social Care (DHSC), which advises the Chief Medical Officer (CMO) and, through the CMO, Ministers, DHSC and other Government departments.

212 Oral evidence taken before the Science and Technology Committee on 23 December 2020, HC (2019–21) 136, Q1612

213 GOV.UK, ‘Prime Minister’s statement on coronavirus (COVID-19): 19 December 2020’, and HC Deb, 6 January 2021, cols 734–736 [Commons Chamber]

214 GOV.UK, ‘Cases in the UK: Coronavirus in the UK—cases by date reported’, accessed 17 August 2021

215 GOV.UK, ‘Deaths in the UK: Coronavirus in the UK—Deaths within 28 days of positive test by date reported’, accessed 17 August 2021

216 Ourworldindata, [SARS-CoV-2 variants in analyzed sequences, United Kingdom](#), accessed 2 September 2021

217 According to the [Office for National Statistics](#), the second wave was estimated to be between 7 September 2020 to 24 April 2021.

218 Oral evidence taken before the Health and Social Care Committee on 21 July 2020, HC (2019–2021) 36, Q589

Consistent messaging and trust in the messaging is absolutely vital. If you are asking anybody—the community or the public—to do things that they would not normally do, they have to trust the message and the messenger, and that has to be consistent over time.²¹⁹

140. At the outset of the pandemic, the Prime Minister’s “stay at home” order was accompanied by a public messaging campaign that clearly instructed the public to “stay home, protect the NHS, save lives”. This message was driven by regular televised press conferences from Number 10 Downing Street, during which Ministers sought to emphasise that the response was “built upon the bedrock of the best possible scientific and medical advice”.²²⁰ Professor Whitty credited this initial messaging as “absolutely essential in people understanding what needed to happen, and then doing it.”²²¹ The message was clear in both the instruction it was giving the public, as well as plainly explaining why they were being asked to change their behaviour.

141. Much of the evidence to our inquiry has acknowledged that this “Stay at Home” slogan was successful in fostering sufficient levels of awareness and understanding among the public. For example, during this period there was a marked fall in the number of people travelling on the roads and using recreational areas. Written evidence from the Nuffield Trust attributed this apparent success to the “simplicity and ease of recall” of the message.²²² According to Professor Devi Sridhar, Chair of Global Public Health at the University of Edinburgh, the public are more likely to comply with instructions that are clear and easy to understand:

You have to take the public with you. The public will comply, not because they are forced to, or because there is military on the streets, but because they want to. People generally want to follow the rules if they understand them.²²³

142. Evidence from University College London (UCL) showed that during the first lockdown, the simplicity and clarity of public health messaging did indeed translate into high levels of compliance with the stay at home order. According to UCL, during this period “levels of understanding were reported by individuals to be very high” and simultaneously “over 70% of [70,000] survey respondents reported ‘complete compliance’ with guidelines”.²²⁴

143. Although the communications strategy in the initial phase of the pandemic was broadly successful, it is worth noting that there was some confusion over who the stay at home order applied to, and there was criticism of the Government’s decision not to provide a British Sign Language (BSL) interpreter on-set at the televised briefings. Similar briefings in Scotland and Wales did include an interpreter, socially distanced from Ministers. In the UK, there are more than 80,000 Deaf people whose first language is BSL.²²⁵ The decision not

219 Oral evidence taken before the Health and Social Care Committee on 21 July 2020, HC (2019–2021) 36, Q585

220 GOV.UK, [Health and Social Care Secretary’s statement on coronavirus \(COVID-19\)](#), 5 April 2020.

221 Q827

222 Nuffield Trust (CLL0087)

223 Oral evidence taken before the Health and Social Care Committee on 21 July 2020, HC (2019–2021) 36, Q584

224 University College London (CLL0023)

225 Equality and Human Rights Commission, [Letter to the Prime Minister](#), April 2020.

to include an interpreter at these briefings, where important public health announcements were often made, may have reduced their ability to understand the messages provided and in turn potentially decreased trust and compliance among this group.

144. On 10 May 2020, the Government announced that society would begin to reopen in England through a staged series of lockdown easing measures.²²⁶ From this point, there were divergent approaches to messaging across the four nations of the UK. To reflect the gradual lifting of strict lockdown measures in England, the Government changed its slogan from “stay home, protect the NHS, save lives” to “stay alert, control the virus and save lives”.²²⁷ In contrast, during a press conference on the same day, the First Minister of Scotland emphasised that “we remain in lockdown for now and my ask of you remains to Stay at Home”.²²⁸

145. Written evidence to our inquiry suggested that the loss of consistency across the four nations led to confusion, with “messages from numerous national bodies that, at times, appeared to contradict each other”.²²⁹ We heard that at this stage, these contradicting messages began to cause confusion. Professor Devi Sridhar, speaking to the Health and Social Care Committee in July 2020, explicitly linked this confusion to infection rates:

One point where you can see that England and Scotland diverged was when England changed in May to: “Stay alert.” Many people did not fully understand what that meant. In Scotland, the message was very clear: “Stay at home.” When we started to see divergence in infection rates and death rates, it was around that time.²³⁰

146. The three-tier approach to local lockdown restrictions in England (see paragraph 117) introduced more complexity to Government messaging which was, understandably different in different parts of the country.²³¹ It was therefore unsurprising that this more differentiated messaging strategy meant that levels of public understanding and compliance began to deteriorate. Written evidence submitted by UCL showed much poorer comprehension of the rules than at the beginning of the pandemic. By October, fewer than half of the over 70,000 adults who took part in the survey reported broad understanding of the rules (45%), with just 14% understanding them ‘very much’. Self-reported compliance was consequently also much lower, with just over 40% reporting ‘complete compliance’ with guidelines, compared to 70% earlier in the pandemic.²³²

147. Written evidence suggested that the inconsistency in Government messaging after the first wave of the pandemic was also damaging to public trust in official information.²³³ Analysis submitted by Leeds Beckett University showed that most members of the public did not trust information from the UK Government and that they were much more likely to trust information shared by the World Health Organisation.²³⁴ The perception that key Government figures, including the former assistant to the Prime Minister, had breached lockdown rules may have further undermined public trust during spring 2020. In oral

226 GOV.UK, ‘Prime Minister’s Statement on coronavirus (COVID-19): 10 May 2020’, accessed 17 September 2021

227 GOV.UK, ‘Prime Minister’s Statement on coronavirus (COVID-19): 10 May 2020’, accessed 17 September 2021

228 Gov.scot, ‘Coronavirus update: First Minister’s speech: 10 May 2020’, accessed 17 September 2021

229 Association of Anaesthetists (CLL0014)

230 Oral evidence taken before the Health and Social Care Committee on 21 July 2020, HC (2019–2021) 36, Q584

231 GOV.UK, ‘Prime Minister announces new local COVID Alert Levels: 12 October 2020’, accessed 17 September 2021

232 University College London (CLL0023)

233 For example, see: Nuffield Trust (CLL0087)

234 Leeds Beckett University (CLL0003)

evidence, Dominic Cummings acknowledged that his widely reported trip to Durham was “a complete disaster” and admitted that it “undermined public confidence in the whole thing”.²³⁵

148. Lower levels of public trust and understanding of the regulations also created a gap into which misinformation was able to spread. Research conducted by Ofcom in the first six weeks of the pandemic found that 47% of respondents said they had come across false or misleading information about covid-19 in the last week. Most commonly, respondents indicated that the misinformation they encountered was linked to “theories linking the origins or causes of covid-19 to 5G technology”.²³⁶ More recently, a study conducted by King’s College London in November 2020 found that 14% of respondents “believe the real purpose of a mass vaccination programme against coronavirus is simply to track and control the population”.²³⁷ Susceptibility to covid-19 misinformation has many causes, but research has found that lower levels of trust in both scientists and Government are associated with increased susceptibility to misinformation.²³⁸ This highlights the critical importance of a communications strategy which is clear, consistent and perceived as transparent by the public.

Outcomes

149. The covid pandemic is a global emergency that is not yet over. While the UK’s trajectory may have changed in recent months with vaccines, the vast majority of the world is still grappling with the disease. It would be prudent to reserve judgement on the UK’s performance until the pandemic is over across the world. When that time comes, we will be able to more accurately and fairly judge the UK’s performance against the rest of the world.

150. One of the key ways to measure a country’s success in fighting covid-19 is to measure deaths from covid-19. However, countries across the world measure deaths in different ways. The UK has reported covid deaths as those who died within 28 days of a positive test. The UK also offers statistics on daily deaths with covid-19 on the death certificate. The US Centres for Disease Control includes both confirmed and probable cases and deaths.²³⁹ The historian, Professor Niall Ferguson, told the House of Commons Foreign Affairs Committee:

I actually think there is a better way of looking at this, which is to look at excess mortality. We don’t have excess mortality data for all the countries in the world, but if you look at the ones for which we do have data, the UK and the US are firmly in the middle of the table, with 17% or 18% excess mortality, close to Belgium, close to Italy, close to Spain.

235 Q1115

236 Ofcom, ‘covid-19 news and information: consumption and attitudes- previous results’, accessed 17 September 2021

237 Kings College London, *Coronavirus: vaccine misinformation and the role of social media*, December 2020

238 See, for example: The Royal Society, *Susceptibility to misinformation about COVID-19 around the world*, October 2020; The Royal Society, *COVID-19 vaccine deployment: Behaviour, ethics, misinformation and policy strategies*, October 2020

239 CDC, ‘United States COVID-19 Cases and Deaths by State over Time’, accessed 17 September 2021

Some countries in Europe did slightly better—France, Sweden, Switzerland—but there are a great many countries that did a good deal worse. I won't recap the countries you are expecting to hear—once again, it is Latin American and east European countries that have the worst excess mortality. Of course, some countries in Europe have done significantly better, to the point, in the case of Denmark, of having no excess mortality, or virtually none in Norway. I think this is probably the best measure to use.²⁴⁰

The UK does record excess mortality, primarily through the Office for National Statistics. When the time comes to compare the UK's standing amongst the rest of the world, it will be important to choose the correct basis of comparison. Thus far, there has been no international standard in the reporting of deaths.

151. There are also other factors to be considered. Each country has a unique set of characteristics which might have contributed to its health related covid-19 outcomes. For example, the UK has the tenth-highest rate of obesity in the world,²⁴¹ which is linked to an increased risk of adverse outcomes.²⁴²

Conclusions and recommendations

Conclusions

152. During the first three months of the covid pandemic, the UK followed the wrong policy in its use of non-pharmaceutical interventions. When the UK moved from the 'contain' to 'delay' stage, there was a policy of seeking to only moderate the speed of infection through the population—flattening the curve—rather than seeking to arrest its spread. The policy was pursued until 23 March because of the official scientific advice the Government received, not in spite of it. Questions remain about whether the containment phase was pursued aggressively enough—we believe it could have been pursued for longer. During this period Government policy did not deviate from the scientific advice it received in any material respect. The fact that the UK approach reflected a consensus between official scientific advisers and the Government indicates a degree of groupthink that was present at the time which meant we were not as open to approaches being taken elsewhere—such as earlier lockdowns, border controls and effective test and trace—as we should have been.

153. The flattening the curve policy was implemented by introducing new restrictions only gradually and slowly, acting as if the spread of the virus were susceptible to calibrated control. Modelling at the time suggested that to suppress the spread of covid-19 too firmly would cause a resurgence when restrictions were lifted. This was thought likely to result in a peak in the autumn and winter when NHS pressures were already likely to be severe. In addition, it was thought that the public would only comply with severe restrictions for a limited period, and so those restrictions should not be applied before they were most needed. This approach should have been questioned at the time for a number of reasons:

240 Oral evidence taken before the Foreign Affairs Select Committee on 22 June 2021, HC (2021–22) 200, Q134

241 OECD, *Obesity Update*, 2017

242 GOV.UK, *Disparities in the risk and outcomes of COVID-19*, August 2020

- it entailed people contracting covid in large numbers with hundreds of thousands of deaths likely to result;
- other countries, in Asia and in Europe, including some with experience of SARS and MERS, had chosen to implement earlier, more comprehensive strategies of non-pharmaceutical interventions, which were having success; and
- suppressing the spread of the virus in the early period would have bought valuable time to consider what was the best way to manage the pandemic in the medium term.

154. There are several possible explanations for what was a significant error in policy and advice early in the pandemic. These include:

- the lack of adequate data on the spread of covid-19, as a result of the inadequacy of the UK testing operation;
- overreliance on specific mathematical models when there were too many uncertainties;
- assumptions about public compliance with rules that turned out to have underestimated the willingness to conform even for long periods;
- the composition of SAGE suffered from a lack of representation from outside the United Kingdom; and
- a preference for a particular UK approach may have been favoured above advice based on emulation of what was being pursued elsewhere.

155. Science proceeds through challenge and disputation, and new theories are tested unflinchingly against evidence. Yet Ministers and other advisers reported that they felt it difficult to challenge the views of their official scientific advisers. Those in Government have a duty to question and probe the assumptions behind any scientific advice given, particularly in a national emergency, but there is little evidence sufficient challenge took place. However, even when UK policy had changed to bring in a comprehensive national lockdown, the role of non-pharmaceutical interventions against covid-19 was complex, inconsistent and opaque for most of the rest of 2020.

156. The second wave of covid infections, hospitalisations and deaths during the autumn and winter of 2020/21 was significantly driven by the emergence of a new variant, known as the Kent or Alpha variant. It is likely that a “circuit break” of temporary lockdown measures if introduced in September 2020, and earlier lockdown measures during the winter, could have impeded the rapid seeding and spread of the Kent variant. However, the existence of the Kent or Alpha variant was not known by the Government until 11 December 2020 so that the justification for taking earlier measures could not rely on information available at the time.

157. Government public health communications are key to the public’s understanding of and compliance with non-pharmaceutical interventions. Initial messaging from the Government early in the pandemic was strong, effective and undoubtedly contributed to the success of the first lockdown. After the gradual lifting of the first lockdown

from May 2020, Government guidance became increasingly complex and harder to understand, with restrictions varying in different parts of the country. Government communications did not always reflect this nuance, leading to perceived inconsistency and divergent strategies across the four nations of the UK.

Recommendations and lessons learned

158. *In the early days of a crisis, scientific advice may be necessarily uncertain: data may be unavailable, knowledge limited and time may be required for analysis to be conducted. In these circumstances it may be appropriate to act quickly, on a precautionary basis, rather than wait for more scientific certainty.*

159. *In future an approach of greater questioning and challenge should characterise the development of policy. Ministers should have the confidence to follow a scientific approach themselves—being prepared to take a more robust approach to questioning and challenging the advice given. The Government and SAGE should also facilitate strong external and structured challenge to scientific advice, including from experts in countries around the world, and a wider range of disciplines.*

160. *In bringing together many of the UK's most accomplished scientists, SAGE became a very UK body. In future, it should include more representation and a wider range of disciplines, from other countries, especially those which have experienced, or are experiencing, the same emergency.*

161. *In a pandemic, the scientific advice from the SAGE co-chairs to the Government should be published within 24 hours of it being given, or the policy being decided, whichever is the later, to ensure the opportunity for rapid scientific challenge and guard against the risk of 'groupthink'. In addition, minutes and SAGE papers should be published within 48 hours of the meeting taking place.*

162. *The Government, via the World Health Organisation, should make the case for an international standard of reporting covid-19 deaths and a framework for reporting disease related deaths for future pandemics.*

4 Testing and contact tracing

163. While, as we will illustrate in Chapter 7, the UK's vaccination programme has been a national success, the record during the pandemic of the test, trace and isolate programme is more mixed. The slow, uncertain, and often chaotic performance of the test, trace and isolate system during the first phases of the pandemic was a drag anchor on the UK's response to the pandemic. Partly because NHS Test and Trace was only established when daily infections had risen to 2,000, it ultimately failed in its objective to prevent future lockdowns despite vast quantities of taxpayers' money being directed to it.²⁴³ In contrast to the approach to vaccines, which we discuss in greater detail in Chapter 7, NHS Test and Trace had to build a new organisation and respond to changing circumstances while it was operating rather than being able to anticipate these in advance of the system being in operation. In this Chapter, when we refer to NHS Test and Trace we refer to the new organisation set up by the Department of Health and Social Care, initially led by Baroness Harding, in partnership with several public and private organisations.

164. This Chapter looks at a number of different facets of the test, trace and isolate system—though they are illustrative rather than exhaustive. While it describes an unsatisfactory history, there are signs that the UK has now arrived at a more dependable outcome: the UK now has, in principle, the ability to test more than 800,000 people a day, and in the week commencing 23 August 2021 there were more than 5.6 million tests carried out in England, more than any EU/EEA country.²⁴⁴ But there are many lessons to be learned on the way and this notional capacity has yet to be fully tested in action.

165. In this Chapter we consider in particular:

- the initial testing capacity available;
- the decision to abandon testing in the community;
- the 100,000 tests a day target introduced by the then Secretary of State;
- the centralisation of testing laboratories;
- the shortage of testing capacity in Autumn 2020;
- the organisation of contact tracing; and
- the management of "NHS" Test and Trace.

Limited testing capacity

166. During the early days of the pandemic, the Government believed—and told the public—that testing for covid-19 was a field in which the UK had a leading position. This assessment was shared, and possibly arose out of, the views of scientific advisers. The minutes of the very first SAGE meeting on covid-19 on 22 January 2020 stated:

243 On 2 April 2020, when the Government announced its new 5-pillar testing strategy, 4,522 Covid-19 cases were recorded.

244 GOV.UK, 'Coronavirus in the UK: Testing'; European Centre for Disease Prevention and Control, 'Data on testing for COVID-19 by week and country'.

The UK currently has good centralised diagnostic capacity for WN-CoV [covid-19]—and is days away from a specific test, which is scalable across the UK in weeks.²⁴⁵

The following day, on 23 January 2020, the then Secretary of State for Health and Social Care told the House that the UK is “one of the first countries to have developed a world-leading test for the new coronavirus.”²⁴⁶ When the Prime Minister claimed to have “growing confidence that we will have a test, track and trace operation that will be world-beating,” it may be that this early lead was what he had in mind.²⁴⁷ However, it rapidly became apparent that the scientific expertise in identifying the virus and the ability to deploy that operationally were very different. Public Health England was initially responsible for managing covid-19 testing as well as the scientific development of a test for covid-19, but it is in the former that its deficiencies were exposed.

167. SAGE minutes from 28 January 2020 recorded that notwithstanding the scientific lead in establishing a test, PHE only had operational capacity to administer “400 to 500 tests per day” for the whole country.²⁴⁸ Other countries such as South Korea and Hong Kong, who did not benefit from our lead in producing a test, nevertheless rapidly developed a testing capacity to allow a comprehensive testing programme to be put in place during the early weeks of the pandemic.²⁴⁹ By contrast, during the whole, crucial, period between 25 January and 11 March 2020, in which the virus was spreading across the whole country, only 27,476 coronavirus tests were performed in the UK.²⁵⁰ To put this in context, that is less than one test a day for each parliamentary constituency.

168. Professor Martin explained to us that early in the pandemic there were “very severe constraints in equipment and consumables” which acted as a drag on testing capacity:

Bear in mind that those were all new tests coming on stream at the beginning of the pandemic. Effectively, there was not enough to go round. It was global; it was not just the UK. There was a global shortage of the consumables. [...] There are big international suppliers that have capped the UK supply of consumables²⁵¹

169. However, throughout the pandemic, our Committees have taken a great interest in what might be learned and applied from how other countries tackled the virus. In March 2020, the World Health Organisation recommended that nations “plan for surge capacity by establishing decentralized testing capacity in sub-national laboratories”.²⁵² Dr Seon Kui Erica Lee, of the Korea Centers for Disease Control and Prevention, told the Science and Technology Committee in April 2020 that testing capacity in the Republic of Korea had expanded rapidly because of lessons learned from the 2015 MERS outbreak.²⁵³ Dr

245 GOV.UK, [SAGE 1](#), 22 January 2020

246 HC oral statement, [23 January 2020](#), Vol 670 [Commons Chamber]

247 HC oral questions, [20 May 2020](#), Vol 676 [Commons Chamber]

248 GOV.UK, [SAGE 2](#), 28 January 2020

249 See, for example: oral evidence taken before the Health and Social Care Committee on [19 May 2020](#), HC (2019–21) 36 and oral evidence taken before the Science and Technology Committee on [16 April 2020](#), HC (2019–21) 136

250 Department of Health and Social Care, [via Twitter](#), 11 March 2020

251 [Q343](#)

252 World Health Organisation, ‘[Laboratory testing strategy recommendations for COVID-19: interim guidance: 23 March 2020](#)’, accessed 17 September 2021

253 Oral evidence taken before the Science and Technology Committee on [8 April 2020](#), HC (2019–21) 136, [Q145](#)

Max Roser also explained to us that “by mid-March [2020], Germany was testing 50,000 people per day”, whilst the UK was “very late” and reached the same capacity one and a half months later.²⁵⁴

170. In evidence to the Science and Technology Committee on 25 March 2020 Public Health England claimed to have formally studied, but rejected, the South Korean approach.²⁵⁵ Despite repeated requests by the Committee no evidence of such an evaluation has ever been produced. We must conclude that no formal evaluation took place which amounts to an extraordinary and negligent omission given Korea’s success in containing the pandemic which was well-publicised at the time.

171. As a result the UK squandered a leading position in diagnostics and converted it into one of permanent crisis. On 12 March, testing for covid-19 other than in hospitals was halted. In part this was because of the inadequacy of the early flu-based strategy—a flu-strategy which mandated ending testing when there was community transmission—but partly also because of a simple lack of capacity. The abandonment of community testing meant that contact tracing—which was fundamental to the success of the Korean approach—also had to be abandoned. If people could not be tested, their contacts could not be traced.

172. Shortly after this seminal failure, in mid-March 2020 responsibility for the testing strategy was taken over by the Department of Health and Social Care from Public Health England.²⁵⁶ It was not until 18 May 2020, when the first wave of covid-19 had begun to wane in the UK, that widespread community testing for covid-19—and therefore contact tracing—was able to resume.²⁵⁷

173. The consequences of this initial failure were profound. Testing not only allowed individuals to be identified who had covid-19—and were infectious—but test results for an invisible virus were the only way to be able to accurately monitor the incidence and spread of the virus across the country, and to understand which groups it affected most and which it affected least.²⁵⁸ The UK was reduced to understanding the spread of covid-19 by waiting for people to be so sick that they needed to be admitted to hospital.

174. For a country with a world-class expertise in data analysis, to face the biggest health crisis in a hundred years with virtually no data to analyse was an almost unimaginable setback. The reasons for this initial inadequacy to translate testing technology into deployable testing capacity are varied. Public Health England seemed to be better at its scientific responsibilities than in its operational response to a mass outbreak of disease and was not clearly instructed to rectify the issue.²⁵⁹ Public Health England reported directly to the Department of Health and Social Care, with only limited operational independence, so the Department too should have been more aware of the issue.

175. We also consider that the Government’s scientific advisers were too passive in accepting assurances that the clinical operational capacity of Public Health England could not be changed. Even in March 2020, Professor Neil Ferguson explained that “much

254 Q129

255 Oral evidence taken before the Science and Technology Committee on 25 March 2020, HC (2019–21) 136, Q121

256 Oral evidence taken before the Science and Technology Committee on 21 July 2020, HC (2019–21) 136, Q1176

257 GOV.UK, ‘Everyone in the UK with symptoms now eligible for coronavirus tests’, accessed 17 September 2021

258 Oral evidence taken before the Health and Social Care Committee on 17 March 2020, HC (2019–21) 36, Q78

259 See, for example: Q825, Q1256, Q1264 and Q1280

more widespread testing” was required but that SAGE had received “very clear messages from PHE that we would have nowhere near enough testing capacity.”²⁶⁰ It would have been quite possible for SAGE to advise that a significant increase in testing capacity was needed. It may be that continued adherence to the early four-stage flu plan contributed to this absence of effective scientific pressure for more testing capacity.

176. It is clear that there should have been more challenge to Public Health England to increase testing capacity from the outset by Ministers, scientific advisers and the Department of Health and Social Care rather than accepting it as a *fait accompli*.

Consequences of abandoning testing in the community

177. As noted earlier, the failure to have enough testing capacity in the early weeks of the pandemic contributed to a lack of knowledge as to how the infection was spreading in the country. Speaking to us in November 2020, Professor Sir Chris Ham, Chair of the Coventry and Warwickshire Sustainability and Transformation Partnership, reflected that the decision to halt test and trace in the community had been a practical decision, and that any scientific advice behind it had “not been forthcoming”:

if you go back to March, we simply did not have the capacity for testing, tracing and isolating that we needed in relation to the volume of cases. [...] Testing capacity had to be focused on the high priorities—staff working in health and care and patients receiving that care. It was very sad that that decision had to be taken, but it was not about science. It was about practicalities.²⁶¹

178. The lack of data resulting from suspending community testing also affected the UK’s understanding of the disease at that critical time. Professor Neil Ferguson explained to the Science and Technology Committee in June 2020 that low testing capacity meant it was difficult to estimate the proportion of imported cases which had been missed:

at the time we had a policy of trying to screen people at borders, and we estimated then that maybe two thirds of imported cases had been missed. What we now know, because the epidemic took off in Italy and Spain before anybody had realised, is that probably 90% of cases imported into this country were missed by those border measures, because we were not checking people. [...] Had we had the testing capacity [...] screening everybody with symptoms coming in would have given us a much better impression of where infection was coming from.²⁶²

260 Oral evidence taken before the Science and Technology Committee on 25 March 2020, HC (2019–21) 136, [Q20](#)

261 [Q319](#) and [Q323](#)

262 Oral evidence taken before the Science and Technology Committee on 10 June 2020, HC (2019–21) 136, [Q870](#), [Q873](#)

Arguably this lack of data could have contributed to the delay in the critical decision to instigate a nationwide lockdown. As Professor Chris Whitty explained:

because we had very limited testing capacity, we did not realise quite how far along the curve we were, because we were having to use people in intensive care and who had sadly died, which is quite a late event. If we had the capacity on testing then that we have now, we would have come to very different conclusions using exactly the same science.²⁶³

Professor Whitty suggested that one key lesson was to “build our capacity to do testing [...] at scale”, which he described would be “a problem with any pandemic we have in the future”.²⁶⁴

Impact on health and social care

179. Professor Chris Whitty told the Health and Social Care Committee in July 2020 that the lack of testing capacity available at the beginning of the pandemic meant that the Government had to focus resources very closely on the hospital sector, and in particular intensive care units.²⁶⁵ Within hospitals, the prioritisation of patients admitted to intensive care meant less testing capacity was available for other patients in hospital, inhibiting the safe provision of non-covid NHS care and increasing the risk of nosocomial infections. The British Infection Association, the professional association for infection specialists, stated that “decisions about who to test and when early in the pandemic almost certainly led to [...] nosocomial and [healthcare worker] infections in secondary care.”²⁶⁶ In February, a paper submitted to SAGE by Public Health England and the London School of Hygiene and Tropical Medicine estimated that during the first wave of covid-19 alone, 36,152 people in England contracted covid-19 while in hospital, representing 40.5% of all hospital cases.²⁶⁷

180. The lack of available testing for social care was particularly damaging, as we discuss in more detail later in this Report. Crucially, it was not until mid-April that covid-19 testing was made a requirement for people discharged from hospital to social care—even on 2 April 2020 guidance still stated that negative tests were not required for a discharge to social care.²⁶⁸

181. The Health and Social Care Committee’s Reports on social care and the delivery of core NHS and care services during the pandemic also highlighted the impact of a lack of testing for social care staff in the initial wave of the pandemic. Evidence from across the sector, including from staff themselves, was unanimous that the lack of provision of regular testing for social care staff had meant that social care staff were more likely to transmit the disease within care homes.²⁶⁹

263 Q825

264 Q825

265 Oral evidence taken before the Health and Social Care Committee on 21 July 2020, HC (2019–21) 36, Q620

266 British Infection Association (CLL0079)

267 Public Health England, London School of Hygiene & Tropical Medicine, *The contribution of nosocomial infections to the first wave*, 28 January 2021.

268 See paragraphs 263–267.

269 Health and Social Care Committee, Third Report of Session 2019–21, *Social care: funding and workforce*, HC 206, paras 44, 45; Health and Social Care Committee, Second Report of Session 2019–21, *Delivering core NHS and care services during the pandemic and beyond*, HC 320, Paras 91, 92

100,000 tests a day target introduced by Secretary of State

182. Following the initial shortage of testing capacity and the slow increase in the availability of tests during the critical first eight weeks of the pandemic, responsibility for the testing strategy was removed from Public Health England and vested in the Department of Health and Social Care. On 2 April the then Secretary of State announced a target of carrying out 100,000 covid tests a day by the end of the month.²⁷⁰ This was a personal initiative on the part of the then Secretary of State, Matt Hancock MP, to jump start substantial testing capacity. At the time witnesses to the Committees distanced themselves from the 100,000 target. For example, even the then Government testing tsar, Professor John Newton, said to the Science and Technology Committee “It is not a SAGE target; it is the Secretary of State’s target [...] you would have to ask the Secretary of State himself exactly where he got his advice from.”²⁷¹

183. Subsequently, Dominic Cummings, in evidence to our inquiry, strongly criticised the then Secretary of State for naming this target, describing it as “an incredibly stupid thing to do.”²⁷² However, Mr Hancock defended the target, saying to the Committees, “that 100,000 target was essential in galvanising the whole system and building a diagnostics organisation and ecosystem in this country.”²⁷³ The 100,000 target was announced as having been achieved by 30 April, although to do so required including tests which had been distributed by mail but which had not been processed.

184. Given the painfully slow increase in the availability of testing before April 2020, we consider that the impact of the Secretary of State’s target to have been an appropriate one to galvanise the rapid change the system needed. However, as such a personal and unilateral approach was needed—and appears not to have been supported by other parts of Government—it is concerning to contemplate what would have happened without this unorthodox initiative.

185. As a result of the increase in testing capacity driven during April, the UK Government finally resumed community testing on 18 May 2020, following an expansion of capacity, which included more than a doubling of the NHS and PHE laboratory network capacity.²⁷⁴ In its April 2020 testing strategy, the Department of Health and Social Care set out a “five pillar” plan for how covid-19 testing would be scaled up:

- **Pillar 1:** Scaling up NHS swab testing for those with a medical need and, where possible, the most critical key workers;
- **Pillar 2:** Mass-swab testing for critical key workers in the NHS, social care and other sectors;
- **Pillar 3:** Mass-antibody testing to help determine if people have immunity to coronavirus;

270 GOV.UK, ‘Health and Social Care Secretary’s statement on coronavirus: 2 April 2020’, accessed 17 September 2021

271 Oral evidence taken before the Science and Technology Committee on 8 April 2020, HC (2019–21) 136, [Q176](#)

272 [Q1062](#)

273 [Q1264](#)

274 GOV.UK, ‘Everyone in the United Kingdom with symptoms now eligible for coronavirus tests: 18 May 2020’, accessed 17 September 2021

- **Pillar 4:** Surveillance testing to learn more about the disease and help develop new tests and treatments; and
- **Pillar 5:** Spearheading a Diagnostics National Effort to build a mass-testing capacity at a completely new scale.²⁷⁵

The capacity for community testing was expanded further primarily under ‘Pillar 2’ of the Government’s testing strategy, through the creation of a series of Lighthouse Lab facilities from early April onwards.²⁷⁶ These “mega-labs” were set up through partnerships between academia, commercial partners, public bodies and not-for-profit organisations, and integrated into a “new national testing infrastructure” and served the entire United Kingdom.

186. Evidence received by the Science and Technology Committee suggested that taking a centralised approach to increasing testing capacity was appropriate as it might not have been practical to focus on boosting local-level capacity alone. For example, Dr Richard Harling, Director of Health and Care for Staffordshire County Council, suggested that the expansion of testing capacity was “unlikely to be something we would have the expertise or specialism to do locally”.²⁷⁷ Similarly, Greg Fell, Director of Public Health at Sheffield City Council, suggested that while Sheffield was “very early in large-scale testing [...] we quickly got to a stage where we needed the large-scale labs that we now have”.²⁷⁸

187. However, both our Committees heard that other resources could have been used more effectively in the initial expansion of testing capacity. Professor Sir Chris Ham explained that initially the Government was “very much focused on building capacity in the commercial Lighthouse laboratories” but suggested that this focus was to the detriment of other potential capacity:

if more had been done during the summer months [...] for example, we could have made greater use of university laboratories and NHS laboratories—we might have been able to add capacity to avoid the bottlenecks that occurred [in September].²⁷⁹

Sir Paul Nurse also made this point, referring to an earlier press release by the Francis Crick Institute, stating:

We argued very early on, in March it has to be said, that we should mobilise much more locally. We turned the Crick into a testing facility. We used that terrible metaphor of Dunkirk and little ships, and so on, but we produced a testing facility locally within two weeks that was doing 2,000 tests a day.²⁸⁰

275 Department of Health and Social Care, *Coronavirus (COVID-19)—Scaling up our testing programmes*, 4 April 2020

276 GOV.UK, ‘Health Secretary launches biggest diagnostic lab network in British history to test for coronavirus: 9 April 2020’, accessed 17 September 2021

277 Oral evidence taken before the Science and Technology Committee on 27 January 2021. HC (2019–21) 136, Q1812

278 Oral evidence taken before the Science and Technology Committee on 27 January 2021. HC (2019–21) 136, Q1812

279 Q338

280 Oral evidence taken before the Health and Social Care Committee on 21 July 2020, HC (19–21) 36, Q589; Francis Crick Institute, *Francis Crick Institute and UCLH develop COVID-19 testing service for patients and NHS staff*, 2 April 2020

Professor Jo Martin, President of the Royal College of Pathologists, suggested that it was not strategically wrong to set up the Lighthouse Laboratory network to process testing on a large scale, but indicated that NHS laboratory testing had also “ramped up hugely”:

At the beginning of the pandemic, the NHS labs were desperate to ramp up testing [...] The pathology laboratories for the health services process 1.1 billion tests a year. The NHS does high throughput testing. We do that every year, so we are good at high throughput testing²⁸¹

188. Despite this, it appeared that there was a disconnect between the testing operation in the Lighthouse Laboratories and NHS labs. For example, the Institute of Biomedical Science suggested that there was a “lack of integration and collaboration” between the laboratories providing Pillar 1 testing (NHS and PHE labs) and Pillar 2 testing (e.g. Lighthouse Labs).²⁸² Further, Professor Martin told us that there should have been “more awareness of the end-to-end process”, pointing to one example of mismatched data systems.²⁸³

“World-beating” systems and moonshots

189. Throughout the last 18 months, the test and trace system has had labels applied that have been at variance with the reality. Ministers began by promising the test and trace system would be “world-beating” in May 2020 when the truth was that it was that it was a laggard.²⁸⁴ Antibody tests were heralded in March 2020 by Ministers as “game changers” long before their role in the system was certain.²⁸⁵ In September 2020, the Prime Minister announced a new “moonshot” plan with the ambition to use rapid covid-19 tests with millions of tests processed daily which would allow normal lives to be resumed without the need for social distancing.²⁸⁶

190. In May 2020 the label “NHS” was applied by the Department of Health and Social Care to the test and tracing system, despite it being operated outside the NHS. It was notable that in evidence to our inquiry, the then Chief Executive of NHS England, Sir Simon Stevens, pointedly refused to use the term NHS in conjunction with the Test and Trace operation.²⁸⁷

Mass testing ‘moonshot’

191. The Government has pursued both mass antibody testing (to identify who previously had covid-19) and mass diagnostic testing (to identify those currently infected) as means to return to normality. In its April 2020 testing strategy, the Government said it was “committed to mass testing” and stated its “overall ambition is to provide enough swab tests for everyone that needs one”.²⁸⁸ On 9 September 2020, the Prime Minister announced the Government’s “moonshot” plan with the ambition to use rapid covid-19 tests “on a far bigger scale than any country has yet achieved—literally millions of tests processed every

281 Qq343–344

282 Institute of Biomedical Science (CLL0083)

283 Q344

284 HC oral questions, 20 May 2020, Vol 676 [Commons Chamber]

285 UK Prime Minister Facebook, “PM Boris Johnson holds the daily press conference: 18 March 2020”, accessed 17 September 2021

286 GOV.UK, “Prime Minister’s statement on coronavirus (COVID-19): 9 September 2020”, accessed 17 September 2021

287 Q920

288 Department of Health and Social Care, *Coronavirus: Scaling up our testing programmes*, 4 April 2020

single day”.²⁸⁹ He also stated that this plan would “allow people to lead more normal lives, without the need for social distancing”. The Prime Minister expressed hope that by Christmas 2020, venues such as theatres could benefit from mass-scale rapid testing and that the technology would be “widespread by the spring”.²⁹⁰

192. That optimism does not appear to have been shared by scientists advising the Government, who struck a more cautious note. For example, at the same press conference Sir Patrick Vallance pointed out that the technologies still had to be trialled, saying that it was “completely wrong to assume this is a slam dunk that can definitely happen”.²⁹¹ Further, a SAGE ‘task and finish group’ on mass testing concluded in late August 2020 that the use of testing as a “point-of-entry requirement” for venues and events could reduce transmission risk but it would have a “minimal effect” on reducing ‘R’.²⁹² Following trials in different settings, most notably a citywide trial in Liverpool,²⁹³ it was not until 9 April 2021 that rapid coronavirus testing was offered to everyone in England, including those without symptoms.²⁹⁴

193. As with other aspects of covid-19 testing, the Government has put a significant amount of public money towards mass testing. The NAO’s December 2020 report on test and trace indicated that (leading up to October) £2.9 billion had been earmarked for mass testing, over twice the budget allocated to tracing at that time.²⁹⁵ At the time of the Prime Minister’s mass testing announcement in September 2020, the British Medical Journal reported that leaked Government documents indicated that a mass testing programme might cost over £100 billion to deliver.²⁹⁶ However, the SAGE task and finish group warned that “careful consideration” was needed to justify whether resources allocated to mass testing would achieve a larger benefit, over “investing equivalent resources” in existing test and trace activities and improving adherence to self-isolation.²⁹⁷

The testing shortages of Autumn 2020

194. During the summer of 2020, rates of covid infection declined markedly in most parts of the United Kingdom. Average hospitalisations from covid fell to 119 per day on 1 August 2020 compared to 3,000 per day in early April. Yet as soon as infections began to rise in September 2020—when schools, universities and many workplaces returned after the summer holidays—the test and trace system was found once again wanting. A period of relative calm in August did not appear to have been used to anticipate and prepare for what was likely to be needed during the Autumn.

289 GOV.UK, ‘Prime Minister’s statement on coronavirus (COVID-19): 9 September 2020’, accessed 17 September 2021

290 GOV.UK, ‘Prime Minister’s statement on coronavirus (COVID-19): 9 September 2020’, accessed 17 September 2021

291 Independent, ‘Boris Johnson’s plans for mass coronavirus testing may not work, government’s top scientific adviser warns’, 10 September 2020

292 Multidisciplinary Task and Finish Group on Mass Testing, *Consensus Statement for SAGE*, 31 August 2020

293 GOV.UK, ‘Liverpool to be regularly tested for coronavirus in first whole city testing pilot: 3 November 2020’, accessed 17 September 2021

294 GOV.UK, *Twice weekly rapid testing to be available to everyone in England: 5 April 2021*, accessed 17 September 2021

295 National Audit Office, *The government’s approach to test and trace in England—interim report*, 11 December 2020, page 36

296 British Medical Journal, *Government plans to spend £100bn on expanding testing to 10 million a day*, 9 September 2020

297 Multidisciplinary Task and Finish Group on Mass Testing, *Consensus Statement for SAGE*, 31 August 2020

195. Despite undergoing a large increase in testing capacity over the first lockdown period—reaching over 200,000 daily tests by the beginning of June 2020²⁹⁸—the test and trace service in England then struggled to keep up with a sharp increase in demand following the reopening of schools and universities in September 2020. To tackle that increase, NHS Test and Trace had to “limit the number of tests available, lengthen turnaround times, and commission extra assistance from NHS and ‘surge’ laboratories”.²⁹⁹ The Government was also forced to prioritise testing for those in the NHS and in care homes, as explained by the then Executive Chair of NHS Test and Trace, Baroness Harding.³⁰⁰

196. During September 2020, the Science and Technology Committee heard from Baroness Harding that NHS Test and Trace had “planned for a sizeable increase” but that she “[did] not think anybody was expecting” the level of demand experienced.³⁰¹ She explained one reason for the surge was that a proportion of ineligible individuals were showing up to receive covid-19 tests:

we have been running some surveys [...] 27% [of visitors to walk-in testing sites] said they were there because they had been in contact with someone who had tested positive, but they did not have symptoms themselves.³⁰²

This should not have been quite so unpredictable given previous advice by the then Secretary of State for Health and Social Care to get a test “if in doubt and if people think they might have the symptoms”.³⁰³ The demand for testing might also have been compounded by an issue later raised by Professor Sir John Bell that “95% of people with [perceived] symptoms do not have the disease”.³⁰⁴

197. The NAO’s December 2020 report pointed out further that NHS Test and Trace was unable to meet demand due to insufficient laboratory capacity as a result of:

- delays in getting new laboratories up and running;
- delays in delivering testing equipment, including supply chain problems with swabs, screening kits and testing reagents; and
- difficulties in staffing new laboratories.³⁰⁵

198. Two months earlier, in July 2020, the Government Chief Scientific Adviser, Sir Patrick Vallance, told the Science and Technology Committee that extra testing capacity would be “essential” ahead of schools reopening.³⁰⁶ However, he suggested that the Government did

298 GOV.UK, [UK reaches 200,000 coronavirus testing capacity target a day early: 31 May 2020](#), accessed 17 September 2021

299 National Audit Office, [The government’s approach to test and trace in England—interim report](#), 11 December 2020, page 10

300 Oral evidence taken before the Science and Technology Committee on 17 September 2020, HC (2019–21) 136, [Qq1327–1329](#)

301 Oral evidence taken before the Science and Technology Committee on 17 September 2020, HC (2019–21) 136, [Qq1314–1326](#)

302 Oral evidence taken before the Science and Technology Committee on 17 September 2020, HC (2019–21) 136, [Q1306](#)

303 HC Deb, 20 July 2020, [col 1855](#) [Commons Chamber]

304 [Q346](#)

305 National Audit Office, [The government’s approach to test and trace in England—interim report](#), 11 December 2020, page 50

306 Oral evidence taken before the Science and Technology Committee on 16 July 2020, HC (2019–21) 136, [Qq1149–1154](#)

not have the capacity to meet the potential demand of over 350,000 tests per day, a figure suggested by the Academy of Medical Sciences at the time.³⁰⁷ Nevertheless, Baroness Harding suggested that the level of demand encountered in September was “in none of the modelling” used by NHS Test and Trace to assess capacity.³⁰⁸ She told the Science and Technology Committee that capacity plans had been “based on SAGE modelling for what we should be preparing for in the autumn”, and that it was SAGE’s assessment rather than NHS Test and Trace’s.³⁰⁹ However, she later wrote to the Committee in a follow-up letter to clarify that SAGE had not informed the capacity targets:

SAGE has not been responsible for providing modelling analysis on operational testing capacity [...] In order to model and forecast potential demand for testing and therefore what testing capacity will be required, NHS Test and Trace and the Department of Health and Social Care (DHSC) analysts draw on a range of sources including outputs from SPI-M modelling of the epidemic and modelling of the [Reasonable Worse Case Scenario]. Other sources include inpatient testing, screening for screening for elective/non elective admissions to hospital and NHS staff using information and forecasts from NHS England.³¹⁰

199. Overall, the National Audit Office concluded that NHS Test and Trace “did not plan for a sharp rise in testing demand in early Autumn [2020]” and was therefore “unprepared.”³¹¹ Professor Chris Whitty reiterated to both Committees in December 2020 that one key learning was the need to scale up testing capacity, stating that the UK had been “caught out twice now with lack of testing, and three times would be too many”.³¹² By January 2021 testing capacity had reportedly increased to 800,000 per day and Baroness Harding expressed that she was “very confident” that there was sufficient capacity to handle future potential surges—citing the increased demand over Christmas as an example.³¹³

200. The failure of the test and trace system to rise to meet even the most predictable of demands in Autumn 2020, especially given many weeks to prepare, suggests that lessons that were learnable during the pandemic were not applied. An urgent priority for the Government must be to satisfy itself that there is now a dependable organisation for covid testing that can both anticipate and meet future demands.

The role of Test and Trace in autumn lockdowns

201. In the autumn of 2020, NHS Test and Trace made a series of submissions for a budget to allow it the operational resources it assessed were required during the year ahead. The sums of money were vast. The budget of the operation was established at £37 billion—

307 Academy of Medical Sciences, *Preparing for a challenging winter 2020/21*, 14 July 2020, page 28

308 Oral evidence taken before the Science and Technology Committee on 16 July 2020, HC (2019–21) 136, [Q1326](#)

309 Oral evidence taken before the Science and Technology Committee on 16 July 2020, HC (2019–21) 136, [Qq1318–1320](#)

310 Correspondence from Baroness Harding regarding follow up evidence, 12 October 2020

311 National Audit Office, *The government’s approach to test and trace in England—interim report*, 11 December 2020

312 [Q825](#)

313 Oral evidence taken before the Science and Technology Committee on 3 February 2021, HC (2019–21) 136,

[Qq1945–1946](#)

more than the annual budgets of whole government departments such as the Home Office (£17.7bn) and the Ministry of Justice (£10.3bn), and more than twice the entire UK budget for scientific research (£14.9bn in 2021/22).³¹⁴

202. For such an unprecedented request, a big justification was mounted, most notably that investing at that level would avoid the need for future lockdowns. New outbreaks would in future be rapidly detected and eliminated, so allowing most of the country to resume much of normal life. The prize was a significant one economically, given that furlough alone was costing the Exchequer on average between June and September 2020 £6 billion a month.³¹⁵

203. The National Audit Office has stated that in NHS Test and Trace's retrospective September business case, the aim of the organisation was to "avoid the need for a second national lockdown".³¹⁶ The NAO indicated that NHS Test and Trace would seek to do this by contributing to a reduction in the 'R' value. Yet despite this aim, which was funded by the Government, England underwent a second national lockdown from 5 November to 2 December, and a third national lockdown was instigated on 4 January 2021.³¹⁷

204. Even at the same time as NHS Test and Trace was setting out its goals in its business case, SAGE documents concluded that the system was having a "marginal impact on transmission", although it acknowledged the difficulty in estimating the system's effectiveness.³¹⁸ Speaking to the Science and Technology Committee in November 2020, the Chief Medical Officer for England, Professor Chris Whitty, commented that test, trace and isolate efforts were "most effective when the rates [of transmission] are low".³¹⁹ In terms of the expected impact on the reproduction number, 'R', Professor Whitty explained that "even under perfect conditions, test and trace takes only a proportion of the R".³²⁰

205. However, the Test and Trace Business Plan—published in December 2020—stated that in October NHS Test and Trace had "reduced the R number by around 0.3–0.6".³²¹ This assessment was based on an "externally reviewed model", which was not published alongside the business plan. Further, that model had not been made public by the time of a hearing of the Public Accounts Committee on 18 January 2021, despite Baroness Harding referring to the data as evidence of NHS Test and Trace's "material impact" on 'R'.³²² The analysis remained unpublished when the Science and Technology Committee spoke to Baroness Harding on 3 February 2021. Baroness Harding explained that the technical description of the model was undergoing quality assurance:

314 Public Accounts Committee, forty-sevenths report of session 2019–21 'COVID-19: Test, track and trace (part 1)', HC 932, page 3; HM Treasury, *Public Expenditure Statistical Analyses 2021*, July 2021, Table 1.12 Total Managed Expenditure by departmental group, page 30; GOV.UK, '£250 million additional funding to boost collaboration and protect ongoing research 1 April 2021', accessed 17 September 2021

315 House of Commons Library, *Coronavirus Job Retention scheme: statistics*, 6 July 2021, page 17

316 National Audit Office, *The government's approach to test and trace in England—interim report*, 11 December 2020, page 19

317 GOV.UK, *Prime Minister's address to the nation: 4 January 2021*, accessed 17 September 2021

318 GOV.UK, *Summary of the effectiveness and harms of different non-pharmaceutical interventions*, 21 September 2020

319 Oral evidence taken before the Science and Technology Committee on 3 November 2020, HC (2019–21) 136, Q1484

320 Oral evidence taken before the Science and Technology Committee on 3 November 2020, HC (2019–21) 136, Q1487

321 Department of Health and Social Care, *Test and Trace Business Plan*, 10 December 2020

322 Oral evidence taken before the Public Accounts Committee on 18 January 2021, HC (2019–21) 932, Qq13–14

Greg Clark: [...] Why does it take a month to be able to publish evidence that you put in the public domain by dint of an appearance before the [Public Accounts Committee] of Parliament?

Baroness Harding: Simply because the work on documenting the detailed technical annexes needs to be properly quality-assured so that we are not in any way misleading when we publish all the detail.

Greg Clark: How do you know you were not misleading when you told the Public Accounts Committee that you were reducing R significantly?

Baroness Harding: Because we are quality-assuring not the calculation but the technical description of what we are doing. [...] We are extremely mindful that it is important that not only is the calculation correct, which we are confident it is and are not changing, but that the explanation of the analysis that has been conducted is easy to understand, digestible and helpful.³²³

This technical description—labelled the Rùm Model Technical Annex—was not publicly disclosed until 11 February 2021,³²⁴ following a letter from the Science and Technology Committee urging its publication.³²⁵ In a subsequent meeting, Dr Johanna Hutchinson, Director for Data and Data Science at the Joint Biosecurity Centre, stated that the document was “ready for publishing by the end of January” before going through “ministerial processes” ahead of its public release.³²⁶

206. While it took two months for the technical annex to be published, the analysis was effectively outdated by the time it was released. Dr Hutchinson outlined to the Science and Technology Committee in February 2021 that an update to the analysis was “in design”:³²⁷

since we did the October-like effectiveness model, we have seen the new variant come through and we have seen vaccination take place within communities, which are impacts that we have to factor into a model. We have also seen a change in the testing regimes, as we have discussed, with mass testing and daily serial testing. Those need to go in, so every time there is a change—either in the operation, which is usually triggered by a change in our environment, or, as we have seen, the transmission of this disease—we have to recalibrate.³²⁸

323 Oral evidence taken before the Science and Technology Committee on 3 February 2021, HC (2019–21) 136, Q1840

324 Department of Health and Social Care, *The Rùm Model Technical Annex, 11 February 2021; Correspondence from Baroness Harding to the Chair of the Science and Technology Committee relating to the impact of Test and Trace on 'R'*, 11 February 2021

325 Correspondence from the Chair of the Science and Technology Committee to Baroness Harding regarding follow up evidence, 5 February 2021

326 Oral evidence taken before the Science and Technology Committee on 17 February 2021, HC (2019–21) 136, Qq2073–2074

327 Oral evidence taken before the Science and Technology Committee on 17 February 2021, HC (2019–21) 136, Q2092

328 Oral evidence taken before the Science and Technology Committee on 17 February 2021, HC (2019–21) 136, Q2083

We note therefore that when Baroness Harding told the Science and Technology Committee in February 2021 that the test and trace service was “on track to reduce R in high-prevalence areas by between 0.6 and 0.8 by the end of March”,³²⁹ her statement was based on out-of-date information.

207. One aspect of the effectiveness of the test and trace system that has been of consistent public concern has been the speed at which the system operates. There are several components to an effective test and trace system, and performance has improved against some measures such as the distance members of the public have to travel to access testing, and turnaround times for test results.³³⁰ Speaking to the Science and Technology Committee in November 2020, Professor Chris Whitty suggested that the “biggest impact” of test and trace depended on end-to-end turnaround times for the whole test, trace and isolate process:

to reduce R test and trace systems need to get the results back as fast as possible. The faster they do so the bigger the effect on R. That is a critical part of it. One of the reasons that I among others are keen not to have test and trace always being asked to do yet more things is that the shortening of the time is a critical part of it.³³¹

Reflecting this, minutes from a SAGE meeting in May 2020 reported that “any delay beyond 48–72 hours total before isolation of contacts results in a significant impact on R”.³³² The advisory body also stated that an effective test and trace system would need to reach at least 80% of contacts of a confirmed case. However, the NAO reported that by the end of October 2020, the “median total time between an original case presenting symptoms and their contacts being traced and advised to self-isolate was 119 hours”.³³³ It is worth noting that to deal with the surge in testing demand in September (see paragraphs 194–200) NHS Test and Trace had to extend turnaround times.

208. When asked about ‘end-to-end’ times in February 2021, Baroness Harding stated that she did “not fully recognise” the NAO’s calculation, but suggested that she believed NHS Test and Trace was operating within the 72 hour target set by SAGE.³³⁴ While the data behind this statement were not published, Baroness Harding indicated it would be made public “as soon as possible”. From 11 February, NHS Test and Trace began to provide details of the “end-to-end journey time” through the system, including metrics such as the time taken for contacts to be reached from the date that a person started experiencing symptoms.³³⁵ Data on the “median time from case first reporting symptoms to contact reached”, covering the period of June 2020 to May 2021, showed that the “end to end” time was consistently above 100 hours for most of 2020 and peaked at over 140 hours during

329 Oral evidence taken before the Science and Technology Committee on 17 February 2021, HC (2019–21) 136, Q1852

330 Department of Health and Social Care, [Weekly statistics for NHS Test and Trace \(England\): 19 August to 25 August 2021](#)

331 Oral evidence taken before the Science and Technology Committee on 3 November 2020, HC (2019–21) 136, Q1491

332 GOV.UK, SAGE 32, 1 May 2020

333 National Audit Office, [The government’s approach to test and trace in England—interim report, 11 December 2020, page 63](#)

334 Oral evidence taken before the Science and Technology Committee on 3 February 2021, HC (2019–21) 136, Qq1839–1845

335 Department of Health and Social Care, [‘NHS Test and Trace statistics \(England\): methodology’](#), accessed 17 May 2021

the September backlog.³³⁶ This reflects the conclusions within the NAO's December 2020 report. Nevertheless, during 2021 the total time decreased to be consistently below 100 hours, although as of late August 2021 it had not fallen under the SAGE target of 72 hours.³³⁷

209. Once again as cases began to rise again in late May and June 2021, NHS Test and Trace performance began to decline again. In the week ending 30 June 2021, 76.9% of in-person test results were received within 24 hours compared to 83.8% in the previous week; the median turnaround time for home tests increased from 41 hours to 44 hours; and 87.9% of contacts were reached compared to 90.7% the week before. This latter figure represented the lowest percentage since the week ending 10 February 2021.³³⁸ Median end-to-end turnaround times spiked to 97 hours in mid-April, coinciding with the end of Easter school holidays, but by the week ending 30 June had returned to normal, albeit still above the SAGE target of 72 hours.³³⁹

210. Although the speed of the test and trace service is important for the overall effectiveness of the system, Professor Dame Anne Johnson, Professor of Infectious Disease Epidemiology at UCL, pointed out that overall “perhaps the biggest benefit that comes from testing and isolation is the isolation” and that “contact tracing is only part of the system”:

contact tracing is always a leaky system. [...] given that we now know that around 40% of cases are asymptomatic, we will never—even with the best system—be able to identify those cases. [...] there are losses at every stage of the cascade [...] It has always been a leaky system.³⁴⁰

Contact tracing

211. During the period before vaccinations had covered the majority of the population, one of the essential purposes of a system of testing for covid was to be able to trace the contacts of people with covid and to cause them to isolate lest they had contracted the virus and could infect others. The early success of testing systems in other countries—notably in East Asia—was an effective capability to identify the contracts of individual cases.

212. The UK public health system has for many years had, and has deployed, contact tracing for people with communicable diseases. Indeed it is fair to say that it is a core capability of local directors of public health.

Centralised and local capacity

213. The NAO's interim report on test and trace from December 2020 explained that with the launch of NHS Test and Trace, the Government established a national tracing model

336 Department of Health and Social Care, [Weekly statistics for NHS Test and Trace \(England\): 13 May to 19 May 2021](#)

337 Department of Health and Social Care, [Weekly statistics for NHS Test and Trace \(England\): 19 August to 25 August 2021](#)

338 Department of Health and Social Care, [Weekly statistics for NHS Test and Trace \(England\): 24 June to 30 June 2021, 8 July 2021](#)

339 Department of Health and Social Care, [Weekly statistics for NHS Test and Trace \(England\): 15 April to 21 April 2021, 29 April 2021](#); Department of Health and Social Care, [Weekly statistics for NHS Test and Trace \(England\): 24 June to 30 June 2021, 8 July 2021](#)

340 [Qq325–326](#)

comprising a “central pool of contact tracers” to handle the majority of cases, whilst also expanding PHE-led regional teams.³⁴¹ The Government contracted Serco and Sitel to provide call handlers to increase central capacity rapidly, worth up to £720 million in 2020–21.³⁴²

214. It was not until July 2020 that local authorities started to take on a larger role in tracing activities, working with NHS Test and Trace to trace cases that the national service had failed to reach. Both Committees heard from directors of public health of the benefits of locally led tracing activities. For example, Dr Richard Harling explained to the Science and Technology Committee in January 2021 that:

The role that directors of public health and local authorities play in the Covid pandemic is as a lynchpin to access all the many local resources. While there is considerable expertise at national level, what we bring is a very detailed knowledge of the local patch, our local people and how things work around here, so we can get things done usually very quickly.³⁴³

This was also reflected in evidence to this joint inquiry given by Professor Dominic Harrison, Director of Public Health and Wellbeing at Blackburn with Darwen Borough Council, who suggested that local public health teams also provided a “wrap-around service”, for example supporting individuals to access self-isolation payments and other local support.³⁴⁴

215. Both Committees received evidence from directors of public health that local tracers had proved highly effective at reaching cases that the national system had failed to contact—with success rates as high as 89%.³⁴⁵ This is corroborated by the NAO’s interim report on NHS Test and Trace, which pointed to analysis by the Local Government Association (LGA) that ten locally run schemes reached between 47% and 91% of cases that the national system could not.³⁴⁶

216. Given the described advantages of locally led tracing efforts, many witnesses have questioned the Government’s apparent initial focus on expanding centralised tracing capacity. For example, Professor Sir Chris Ham criticised the Government’s approach as “biased too much towards the national and [was] too late in providing resources and staff at local level”:

On contact tracing specifically, the Government chose to go down the route of bringing in private sector expertise through Serco and Sitel to run the national system. Only belatedly have they recognised the expertise that

341 [National Audit Office, *The government’s approach to test and trace in England—interim report*, 11 December 2020, page 17](#)

342 [National Audit Office, *The government’s approach to test and trace in England—interim report*, 11 December 2020, page 11](#)

343 [Oral evidence taken before the Science and Technology Committee on 27 January 2021, HC \(2019–21\) 136, Q1790, Q1793](#)

344 [Q333](#)

345 (i) [Oral evidence taken before the Science and Technology Committee on 27 January 2021, HC \(2019–21\) 136, Q1793](#); (ii) [Q333](#)

346 [National Audit Office, *The government’s approach to test and trace in England—interim report*, 11 December 2020, p.66](#)

exists within our councils and our public health teams. There has been a shift from national orientation back in March and April through to much more local leadership today. [...] But it has been too slow.³⁴⁷

217. The NAO's December 2020 report reflected that NHS Test and Trace had explained that in April and May 2020 it had been "only feasible to focus on expanding centrally first, building on existing PHE technical systems" and that the body "had always planned to build out from the initial system to create an integrated national and local tracing service".³⁴⁸ Nevertheless, the NAO also pointed out that no formal documentation or public communications had been seen to evidence that this was the intended strategy.

218. Although NHS Test and Trace continued to expand regional contact tracing partnerships throughout summer and autumn 2020,³⁴⁹ the Science and Technology Committee heard in January 2021 that much communication between local and national contact tracing systems was deficient. Greg Fell, a Director of Public Health, explained that clear lines of communication to all parts of the national tracing service were uneven:

most [directors of public health] have very good relationships with Public Health England, which is essentially tier 1 of NHS Test and Trace. [...] For tiers 2 and 3 it is improving, but there is still a long way to go to be able to navigate our way through that system. However, that is improving over time. To be clear, it is not fundamentally broken as perhaps it was six or eight months ago.³⁵⁰

This view was endorsed by Dr Richard Harling, another Director of Public Health, who described the relationship with NHS Test and Trace as "relatively remote" and that local public health teams were lacking "well-developed relationships with a local account manager, for example, who we could turn to with issues and problems".³⁵¹

219. NHS Test and Trace's July 2020 business plan stated that its model was "local by default".³⁵² However, the evidence we have set out in the preceding paragraphs suggests that this approach was not taken forward in practice from the outset, and that the Government pursued a strategy of central first, local later. There is also evidence to suggest that local public health experts were not sufficiently involved in the design and implementation of tracing activities and capacity. For instance, Greg Fell told the Science and Technology Committee that he did "not recall being consulted about the establishment of NHS Test and Trace and the contact tracing system", and that public health directors had been "told but probably not consulted".³⁵³ More broadly, the NAO has indicated that early on PHE—and later NHS Test and Trace—set up working groups and secondments with local government stakeholders, however the NAO pointed to concerns from the LGA and the Association of Directors of Public Health (ADPH) that "central bodies and

347 Qq318–319

348 National Audit Office, *The government's approach to test and trace in England—interim report*, 11 December 2020, page 17

349 GOV.UK, 'NHS Test and Trace service to strengthen regional contact tracing: 10 August 2020', accessed 17 September 2021

350 Oral evidence taken before the Science and Technology Committee on 27 January 2021, HC (2019–21) 136, Q1800

351 Oral evidence taken before the Science and Technology Committee on 27 January 2021, HC (2019–21) 136, Q1800

352 Department of Health and Social Care, 'Breaking chains of COVID-19 transmission to help people return to more normal lives: developing the NHS Test and Trace service: 30 July 2020', accessed 17 September 2021

353 Oral evidence taken before the Science and Technology Committee on 27 January 2021, HC (2019–21) 136, Q1809

their contractors had not engaged sufficiently with local government and public health experts on key decisions about the design of test and trace services or the practicalities of implementing these services”.³⁵⁴

Compliance with self-isolation

220. The effectiveness of a test, trace and isolate system depends on how successfully cases of covid-19 are isolated to prevent onward transmission. As the NHS Test and Trace business plan stated, “effective self-isolation is a critical part of breaking chains of transmission.”³⁵⁵ However, various estimates suggest that NHS Test and Trace has not achieved the levels of isolation required to make the system effective.

221. The National Audit Office estimated in its December 2020 report that the proportion of people fully complying with self-isolation requirements ranged from 10% to 59%, while Baroness Harding stated that surveys on self-isolation indicated that 54% of people self-isolated when asked to do so.³⁵⁶ While Baroness Harding pointed out that partial compliance with self-isolation was still beneficial and that the figures were an incomplete picture, it is clear that there has consistently been a significant proportion of people who did not comply with self-isolation requirements. Most seriously, in evidence to the Science and Technology Committee in February 2021, Baroness Harding suggested that as many as 20% of people testing positive for covid-19 were not self-isolating—possibly representing around 20,000 people per day at the time.³⁵⁷

222. One factor which witnesses to our inquiry identified as particularly important to support self-isolation was financial support. Professor Sir Chris Ham highlighted the need to “give people the right kind of financial support, particularly those in low-paid jobs,” Professor Dominic Harrison stated that “there is a different level of capacity to do so across different communities,” while Professor Doctor Gérard Krause highlighted the importance of the financial support known as “short work” in Germany which enabled people to self-isolate without financial risk.³⁵⁸ Baroness Harding agreed with this, stating:

I agree with Professor Harrison that all the evidence shows that people are not complying with isolation not because they don't want to but because they find it very difficult, and the need to keep earning and to be able to feed your family is a fundamental element of that. That is why I think the financial support payment is a very good thing. I agree with the underlying driver.³⁵⁹

223. The Government has taken some steps to improve compliance with self-isolation requirements, including the introduction of the £500 Test and Trace Support Payment in September 2020.³⁶⁰ NHS Test and Trace also highlighted efforts to improve non-financial support for those isolating such as support calls and texts to link people with local support.³⁶¹

354 National Audit Office, [The government's approach to test and trace in England—interim report](#), 11 December 2020, p.17

355 Department of Health and Social Care, [Test and Trace Business Plan](#), 10 December 2020

356 National Audit Office, [The government's approach to test and trace in England - interim report](#), 11 December 2020; Q376

357 Oral evidence taken before the Science and Technology Committee on 3 February 2021, HC (2019–21) 136, Q1879

358 Q321, Q336 and Q365

359 Q379

360 GOV.UK, ['New package to support and enforce self-isolation: 20 September 2020'](#), accessed 17 September 2021

361 Department of Health and Social Care, [Test and Trace Business Plan](#), 10 December 2020

However, the payment is only available to people who meet all of the eligibility criteria, which includes the need to be in receipt of, or the partner of someone in your household in receipt of, universal credit, working tax credit, or several other benefits, as well as being able to demonstrate that you will lose income as a result of self-isolating.³⁶² These requirements mean that a small proportion of people applying actually receive support; freedom of information requests made by the BBC found that between 28 September 2020 and 15 January 2021, of 212,000 people who applied for support across 271 local authority areas, only 74,400 were successful (c. 35%).³⁶³ We have heard evidence that inadequate financial support was a barrier for some people. It is wasteful to invest up to £37 billion of public money to detect potential virus carriers if they are not then supported to comply with an isolation request and this therefore remains a major weakness in our national pandemic response.

224. Another major impediment to self-isolation by contacts of infected people was the disruption caused by a requirement to quarantine for 10 days, even when symptom-free and without the ability to test and be free to go about normal business if tests—either lateral flow or PCR—were consistently negative. Sir John Bell, the Regius Professor of Medicine at Oxford, criticised this approach saying:

One of the most inefficient bits of this whole process for Test and Trace has been the quarantining of contacts, because you have to lock up people for 70 days to prevent one infection. [...] That is why I think a system whereby you can test your way out of being a contact by just doing a lateral flow test every day for seven days would be a massive step forward. I think you would find that people would be much less reluctant to participate.³⁶⁴

225. Yet, extraordinarily, despite the ultimate availability of large quantities of both lateral flow and PCR tests, this regime was not changed until 16 August 2021.³⁶⁵ In evidence to the inquiry, Baroness Harding confirmed that the average number of contacts disclosed by an infected person was only two.³⁶⁶ Not only has this failure to make use of available testing technology put millions of people to substantial inconvenience and cost the economy many millions of pounds, by providing a powerful disincentive to take a covid test and to disclose all contacts, it seems likely that it will have also caused more infections and cost lives.

The organisation of Test and Trace

226. We have seen in this Chapter how the UK's early lead in the scientific development of a test for covid soon became, through operational inadequacy, a notable weakness in the UK's response to covid, through most of the pandemic. It seems clear that the impressive scientific capability of Public Health England was not matched by a well-

362 Department of Health and Social Care, [Claiming financial support under the Test and Trace Support Payment scheme: 22 March 2021](#), accessed 17 September 2021

363 BBC Reality Check, [‘Covid: How many people get self-isolation payments?’ Freedom of information data release](#), accessed 17 September 2021

364 Oral evidence taken before the Science and Technology Committee on 17 February 2021, HC (2019–21) 136, Q2051

365 GOV.UK, [‘Self-isolation removed for double jabbed close contacts from 16 August: 11 August 2021’](#), accessed 17 September 2021

366 Oral evidence taken before the Science and Technology Committee on 3 February 2021, HC (2019–21) 136, Q1898

developed operational capability. The decision to move responsibility for testing, tracing and isolation away from Public Health England to a new body named NHS Test and Trace was an understandable move.

227. However, contributors to our inquiry have highlighted the sometimes-fragmented nature of the Government's public health response during the pandemic, and the relative lack of resources available to PHE, particularly for health protection as opposed to health promotion. For example, the Nuffield Trust suggested that there was confusion over whether or not PHE was responsible for expanding testing capacity in the early part of the pandemic, and that there were similar tensions over PPE where PHE was responsible for issuing guidance over the use of PPE but not for procuring or supplying the material.³⁶⁷ Lord Sedwill described PHE as "a much smaller body" than NHS England and questioned both its level of resource, and whether its structure was appropriate for contingency planning for disease and other health security threats.³⁶⁸

228. This was acknowledged by the then Secretary of State for Health and Social Care, who argued that PHE "[w]as brilliant at the science and the development, but simply had not had the experience or the capacity to scale."³⁶⁹ Dominic Cummings also highlighted the lack of capacity within PHE to scale up testing as required:

[Y]ou had PHE, this entity that was doing very few tests and had no plan for how to expand it and didn't think it was possible, for all the reasons we have discussed.³⁷⁰

But if there was an opportunity to build an operational capability based on a team of maturing experience that could serve us well in the future, this was largely not taken.

229. Baroness Harding, appointed to lead NHS Test and Trace in May 2020, was the longest serving senior figure in the organisation by the time she left in May 2021. During that year senior officials were brought in on short-term contracts. The Director of Testing role was occupied by two individuals, each for six months.³⁷¹ A Director of Contact Tracing was employed on a short-term contract of six months.³⁷² It is regrettable that, during an intense period in which many lessons will have been learnt, none of the senior leaders of NHS Test and Trace were—or, more concerningly, were ever intended to be—in post in the long term. Dominic Cummings, in evidence to us, was highly critical of the Civil Service organisation,³⁷³ and the provisional and constantly changing senior leadership of the test and trace operation bears this out.

230. In August 2020 the Government announced that it would be forming a new agency out of the merger of parts of PHE, NHS Test and Trace and the Joint Biosecurity Centre.³⁷⁴ The UK Health Security Agency began operating on 1 April 2021, with Dr Jenny Harries

367 The Nuffield Trust (CLL0087)

368 Q749

369 Q1256

370 Q1062

371 HSI, 'Trust chief joins covid-19 'test and trace' top team', accessed 17 September 2021; HSI, 'Ex-Sainsbury's boss to join beleaguered Test and Trace as NHS chief returns to trust' accessed 17 September 2021.

372 HSI, 'Hospital chief executive joins NHS track and trace effort', accessed 17 September 2021

373 For example, see Q1040

374 Department of Health and Social Care, 'Government creates new National Institute for Health Protection: 18 August 2020', accessed 17 September 2021

as chief executive.³⁷⁵ The Government's decision to re-organise PHE in this manner during the pandemic was initially questioned by some; for example, the LGA highlighted concern from local authorities and called for "absolute stability, clarity and consistency in our public health services."³⁷⁶

231. The new UK Health Security Agency is the third body in little more than a year to be given responsibility for the operation of the test and trace system. So far the body is characterised by opacity, with little information available on its website about its governance, management or strategy, although Dr Jenny Harries does bring long service to a function that for most of the pandemic has been occupied by transient appointments.

Conclusions and recommendations

Conclusions

232. Despite being one of the first countries in the world to develop a test for covid in January 2020, the United Kingdom failed to translate that scientific leadership into operational success in establishing an effective test and trace system during the first year of the pandemic. Public Health England showed itself to be scientifically accomplished, but poor at delivering an operational testing system at the scale and urgency required by a pandemic.

233. Testing capacity was treated too much as a parameter rather than a variable that could be changed by the Department of Health and Social Care and scientific advisers. What was being achieved in other countries, particularly East Asia, appeared to be of little interest in the initial weeks of the pandemic. This was an inexcusable oversight. It took a personal intervention by the then Secretary of State in April 2020 to drive a major increase in testing capacity.

234. The resulting requirement to abandon testing people in the community during the critical early period of the pandemic cost many lives for a number of reasons including because:

- a) many asymptomatic carriers were not tested and therefore identified and asked to isolate;
- b) many older people were admitted to care homes either from the community or hospitals in ignorance of their covid status or that of staff working in care homes;
- c) low levels of testing meant that the UK lost visibility of where the disease was spreading, among which groups and how quickly. For a crucial period our only insight into the spread of covid was by counting people so sick that they had to be admitted to hospital; and
- d) the receipt of a positive test result would have been likely to improve compliance with an isolation request.

375 UK Health Security Agency, 'Dr Jenny Harries marks official launch of UK Health Security Agency: 1 April 2021', accessed 17 September 2021

376 LGA (CLL0005)

235. The new Test and Trace operation eventually established in May 2020 was a step in the right direction but set up much too late. Because of that delay there was huge pressure to get results quickly which meant that it followed a centralised model initially, meaning assistance from laboratories outside PHE—particularly university laboratories—was rebuffed. The same was true for contact tracing, where the established capabilities of local Directors of Public Health and their teams were not effectively harnessed during the initial response to the pandemic, despite local approaches providing effective in places where they were pursued. It is now clear that the optimal structure for test and trace is one that is locally driven with the ability to draw on central surge capacity—but it took the best part of a year to get to that point. In short, implementation was too centralised when it ought to have been more decentralised.

236. Vast sums of taxpayers' money were directed to Test and Trace, justified by the benefits of avoiding further lockdowns. But ultimately those lockdowns happened. Were it not for the success of the Vaccine Taskforce and the NHS vaccination programme, it is likely that further lockdown restrictions would have been needed in Summer 2021.

237. We recognise that the effectiveness of test and trace in reducing transmission is likely to be reduced when the prevalence of the virus is high, as highlighted by Professor Whitty and others, but it is clear from the latest data and the experience of September 2020 that even at the level of operational effectiveness, NHS Test and Trace has been unable to respond to rising rates of transmission of covid-19.

238. The Test and Trace organisation has not, despite its branding, been run by the NHS, and has seen senior executives brought in from external bodies for short term contracts which reduces the institutional learning, from what was an intense period, that has been retained. It is a major concern that the new organisation responsible for test and trace is opaque in its structure and organisation.

239. Partly because it was set up too late, NHS Test and Trace ultimately fell short of the expectations set for it. It has failed to make a significant enough impact on the course of the pandemic to justify the level of public investment it received. It clearly failed on its own terms, given its aim in September to “avoid the need for a second lockdown” by contributing to a reduction in the ‘R’ number. While we acknowledge that test, trace and isolate activities are just one—albeit crucial—component of the measures undertaken to tackle covid-19, NHS Test and Trace (NHSTT) clearly failed to achieve this central objective. NHSTT has also consistently failed to reach the 72-hour turnaround time as identified as necessary by SAGE, including a significant failure in September 2020. Further, although the Government first described the impact of NHSTT on reducing ‘R’ in December, it took an unacceptably long two months before the evidence and analysis behind this assertion was made public. When it was published it became clear that the analysis was outdated, invalidating claims made at the time. The use of inaccurate data and the lack of transparency impeded effective public scrutiny at a crucial time in the pandemic.

240. The National Audit Office has stated that “to achieve value for money NHST&T must be able to demonstrate both that the interventions it delivers are effective in achieving its objective, and that the mix of interventions is the most cost-effective use of public resources.” After 18 months and many billions of pounds of taxpayers' funds, there is hope that the UK now has a capacity for testing and tracing that is adequate.

It is a bitter irony that this point may only have been reached at the point in which the vaccination programme makes testing less of a critical component than it was previously.

Recommendations and lessons learned

241. *Scientific excellence is not enough in test and trace programmes: the UK must develop greater operational competence in deployment. In particular, the Government must ensure that both the new UK Health Security Agency and local authorities have the capability and funding to stand up both central surge capacity and locally-driven testing and contact tracing within seven days of a public health emergency being declared.*

242. *Public Health England and its successor bodies, as well as Ministers and their scientific advisers, should be more willing to study and emulate the practice of other countries with urgency and agility, especially during a crisis. A culture must be established that looks proactively to collaborate with other organisations, rather than to reject assistance.*

243. *Those responsible for future test and trace programmes should establish a culture and processes to learn rapidly from errors and to act to prevent them being repeated.*

244. *The reactive, short-term horizon of test and trace for much of the pandemic must be replaced by a capacity for anticipation and preparation—even during the course of an emergency.*

245. *The organisation of the bodies responsible for testing and tracing should be open and transparent both about their operations and the basis of their decisions.*

5 Social care

246. Covid-19 has been a particular scourge of the elderly. Before vaccination, all the charts that laid out the susceptibility of people to death from Covid were brutally clear: people aged 80 and older who contracted covid were 70 times more likely to die than people aged 40 or younger.³⁷⁷ This meant that the arrangements to protect the elderly were of vast importance, especially during the early stages of the pandemic when no vaccines were available to protect such vulnerable people.

247. For these reasons, the experience of the social care sector has been pivotal to the pandemic. More than 70% of new requests for social care support are from older people.³⁷⁸ The settings in which social care is provided—such as communal homes in which elderly people live, cared for by workers coming into their home from outside, and which normally welcome a continuous stream of visitors—are obviously particularly susceptible to the spread of a virus like covid-19 transmitted by human-to-human contact.

248. Our inquiry took evidence from the loved ones of people living in care homes and being cared for at home, people who work in the sector, as well as policymakers and Ministers. The experience of the sector during covid is one of intense stress, with some decisions made which caused the experience of residents and their carers to be more difficult and which, sadly, are likely to have resulted in more deaths than was inevitable.

Impact of the pandemic in social care

249. Between 16 March 2020 and 30 April 2021, 41,675 care home residents died of covid-19—nearly a quarter of deaths from all causes among care home residents.³⁷⁹ This amounts to over a quarter of all covid deaths in England over the same period of the pandemic. This is likely to be an underestimate given the lack of testing of care home residents during the early weeks of the pandemic.

250. The number of deaths of people receiving domiciliary care between 10 April and 19 June 2020, meanwhile, was over 120% higher than the three-year average over the same period between 2017 and 2019, with 12.6% of the total involving a confirmed case of covid-19.³⁸⁰

251. The UK was not alone in suffering significant loss of life in care homes, but the tragic scale of loss was among the worst in Europe and could have been mitigated.³⁸¹

377 Public Health England, *Disparities in the risk and outcomes of COVID-19*, August 2020

378 The King's Fund, 'Social care 360', accessed 17 September 2021

379 Office for National Statistics, *Care home resident deaths registered in England and Wales, provisional*, 18 May 2021

380 Office for National Statistics, *Deaths involving COVID-19 in the care sector, England and Wales: deaths occurring up to 12 June 2020 and registered up to 20 June 2020 (provisional)*: 3 July 2020, accessed 17 September 2021

381 For example, up to 31 January 2021 France recorded 31,795 deaths in all long-term care facilities while England and Wales recorded 34,979 deaths in care homes over the same period; up to 8 February 2021 Germany had recorded 17,602 deaths in all long-term care facilities while England and Wales recorded 38,645 deaths in care homes over the same period. England and Wales data from [ONS](#), EU/EEA data from [European Centre for Disease Prevention and Control](#).

252. The impact of the pandemic on the social care workforce has also been acute. Between March 2020 and August 2020 7.5% of workdays were lost to sickness absence compared to 2.7% before the pandemic.³⁸² During the first peak of the pandemic, between March and May 2020, the Office for National Statistics recorded 760 deaths of people working in care, nearly twice the average during the same period from 2014 to 2019. During the course of the pandemic 74% of deaths recorded for social care workers had covid-19 recorded as a cause of death.³⁸³

253. The Government responded to the crisis experienced in social care during the first wave on several fronts, which appears to have partly reduced the disproportionate impact of covid-19 on care homes during the second wave of the pandemic. Analysis shows that between 31 October 2020 and 5 February 2021, 26% of the total number of all covid-19 deaths occurred among care home residents, compared to 40% during the first wave of the pandemic between mid-March and mid-June 2020.³⁸⁴

254. Although by early September 2021 95% of older adult care home residents (aged 65 or over) and over 80% of care home staff had now received two doses of a covid-19 vaccine, the proportion of staff who have received two vaccinations is significantly lower than the rate for residents and varies by region. The fact that many social care staff still remain unvaccinated will present a major challenge for the sector going into the winter.

‘Protect the NHS’

255. Witnesses to our inquiry suggested that the Government’s emphasis on “protecting the NHS” first and foremost caused specific practical problems for social care providers. As Professor David Oliver, a consultant geriatrician and Nuffield Trust fellow put it: “Protect the NHS essentially meant protect the acute hospital bed base, with everything else a bit of an afterthought. That was a mistake.”³⁸⁵ This was echoed by other witnesses to the inquiry including Philip Scott, a family carer whose mother is a care home resident. He described feeling that care homes were “very much sidelined” during the first part of the pandemic.³⁸⁶

256. Some witnesses suggested there was insufficient alertness to the risks presented by covid-19 to the sector. Jane Townson, Chief Executive of the UK Homecare Association, stated that “knowledge of home care and social care more widely in the Department of Health is quite weak”.³⁸⁷ This was echoed by Professor David Oliver who referred to his own time working in the then Department of Health (as National Clinical Director for Older People from 2009 to 2013) and suggested the level of expertise has declined.³⁸⁸

382 Skills for Care, *The state of the adult social care sector and workforce in England*, October 2020, page 61; Public Health England, *Disparities in the risk and outcomes of COVID-19*, August 2020, page 7

383 Skills for Care, *The state of the adult social care sector and workforce in England*, October 2020, page 61, Public Health England, *Disparities in the risk and outcomes of COVID-19*, August 2020, page 53

384 Nuffield Trust, *Covid-19 and the deaths of care home residents: 17 February 2021*, accessed 17 September 2021

385 Q42

386 Q7 and Q23

387 Q37

388 Q56

257. The then Minister for Care, Helen Whately MP, acknowledged a disparity in weight within the Department in her evidence to us:

[We] are talking about a hugely diverse sector, which does not have the type of infrastructure that we have for the NHS. For the NHS, we have NHS England. [...] In the Department we have a social care team that, initially, was purposed to look primarily at social care reform. We have built up those resources. We have built up the infrastructure that we have. All the time, we have been doing a balance in wanting to get guidance and support out quickly to the sector while wanting to engage with the wide range of forms of care that we have.³⁸⁹

258. In its response to the Health and Social Care Committee's Report, *Social care: funding and workforce*, the Government set out some of the steps it had taken to support social care during the pandemic and beyond. For example, in December 2020 a Chief Nurse for Adult Social Care was appointed to provide leadership to the sector and within the Department, and in June 2020 the Government established the social care taskforce for the covid-19 response, which produced several recommendations for managing covid-19 across different social care settings.³⁹⁰

259. Nonetheless, the lack of priority that witnesses said was ascribed to social care during the initial phase of the pandemic was illustrative of a broader and longer-standing issue in the health and social care system. The fact that there is more progress that needs to be made was acknowledged by the then Secretary of State who described "parity of esteem" between the NHS and social care as "a goal that we should seek" and by Sir Simon Stevens, then Chief Executive of NHS England, who called for health and social care to be seen "as two sides of the same coin".³⁹¹

Discharge of patients to care homes during the first wave

260. The most damaging way in which the prioritisation of the NHS over social care manifested itself during the first wave of the pandemic was in the rapid discharge of people from hospital to care homes without adequate testing. In order to free acute hospital beds in anticipation of the first wave of the pandemic, NHS providers were instructed to urgently discharge all medically fit patients as soon as it was clinically safe to do so, and care home residents were not tested on their discharge from hospital.³⁹² Around 25,000 people were discharged from hospitals into care homes between 17 March and 15 April 2020, and while the total number is smaller than in the preceding year due to significantly lower admissions, during the critical weeks in early March there was a marked increase in the number of discharges to care homes compared to the previous year.³⁹³

389 Q60

390 Department of Health and Social Care, *Response to the Health and Social Care Committee report on Adult Social Care: Funding and Workforce*, CP 360, January 2021

391 Oral evidence taken before the Health and Social Care Committee on 8 September 2020, HC (2019–21) 206, Q175 and Q943

392 Letter from Sir Simon Stevens, Chief Executive of NHS England, to NHS providers, 17 March 2020

393 National Audit Office, *Readying the NHS and adult social care in England for covid-19*, 12 June 2020, and Health Service Journal, 'Discharges to care homes increase year-on-year during 'critical period'', accessed 17 September 2021

261. Given the scenes that were emerging in hospitals in other parts of the world, it was essential for the NHS to take immediate steps to increase its acute capacity. It was also important to ensure that people, especially those who were at high-risk, were not being put at unnecessary risk of contracting covid-19 by being in hospital any longer than they needed to be. Ultimately, moving as much care as possible into the community and discharging people from hospital as soon as they are medically fit is an agreed direction of travel more generally in the health service. As Professor Oliver put it:

In general, in peacetime and before the pandemic, you do not want people marooned in hospital beds who are fit to leave hospital. We have had far too many delayed transfers of care, so in some respects having emergency legislation and funding to say that if people do not need to be there we should move them on was a good thing.³⁹⁴

262. Nonetheless, examples from other countries showed what a more effective discharge policy could have looked like. Isabell Halletz, Chief Executive Officer of the German Care Home Employers' Association said in May 2020:

[The discharge of patients from hospitals to care homes] was a very hot topic in discussions with the Federal Ministry of Health and the local health authorities [...] we saw a very big risk for residents living in long-term care from patients coming from hospitals and from new residents who had not been in the home before. They have either to provide a negative test result or to make sure that people coming from hospitals stay in quarantine for 14 days.³⁹⁵

Infection prevention and control

263. However, there were several factors during the early period of the pandemic which meant that it was not possible to safely discharge patients to care homes and at the same time avoid outbreaks of covid-19 within those homes. Most obviously, a lack of testing capacity meant that patients were not prioritised for testing ahead of being discharged to care homes. We received differing evidence on whether the decision to discharge patients to care homes was taken in the full knowledge that there was not sufficient testing available for them. Dominic Cummings told the Committee that he and the Prime Minister were briefed that patients would be tested:

As I said before, we were told that the people were going to be tested. We obviously discussed the risk. We were thinking, "Hang on—this sounds really dangerous. Are we sure?" There was a kind of, well, there is no alternative. Because the whole original plan had gone so badly wrong, the view was, we have got to try and free up beds in the NHS to deal with the wave that was coming. So the view was there is no alternative, but secondly, we were assured that the people who were being sent out would be tested.³⁹⁶

394 Q43

395 Oral evidence taken before the Health and Social Care Committee on 19 May 2020, HC (2019–21) 36, Q449

396 Q1102

The then Secretary of State for Health and Social Care confirmed that this policy had been “agreed at the highest level in Government” but told us he could not specifically recall what advice was given regarding testing at this point. However, he did note that testing capacity was only around 1,000 tests per day at the time of the policy being agreed, and stated:

There is no doubt that the testing capacity would have featured, but also remember that the clear clinical advice at the time was that testing people asymptotically might lead to false negatives, and therefore was not advised and was seen as not a good use of the precious few tests that we had at that moment.³⁹⁷

264. In practice there was no expectation that patients should be tested as a precondition to discharge. The Government’s first set of guidance, issued on 19 March 2020, included no reference to covid-19 testing except to state that “where applicable” covid-19 test results should be included in a patient’s discharge documents.³⁹⁸ Guidance issued subsequently on 2 April 2020 reiterated that “negative tests are not required prior to transfers / admissions into the care home.”³⁹⁹

265. The Government has subsequently claimed that the discharge of patients to social care did not seed significant numbers of covid-19 outbreaks in care homes. Referring to a report commissioned by the Government from Public Health England, which claimed that only 1.6% of care home outbreaks could be linked to hospital discharges, the then Secretary of State stated:

The evidence has shown that the strongest route of the virus into care homes, unfortunately, is community transmission, so it was staff testing that was the most important thing for keeping people safe in care homes.⁴⁰⁰

266. However, given the acknowledged unavailability of adequate testing of care home residents during the early period of the pandemic, it is likely that the report, which analysed 43,398 test-confirmed cases of covid-19 among care home residents (between 30 January and 12 October 2020), is based on an underestimate of the true number of cases during this period. The then Secretary of State defended this estimate but nonetheless acknowledged its limitations, stating:

It is a difficult figure to put a number on [...] It is always a challenge to measure these things—and estimates are estimates. I think I described it as an estimate rather than a fact partly for this reason.⁴⁰¹

The Department of Health and Social Care subsequently confirmed that this paper was reviewed by members of the SAGE social care working group, as well as going through internal quality assurance.⁴⁰²

397 Qq1330–1334

398 GOV.UK, *COVID-19 Hospital Discharge Service Requirements*, 19 March 2020

399 Department of Health and Social Care, *Admission and care of residents in a care home during covid-19*, 2 April 2020

400 Public Health England, *A data linkage approach to assessing the contribution of hospital-associated SARS-CoV-2 infection to care home outbreaks in England, 30 January to 12 October 2020*, April 2021; and Q1248

401 Qq1347–1348

402 Letter from the Department of Health and Social Care to the Chair of the Public Accounts Committee, 4 August 2021

267. Guidance on testing was issued on the basis that care homes would be able to safely isolate people who were admitted from hospital. However, in reality many care homes lacked the facilities to safely isolate patients admitted from hospital. At the most basic level not every care home had the physical space to be able to effectively isolate patients being discharged from hospital. Vic Rayner, Executive Director of the National Care Forum highlighted this issue: “The majority of our care home stock is 20 to 30 years old, if not older in some cases. They are buildings that were set up for people to come together and share space”.⁴⁰³ Similarly, Professor Martin Green, Chief Executive of Care England, explained:

We should acknowledge that there are lots of care homes, as you say, that are, in effect, at the end of their shelf life, and there needs to be a big investment strategy. We have to look at that in terms of the future, but it would have been great to have had some kind of database that identified the care homes that had the capacity to do more isolation and the ones that did not.⁴⁰⁴

268. The risk in care homes was further compounded by poor access to PPE during the early period of the pandemic. In March 2020, Sarah Pickup of the Local Government Association called access to PPE “insufficient” and James Bullion of ADASS called the delivery of PPE “extremely erratic and difficult,” while by May 2020 Professor Martin Green stated that “even now, we are still in a position where people are not getting enough PPE.”⁴⁰⁵ The Government took action to address these shortages including adding CQC-registered social care providers to the Government’s PPE supply chain and providing free PPE via personal Local Resilience Forums for other types of care provider.⁴⁰⁶

269. Finally, efforts to carry out effective infection control in social care settings were undermined by workforce factors, including both pre-existing shortages and shortages due to covid-19, as well as a lack of access to asymptomatic staff testing. The movement of care home staff between different homes has been a particular area of focus, with the ONS’s Vivaldi study of 9,081 care homes for older people (aged 65 and over) finding that care homes that regularly used bank or agency staff, or homes where employed staff regularly worked elsewhere, had higher risk of infection.⁴⁰⁷ The study also “found that the payment of sick pay was associated with a decreased risk of covid-19 infections.”⁴⁰⁸

270. James Bullion of ADASS suggested that the reliance of social care providers on agency staff reflected longstanding staffing difficulties in the social care workforce:

We have a 35% turnover rate and social care staff without a career grade structure.

403 Oral evidence taken before the Health and Social Care Committee on 19 May 2020, HC (2019–21) 36, Q471

404 Oral evidence taken before the Health and Social Care Committee on 19 May 2020, HC (2019–21) 36, Q476

405 Oral evidence taken before the Health and Social Care Committee on 26 March 2020, HC (2019–21) 36, Q284; Oral evidence taken before the Health and Social Care Committee on 26 March 2020, HC (2019–21) 36, Q284 [Sarah Pickup], Q263 [James Bullion]; Oral evidence taken before the Health and Social Care Committee on 19 May 2020, HC (2019–21) 36, Q478

406 Department of Health and Social Care, *Response to the Health and Social Care Committee report on Adult Social Care: Funding and Workforce*, CP 360, January 2021

407 Office for National Statistics, ‘Covid-19 surveillance study in care homes (Vivaldi): 3 July 2020’, accessed 17 September 2021

408 Office for National Statistics, ‘Covid-19 surveillance study in care homes (Vivaldi): 3 July 2020’, accessed 17 September 2021

The fact that we have agency staff moving between three or four different establishments is a consequence of the structural model we have. We need to look at a salaried model based on outcomes and higher levels of wages.⁴⁰⁹

Indeed, almost a quarter of social care staff, and 34% of care workers, are on zero-hours contracts. There are an estimated 1.09 jobs per person across all parts of the social care sector, while the proportion of care workers working part time is 51%, suggesting that a high number of care workers hold second jobs.⁴¹⁰

271. These workforce factors were compounded by the impact of staff absences due to covid-19, and the lack of access to asymptomatic testing for social care staff. As has already been noted, between March 2020 and August 2020 staff sickness absence was three times its rate before the pandemic. An already-high vacancy rate (estimated to be 7.3% in 2019–20 equivalent to 112,000 roles) was compounded by sickness absence due to covid-19, undermining the ability of remaining staff to effectively do their jobs.⁴¹¹ For staff with no symptoms of coronavirus, regular testing was not announced until 28 April 2020, while the Health and Social Care Committee's Report, *Social Care: funding and workforce*, found that the roll-out of regular testing continued to be challenged until well after the initial peak of the first wave of covid-19, thus increasing the likelihood of care workers unknowingly attending their workplaces with covid-19.⁴¹²

272. The result of these factors was that the initial risk created by the lack of available testing for patients on discharge was compounded significantly by a lack of space in some care homes to carry out effective isolation, shortages of vital PPE, and staff factors which made preventing onward transmission by social care staff challenging. Both the Government and the NHS were slow to recognise this. Professor Martin Green told the Health and Social Care Committee in May 2020 that guidance was "not really connected to the reality of lots of care homes" and was issued "for the perfect world" rather than the one we are in.⁴¹³ Professor David Oliver highlighted that this lack of awareness had also been an issue for the NHS:

There was not enough testing. There was not enough PPE in care homes or outside the PPE supply chain. Acute healthcare did not fully appreciate the limitations of trying to do infection control in care homes. Let's face it, if we had a norovirus outbreak, a clostridium outbreak or a flu outbreak on a hospital ward that we can test for, we would not decant all of those people into care homes.⁴¹⁴

273. Dominic Cummings recalled that there had been serious failings in the Government's handling of the pandemic in social care. In particular, he acknowledged that the risks to social care were not properly identified:

409 Oral evidence taken before the Health and Social Care Committee on 26 March 2020, HC (2019–21) 36, Q484

410 Skills for Care, *The state of the adult social care sector and workforce in England*, October 2020

411 Oral evidence taken before the Science and Technology Committee on 27 January 2021, HC (2019–21) 136, Q1800

412 Department of Health and Social Care, 'Further expansion of access to coronavirus testing helps protect the most vulnerable: 28 April 2020', accessed 17 September 2021; Health and Social Care Committee, *Third Report of Session 2019–21, Social care: funding and workforce*, HC 206, Para 44

413 Oral evidence taken before the Health and Social Care Committee on 19 May 2020, HC (2019–21) 36, Q484

414 Q42

It was not thought through properly. There wasn't any kind of proper plan. It is clear in retrospect that a completely catastrophic situation happened, with people being sent back untested and then seeding it in care homes. There is no other way to describe it than that.⁴¹⁵

When asked about the level of protection offered to care homes early in the pandemic, the then Secretary of State for Health and Social Care stated:

We knew from the start, from very early in January, that the impact of this disease was most significant on the oldest, and therefore care home residents were going to be a particular risk [...] We set out guidance for care homes. The first guidance was on 25 February.⁴¹⁶

However, while this initial guidance to social, community and residential care settings included advice on respiratory and hand hygiene, it ultimately stated:

Currently there is no evidence of transmission of COVID-19 in the United Kingdom. There is no need to do anything differently in any care setting at present.⁴¹⁷

This guidance was withdrawn on 13 March 2020 and replaced by new guidance covering hand hygiene, visiting policy, PPE and staff sickness in more detail.⁴¹⁸

274. International best practice further highlights the lack of pandemic preparedness in social care. Professor Terry Lum, Professor of Social Work and Social Administration at Hong Kong University described how care homes in Hong Kong learnt from the experience of SARS. As well as highlighting the importance of “[stopping] the transmission from hospital to nursing home” and isolating infected people, Professor Lum stated:

After the SARS outbreak, we found that we needed someone in the nursing home to co-ordinate all the infectious disease control. The Government require that all nursing homes have one person, usually a nurse, trained as a professional to handle infection control. [...] nursing home operators have a kind of annual fire drill for infectious disease control [...] That drill, year after year, has become a kind of practice. It is extremely well practised in nursing homes.⁴¹⁹

However the UK Infection Prevention Society stated that “there are scant resources to support [infection prevention and control] in the care home sector across the UK” and further that:

The regulation of IPC in care homes is poor, it is not perceived as an integral part of quality and inconsistently and inappropriately monitored [...] The level of qualified IPC support to care homes on a national level is minimal

415 Q1108

416 Q1328

417 Public Health England, ‘Guidance for social or community care and residential settings on COVID-19: 25 February 2020’, accessed 17 September 2021

418 The 13 March 2020 guidance appears no longer to be available on the gov.uk website but can be viewed via: <https://web.archive.org/web/20200316125115/https://www.gov.uk/government/publications/covid-19-residential-care-supported-living-and-home-care-guidance/covid-19-guidance-on-residential-care-provision>

419 Oral evidence taken before the Health and Social Care Committee on 19 May 2020, HC (2019–2021) 36, Q450

and such services have been under resourced for many years. In some areas the qualified IPC support can be as little as one Infection Control Nurse for 300 care homes.⁴²⁰

Visits in residential care settings

275. Visits to residents of care homes were subject to severe restrictions for much of the first phase of the pandemic, causing great strain for residents and their family and friends. Philip Scott, who was largely unable to visit his mother during the first wave of the pandemic, told us:

It is great that the home has been facilitating Skype and, in the summer, introducing garden visits, but it is not the same as actually being able to see her, hug her or hold her hand. During March and April [2020], when the virus was ripping through care homes, it was a time of considerable anxiety for both myself and my sister.⁴²¹

276. James O'Rourke described the difficulties his family faced visiting his brother, who has learning disabilities and lives alone in a supported living flat:

The first lockdown was incredibly frustrating but understandable, given that we did not understand what the virus was about. The guidance was scant. [...] The second lockdown, for us as a family, was horrendous. I need to put in some context. Tony lives in a one-bedroomed flat [...] but the care provider treated it like a residential care home and completely locked it down, not giving us any access to Tony whatsoever.⁴²²

277. Care providers who gave evidence to the inquiry expressed a desire to enable visiting but highlighted the lack of resources and guidance to be able to do so. Theresa Steed, a care home manager, welcomed the suggestion of lateral flow test-enabled visiting, but highlighted uncertainty around the use of those tests.⁴²³ Similarly, Steve Scown of Dimensions UK, a charity care provider, highlighted the delay in Government-issued guidance to supported living providers.⁴²⁴

278. In October 2020, the then Minister for Care announced trials of regular visiting by named individuals enabled by PPE and regular testing, and in the following month the then Secretary of State announced the intention for indoor visiting by Christmas, followed by new guidance on 1 December which made provision for indoor visits facilitated by PPE and rapid testing.⁴²⁵

279. New guidance issued by the Government from 8 March 2021, and subsequently extended from 17 May, provided not only for the return of indoor visits for named visitors, but also enabled residents to nominate an essential care giver. From 21 June 2021, this has been extended to allow residents to nominate up to five named visitors, of which

420 Infection Prevention Society (CLL0065)

421 Q6

422 Q620

423 Q31

424 Q628

425 Q61 and Q580 [Secretary of State for Health and Social Care]

two can visit at one time.⁴²⁶ This is welcome progress, but it should be noted that the costs associated with enabling safe visiting will continue even despite continued progress against covid-19, and the infection control fund for social care providers is scheduled to end on 30 September 2021.⁴²⁷

Underlying challenges facing the care sector

280. The pandemic occurred against a backdrop of issues in social care including workforce shortages, funding pressures and provider instability which successive governments have failed to address. Even without the factors explored above, these long-term issues meant that the sector entered the pandemic in a weakened state which hampered its ability to respond to the impact of covid. Jane Townson described home care as “[coming] into the pandemic with low status and in a weakened condition”, the Local Government Association described adult social care services as being at “breaking point” prior to the pandemic, while Care England stated that “the adult social care sector was not in as good a shape as it could have been due to the long term neglect of the sector”.⁴²⁸

281. Despite these lasting issues, the Health and Social Care Committee’s Report on the Government’s White Paper proposals for the reform of Health and Social Care noted a lack of concrete proposals for the long-term reform of social care in either the Government’s White Paper or the subsequent Queen’s Speech, and concluded that “without secure, long-term funding, the problems that have bedevilled the care sector over the last two decades will not be solved.”⁴²⁹

The social care workforce

282. As noted above, the social care workforce entered the pandemic in a weakened state. In 2019–20, there was an estimated vacancy rate of 7.3% across the year, equating to 112,000 vacant roles. The turnover rate was 30.4%, and around a quarter of the workforce (24%) were employed on a zero-hours contract. While pay has increased since the introduction of the National Living Wage, care workers continue to be low paid, with the average pay of retail assistants and cleaners having overtaken care workers in 2019–20.⁴³⁰ The Health and Social Care Committee’s Report on social care found that:

[Low pay] devalues social care workers who are often highly skilled; is a factor in high turnover rates and high numbers of vacancies; and as a result undermines the quality and long-term sustainability of social care.⁴³¹

283. The Health and Social Care Committee’s Report, *Social care: funding and workforce*, also identified training and career development as a particular issue for social care workers.⁴³² This had specific implications for the ability of the sector to respond to the

426 Department of Health and Social Care, ‘Guidance on care home visiting: 21 June 2021’, accessed 17 September 2021

427 GOV.UK, *Adult Social Care Infection Control and Testing Fund 2021*, July 2021, page 2

428 Q37, LGA (CLL0005) and Care England (CLL0013)

429 Health and Social Care Committee, *First Report of Session 2021–22, The Government’s White Paper proposals for the reform of Health and Social Care*, HC 20, para 51

430 Skills for Care, *The state of the adult social care sector and workforce in England*, October 2020

431 Health and Social Care Committee, *Social care: funding and workforce*, HC (2019–21) 206, 13 October 2020, para 51

432 Health and Social Care Committee, *Third Report of Session 2019–21, Social care: funding and workforce*, HC 206, para 67

pandemic: the University of Kent reported that a third of respondents to their survey had no training in infection control or in the proper use of PPE.⁴³³ This was echoed by the UK Infection Prevention Society, who described care homes as being “expected to be able to successfully prevent and manage outbreaks of a respiratory virus with little or no training and support.”⁴³⁴

284. The Health and Social Care Committee’s Report, *Workforce burnout and resilience in the NHS and social care*, further highlighted the absence of detailed workforce planning in the social care sector, concluding in particular that the lack of an equivalent People Plan for social care “serves only to widen the disparity in recognition and support for the social care components of health and social care.”⁴³⁵

Funding pressures

285. Professor David Oliver described how the pandemic had highlighted long-standing funding pressures:

There were underlying structural problems in the funding and staffing of social care, both in care homes and in people’s own homes, before the pandemic. But, before, they were invisible. Even the care homes were invisible. Now at least we have them in the spotlight.⁴³⁶

286. Jane Townson pointed out that home care providers were still incurring significant PPE costs due to the need to provide PPE above and beyond the level provided for free.⁴³⁷ Similarly, social care providers have faced increased insurance costs due to the risks of outbreaks, with Care England suggesting that this has been a particular barrier to care homes acting as designated sites for isolating patients discharged with covid-19.⁴³⁸

287. The Government’s response to the Health and Social Care Committee’s Report on social care outlined the steps it had taken to address the short-term funding pressures placed on social care providers including through the provision of free PPE, the Infection Control Fund (worth £1.1bn) and the new state-backed indemnity fund for designated isolation settings. However, the Government has not yet brought forward a long-term funding solution for social care.⁴³⁹ Moreover, evidence to our inquiry also highlighted the potential for the impact of the pandemic to compound these long-term funding pressures, with significantly reduced occupancy rates in social care potentially threatening sustainability in the medium-term.⁴⁴⁰

433 Kent Law School, University of Kent (CLL0081)

434 Infection Prevention Society (CLL0065)

435 Health and Social Care Committee, *Second Report of Session 2021–22, Workforce burnout and resilience in the NHS and social care*, HC 22, para 163

436 Q49

437 Q36 and Q46

438 Care England (CLL0013)

439 HM Government, *Response to the Health and Social Care Committee report on Adult Social Care: Funding and Workforce*, CP 360, January 2021

440 The Nuffield Trust (CLL0087)

Conclusions and recommendations

Conclusions

288. The covid-19 pandemic has put massive strain on a social care sector already under huge pressure, which has a particular focus on caring for elderly people who have been at the greatest risk of death from covid.

289. Social care had a less prominent voice in Government during the early stages of the pandemic than did the NHS.

290. The discharge of elderly people from NHS hospitals into care homes without having been tested at the beginning of the pandemic—while understandable as the NHS prepared to accept a surge of covid patients—had the unintended consequence of contributing to the spread of infection in care homes. The seeding of infections also happened as a result of staff entering care homes, and the failure to recognise this risk early is a symptom of the inadequate initial focus on social care. The lack of available testing at the time meant that the extent of spread by each route of transmission cannot be fully known and has not been conclusively determined by the report commissioned from PHE by the Government.

291. Staff shortages, the lack of testing, difficulties in obtaining PPE and the design of care settings to enable communal living hampered isolation and infection control and the ability to keep covid at bay. Social care staff in care homes and providing domiciliary care worked under strenuous conditions, at risk to themselves, to provide care to people.

292. Many of these pressures on the social care sector—such as funding and workforce—are longstanding and must be resolved urgently. Pressures on the social care workforce are likely to be compounded this autumn by the mandate that people working in the social care sector must be fully vaccinated to continue to provide care in residential care homes.

Recommendations and lessons learned

293. *Planning for future pandemics should have a more developed and explicit consideration of the intense interaction between the NHS and social care. The prominence of social care within the Department of Health and Social Care should be enhanced and Ministers must address the relative lack of knowledge and experience of social care within the Department and senior levels of the NHS. The Department should ensure that future policy and guidance relating to the sector is well-informed and reflects the diversity of the sector. The Department must also set out how it plans to retain the expertise of the Social Care Taskforce on a more permanent basis.*

294. *Long term reform of social care is overdue and should be pursued as a matter of urgency. The Government's recent announcement on the future of social care is welcome, but the long-term future of the sector remains unresolved. We endorse the Health and Social Care Committee's call for a 10 Year Plan for Social Care to accompany the 10 Year Plan for the NHS. It must ensure that there is parity between the health and care sectors so that social care is given proper priority in a future crisis.*

295. *We endorse the Health and Social Care Committee's call for additional resources to be directed to social care. That Committee has made the case for an increase of £7 billion a year by 2023/4. We note that despite the Government's recent announcement the level of new investment in social care from 2023/24 remains unclear.*

296. *The Government should review the provision of infection prevention and control measures, including infection prevention and control nurses, to social care and ensure that social care providers, particularly care homes, are able to conduct regular pandemic preparedness drills. The Government must ensure that care homes have isolation facilities and social care providers are able to provide safe visiting for family and friends of care home residents.*

6 At risk communities

297. Everyone in the United Kingdom has been impacted by the covid-19 pandemic. Even if not one of the more than 7 million people who have contracted the virus,⁴⁴¹ the restrictions that have been applied to contain the pandemic have applied to every citizen. But the experience of covid-19—in terms of its incidence and the impact of measures taken to combat it—has not been even. It has had an unequal impact on particular groups within our society.

298. In this Chapter we consider the disproportionate impact on two broad groups—people of Black, Asian and minority ethnic communities, and people with learning disabilities. Evidently, the focus on these two groups does not represent the breadth of the diverse experience of covid-19 in the UK population. The incidence and impact of covid and the policy response to it has varied between people in many different ways: such as between people of different ages, different genders, between people of different economic circumstances, and between the rural and urban populations, to name but a few.⁴⁴²

299. Nevertheless, during the first phase of the pandemic much attention centred on the disproportionate impact of covid on people of different ethnicities, and also on the particular experience of people with learning disabilities. In highlighting them in this Chapter, we point to the need to understand that the impact of covid-19 has been diverse among different groups in society.

Black, Asian and minority ethnic communities

300. Early in the pandemic it became clear that people from some Black, Asian and minority ethnic backgrounds were being disproportionately impacted by covid-19, with severe illness and death being more likely than among the population as a whole. In May 2020, analysis by The Health Foundation found that after adjusting for age, people of Black ethnicity were four times more at risk of covid-19 related death than those of white ethnicity.⁴⁴³ The most recently updated figures show that, in England, the rate of covid-19 related deaths among men of Black African ethnic backgrounds was 3.7 times higher than among men of white ethnicity while the rate in women was 2.6 times greater. Among people of Bangladeshi, Black Caribbean or Pakistani ethnic background the rate of covid-19 related death was 3.0, 2.7, and 2.2 times greater, respectively, for men and 1.9, 1.9 and 2.0 times greater, respectively, for women.⁴⁴⁴

301. There has been much discussion around the causes of these high rates of mortality. In particular, this has centred around whether it is attributable to a direct, higher susceptibility to severe covid-19 among Black, Asian and minority ethnic groups, or whether it is attributable to the differences in the social and economic conditions experienced by these communities compared to the population as a whole.

441 GOV.UK, 'Cases in the UK: Coronavirus in the UK', accessed 16 September 2021

442 See, for example: Office for National Statistics, 'Deaths involving COVID-19 by region: September 2021', accessed 17 September 2021; Office for National Statistics, 'Deaths involving COVID-19 by age: September 2021', accessed 17 September 2021; and Office for National Statistics, 'Deaths involving COVID-19 by sex: September 2021', accessed 17 September 2021

443 The Health Foundation (CLL0089)

444 Office for National Statistics, 'Updating ethnic contrasts in deaths involving the coronavirus (COVID-19), England and Wales: May 2021', accessed 17 September 2021

302. Certain pre-existing health conditions are known to be associated with poor outcomes for covid-19 including cardiovascular diseases, high blood pressure, obesity, diabetes, and kidney disease.⁴⁴⁵ Notably, among people from Black, Asian and minority ethnic communities, there are elevated rates of some of these comorbidities compared with the population as a whole. A May 2020 report from the Institute for Fiscal Studies summarised the health inequalities that “are likely to be relevant”.⁴⁴⁶ However, it is difficult to isolate these as a causal explanation, as we heard that these comorbidities were in turn associated with other factors, including socio-economic background and differing levels of access to and experience of health services.⁴⁴⁷ Professor Iain Bell told our inquiry that once socio-economic factors such as deprivation had been accounted for in their models, pre-existing health conditions “did not explain much”.⁴⁴⁸

303. Similarly, in October 2020, the ethnicity sub-group of SAGE concluded with high confidence that genetic differences between ethnic groups “cannot explain the higher number of severe cases and deaths since ethnic minorities are very genetically diverse”.⁴⁴⁹ Written evidence submitted to our inquiry suggested that differences in covid-19 outcomes among different ethnic groups were instead more likely to reflect underlying social, structural and economic inequalities.⁴⁵⁰ It is clear that there has been a strong link between social deprivation and covid-19 mortality: ONS data covering the first wave of the pandemic between 1 March and 30 June 2020 showed that the most deprived areas of England suffered a covid-19 mortality rate that was more than double that of the least deprived areas.⁴⁵¹ That health inequalities exist between socio-economic groups is not a new issue. For example, the research working group on inequalities in health, chaired by Sir Douglas Black found in 1980 that those in lower socio-economic groups suffered markedly higher rates of mortality.⁴⁵² More recently, the 2010 Marmot Review concluded that “the lower a person’s social position, the worse his or her health”.⁴⁵³

304. In particular, the higher incidence of covid among people of Black, Asian and minority ethnic communities may have resulted from higher exposure to the virus, rather than—or as well as—higher comorbidities. Our inquiry heard that people from some Black, Asian and minority ethnic backgrounds were more heavily represented in ‘frontline’ roles—including both health settings and other public facing roles such as retail and transport—than the population as a whole.⁴⁵⁴ During the covid-19 pandemic, those jobs that were not able to be performed from home carried a higher risk of contracting covid.

305. The Government’s SAGE ethnicity sub-group acknowledged that people working in these ‘frontline’ roles faced higher risk of possible exposure to covid-19 than those who had been able to work from home throughout the pandemic due to “a greater potential for

445 Gresham College, ‘Lecture (COVID-19: Professor Chris Whitty): 30 April 2020’, accessed 17 September 2021

446 Institute for Fiscal Studies, ‘Are some ethnic groups more vulnerable to COVID-19 than others?: May 2020’, accessed 17 September 2021

447 Q660

448 Q650

449 GOV.UK, [Drivers of the higher COVID-19 incidence, morbidity and mortality among minority ethnic groups](#), 23 September 2020, October 2020

450 For example, see: University College London (CLL0023)

451 Office for National Statistics, ‘[Deaths involving COVID-19 by local area and socioeconomic deprivation: July 2020](#)’, accessed 17 September 2021

452 The Health Foundation, ‘[Black report](#)’ on health inequalities’, accessed 8 September 2021

453 The Marmot Review, [Fair Society, Healthy Lives](#), February 2010.

454 Q644

viral contacts due to increased social mixing”. SAGE concluded that over-representation of minority ethnic groups in these at-risk occupations was likely to have increased their risk of exposure to covid-19.⁴⁵⁵ According to Professor Bell of the Office for National Statistics:

People from ethnic minority backgrounds are more likely in roles that are less likely to be able to home-work and are higher risk. Our analysis showed that one in five were working in higher-risk occupations, compared with 11% of the population.⁴⁵⁶

306. Staff from Black, Asian and minority ethnic backgrounds are crucial to the NHS and care sectors, making up over one-fifth of the workforce and it is notable that the first ten NHS staff to die from covid-19 were from Black, Asian and minority ethnic backgrounds.⁴⁵⁷ There is some evidence that even within these frontline roles, ethnic minority staff were more exposed to covid-19 risk than their white colleagues. For example, the Health and Social Care Committee heard that in the first wave of the pandemic, frontline NHS staff from Black, Asian and minority ethnic backgrounds faced greater difficulty in accessing appropriate Personal Protective Equipment (PPE) that fitted correctly.⁴⁵⁸

307. Professor Kevin Fenton, Regional Director of Public Health England London, who co-authored Public Health England’s August 2020 report, *Disparities in the risk and outcomes of COVID-19*, stated that adequate protection for staff was an area they were “very concerned” about in their review:

Many BAME workers felt less empowered, less able to speak up and less able to express their concerns about PPE risk or any vulnerabilities they might have. That may have placed them at risk [...] staff felt less able to ask for PPE, or may have experienced what they felt was disproportionate distribution, utilisation or access to PPE as well.⁴⁵⁹

308. Some people from Black, Asian and minority ethnic backgrounds have also been exposed to higher covid-19 risk due to their housing conditions. Figures released by the Office for National Statistics covering the first wave of the pandemic concluded that there was “some evidence” that suggested that “infection rates are lower for those living in households of fewer people”.⁴⁶⁰ Professor Bell from the Office for National Statistics stressed to us that people from Black, Asian and minority ethnic backgrounds were much more likely to live in multi-generational households with higher occupancy than their white counterparts:

From the English housing survey, for example, we know that if you take their definition of “overcrowded” - more than one person per bedroom- for the white population, 2% live in such accommodation; for Bangladeshis it

455 GOV.UK, [Drivers of the higher COVID-19 incidence, morbidity and mortality among minority ethnic groups](#), 23 September 2020, October 2020

456 Q644

457 [The Guardian, 'UK government urged to investigate coronavirus deaths of BAME doctors: 10 April 2020'](#), accessed 17 September 2021

458 Oral evidence taken before the Health and Social Care Committee on 14 May 2020, HC (2019–2021) 320, Q95; Public Health England, [Beyond the Data: Understanding the impact of COVID-19 on BAME groups](#), June 2020.

459 Q664

460 Office for National Statistics, ['Infection rates by household size over the study period: July 2020'](#), accessed 17 September 2021

is 24%; for Pakistanis, 18%; and for black Africans, 16%. We also know that those living in urban high-density areas are more at risk, as are those in more deprived areas.⁴⁶¹

309. In November 2020 SAGE confirmed the link between household size and increased transmission, finding that, even after controlling for deprivation and other factors, “there is increased risk of infection and mortality for those living in larger occupancy households”.⁴⁶² In larger households, each individual will have a larger number of contacts while facing more difficulty engaging in transmission-reducing behaviour such as self-isolating or shielding. Age UK explained that, particularly for elderly people, living in larger, multi-generational households, it meant that individuals were more likely to be living with someone of working age who had to leave the house regularly, and so were at a higher risk of catching coronavirus.⁴⁶³

310. The socio-economic factors discussed above have an important impact on the overall health and wellbeing of a person. The Government has identified ‘levelling up’ as a priority. This seeks to ensure “that no community is left behind, particularly as we recover from the COVID-19 pandemic”.⁴⁶⁴ Professor Kevin Fenton expressed to us that, in his view, tackling these issues would be “the most important” in determining different outcomes.⁴⁶⁵

311. Additionally, written evidence we received was critical of the Government’s efforts to engage and communicate with people from minority ethnic groups. The Local Government Association wrote that the Government should focus on “improving messaging about health-seeking behaviour” to these communities. One of the important problems highlighted to us was that the large majority of the Government’s covid-19 public health messaging was delivered in English. Academics from the University of Surrey argued that this made the mistake of “failing to account for the large BAME population in the UK who may not have English as their first language”.⁴⁶⁶ In June 2020, a Public Health England Report, *Beyond the data*, raised concerns that the Government’s national messaging on health promoting behaviours such as isolating, testing and contact tracing, was not reaching the most vulnerable minority ethnic groups in our society. Professor Whitty acknowledged this:

I do not think we got our messaging right for some of the ethnic minority British groups early on and, indeed, some smaller groups. We did not have a clear campaign in those areas. That is something we need to look at fairly self-critically and work out how we can do it better the next time round.⁴⁶⁷

461 Q644

462 GOV.UK, [Housing, household transmission and ethnicity, November 2020](#).

463 Age UK ([CLL0039](#))

464 GOV.UK, [‘New levelling up and community investments: March 2021’](#), accessed 17 September

465 Q660

466 Centre for Britain and Europe, University of Surrey ([CLL0059](#))

467 Q827

312. However, locally based public health messaging was considered more successful in reaching out to and engaging with these communities.⁴⁶⁸ Professor Fenton, for example, pointed to local contact tracing efforts that produced positive outcomes “in part because it is closer to communities and able to engage communities in much more culturally competent ways”.⁴⁶⁹

313. Importantly, the call for ‘cultural competence’ in national Government messaging and communications towards marginalised groups does not involve merely translating public health messages into a variety of languages. In July 2020, SPI-B recommended that culturally appropriate messaging should also be considerate of cultural and social norms, understand differences between different ethnic minority groups and be aware that minority ethnic communities may be less willing to trust health communication that comes from Government.⁴⁷⁰ Messages from leaders who already have established trust such as faith or community leaders are more likely to reach these communities.⁴⁷¹

People with learning disabilities

314. The impact of the pandemic has also been disproportionately severe for individuals with learning disabilities, both in terms of their mortality rate due to the virus itself and the impact of non-pharmaceutical interventions such as lockdown and shielding. In November 2020, Public Health England concluded that the death rate from covid-19 among adults with learning disabilities was 3.6 times the rate of the population as a whole.⁴⁷² Written evidence highlighted that these rates of death become even more disproportionate for younger adults with learning disabilities⁴⁷³ and Dan Scorer, Head of Policy at Mencap, told the Health and Social Care Committee that when adjusted for age the death rate for people with learning disabilities was “over six times” higher than the general population.⁴⁷⁴

315. The reasons behind the disproportionate mortality risk faced by people with learning disabilities are multifaceted, but there was a high degree of consensus that existing inequalities, which pre-dated the pandemic, played an important role. Steve Scown, Chief Executive of the learning disabilities charity Dimensions UK, made clear that in their experience, pre-existing health conditions had increased the risk of mortality:

People with learning disabilities have a much shorter life expectancy than people without. That is a well-known fact. I think I am right in saying that it is at least a decade, so there is an inherent disparity to begin with. Also, people with learning disabilities often have underlying health conditions that make them more susceptible to Covid.⁴⁷⁵

468 Public Health England, *Beyond the Data: Understanding the impact of COVID-19 on BAME groups*, June 2020, page 31

469 Q657

470 GOV.UK, *SPI-B: Public health messaging for communities from different cultural backgrounds*, 22 July 2020

471 Public Health England, *Beyond the Data: Understanding the impact of COVID-19 on BAME groups*, June 2020, page 32

472 Public Health England, *Deaths of people identified as having learning disabilities with COVID-19 in England in the spring of 2020*, November 2020

473 Professor Chris Hatton (Professor of Social Care at Dept of Social Care and Social Work, Manchester Metropolitan University) (CLL0037)

474 Oral evidence taken before the Health and Social Care Committee on 9 February 2021, HC (2019–2021) 1195, Q10

475 Q629

316. That people with learning disabilities have a lower life expectancy than the general population is well-documented by the annual Learning Disability Mortality Review (LeDeR) Programme. The 2019 LeDeR report showed that the average life expectancy for a male with learning disabilities was 61 years old, while for females it was 59 years old. This is compared to average life expectancy of 83 for males and 86 for females in the general population.⁴⁷⁶ The PHE analysis called attention in particular to the fact that people with learning disabilities already have higher death rates from respiratory infection than the population as a whole, as well as higher rates of diabetes and obesity, both of which are risk factors for covid-19.⁴⁷⁷

317. People with learning disabilities therefore entered the pandemic from a position of heightened vulnerability. However, we have heard that these pre-existing risk factors were compounded by the fact that during the pandemic, people with learning disabilities were also more likely to struggle to access the healthcare that would normally be available to them. Steve Scown pointed to these difficulties accessing healthcare as a probable reason for their elevated risk of mortality due to covid-19:

Some of the difficulties they have had accessing the NHS during the last nine months have made treating their usual, normal illness-if I can use that phrase- much harder. We have had instances where people we support have not been admitted to hospital because they are not deemed poorly enough, whereas in the past they would have been. We have had difficulty getting GPs to visit. Often, the only way we have been able to access medical treatment is to dial 999.⁴⁷⁸

318. Some of the guidance in place around hospital visiting during the pandemic has also had an impact on the quality of care that people with learning disabilities have experienced. In normal circumstances, people with learning disabilities who have to attend hospital can be accompanied by a family member or carer who is able to help them communicate with health staff if necessary. Yet due to infection control measures in hospitals, particularly at the beginning of the pandemic, some carers and advocates for people with learning disabilities were not allowed to attend hospital. Steve Scown told us that:

We have had 43 people admitted to hospital during Covid. On no occasion have families or staff been allowed to go with them. That has made their treatment much more difficult for our health colleagues.⁴⁷⁹

319. It is important for people with learning disabilities, and especially those who may have trouble communicating or are entirely non-verbal, that they can be accompanied by family or a carer who is able to advocate on their behalf. We heard that not having access to this support during the pandemic could have a real impact on the quality of care that people with learning disabilities receive. Some people with learning disabilities rely on this support to ensure that health staff can understand their needs. For example, James

476 The Learning Disabilities Mortality Review Programme, *Annual Report 2019*, 16 July 2020

477 Public Health England, *Deaths of people identified as having learning disabilities with COVID-19 in England in the spring of 2020*, November 2020

478 Q629

479 Q633

O'Rourke explained that his brother Tony "would not be able to tell you where the pain is" without this support.⁴⁸⁰ This set up unnecessary barriers to effective treatment, which Dan Scorer told us was "a massive problem".⁴⁸¹

320. While the impact of the virus itself on people with learning disabilities was disproportionately severe, so too was the impact of the non-pharmaceutical interventions that were introduced to mitigate its spread. We heard that the lockdowns, and in particular, the loss of social support that came with them, were extremely damaging to the wellbeing of some people with learning disabilities. Helen Spalding, who cared fulltime for her daughter Maja during the pandemic, described the serious impact that the loss of her usual support had on Maja's mental health:

Maja would usually be at college five days a week. She goes to clubs and activities, run by various different organisations, Monday, Tuesday, Wednesday, Thursday and one Friday a month. On Saturdays, there are two activities [...] and on Sundays she is very enthusiastic about the groups and the children's work in the church. [...] As soon as we went into lockdown, obviously the college closed. She was at home every day. All the clubs and activities stopped; everything stopped. For Maja, that was completely dreadful. It sent her into a tailspin.⁴⁸²

Dan Scorer explained to the Health and Social Care Committee's inquiry into *the treatment of autistic people and individuals with learning disabilities* that similar experiences were identified by Mencap across the entire sector:

From a survey of over 1,000 family carers that we did during the first lockdown, around 70% had experienced a reduction or cut to the social care support they and their loved one were getting. When we followed that up in November, 80% still had not had services reinstated.⁴⁸³

321. For those people with learning disabilities who live independently in supported living, we heard that lockdown meant being completely shut off from the outside world, friends, and family. James O'Rourke, whose brother Tony lives in a supported living arrangement, described how difficult this was:

The second lockdown, for us as a family, was horrendous. I need to put in some context. Tony lives in a one-bedroomed flat, which he shares in a block with others. There are 12 flats. It is allegedly supported living, but the care provider treated it like a residential care home and completely locked it down, not giving us any access to Tony whatsoever.⁴⁸⁴

322. Given the greater risk of mortality from covid-19 experienced by people with learning disabilities and the acute negative impacts which shielding had on this group, it may have been possible and desirable for the decision to prioritise this group for vaccination to have been made earlier. Implementing the decision was later hampered by a lack of data within primary care on patients with learning disabilities.⁴⁸⁵

480 [Q633](#)

481 Oral evidence taken before the Health and Social Care Committee on 9 February 2021, HC (2019–2021) 1195, [Q11](#)

482 [Q15](#)

483 Oral evidence taken before the Health and Social Care Committee on 9 February 2021, HC (2019–2021) 1195, [Q6](#)

484 [Q620](#)

485 [Q850](#)

323. Isolation both from the outside world and from the services that traditionally offer care and support for people with learning disabilities took an emotional toll on both Tony and Maja. James described to us that his brother was “pining for me, because we are very close and I cannot see him”⁴⁸⁶ while Helen told us that her daughter Maja’s mental health deteriorated to the point that “she verbalised to me that she wanted to die”.⁴⁸⁷

324. The loss of normal social support and care during the pandemic was part of a larger sense that people with learning disabilities were being overlooked by the Government. Written evidence to our inquiry pointed out that official guidance conflated the nuances of the adult social care sector, with a lack of bespoke guidance to the learning disability sector.⁴⁸⁸ Further, when guidance was provided, it was often later, contributing to the view that people with learning disabilities were not a priority for the Government. The Voluntary Organisations Disability Group told us:

From the outset of the pandemic, disabled people and their families and carers, and the workforce supporting them, have been overlooked in government guidance on infection control, personal protective equipment, and testing and there has been little recognition of the types of services supporting them. Care settings outside of older people’s care homes were the last to be included in the government’s routine testing programme, and still disabled people living in supported living settings and non-CQC registered settings are not fully included in the programme.⁴⁸⁹

325. This point was similarly emphasised by Steve Scown, who was clear that “consistently, the Government guidance for registered care homes has been issued weeks in advance of guidance for supported living services”.⁴⁹⁰ While Vivien Cooper, founder of the Challenging Behaviour Foundation, told the Health and Social Care Committee that people with learning disabilities and autistic people have been only considered as an “afterthought” during the development of guidance.⁴⁹¹ We recognise that there was a need for significant Government focus on residential care homes for elderly people, given the significant mortality risk to this group. However, there is a real sense that this focus came at the expense of the rest of the sector.

326. The confusion over ‘Do Not Attempt CPR’ (DNACPR) guidance was perhaps the most significant consequence of this. The LeDeR review of the deaths of people with learning disabilities from covid-19 found that in several cases ‘learning disabilities’ were given as the rationale for a DNACPR decision.⁴⁹² This was despite guidance issued by NHS England and NHS Improvement on 3 April 2020 explicitly stating “the terms ‘learning disability’ and ‘Down’s syndrome’ should never be a reason for issuing a DNACPR order”.⁴⁹³

486 [Q620](#)

487 [Q15](#)

488 [Care England \(CLL0013\)](#)

489 [Voluntary Organisations Disability Group \(CLL0053\)](#)

490 [Q628](#)

491 [Oral evidence taken before the Health and Social Care Committee on 9 February 2021, HC \(2019–2021\) 1195, Q9](#)

492 [The Learning Disabilities Mortality Review Programme, Deaths of people with learning disabilities from COVID-19, 2020](#)

493 [NHS England and NHS Improvement, Letter clarifying use of DNACPR for people with a learning disability and/or autistic people, 3 April 2020](#)

327. Steve Scown of Dimensions UK told us that his organisation had seen several DNACPRs placed on the records of people that the charity supports “without any consultation with their families”:

We had medical staff placing those on medical records without due process. That basically means that if the person becomes ill you do not attempt to resuscitate. The fact that they were placed on files without any meaningful conversation with families or any other professional is, frankly, disgraceful.⁴⁹⁴

328. We acknowledge that official NHS England and Improvement policy has always been that blanket application of DNACPRs to groups of people is inappropriate. Professor Ramani Moonesinghe, National Clinical Director for Critical and Perioperative Care at NHS England and Improvement, wrote to us in December 2020 stressing that there “is never a blanket application of do not attempt cardiopulmonary resuscitation orders”.⁴⁹⁵ Similarly, the then Secretary of State told us that “the idea that a DNR notice should be put on without the individual consent process and the correct decision being taken, with clinical advice on an individual basis—it is completely unacceptable”.⁴⁹⁶ However, a CQC review of the use of DNACPRs throughout the pandemic found that “all voluntary sector and some other stakeholders said they had either actual or anecdotal evidence of concerns about the issuing of inappropriate DNACPR orders”. According to the review, this may have been due to “confusing guidance, pathways and protocols”.⁴⁹⁷

329. While it is clear that national NHS guidance was never to apply blanket DNACPRs to any group, the pattern of delayed and unclear guidance to the sector created widespread confusion on their appropriate use and certainly contributed to the perception in the sector that people with learning disabilities were not being valued in the same way as the general population during the pandemic. Steve Scown put this bluntly:

We have to admit the point that people with learning disabilities are not valued as equal members of society[...]

There is a fundamental problem about how people with learning disabilities are valued in society.⁴⁹⁸

Conclusions and recommendations

Conclusions

330. **The impact of covid-19 has been uneven across the population, with some sections of society suffering significantly higher illness and deaths than the nation as a whole.**

331. **During the initial phase of the pandemic Black, Asian and minority ethnic people experienced significantly higher levels of severe illness and death from covid than was typical the population as a whole. Research conducted so far suggests that the drivers**

494 Q635; Care Quality Commission, ‘Protect, respect, connect - decisions about living and dying well during COVID-19’ 15 April 2021, page 56, figure 15.

495 Correspondence from Professor Ramani Moonesinghe, National Clinical Director for Critical and Perioperative Care, to Chairs, 18 December 2020

496 Q1381

497 Care Quality Commission, *Review of Do Not Attempt Cardiopulmonary Resuscitation decisions during the COVID-19 pandemic*, November 2020.

498 Q634

of these elevated levels of impact among Black, Asian and minority ethnic people arise from greater likelihood of jobs that come with higher exposure to covid infection; more challenging social and economic circumstances; more densely occupied housing; and comorbidities from different health conditions. These are classic features of inequality in society and in the economy.

332. Staff from Black, Asian and minority ethnic backgrounds are crucial to the NHS and care sectors. The covid-19 pandemic has brought the experiences of these staff into sharp focus. It is telling that the first ten NHS staff to die from covid-19 were from Black, Asian and minority ethnic backgrounds, and evidence has since confirmed that the impact of covid-19 on this section of the workforce has been significant. While the NHS has made progress in recent years, the experience of people from BAME groups during the pandemic has made it clear that inequalities persist.

333. People with learning disabilities have experienced significantly higher death rates from covid-19 than the country as a whole. Deaths have been especially high among younger adults with learning disabilities. Initial research suggests that people with learning disabilities entered the pandemic from a position of heightened vulnerability because of existing comorbidities. This was compounded by particular barriers to accessing NHS treatment during the pandemic arising from restrictions on non-covid care and limits on the ability of carers and advocates to attend hospital with people with learning disabilities.

334. Although there was never national NHS guidance to apply “Do not attempt CPR” (DNACPR) notices to people with learning disabilities, there have been widespread concerns that there were cases in which they have been issued inappropriately during the pandemic.

Recommendations and lessons learned

335. *The Government should ensure its ‘levelling up’ agenda includes specific policies to reduce health inequalities, with a particular focus on ensuring that certain groups, including people from Black, Asian and minority ethnic backgrounds, do not continue to face unequal health outcomes.*

336. *It is essential that in any future crisis, NHS staff from Black, Asian and minority ethnic backgrounds are included in emergency planning and decision-making structures. NHS England should accelerate efforts to ensure that NHS leadership in every trust, foundation trust and Clinical Commissioning Group is representative of the overall Black, Asian and ethnic minority workforce.*

337. *Leadership in NHS England and Improvement should also increase their engagement with Black, Asian and minority ethnic worker organisations and trade unions to ensure that Black, Asian and minority ethnic members of staff feel valued by the organisation, are involved in decision-making processes and feel able to speak up when they are not being protected.*

338. *It is unacceptable that staff from Black, Asian and minority ethnic communities did not have equal levels of access to appropriate and useable personal protective equipment as their white colleagues during the pandemic. The Government must learn from the initial shortage of appropriate PPE for these staff and set out a strategy to secure a supply chain of PPE that works for all staff in the NHS and care sectors.*

339. *The NHS, local authorities and the Government should ensure that health advice during the remainder of the pandemic and in any future emergencies should be available in a full range of languages, and that outreach programmes should reflect what is most effective in the cultural context of different communities.*

340. *In planning for future health emergencies, the Department of Health and Social Care and the NHS should consider the specific difficulties faced by people with learning disabilities and their families and recognise the barriers to understanding and communication which, if not overcome, can lead to avoidable deaths of vulnerable people.*

341. *The NHS should improve the data it holds on people with learning disabilities so that this group of patients can be more appropriately considered for vaccination.*

342. *The NHS should ensure the guidance on DNACPR notices is clear and properly understood by healthcare professionals and individuals, especially in circumstances where a patient's carer or advocate may not be able to be present in hospital.*

7 Vaccines

343. The most successful component of the United Kingdom's response to the covid-19 pandemic has been the development and deployment of vaccines.⁴⁹⁹ Globally, it is one of the most stunning scientific achievements in history to have gone from having no protection against a devastating global virus, to deploying a range of effective vaccines in less than a year. In England alone it is estimated that more than 112,000 lives have already been saved by this extraordinary success, with tens of millions of infections being prevented.⁵⁰⁰ It is an element for which the label world-leading can accurately be applied to the UK response. The UK experience in vaccines is replete with lessons that can be learned which can help us, and other nations, build on this success, and do even better in the future. Our experience in this field also provides valuable insights which can be applied to other areas of public policy and administration in the UK.

344. It is worth noting the outcomes of the UK vaccination programme—although, obviously, the results continue to be added to. By 1 September 2021, over 48 million people in the UK had received at least one dose of a vaccine representing 88% of the adult population.⁵⁰¹ Further, by mid-September 2021 the UK had impressively recruited over 500,000 volunteers to join the coronavirus vaccine volunteers registry—we are grateful to these individuals for the critical role they are performing in vaccine development.⁵⁰² In addition the UK has donated already 9 million doses of vaccines to countries in the developing world,⁵⁰³ and our research support for what has become known as the Oxford-AstraZeneca vaccine resulted by late July 2021 in over one billion doses of the vaccine having been released worldwide.⁵⁰⁴ More than anything else—non-pharmaceutical interventions, treatments, or test and tracing—vaccines have saved us from an ongoing catastrophe.

345. The UK vaccination project consists of several important, but distinct, elements. Part of its overall success was the effective performance of each element. But part, too, was the effective interplay between different elements—such as between procurement and regulatory approvals—that is all the more remarkable because of the independence of many of the bodies concerned. In this respect, it has been a success of a systems approach rather than centralised command and control. In this Chapter we consider a number of the principal elements of the UK vaccine project, including:

- the process of discovery of candidate vaccines;
- the procurement of vaccines;
- the licensing and approvals processes;
- the manufacture of vaccines to the UK population; and
- the supply of vaccines to the rest of the world.

499 For example, see: Ourworldindata, 'COVID-19 vaccine doses administered per 100 people', accessed 3 September 2021

500 Public Health England, 'COVID-19 vaccine surveillance report – week 36, 9 September 2021', p28

501 GOV.UK, 'Daily summary: Coronavirus in the UK', accessed 2 September 2021. Adult population includes population over 16

502 NHS Digital, 'Coronavirus vaccine studies volunteers dashboard', accessed 16 September 2021

503 GOV.UK, 'UK begins donating millions of COVID-19 vaccines overseas: 28 July 2021', accessed 12 August 2021

504 University of Oxford, 'Oxford vaccine reaches one billion doses released: 29 July 2021', accessed 12 August 2021

Discovering a covid-19 vaccine

346. The foundations of the UK being not only a procurer of vaccines but a significant developer of vaccines against covid-19 rely on the strength of our science base, and in particular the life sciences.⁵⁰⁵ It is important to remember that several UK research institutions were immediately engaged in seeking to discover—at unprecedented speed—a vaccine effective against covid-19 from January 2020 when the virus had first been sequenced. The capability of each—including the Jenner Institute at the University of Oxford, and the Faculty of Medicine at Imperial College, London—has been built up over many years, and, in the case of the Jenner Institute, had been prominent in the search for vaccines to be deployed in previous pandemics, including against MERS.⁵⁰⁶ It is clear that funding for such internationally excellent research institutions is an investment that pays off in multiple ways—advancing knowledge, training scientists to become world-class—that are not immediate.

347. The UK Vaccine Network was set up in 2016 in the wake of the Ebola epidemic in West Africa.⁵⁰⁷ The Network, chaired by Professor Chris Whitty, Chief Medical Officer for England, is focused on supporting the Government to identify and shortlist investment opportunities that will combat infectious diseases with epidemic potential. The Network brings together industry, academia and relevant funding bodies. It has four working groups that: identify and prioritise human and zoonotic diseases; understand how a vaccine will impact on an epidemic disease outbreak; produce a process map for vaccine deployment, from discovery to deployment; and look at the manufacture of vaccines.⁵⁰⁸ As mentioned earlier in this Chapter, the Oxford/AstraZeneca vaccine was based on the same technology developed by a previous project funded by the Government in 2016 to find a vaccine for MERS. That research was funded through the UK Vaccine Network.⁵⁰⁹

348. It also shows the value of funding different institutions and programmes. Vaccine discovery is an uncertain process⁵¹⁰ and it was not knowable at the outset that the Oxford research team would achieve the breakthrough they did, while the Imperial programme has experienced setbacks on the way. During the early months of the pandemic it was not known—or even knowable—that a vaccine would ever be discovered against covid-19. Nevertheless, the Government acted with commendable agility in directing additional funds—at risk—to fund the research avenues that had been embarked on. The Science and Technology Committee, in private, strongly advocated for this investment during the early days of the pandemic, in recognition of how critical a vaccine was given that deaths would continue at unacceptably high levels until a vaccine was discovered. It is also notable that a vaccine was developed within a year of the pandemic, despite, according to Dominic Cummings, the “conventional wisdom [...] that we were not going to be able to have any vaccines in 2020.”⁵¹¹

505 See, for example: HM Government, ‘UK Research and Development Roadmap’, July 2020.

506 See, for example: Q708 and Q789.

507 GOV.UK, ‘Prime Minister calls for ‘wake-up to the threat from disease outbreak’, accessed 12 August 2021

508 GOV.UK, ‘UK Vaccine Network’, accessed 22 June 2021

509 Department of Health and Social Care, *Projects supported by DHSC through the UK Vaccine Network*, August 2019, page 5

510 See, for example: oral evidence taken before the Science and Technology Committee on 25 March 2020, 16 July 2020 and 24 February 2021, HC (2019–21) 136, Q57, Q1131 and Q2146.

511 Q1130

349. The then Secretary of State for Health and Social Care also said that vaccine development would receive the full support of the state:

I first started the push for a vaccine in January. In fact, I had a meeting on 25 January pushing for a vaccine in which I was told that it would take a long time, that it would take normally years and typically, if we accelerated everything and if everything went right, it would take a year to 18 months. I said, “I want one within a year and we will throw the full resources of the state at making that happen”.⁵¹²

On 28 July 2020, the Government said that it had “fully funded the Oxford clinical trials, to the cost of £20 million” and that it had provided Imperial College London with £22.5 million to allow their vaccine to enter human trials.⁵¹³

The procurement of vaccines

350. One of the soundest judgements of the entire pandemic was that, notwithstanding the public funding directed to UK institutions engaged in the discovery of vaccines—we should at an early stage procure for the nation supplies from a wide range of different candidate vaccines being developed in other countries.⁵¹⁴

351. The Vaccine Taskforce was established in April 2020. The Life Sciences-focused venture capitalist Kate Bingham was appointed to lead it in May 2020.⁵¹⁵ The Taskforce was a team drawn of Life Sciences industry professionals, civil servants and scientists, and was based outside the Department of Health and Social Care physically and in reporting terms. The team was based in the Department for Business, Energy and Industrial Strategy and Kate Bingham reported directly to the Prime Minister. In his oral evidence to us, Dominic Cummings said that the Vaccine Taskforce was an initiative of Sir Patrick Vallance, the Government Chief Scientific Adviser (who had been appointed to his position following a successful tenure in the Life Sciences industry). Mr Cummings said that Sir Patrick texted him on or around 24 March seeking his support in pitching the proposition to the Prime Minister that the team should be established outside the Department of Health and Social Care.⁵¹⁶ Mr Cummings said that Sir Patrick, along with the then Cabinet Secretary, Sir Mark Sedwill, and himself put to the Prime Minister that it was “inconceivable we can leave it in DH (the Department of Health and Social Care)” based on concerns over the performance of the Department on procurement during February and March, which had led Dominic Cummings to describe the Department of Health and Social Care as a “smoking ruin”.⁵¹⁷

352. The Vaccine Taskforce was asked to deliver three objectives:

- (1) to secure access to promising vaccines for the UK population;
- (2) to make provision for international distribution of vaccines; and

512 Q1279

513 House of Lords, 28 July 2020 [Lords written statement HLW5420]

514 GOV.UK, ‘VTF objectives and membership of the steering group; 24 November 2020’, accessed 12 August 2021

515 GOV.UK, ‘Kate Bingham appointed chair of UK Vaccine Taskforce: 16 May 2020’, accessed 12 August 2021

516 Q1130

517 Q1015 and Q1130

- (3) to support the industrial strategy by establishing a long-term vaccine strategy plan to prepare the UK for future pandemics.⁵¹⁸

353. The model of the Vaccine Taskforce built on collaborative arrangements, outside the usual Whitehall organisation, that had been established in the Office for Life Sciences in 2009 and developed further by the Life Sciences Industrial Strategy in 2017.⁵¹⁹

354. It is clear that the bespoke structure of the Vaccine Taskforce together with Kate Bingham's direct approach to leadership, including building a high performing team around her, were of great importance.⁵²⁰ It is also very clear that much of the success of the UK vaccine project was attributable to the Vaccine Taskforce, and in particular its bespoke role within the official system—a diverse group of people, led by an independent, industry-experienced individual, and sitting outside the Whitehall hierarchy.⁵²¹

355. However, Dominic Cummings expressed to us concern that what made the Vaccine Taskforce distinctive and effective was being eroded and that since Kate Bingham's departure:

the normal entropy process of Whitehall has got its fingers on the thinking and the operations around this. There hasn't been the kind of very aggressive approach that some inside government want about thinking through the danger of variants and how to make sure that the vaccine taskforce is ahead of the game.⁵²²

356. Crucial too were strategic judgements, and one of the most important was to procure firm orders with a range of potential vaccine suppliers long before they had been established as clinically safe and effective.⁵²³ Dominic Cummings said: "Patrick Vallance and his team were saying that the actual expected return on this was so high that even if it does turn out to be wasted billions, it is still a good gamble in the end."⁵²⁴

357. Vaccines and therapeutics go through three phases of trials before being approved by a regulator. Phase one begins in a small group of people to check safety; phase two has more participants and seeks to establish the immune response; and phase three assesses the degree of effectiveness and establishes side effects.⁵²⁵ By November 2020, before most vaccines had reported their phase three trial results, the Vaccine Taskforce (VTF) had negotiated and signed agreements for:

- 100 million doses of Oxford/AstraZeneca;
- 60 million doses of Valneva;
- 40 million doses of Pfizer/BioNTech;
- 60 million doses of Novavax;

518 GOV.UK, 'VTF objectives and membership of the steering group: 24 November 2020', accessed 12 August 2021

519 GOV.UK, *Independent report, Life sciences: industrial strategy: A report to government from the life sciences sector, August 2017*

520 See, for example Q1130.

521 See, for example: Q1314 and Q1462.

522 Q1144

523 See, for example: Q280 and Q788

524 Q1130

525 Parliamentary Office of Science and Technology, *The performance of COVID-19 vaccines in clinical trials and in real world conditions, February 2021*

- 7 million doses of Moderna;
- 60 million doses of Sanofi/GSK; and
- 30 million doses of Janssen.⁵²⁶

There have been additional agreements for the UK since November 2020, including 95 million more doses of the Pfizer vaccine;⁵²⁷ 50 million doses from CureVac;⁵²⁸ an additional 40 million doses of the Valneva vaccine;⁵²⁹ and 10 million more doses of the Moderna vaccine.⁵³⁰

358. In October 2020, Kate Bingham, the then chair of the VTF, wrote that the Taskforce sought agreements which represented a range of different vaccine technologies to ensure that if one type of vaccine failed, the UK still had access to others.⁵³¹ This approach built in a high degree of resilience to the UK's access to vaccines. We also heard that the VTF benefitted from there being clear responsibility and accountability as the team had very clear leadership.⁵³²

359. Other aspects of the procurement were to prove critical, including the insistence that orders placed would be fulfilled before other countries who might subsequently place orders.⁵³³ Nonetheless, the agreement that the Vaccine Taskforce struck with AstraZeneca in May 2020 envisaged that 30 million doses would be supplied by September 2020, whereas in fact Kate Bingham told us In November 2020 that the UK would probably get "up to about 4 million doses at the end of the year".⁵³⁴ Kate Bingham explained why the September 2020 deadline had not been met:

Those 30 million doses assumed a linear yield on scale-up. When you manufacture these vaccines, you start at test tube level, scale up sequentially and ultimately get to the 1,000 or 2,000-litre scale. The projections, made in good faith at the time, to get to 30 million doses in September assumed that absolutely everything would work and that there would be no hiccups at all in going from microlitre scales to 1,000 or 2,000-litre scales.

It has not gone linearly, and that is not through lack of care and attention, availability of equipment or anything like that. It is just that it normally takes a very long time. The answer is no, but it is now at the 1,000-litre scale, and that is working.⁵³⁵

526 Department for Business, Energy and Industrial Strategy, *UK Vaccine Taskforce 2020 Achievements and Future Strategy: End of year report*, December 2020

527 GOV.UK, 'UK secures extra 60 million Pfizer/BioNTech COVID-19 vaccines: 28 April 2021', accessed 17 September 2021; and GOV.UK, 'UK signs deal with Pfizer/BioNTech for 35 million vaccines: 23 August 2021', accessed 17 September 2021

528 GOV.UK, 'New vaccines partnership to rapidly respond to new virus variants: 5 February 2021', accessed 17 September 2021

529 GOV.UK, 'UK government secures additional 40 million doses of Valneva vaccine: 1 February 2021', accessed 17 September 2021

530 GOV.UK, Moderna COVID-19 vaccine authorised by UK medicines regulator: 9 January 2021, accessed 17 September 2021

531 Kate Bingham, *The UK Government's Vaccine Taskforce: strategy for protecting the UK and the world*, 27 October 2020

532 Q1130

533 Politico, 'How the UK gained an edge with AstraZeneca's vaccine commitments', accessed 17 September 2021

534 Q289

535 Q288

Sir Tom Keith-Roach, President of AstraZeneca UK, told the Science and Technology Committee in January 2021 that manufacturing drug substance was a “complex biological process” that took 50 to 60 days and could not be sped up.⁵³⁶

Manufacturing vaccines

360. Another notable feature of the innovative approach which the Vaccine Taskforce took was to contract at risk with vaccine suppliers for supplies to be manufactured before regulatory approval had been given. Dominic Cummings told the Committees that the ability to run in parallel research, regulatory and manufacturing processes, and to finance them, was an opportunity that arose because the UK was outside the EU procurement system, recalling advice that:

The EU plan looks like the classic EU Brussels thing. It will be completely bogged down in bureaucracy. They will not be able to take the right financing decisions. They will not do this parallelisms approach of building everything and subsidising everything as you go along.⁵³⁷

361. Despite issues in scaling up, the UK was able to adapt. In order to speed up the timeline of the covid-19 vaccine, some pharmaceutical companies were producing the vaccine substance ‘at-risk’ before regulatory approval had been granted. Then chair of the Vaccine Taskforce, Kate Bingham, told us:

To ensure that the vaccines are ready as soon as they are approved, we are manufacturing now. We have vaccines already in place, so that as soon as we have approval from the MHRA we will be able to start to deploy them, or hand them to [the Department of] Health to deploy.⁵³⁸

Starting manufacturing early, as described above by Kate Bingham, meant that issues in scaling up were realised and resolved before regulatory approval and the roll-out.

362. The Government and its predecessors also took steps to accelerate the building of vaccine manufacturing capacity in the UK. The 2017 Life Sciences Industrial Strategy had identified the need to reverse the relative underinvestment in vaccines manufacturing capability by the UK—both relative to the UK’s strengths in discovery and the science around new vaccines, and compared with the resilience against the sudden demands of future pandemics.⁵³⁹ The Industrial Strategy proposed and established a national Vaccines Manufacturing Innovation Centre (VMIC) to address this gap.⁵⁴⁰ While the need to develop vaccine manufacturing capacity had been envisaged in the Industrial Strategy, the covid pandemic and the vaccine requirement came before the VMIC was scheduled to open in 2022. In May 2020 the Government announced £93 million of additional

536 Oral evidence taken before the Science and Technology Committee on 13 January 2021, HC (2019–21) 136, Q1698

537 Q1131

538 Q281

539 GOV.UK, [Industrial Strategy: Life Sciences Sector Deal, December 2017](#) and GOV.UK, [Industrial Strategy: Life Sciences Sector Deal 2, December 2018](#)

540 GOV.UK, [‘Industrial strategy delivers new vaccines manufacturing centre to lead the fight against deadly disease: December 2018’](#), accessed 12 August 2021

investment to accelerate by a year the completion of the VMIC, followed by a further £47.6m in March 2021.⁵⁴¹ As a result, the Centre would be able to produce up to 70 million vaccine doses within a six-month response time.

363. The Government has made further commitments to vaccine manufacturing including in July 2020 to acquire a facility in Braintree for use by the Cell and Gene Therapy Catapult Manufacturing Innovation Centre, due to come on stream in December 2021, and investment with vaccine manufacturer Valneva to update and expand its facility in Livingston, Scotland.⁵⁴² The UK's order for vaccines from Valneva has been cancelled.⁵⁴³ As such, it is not clear what the implications are for the facility in Livingston.⁵⁴⁴

Trials and regulatory approval

364. Another feature of the agile and innovative approach taken in the vaccine programme was that of the approvals processes—in terms of the clinical trials of candidate vaccines, the order of prioritisation for vaccination and the approved dosage intervals.

365. Confidence in the safety and efficacy of new vaccines is of fundamental importance and this confidence is substantially based on the regulatory standards that govern their development and deployment. The expertise, rigour and independence of the UK regulators—principally the Medicines and Healthcare Products Regulatory Authority (MHRA), the Joint Committee on Vaccination and Immunisation (JCVI) and the Commission on Human Medicines—is foundational to that.

366. Prior to the UK's departure from the European Union, the European Medicines Agency (EMA) would have had a decisive influence on the regulatory process in the UK and as we referred to in paragraph 360, some evidence to our inquiry drew attention to the greater ability to act in an innovative way that came from being outside the EMA's writ.

367. On 2 December 2020, the MHRA approved the Pfizer/BioNTech vaccine for use in the UK—the first regulator in the world to do so.⁵⁴⁵ On 8 December 2020, the first person in the UK, outside of a clinical trial, was vaccinated. Pfizer announced the conclusion of its phase 3 trial only on 18 November.⁵⁴⁶ Dr June Raine, Chief Executive of the MHRA, explained how the MHRA was able to approve the first vaccine so quickly:

We adopted a novel, or innovative, regulatory process known as a rolling review. Normally, all the data on a vaccine's safety, quality and effectiveness, and all required documentation, must be submitted together to start an evaluation to approve a medicine or a vaccine. In the case of a rolling

541 GOV.UK, 'Vaccines Manufacturing and Innovation Centre to open 12 months ahead of schedule: May 2020', accessed 12 August 2021, and GOV.UK, 'Extra £47.6 million for Vaccines Manufacturing and Innovation Centre: March 2021', accessed 12 August 2021.

542 Correspondence from Rt Hon Alok Sharma MP, Secretary of State for Business, Energy and Industrial Strategy, to the Chair of the House of Commons Science and Technology Committee, relating to the Vaccine Taskforce, dated 23 July 2020, and GOV.UK, 'UK government invests in Livingston facility to bolster vaccine manufacturing capacity: August 2020', accessed 12 August 2021.

543 HC Deb, 14 September 2021, col 820 [Commons Chamber]

544 See, for example: The Guardian, 'UK cancels Covid vaccine deal with French firm Valneva', accessed 17 September 2021

545 GOV.UK, 'Regulatory approval of Pfizer/BioNTech vaccine for COVID-19: 2 December 2021', accessed 17 September 2021

546 Pfizer, 'Pfizer and BioNTech Conclude Phase 3 Study of COVID-19 Vaccine Candidate, Meeting All Primary Efficacy Endpoints: 18 November 2020', accessed 17 September 2021

review—in this case—we reviewed data in packages or tranches as soon as they became available from the ongoing studies, on a staggered basis. By reviewing data as soon as it became available, we could reach an opinion sooner on whether the medicine or the vaccine could be approved.⁵⁴⁷

While other regulators, namely the European Medicines Agency and the US Food and Drug Administration, were also carrying out rolling reviews of data, Dr Raine put the MHRA's swiftness down to "the flexibility and agility of the clinicians and scientists at the MHRA".⁵⁴⁸ The Oxford/AstraZeneca vaccine was approved in the UK shortly after the Pfizer vaccine on 30 December 2020 with the first person in the UK receiving the vaccine on 4 January.⁵⁴⁹ The Moderna vaccine was approved in the UK on 31 March 2021,⁵⁵⁰ and the Janssen vaccine was approved on 28 May 2021.⁵⁵¹

Prioritisation

368. On 2 December 2020, following the approval of the Pfizer/BioNTech vaccine, the JCVI updated its prioritisation advice. It was largely based on age bands, but also included frontline health and social care workers, clinically extremely vulnerable individuals and those with more serious underlying health conditions. The Government accepted the JCVI's advice and followed it. Professor Anthony Harnden, deputy Chair of the JCVI, told the Science and Technology Committee in February 2021 that:

One of the key reasons that the programme has been so successful is that it has been simple, it has been deliverable, it has been rolled out very quickly, and people understand it. If you start picking out certain groups, it will make it more complicated, and the risk of doing that is slowing the programme down. If you slow the programme down, it may be that some people will be exposed to virus and actually suffer harm who would not have otherwise.⁵⁵²

369. During December 2020, as the most vulnerable in society began to get vaccinated, vaccine supply remained constrained. Further, case numbers, hospitalisations and deaths were reaching a peak in England. Considering these two issues, the JCVI advised:

delivery of the first dose to as many eligible individuals as possible should be initially prioritised over delivery of a second vaccine dose. This should maximise the short-term impact of the programme. The second dose of the Pfizer-BioNTech vaccine may be given between 3 to 12 weeks following the first dose. The second dose of the AstraZeneca vaccine may be given between 4 to 12 weeks following the first dose.⁵⁵³

547 Q770

548 Q771

549 MHRA, *Regulatory approval of COVID-19 Vaccine AstraZeneca: 30 December 2020* and BBC News, *Covid: Brian Pinker, 82, first to get Oxford-AstraZeneca vaccine, 4 January 2021*

550 MHRA, 'Summary of Product Characteristics for COVID-19 Vaccine Moderna; 31 March 2021', accessed 17 September 2021

551 GOV.UK, 'Janssen coronavirus (COVID-19) vaccine authorised by UK medicines regulator: 28 May 2021', accessed 17 September 2021

552 Oral evidence taken before the Science and Technology Committee on 24 February 2021, HC (2019–21) 136, Q2125

553 GOV.UK, 'Joint Committee on Vaccination and Immunisation: advice on priority groups for COVID-19 vaccination: 30 December 2020', accessed 17 September 2021

In practice, second doses would be delayed to enable more people to have a first dose. The JCVI cited data indicating high efficacy from the first dose of both Pfizer/BioNTech and Oxford/AstraZeneca vaccines.⁵⁵⁴ The advice was backed by the four Chief Medical Officers of the UK.⁵⁵⁵ At the time, the JCVI was criticised by some for its decision to recommend a change in the schedule of doses.⁵⁵⁶ We note that in subsequent studies conducted by Public Health England, there has not been a decrease in efficacy of the vaccines following the extended interval.⁵⁵⁷ The JCVI has subsequently changed this advice in response to the new Delta variant. On 14 May 2021, the JCVI advised the Government to bring forward second doses from 12 weeks to 8 weeks to ensure the fullest protection.⁵⁵⁸ At each stage, the UK's regulators have shown themselves to be willing to be innovative in setting the rules that must be met with a constant eye to the emerging evidence and optimal public health outcomes.

370. The decision, taken in late December 2020, to indicate a longer interval dose between vaccines was a decisive and courageous one. It was met with criticism by some scientific experts, and occasioned some public opposition among those who had been given their first doses and for whom attaining full protection was put back by up to eight weeks. But it was a decision that significantly enhanced the pace of protection for the UK population and, it was established, boosted the efficacy of the vaccine, with AstraZeneca describing an "eight to 12-week interval" between doses as the "sweet spot".⁵⁵⁹

Distribution of vaccines

371. From the authorisation by the MHRA of the first covid-19 vaccine on 2 December, the first UK patient outside a clinical trial was vaccinated on 8 December. Less than 8 weeks after the first vaccine was administered in the UK, on 3 February over 10 million people had received their first dose. This included 9 in 10 of those aged 75 and over in England and represented a significant proportion of the top four at-risk groups, who accounted for 88% of covid deaths, having their first vaccination.⁵⁶⁰

372. The distribution of vaccines was the mirror image of the test and trace operation. It sprang into large scale operation explosively and impressively, rather than slowly and inadequately; it made extensive use of existing NHS resources—hospitals, GPs and pharmacists—it welcomed third party assistance—such as the countless volunteer groups across the country—rather than having the approach of repelling local assistance that test and trace initially favoured.⁵⁶¹

554 GOV.UK, 'Joint Committee on Vaccination and Immunisation: advice on priority groups for COVID-19 vaccination: 30 December 2020', accessed 17 September 2021

555 GOV.UK, 'Statement from the UK Chief Medical Officers on the prioritisation of first doses of COVID-19 vaccines: 30 December 2020', accessed 17 September 2021

556 For example, see: CNBC, [Doctors criticize UK health officials for changing Pfizer Covid vaccine plan](#), 31 December 2020; and Doctors' Association UK, [letter to Matt Hancock](#), 31 December 2020

557 For example, see: Public Health England, [Effectiveness of COVID-19 vaccines against hospital admission with the Delta \(B.1.617.2\) variant](#), 14 June 2021

558 GOV.UK, 'JCVI advice to mitigate impact of B.1.617.2 variant: 14 May 2021', accessed 17 September 2021

559 Oral evidence taken before the Science and Technology Committee on 13 January 2021, HC (2019–21) 136, Q1692

560 GOV.UK, 'More than 10 million people receive first dose of COVID-19 vaccine in UK' 3 February 2021, and for phase one vaccination priority see: GOV.UK, 'COVID-19 vaccination first phase priority groups', accessed 3 September 2021

561 See, for example Q913

373. It is fair to acknowledge that the Government and the NHS had more time to prepare for an effective distribution for the vaccines than was the case with the test and trace regime, given that vaccine approval came ten months into the pandemic. However, one of our concerns about the test and trace operation was its failure to plan for foreseeable future needs even after the initial demand.⁵⁶²

374. The NHS already had substantial experience in rolling out vaccines as it does every year for the annual flu vaccine.⁵⁶³ According to the National Audit Office (NAO), NHS England and Improvement developed three delivery models by December 2020 to help deploy covid-19 vaccines:

- Fixed location mass vaccination sites;
- Rolling vaccination sites; and
- Mobile mass vaccination sites.

By 23 December 2020, the then Secretary of State announced that vaccines were being delivered from 500 sites across the UK. He also announced that vaccinations had begun in care homes.⁵⁶⁴ As of 26 July 2021, there were nearly 3,600 vaccination sites in England.⁵⁶⁵ These sites are made up of hospital hubs, GP led services, pharmacies and vaccination centres in the community. According to NHS England, 99% of the population live within 10 miles of a vaccine service.⁵⁶⁶

375. The then Secretary of State told the Health and Social Care Committee in January 2021 that Primary Care Networks were a key part of the success of the vaccination programme, whilst maintaining the activity of GPs:

One of the reasons we are doing it through groups of GP practices, through the primary care networks, is that most GP practices are contributing to, but not having to take full responsibility for, a Covid vaccination centre. Essentially, groups of GP practices are coming together, with each lending a number of people to create the Covid vaccination team. That allows us to keep many GP services running as normal, but obviously that has to focus on the most important healthcare needs.⁵⁶⁷

376. On 6 January 2021, the Prime Minister announced a target of offering a vaccine to everyone in the JCVI top four priority groups by 15 February.⁵⁶⁸ The top four priority groups included an estimated 14.6 million people.⁵⁶⁹ The Government subsequently announced that it had reached its target, and set a new target of offering everyone in the top nine priority groups the vaccine by May 2021, and all adults by September 2021.⁵⁷⁰

562 See Chapter 4

563 Oral evidence taken before the Science and Technology Committee on 28 April 2021, HC (2019–21) 136, [Q2357](#)

564 GOV.UK, [Health and Social Care Secretary's statement on coronavirus \(COVID-19\)](#), 23 December 2020

565 NHS England, [Vaccination sites](#), accessed 16 September 2021

566 NHS England, [Vaccination sites](#), accessed 28 June 2021

567 Oral evidence taken before the Health and Social Care Committee on 7 January 2021, HC (2019–21) 1121, [Q40](#)

568 HC Deb, 6 January 2021, col 734 [Commons Chamber]

569 BBC, ['England 'on track' for vaccinating Covid priority groups'](#), accessed 17 September 2021

570 GOV.UK, ['The most vulnerable and health and care workers offered COVID-19 jab as government hits target to protect those most at risk: 15 February 2021'](#), accessed 17 September 2021

377. The Government published its vaccines delivery plan on 11 January 2021.⁵⁷¹ The plan covered: supply; prioritisation; places; people; and tracking progress. The plan said that an 80,000 strong vaccination workforce had been trained and would be deployed across the country. This included current and returning NHS staff, St John Ambulance personnel and volunteers. The Government also consulted and made changes to regulations to enable more people to administer the covid-19 and flu vaccines. The Government amended the Human Medicines Regulations 2012 (SI 2012, No. 1916) such that healthcare professionals who did not normally vaccinate patients could now do so. This included: paramedics; physiotherapists; student doctors and nurses; and doctors and nurses working outside the NHS.⁵⁷²

378. The roll-out of the vaccine in England and the rest of the UK has been one of the fastest in the world. The NHS had a relatively long lead-in time to prepare for the deployment of vaccines. By September 2020, a new Deployment Programme Board was set up to assure delivery and provide cross-Government oversight. It was also jointly chaired by the senior responsible officer in NHS England and Improvement and the deployment lead within the Department for Business, Energy and Industrial Strategy.⁵⁷³ The NHS also benefitted from having access to large amounts of data through the population's GP and other NHS records. Using that data to establish different priority cohorts, contact patients and follow up with them has enabled a high take-up rate. The then Secretary of State for Health and Social Care also told us that there was a split between the national and local approach:

On the vaccine roll-out we have local and national data integration. We have the local systems going and finding people who are hard to reach. We have the national system for the big numbers, for the people who are enthusiastic and willing to drive and queue up.⁵⁷⁴

379. The vaccine rollout was not plain sailing. Notwithstanding the efforts of the Vaccine Taskforce, supply problems from manufacturers meant that there were periods during which vaccines were in short supply.⁵⁷⁵ Yet the Government and the NHS succeeded in maintaining public confidence in the leadership and operation of the vaccination programme, partly through a transparent communications programme.

Global distribution of vaccines

380. Covid is a global pandemic and its infectiousness does not recognise national borders. Witnesses have consistently pointed out to our Committees that, as with the initial virus itself, border restrictions could at best delay and not prevent the incursion of new variants into the United Kingdom—as the experience of Australia and New Zealand has shown.⁵⁷⁶ That means that there is a national interest, as well as our moral obligation, to act globally to ensure that vaccination is made available as quickly as possible to all countries in the world. The United Kingdom has long been a leader in providing and coordinating medical assistance, especially to those countries in the world that lack our wealth and scientific and medical assets.

571 GOV.UK, [UK COVID-19 vaccines delivery plan](#), 11 January 2021

572 [Human Medicines \(Coronavirus and Influenza\) \(Amendment\) Regulations 2020 \(SI 2020/1125\)](#)

573 [National Audit Office, Investigation into preparations for potential COVID-19 vaccines](#), 16 December 2020

574 [Q1326](#)

575 [HC Deb](#), 6 January 2021, [Col 789](#) [Commons Chamber]

576 See, for example: oral evidence taken before the Science and Technology Committee on 17 February and 9 March 2021, [HC \(2019–21\) 136](#), [Q2045](#) and [Qq2233–2236](#)

381. During the pandemic, the UK has continued to play a prominent global role in this respect. COVAX is coordinated by the WHO, Gavi, the Vaccine Alliance and the Coalition for Epidemic Preparedness Innovations. The Gavi COVAX Advanced Market Agreement aims to ensure that 92 middle and lower income countries that cannot fully afford to pay for covid-19 vaccines receive access to vaccines.⁵⁷⁷ The UK has pledged \$735 million, making it the third largest contributor behind the United States and Germany, as of June 2021.⁵⁷⁸ Ahead of the G7 summit in June 2021, the Government pledged to donate 100 million surplus coronavirus vaccine doses to the world within the next year.⁵⁷⁹ The G7 also pledged 870 million vaccine doses to the world, half of which would be delivered by the end of 2021.⁵⁸⁰

382. It is notable that the Oxford/Astra Zeneca vaccine, developed with the support of UK Government funding, accounts for almost a third of all the vaccine doses ordered globally.⁵⁸¹ It is being distributed in 178 countries, significantly more than the next most available vaccine Pfizer which is available in 106 countries,⁵⁸² and accounts for more than 90% of the vaccines being distributed by Covax.⁵⁸³

How could things be done better?

383. For all of the success of the UK's vaccine project there are lessons that can be learned already which have the potential to improve not only our capacity to respond to new pandemics such as covid-19, but with applications more widely for public policy.

384. One such area is in the time taken to progress from identification of the virus to the widespread deployment of a vaccine. Outstanding as it is to have accomplished this in less than a year, it may be that in the future this could be conducted in much shorter time still. Following the identification of the genome of covid-19 on 11 January 2020, what was to become the Moderna vaccine was designed within days.⁵⁸⁴

385. Dominic Cummings suggested to the Committees that—in the face of a future pandemic of the most consequences for health—we should be prepared to accelerate the clinical trials by authorising human challenge studies in which healthy individual volunteers are willingly injected with the virus and a proportion of them with its prospective vaccine. Mr Cummings said:

The companies doing the mRNA vaccines basically created the vaccine itself in literally hours in January [...] if we had done that [human challenge trials] we could definitely have got vaccines into people's arms by December.⁵⁸⁵

577 Gavi, the Vaccine Alliance, 'COVAX explained', accessed 17 September 2021

578 Statista, 'The Governments Donating The Most Money To COVAX', accessed 22 June 2021

579 GOV.UK, 'UK to donate 100 million coronavirus vaccine doses: 11 June 2021', accessed 17 September 2021

580 WHO, 'G7 announces pledges of 870 million COVID-19 vaccine doses, of which at least half to be delivered by the end of 2021', accessed 17 September 2021

581 Statista, 'Drug manufacturers with the highest number of ordered COVID-19 vaccine doses as of March 2021', accessed 28 June 2021

582 New York Times, 'Tracking Coronavirus Vaccinations Around the World', accessed 28 June 2021

583 WHO, 'WHO Director-General's opening remarks at the media briefing on COVID-19: 19 March 2021', accessed 17 September 2021

584 Moderna, 'Moderna's Work on our COVID-19 Vaccine', accessed 13 August 2021

585 Q1141

386. There are a number of other aspects that could be improved to speed up the availability of a vaccine. Professor Andrew Pollard, Director of the Oxford Vaccine Group, told the Science and Technology Committee in June 2021 about some of these areas for improvement:

If we look at the pinch points for speed that are perhaps within control, one of them is the speed of manufacturing for the trial. I do not mean for the roll-out. We had very limited capacity for manufacturing at the beginning of last year to start making vaccines for trials. That was the first component. That is changing already. There is investment in the new vaccine innovation centre in Oxfordshire. There will also be new opportunities with other manufacturing organisations to speed up that process.

The other is the scale of the trials. If you can launch larger-scale trials in more countries more quickly, you have a greater chance of catching a wave of disease in the pandemic, which gives you the cases earlier to get an answer quicker. Those two things would definitely make a difference. [...]

Investment over the years ahead in understanding more about other viruses and other potential pandemic threats so that we are prepared as we were with coronaviruses to go so quickly is perhaps the most important thing that we need to do in preparedness.⁵⁸⁶

Trials of treatments

387. One of the strongest, and most easily overlooked, components of the UK's response to covid-19 has been in its forward position in trialling treatments against the disease. The RECOVERY Trial had, by mid-August 2021, recruited just over 42,000 volunteers worldwide to mount randomised trials of covid-19 treatments.⁵⁸⁷ Professor Peter Horby told our inquiry, "It is probably true to say that the UK has, of any country, been the most successful in running clinical trials for the treatment of Covid-19[...] we are, by far, the biggest trial in the world."⁵⁸⁸ As a result of these mass-participation randomised clinical trials, treatments like dexamethasone were found to make a major contribution to reducing the severity and duration of covid-19 among patients receiving respiratory support. Professor Chris Whitty, Chief Medical officer for England, for example, told the Science and Technology Committee in November 2020, that "On dexamethasone, the UK can feel proud that this is something we did for the whole world very fast. That will reduce mortality".⁵⁸⁹ Establishing the effectiveness of dexamethasone was a vital contribution to the worldwide battle against covid-19 and is estimated to have saved over a million lives globally.⁵⁹⁰

586 Oral evidence taken before the Science and Technology Committee on 16 June 2021, HC (2021–22) 93, Q2471

587 Randomised Evaluation of COVID-19 Therapy, 'Welcome', accessed 16 August 2021.

588 Q231

589 Oral evidence taken before the Science and Technology Committee on 3 November 2020, HC (2019–21) 136, Q1477, see also Q1564 from the S&T Committee session on 3 November 2020

590 NHS England, 'COVID treatment developed in the NHS saves a million lives', accessed 17 August 2021

388. Also, importantly, these trials were able to establish the ineffectiveness of some mooted treatments for covid-19 such as hydrochloroquine. As the then Secretary of State told us:

On hydrochloroquine you might remember [...]—that some quite influential figures decided early that it was obviously right and declared victory on it, but when the recovery trial saw it through to the end, when you had a clinically validated and statistically accurate answer, it found no benefit of hydroxychloroquine. You have to follow the science on it. This is one of the areas where Britain absolutely nailed it.⁵⁹¹

Conclusions and recommendations

Conclusions

389. The Government presciently identified that a vaccine would be the long-term route out of the pandemic and supported the research and development of a number of covid-19 vaccines, including the successful Oxford/AstraZeneca vaccine. A significant part of the success of the Oxford/AstraZeneca vaccine was due to the Government's early investment in research and development. Investment and support through existing channels and forums such as the UK Vaccine Network have clearly paid off and illustrate the importance of looking ahead for future challenges.

390. The UK vaccination programme—from discovery of potential vaccines against covid-19 to the vaccination of nearly 80% of the adult population by 1 September 2021—has been one of the most successful and effective initiatives in the history of UK science and public administration. Millions of lives will ultimately be saved as a result of the global vaccine effort, in which the UK has played a leading part. In the UK alone, the successful deployment of effective vaccines has allowed, as at September 2021, a resumption of much of normal life, with incalculable benefits to people's lives, livelihoods and to society.

391. The strength of the UK's scientific base—that is to say, the institutions, people, and previous experience on which the discoveries made depended—was foundational to the success of the programme. The Government responded, from the outset, decisively and with alacrity to the need for additional funding to advance projects with a potential to develop new vaccines.

392. The UK regulatory authorities—principally the MHRA and the JCVI—approached their crucial remit with authority and creativity. Allowing the results of clinical trials to be submitted on a rolling basis made the UK the first Western country in the world to approve a vaccine. The bold decision to extend the interval between doses allowed more people to be vaccinated more quickly and so protected the population.

393. The establishment—following the suggestion of Sir Patrick Vallance—of the Vaccine Taskforce outside the Department of Health and Social Care, and comprising a portfolio of experienced individuals from industry, healthcare, science and Government was a masterstroke. The bold, authoritative leadership of Kate Bingham was of crucial importance. The Vaccine Taskforce carried forward the model established

591 Q1466

in the Life Sciences Industrial Strategy. That strategy also highlighted and acted upon the relative lack of UK vaccine manufacturing capacity. The Government was right to act to accelerate the delivery of institutions like the Vaccines Manufacturing Innovation Centre proposed in the Industrial Strategy, and to have invested further in manufacturing capacity.

394. The decision to procure, at risk, and long in advance of regulatory approval, a broad portfolio of supplies of potential vaccines was bold and prescient, as was the commitment to order vaccines in quantities in excess of what was needed.

395. The successful roll-out of vaccines to the whole of the UK population reflected a collaborative approach between many different groups, national and local, embracing GPs and the NHS locally, pharmacies and community volunteers, as well as the Armed Forces.

396. The success of the vaccine programme has redeemed many of the persistent failings of other parts of the national response such as the test and trace system, so that the outcome is far better than would have been the case without this success.

Recommendations and lessons to be learned

397. *It is essential that support for, and investment in, the UK science base is protected and enhanced. This should include delivering the Government commitment from Budget 2020 and the 2021 R&D roadmap to invest £22 billion per year in R&D by 2024/25. Science has saved the world from the even greater catastrophe of covid-19 without the defence of vaccines. The experience should alert us to the risk of unforeseen threats against which a world-class and experienced scientific capability is the best investment.*

398. *A strategic approach should be taken to manufacturing vaccines. The Life Sciences Industrial Strategy identified vaccine manufacturing as an area in which the UK could and should be stronger and set out deliberately to act on this by creating the Vaccine Manufacturing Innovation Centre. Looking forward and comparing future opportunities and threats against current capability and acting to resolve them is a responsible approach.*

399. *The Vaccine Taskforce model of forming flexible teams outside of the usual Whitehall administration, but working with it, and comprising people with outside expertise working within it, is a successful one. It should be considered for delivering other Government priorities. However, it is concerning to hear that the Vaccine Taskforce model is being eroded by incorporation into “the normal entropy process of Whitehall”, and this erosion should be arrested. The procurement model deployed by the Vaccine Taskforce of making decisions at risk, outside conventional procurement procedures, proved highly effective. Lessons from this success should be applied to other areas of Government procurement.*

400. *The UK’s regulatory system responded with rigour but flexibility. It could be that the approvals process and the conduct of clinical trials could have proceeded even more quickly, for example by making use of human challenge trials. This may not be appropriate in anything but the most exceptional circumstances—i.e. a deadly pandemic—but an assessment of this should be made now before such an occasion might arise.*

401. The use of the Armed Forces—as well as civilian volunteer groups—proved effective in advancing the vaccine roll-out quickly and reliably. Protocols should be established to allow the Armed Forces quickly and at scale to participate, and the NHS should consider ways in which it can be more accommodating of volunteer support in normal times building on the experience and enthusiasm demonstrated during the pandemic.

8 Conclusion

402. Pandemics like covid-19 will become more common.⁵⁹² Throughout our inquiry, in our work as individual Committees and in this Report we have sought to learn from this episode in history. It has been a huge effort to respond to the covid-19 pandemic and all those who have contributed to that response have done so with the best of intentions despite some difficult outcomes in the UK. We express our gratitude to all those who have worked and contributed to the nation's efforts throughout this pandemic. We also express our deepest condolences and sympathies to those who have lost loved ones.

403. We must ensure that the UK learns from its experience of covid-19 and does not repeat mistakes in the future. We have therefore identified a number of consistent themes in our conclusions and recommendations in this Report, including that:

- a) the UK's response, with the notable exception of vaccine development and deployment, has for the most part been too reactive as opposed to anticipatory;
- b) there has been too little explicit learning from the international experience, as illustrated in the approach to non-pharmaceutical interventions and test and trace;
- c) the right combination needs to be struck between centralised and localised measures and in certain cases implementation of pandemic containment measures was too centralised when it ought to have been more decentralised;
 - better engagement with relevant sectors and interest groups was needed to understand on-the-ground experience and inform decision making, particularly for social care; and
- d) the response has lacked speed in making timely decisions.

404. As we have mentioned, we do not seek to apportion blame. Our conclusions and recommendations seek to inform preparations for future threats for this Government and future Governments and improve the immediate handling of covid-19. We hope through this Report we have set out some changes that can make a real difference.

405. This Report serves as an initial assessment of the handling of the covid-19 pandemic. A public inquiry has been promised to examine the response in fuller detail and needs to be launched as soon as possible. Throughout the pandemic, both Committees have gathered evidence to ensure a contemporary record of events and the thinking behind them. We hope the evidence we have collected and this Report will be of use to the public inquiry.

592 Gavi, the Vaccine Alliance, '5 reasons why pandemics like COVID-19 are becoming more likely', accessed 7 July 2021

Conclusions and recommendations

Pandemic preparedness

1. The UK has established procedures and structures to prepare for the nation's major future risks, including a National Risk Register, the Civil Contingencies Secretariat and the Scientific Advisory Group for Emergencies (SAGE). However, the anticipated future risk of pandemic disease focused too closely on influenza rather than diseases like SARS and MERS that had in recent years appeared in Asian countries. (Paragraph 58)
2. Previous exercises to test the national response capability, namely Exercises Cygnus and Winter Willow, did not squarely address a disease with the characteristics of covid-19. Nevertheless, some useful lessons were learned and applied, such as the drafting of legislative measures that might be needed. (Paragraph 59)
3. The operation of COBR was not well-suited to the modern demands of a pandemic response. It is especially concerning that its culture of confidentiality was considered by some to be so unreliable that alternative meetings were arranged that could command greater confidentiality among participants. (Paragraph 60)
4. The Civil Contingencies Secretariat did not have adequate resources to maintain a substantial standing capability to survey the development of potential threats, and it had a limited reach into the range of Government departments required to respond to a pandemic. The experience has been that this investment in resilience is at risk of being trumped by the day-to-day pressures of Government. (Paragraph 61)
5. Protocols to share data between public bodies involved in the response were too slow to establish and to become functional. This was especially true in the data flows from national to local government. (Paragraph 62)
6. The NHS responded quickly and strongly to the demands of the pandemic, but compared to other health systems it “runs hot”—with little spare capacity built in to cope with sudden and unexpected surges of demand such as in a pandemic. (Paragraph 63)
7. *A greater diversity of expertise and challenge—including from practitioners from other countries and a wider range of disciplines—should be included in the framing of the National Risk Register and the plans that emanate from it. Plans for the future should include a substantial and systematic method of learning from international practice during the course of an emergency.* (Paragraph 64)
8. *A standing capability should be established in Government, or reporting to it, to scan the horizon for future threats, with adequate resource and counting on specialists with an independence from short-term political and administrative pressures.* (Paragraph 65)

9. *The Government should ensure comprehensive plans are made for future risks and emergencies. The UK should aim to be a world leader in co-ordinating international resilience planning, including reform of the World Health Organisation to ensure that it is able to play a more effective role in future pandemics. (Paragraph 66)*
10. *The resourcing and capabilities of the Civil Contingencies Secretariat should be improved. The Civil Contingencies Secretariat should be empowered to 'stress test' plans and to ensure that Departments are able to carry out a contingency plan if required. The details and results of these stress tests should be included in the Cabinet Office's annual report. (Paragraph 67)*
11. *Arrangements should be established and tested to allow immediate flows of data between bodies relevant to an emergency response with a mechanism to resolve immediately and decisively any disputes. (Paragraph 68)*
12. *The Armed Forces should have a more central and standing role in preparing for and responding to emergencies like pandemics, given the depth of capability and experience they have in planning, logistics and rapid mobilisation. The Civil Contingencies Secretariat should work with the Armed Forces to improve operational expertise in emergencies in public bodies. (Paragraph 69)*
13. *The Government and the NHS should consider establishing a volunteer reserve database so that volunteers who have had appropriate checks can be rapidly called up and deployed in an emergency rather than needing to begin from scratch. (Paragraph 70)*
14. *The experience of the demands placed on the NHS during the covid-19 pandemic should lead to a more explicit, and monitored, surge capacity being part of the long term organisation and funding of the NHS. (Paragraph 71)*
15. *The NHS should develop and publish new protocols for infection prevention and control in pandemics covering staffing, bed capacity and physical infrastructure. In developing these protocols the NHS should consider the importance of maintaining access for people accompanying some patients such as advocates for people with learning disabilities and birthing partners. (Paragraph 72)*
16. *Comprehensive analysis should be carried out to assess the safety of running the NHS with the limited latent capacity that it currently has, particularly in Intensive Care Units, critical care units and high dependency units. (Paragraph 73)*
17. *Building on the experience of staff working more flexibly during the pandemic and to enable more flexible staffing in the NHS, NHS England and Health Education England should develop proposals to better enable NHS staff to change clinical specialty mid-career and train in sub-specialties. (Paragraph 74)*

Lockdowns and social distancing

18. During the first three months of the covid pandemic, the UK followed the wrong policy in its use of non-pharmaceutical interventions. When the UK moved from the 'contain' to 'delay' stage, there was a policy of seeking to only moderate the speed of infection through the population—flattening the curve—rather than seeking to arrest its spread. The policy was pursued until 23 March because of the official

scientific advice the Government received, not in spite of it. Questions remain about whether the containment phase was pursued aggressively enough—we believe it could have been pursued for longer. During this period Government policy did not deviate from the scientific advice it received in any material respect. The fact that the UK approach reflected a consensus between official scientific advisers and the Government indicates a degree of groupthink that was present at the time which meant we were not as open to approaches being taken elsewhere—such as earlier lockdowns, border controls and effective test and trace—as we should have been. (Paragraph 152)

19. The flattening the curve policy was implemented by introducing new restrictions only gradually and slowly, acting as if the spread of the virus were susceptible to calibrated control. Modelling at the time suggested that to suppress the spread of covid-19 too firmly would cause a resurgence when restrictions were lifted. This was thought likely to result in a peak in the autumn and winter when NHS pressures were already likely to be severe. In addition, it was thought that the public would only comply with severe restrictions for a limited period, and so those restrictions should not be applied before they were most needed. This approach should have been questioned at the time for a number of reasons:
 - it entailed people contracting covid in large numbers with hundreds of thousands of deaths likely to result;
 - other countries, in Asia and in Europe, including some with experience of SARS and MERS, had chosen to implement earlier, more comprehensive strategies of non-pharmaceutical interventions, which were having success; and
 - suppressing the spread of the virus in the early period would have bought valuable time to consider what was the best way to manage the pandemic in the medium term. (Paragraph 153)
20. There are several possible explanations for what was a significant error in policy and advice early in the pandemic. These include:
 - the lack of adequate data on the spread of covid-19, as a result of the inadequacy of the UK testing operation;
 - overreliance on specific mathematical models when there were too many uncertainties;
 - assumptions about public compliance with rules that turned out to have underestimated the willingness to conform even for long periods;
 - the composition of SAGE suffered from a lack of representation from outside the United Kingdom; and
 - a preference for a particular UK approach may have been favoured above advice based on emulation of what was being pursued elsewhere. (Paragraph 154)

21. Science proceeds through challenge and disputation, and new theories are tested unflinchingly against evidence. Yet Ministers and other advisers reported that they felt it difficult to challenge the views of their official scientific advisers. Those in Government have a duty to question and probe the assumptions behind any scientific advice given, particularly in a national emergency, but there is little evidence sufficient challenge took place. However, even when UK policy had changed to bring in a comprehensive national lockdown, the role of non-pharmaceutical interventions against covid-19 was complex, inconsistent and opaque for most of the rest of 2020. (Paragraph 155)
22. The second wave of covid infections, hospitalisations and deaths during the autumn and winter of 2020/21 was significantly driven by the emergence of a new variant, known as the Kent or Alpha variant. It is likely that a “circuit break” of temporary lockdown measures if introduced in September 2020, and earlier lockdown measures during the winter, could have impeded the rapid seeding and spread of the Kent variant. However, the existence of the Kent or Alpha variant was not known by the Government until 11 December 2020 so that the justification for taking earlier measures could not rely on information available at the time. (Paragraph 156)
23. Government public health communications are key to the public’s understanding of and compliance with non-pharmaceutical interventions. Initial messaging from the Government early in the pandemic was strong, effective and undoubtedly contributed to the success of the first lockdown. After the gradual lifting of the first lockdown from May 2020, Government guidance became increasingly complex and harder to understand, with restrictions varying in different parts of the country. Government communications did not always reflect this nuance, leading to perceived inconsistency and divergent strategies across the four nations of the UK. (Paragraph 157)
24. *In the early days of a crisis, scientific advice may be necessarily uncertain: data may be unavailable, knowledge limited and time may be required for analysis to be conducted. In these circumstances it may be appropriate to act quickly, on a precautionary basis, rather than wait for more scientific certainty.* (Paragraph 158)
25. *In future an approach of greater questioning and challenge should characterise the development of policy. Ministers should have the confidence to follow a scientific approach themselves—being prepared to take a more robust approach to questioning and challenging the advice given. The Government and SAGE should also facilitate strong external and structured challenge to scientific advice, including from experts in countries around the world, and a wider range of disciplines.* (Paragraph 159)
26. *In bringing together many of the UK’s most accomplished scientists, SAGE became a very UK body. In future, it should include more representation and a wider range of disciplines, from other countries, especially those which have experienced, or are experiencing, the same emergency.* (Paragraph 160)

27. *In a pandemic, the scientific advice from the SAGE co-chairs to the Government should be published within 24 hours of it being given, or the policy being decided, whichever is the later, to ensure the opportunity for rapid scientific challenge and guard against the risk of 'groupthink'. In addition, minutes and SAGE papers should be published within 48 hours of the meeting taking place. (Paragraph 161)*
28. *The Government, via the World Health Organisation, should make the case for an international standard of reporting covid-19 deaths and a framework for reporting disease related deaths for future pandemics. (Paragraph 162)*

Testing and contact tracing

29. Despite being one of the first countries in the world to develop a test for covid in January 2020, the United Kingdom failed to translate that scientific leadership into operational success in establishing an effective test and trace system during the first year of the pandemic. Public Health England showed itself to be scientifically accomplished, but poor at delivering an operational testing system at the scale and urgency required by a pandemic. (Paragraph 232)
30. Testing capacity was treated too much as a parameter rather than a variable that could be changed by the Department of Health and Social Care and scientific advisers. What was being achieved in other countries, particularly East Asia, appeared to be of little interest in the initial weeks of the pandemic. This was an inexcusable oversight. It took a personal intervention by the then Secretary of State in April 2020 to drive a major increase in testing capacity. (Paragraph 233)
31. The resulting requirement to abandon testing people in the community during the critical early period of the pandemic cost many lives for a number of reasons including because:
 - a) many asymptomatic carriers were not tested and therefore identified and asked to isolate;
 - b) many older people were admitted to care homes either from the community or hospitals in ignorance of their covid status or that of staff working in care homes;
 - c) low levels of testing meant that the UK lost visibility of where the disease was spreading, among which groups and how quickly. For a crucial period our only insight into the spread of covid was by counting people so sick that they had to be admitted to hospital; and (Paragraph 234.c))
 - d) the receipt of a positive test result would have been likely to improve compliance with an isolation request. (Paragraph 234)
32. The new Test and Trace operation eventually established in May 2020 was a step in the right direction but set up much too late. Because of that delay there was huge pressure to get results quickly which meant that it followed a centralised model initially, meaning assistance from laboratories outside PHE—particularly university laboratories—was rebuffed. The same was true for contact tracing, where the established capabilities of local Directors of Public Health and their teams were

not effectively harnessed during the initial response to the pandemic, despite local approaches providing effective in places where they were pursued. It is now clear that the optimal structure for test and trace is one that is locally driven with the ability to draw on central surge capacity—but it took the best part of a year to get to that point. In short, implementation was too centralised when it ought to have been more decentralised. (Paragraph 235)

33. Vast sums of taxpayers' money were directed to Test and Trace, justified by the benefits of avoiding further lockdowns. But ultimately those lockdowns happened. Were it not for the success of the Vaccine Taskforce and the NHS vaccination programme, it is likely that further lockdown restrictions would have been needed in Summer 2021. (Paragraph 236)
34. We recognise that the effectiveness of test and trace in reducing transmission is likely to be reduced when the prevalence of the virus is high, as highlighted by Professor Whitty and others, but it is clear from the latest data and the experience of September 2020 that even at the level of operational effectiveness, NHS Test and Trace has been unable to respond to rising rates of transmission of covid-19. (Paragraph 237)
35. The Test and Trace organisation has not, despite its branding, been run by the NHS, and has seen senior executives brought in from external bodies for short term contracts which reduces the institutional learning, from what was an intense period, that has been retained. It is a major concern that the new organisation responsible for test and trace is opaque in its structure and organisation. (Paragraph 238)
36. Partly because it was set up too late, NHS Test and Trace ultimately fell short of the expectations set for it. It has failed to make a significant enough impact on the course of the pandemic to justify the level of public investment it received. It clearly failed on its own terms, given its aim in September to "avoid the need for a second lockdown" by contributing to a reduction in the 'R' number. While we acknowledge that test, trace and isolate activities are just one—albeit crucial—component of the measures undertaken to tackle covid-19, NHS Test and Trace (NHSTT) clearly failed to achieve this central objective. NHSTT has also consistently failed to reach the 72-hour turnaround time as identified as necessary by SAGE, including a significant failure in September 2020. Further, although the Government first described the impact of NHSTT on reducing 'R' in December, it took an unacceptably long two months before the evidence and analysis behind this assertion was made public. When it was published it became clear that the analysis was outdated, invalidating claims made at the time. The use of inaccurate data and the lack of transparency impeded effective public scrutiny at a crucial time in the pandemic. (Paragraph 239)
37. The National Audit Office has stated that "to achieve value for money NHST&T must be able to demonstrate both that the interventions it delivers are effective in achieving its objective, and that the mix of interventions is the most cost-effective use of public resources." After 18 months and many billions of pounds of taxpayers' funds, there is hope that the UK now has a capacity for testing and tracing that is adequate. It is a bitter irony that this point may only have been reached at the point in which the vaccination programme makes testing less of a critical component than it was previously. (Paragraph 240)

38. *Scientific excellence is not enough in test and trace programmes: the UK must develop greater operational competence in deployment. In particular, the Government must ensure that both the new UK Health Security Agency and local authorities have the capability and funding to stand up both central surge capacity and locally-driven testing and contact tracing within seven days of a public health emergency being declared. (Paragraph 241)*
39. *Public Health England and its successor bodies, as well as Ministers and their scientific advisers, should be more willing to study and emulate the practice of other countries with urgency and agility, especially during a crisis. A culture must be established that looks proactively to collaborate with other organisations, rather than to reject assistance. (Paragraph 242)*
40. *Those responsible for future test and trace programmes should establish a culture and processes to learn rapidly from errors and to act to prevent them being repeated. (Paragraph 243)*
41. *The reactive, short-term horizon of test and trace for much of the pandemic must be replaced by a capacity for anticipation and preparation—even during the course of an emergency. (Paragraph 244)*
42. *The organisation of the bodies responsible for testing and tracing should be open and transparent both about their operations and the basis of their decisions. (Paragraph 245)*

Social care

43. *The covid-19 pandemic has put massive strain on a social care sector already under huge pressure, which has a particular focus on caring for elderly people who have been at the greatest risk of death from covid. (Paragraph 288)*
44. *Social care had a less prominent voice in Government during the early stages of the pandemic than did the NHS. (Paragraph 289)*
45. *The discharge of elderly people from NHS hospitals into care homes without having been tested at the beginning of the pandemic—while understandable as the NHS prepared to accept a surge of covid patients—had the unintended consequence of contributing to the spread of infection in care homes. The seeding of infections also happened as a result of staff entering care homes, and the failure to recognise this risk early is a symptom of the inadequate initial focus on social care. The lack of available testing at the time meant that the extent of spread by each route of transmission cannot be fully known and has not been conclusively determined by the report commissioned from PHE by the Government. (Paragraph 290)*
46. *Staff shortages, the lack of testing, difficulties in obtaining PPE and the design of care settings to enable communal living hampered isolation and infection control and the ability to keep covid at bay. Social care staff in care homes and providing domiciliary care worked under strenuous conditions, at risk to themselves, to provide care to people. (Paragraph 291)*

47. Many of these pressures on the social care sector—such as funding and workforce—are longstanding and must be resolved urgently. Pressures on the social care workforce are likely to be compounded this autumn by the mandate that people working in the social care sector must be fully vaccinated to continue to provide care in residential care homes. (Paragraph 292)
48. *Planning for future pandemics should have a more developed and explicit consideration of the intense interaction between the NHS and social care. The prominence of social care within the Department of Health and Social Care should be enhanced and Ministers must address the relative lack of knowledge and experience of social care within the Department and senior levels of the NHS. The Department should ensure that future policy and guidance relating to the sector is well-informed and reflects the diversity of the sector. The Department must also set out how it plans to retain the expertise of the Social Care Taskforce on a more permanent basis.* (Paragraph 293)
49. *Long term reform of social care is overdue and should be pursued as a matter of urgency. The Government's recent announcement on the future of social care is welcome, but the long-term future of the sector remains unresolved. We endorse the Health and Social Care Committee's call for a 10 Year Plan for Social Care to accompany the 10 Year Plan for the NHS. It must ensure that there is parity between the health and care sectors so that social care is given proper priority in a future crisis.* (Paragraph 294)
50. *We endorse the Health and Social Care Committee's call for additional resources to be directed to social care. That Committee has made the case for an increase of £7 billion a year by 2023/4. We note that despite the Government's recent announcement the level of new investment in social care from 2023/24 remains unclear.* (Paragraph 295)
51. *The Government should review the provision of infection prevention and control measures, including infection prevention and control nurses, to social care and ensure that social care providers, particularly care homes, are able to conduct regular pandemic preparedness drills. The Government must ensure that care homes have isolation facilities and social care providers are able to provide safe visiting for family and friends of care home residents.* (Paragraph 296)

At risk communities

52. The impact of covid-19 has been uneven across the population, with some sections of society suffering significantly higher illness and deaths than the nation as a whole. (Paragraph 330)
53. During the initial phase of the pandemic Black, Asian and minority ethnic people experienced significantly higher levels of severe illness and death from covid than was typical the population as a whole. Research conducted so far suggests that the drivers of these elevated levels of impact among Black, Asian and minority ethnic people arise from greater likelihood of jobs that come with higher exposure to covid infection; more challenging social and economic circumstances; more densely occupied housing; and comorbidities from different health conditions. These are classic features of inequality in society and in the economy. (Paragraph 331)

54. Staff from Black, Asian and minority ethnic backgrounds are crucial to the NHS and care sectors. The covid-19 pandemic has brought the experiences of these staff into sharp focus. It is telling that the first ten NHS staff to die from covid-19 were from Black, Asian and minority ethnic backgrounds, and evidence has since confirmed that the impact of covid-19 on this section of the workforce has been significant. While the NHS has made progress in recent years, the experience of people from BAME groups during the pandemic has made it clear that inequalities persist. (Paragraph 332)
55. People with learning disabilities have experienced significantly higher death rates from covid-19 than the country as a whole. Deaths have been especially high among younger adults with learning disabilities. Initial research suggests that people with learning disabilities entered the pandemic from a position of heightened vulnerability because of existing comorbidities. This was compounded by particular barriers to accessing NHS treatment during the pandemic arising from restrictions on non-covid care and limits on the ability of carers and advocates to attend hospital with people with learning disabilities. (Paragraph 333)
56. Although there was never national NHS guidance to apply “Do not attempt CPR” (DNACPR) notices to people with learning disabilities, there have been widespread concerns that there were cases in which they have been issued inappropriately during the pandemic. (Paragraph 334)
57. *The Government should ensure its ‘levelling up’ agenda includes specific policies to reduce health inequalities, with a particular focus on ensuring that certain groups, including people from Black, Asian and minority ethnic backgrounds, do not continue to face unequal health outcomes.* (Paragraph 335)
58. *It is essential that in any future crisis, NHS staff from Black, Asian and minority ethnic backgrounds are included in emergency planning and decision-making structures. NHS England should accelerate efforts to ensure that NHS leadership in every trust, foundation trust and Clinical Commissioning Group is representative of the overall Black, Asian and ethnic minority workforce.* (Paragraph 336)
59. *Leadership in NHS England and Improvement should also increase their engagement with Black, Asian and minority ethnic worker organisations and trade unions to ensure that Black, Asian and minority ethnic members of staff feel valued by the organisation, are involved in decision-making processes and feel able to speak up when they are not being protected.* (Paragraph 337)
60. *It is unacceptable that staff from Black, Asian and minority ethnic communities did not have equal levels of access to appropriate and useable personal protective equipment as their white colleagues during the pandemic. The Government must learn from the initial shortage of appropriate PPE for these staff and set out a strategy to secure a supply chain of PPE that works for all staff in the NHS and care sectors.* (Paragraph 338)
61. *The NHS, local authorities and the Government should ensure that health advice during the remainder of the pandemic and in any future emergencies should be available in a full range of languages, and that outreach programmes should reflect what is most effective in the cultural context of different communities.* (Paragraph 339)

62. *In planning for future health emergencies, the Department of Health and Social Care and the NHS should consider the specific difficulties faced by people with learning disabilities and their families and recognise the barriers to understanding and communication which, if not overcome, can lead to avoidable deaths of vulnerable people. (Paragraph 340)*
63. *The NHS should improve the data it holds on people with learning disabilities so that this group of patients can be more appropriately considered for vaccination. (Paragraph 341)*
64. *The NHS should ensure the guidance on DNACPR notices is clear and properly understood by healthcare professionals and individuals, especially in circumstances where a patient's carer or advocate may not be able to be present in hospital. (Paragraph 342)*

Vaccines

65. The Government presciently identified that a vaccine would be the long-term route out of the pandemic and supported the research and development of a number of covid-19 vaccines, including the successful Oxford/AstraZeneca vaccine. A significant part of the success of the Oxford/AstraZeneca vaccine was due to the Government's early investment in research and development. Investment and support through existing channels and forums such as the UK Vaccine Network have clearly paid off and illustrate the importance of looking ahead for future challenges. (Paragraph 389)
66. The UK vaccination programme—from discovery of potential vaccines against covid-19 to the vaccination of nearly 80% of the adult population by 1 September 2021—has been one of the most successful and effective initiatives in the history of UK science and public administration. Millions of lives will ultimately be saved as a result of the global vaccine effort, in which the UK has played a leading part. In the UK alone, the successful deployment of effective vaccines has allowed, as at September 2021, a resumption of much of normal life, with incalculable benefits to people's lives, livelihoods and to society. (Paragraph 390)
67. The strength of the UK's scientific base—that is to say, the institutions, people, and previous experience on which the discoveries made depended—was foundational to the success of the programme. The Government responded, from the outset, decisively and with alacrity to the need for additional funding to advance projects with a potential to develop new vaccines. (Paragraph 391)
68. The UK regulatory authorities—principally the MHRA and the JCVI—approached their crucial remit with authority and creativity. Allowing the results of clinical trials to be submitted on a rolling basis made the UK the first Western country in the world to approve a vaccine. The bold decision to extend the interval between doses allowed more people to be vaccinated more quickly and so protected the population. (Paragraph 392)

69. The establishment—following the suggestion of Sir Patrick Vallance—of the Vaccine Taskforce outside the Department of Health and Social Care, and comprising a portfolio of experienced individuals from industry, healthcare, science and Government was a masterstroke. The bold, authoritative leadership of Kate Bingham was of crucial importance. The Vaccine Taskforce carried forward the model established in the Life Sciences Industrial Strategy. That strategy also highlighted and acted upon the relative lack of UK vaccine manufacturing capacity. The Government was right to act to accelerate the delivery of institutions like the Vaccines Manufacturing Innovation Centre proposed in the Industrial Strategy, and to have invested further in manufacturing capacity. (Paragraph 393)
70. The decision to procure, at risk, and long in advance of regulatory approval, a broad portfolio of supplies of potential vaccines was bold and prescient, as was the commitment to order vaccines in quantities in excess of what was needed. (Paragraph 394)
71. The successful roll-out of vaccines to the whole of the UK population reflected a collaborative approach between many different groups, national and local, embracing GPs and the NHS locally, pharmacies and community volunteers, as well as the Armed Forces. (Paragraph 395)
72. The success of the vaccine programme has redeemed many of the persistent failings of other parts of the national response such as the test and trace system, so that the outcome is far better than would have been the case without this success. (Paragraph 396)
73. *It is essential that support for, and investment in, the UK science base is protected and enhanced. This should include delivering the Government commitment from Budget 2020 and the 2021 R&D roadmap to invest £22 billion per year in R&D by 2024/25. Science has saved the world from the even greater catastrophe of covid-19 without the defence of vaccines. The experience should alert us to the risk of unforeseen threats against which a world-class and experienced scientific capability is the best investment.* (Paragraph 397)
74. *A strategic approach should be taken to manufacturing vaccines. The Life Sciences Industrial Strategy identified vaccine manufacturing as an area in which the UK could and should be stronger and set out deliberately to act on this by creating the Vaccine Manufacturing Innovation Centre. Looking forward and comparing future opportunities and threats against current capability and acting to resolve them is a responsible approach.* (Paragraph 398)
75. *The Vaccine Taskforce model of forming flexible teams outside of the usual Whitehall administration, but working with it, and comprising people with outside expertise working within it, is a successful one. It should be considered for delivering other Government priorities. However, it is concerning to hear that the Vaccine Taskforce model is being eroded by incorporation into “the normal entropy process of Whitehall”, and this erosion should be arrested. The procurement model deployed by the Vaccine Taskforce of making decisions at risk, outside conventional procurement procedures, proved highly effective. Lessons from this success should be applied to other areas of Government procurement.* (Paragraph 399)

76. *The UK's regulatory system responded with rigour but flexibility. It could be that the approvals process and the conduct of clinical trials could have proceeded even more quickly, for example by making use of human challenge trials. This may not be appropriate in anything but the most exceptional circumstances—i.e. a deadly pandemic—but an assessment of this should be made now before such an occasion might arise. (Paragraph 400)*
77. *The use of the Armed Forces—as well as civilian volunteer groups—proved effective in advancing the vaccine roll-out quickly and reliably. Protocols should be established to allow the Armed Forces quickly and at scale to participate, and the NHS should consider ways in which it can be more accommodating of volunteer support in normal times building on the experience and enthusiasm demonstrated during the pandemic. (Paragraph 401)*

Formal minutes

Tuesday 21 September 2021

The Health Committee and the Science and Technology Committee met concurrently, pursuant to Standing Order No.137A.

Members present:

Health and Social Care Committee

Paul Bristow

Dr James Davies

Jeremy Hunt

Sarah Owen

Anum Qaisar-Javed

Dean Russell

Science and Technology Committee

Aaron Bell

Dawn Butler

Greg Clark

Katherine Fletcher

Carol Monaghan

Graham Stringer

Greg Clark was called to the Chair (Standing Order No.137A (1)(d)).

Draft Report (*Coronavirus: lessons learned to date*), proposed by the Chair, brought up and read.

Ordered, That the Chair's draft Report be considered concurrently, in accordance with the provisions of Standing Order No. 137A(1)(c).

Ordered, That the Chair's draft Report be read a second time, paragraph by paragraph.

Paragraphs 1 to 405 agreed to.

Summary agreed to.

Health and Social Care Committee

The Science and Technology Committee withdrew.

Jeremy Hunt, in the Chair.

Members present

Paul Bristow

Dr James Davies

Sarah Owen

Anum Qaisar-Javed

Dean Russell

Draft Report (*Coronavirus: lessons learned to date*), proposed concurrently by the Health and Social Care Committee and the Science and Technology Committee, brought up and read.

Resolved, That the draft Report prepared by the Health and Social Care Committee and the Science and Technology Committee be the Sixth Report of the Committee to the House.

Ordered, That the provisions of Standing Order No.137A(2) (Committees working together; joint reports) may be applied to the Report.

Ordered, That Greg Clark make the Report to the House.

Ordered, That embargoed copies of the Report be made available, in accordance with the provisions of Standing Order No. 134.

Adjourned till Tuesday 19 October 2021 at 9.00 am

Science and Technology Committee

Greg Clark, in the Chair.

Members present

Aaron Bell

Dawn Butler

Katherine Fletcher

Carol Monaghan

Graham Stringer

Draft Report (*Coronavirus: lessons learned to date*), proposed concurrently by the Health and Social Care Committee and the Science and Technology Committee, brought up and read.

Resolved, That the draft Report prepared by the Health and Social Care Committee and the Science and Technology Committee be the Third Report of the Committee to the House.

Ordered, That the provisions of Standing Order No.137A(2) (Committees working together; joint reports) may be applied to the Report.

Resolved, That the Chair make the Report to the House.

Ordered, That embargoed copies of the Report be made available, in accordance with the provisions of Standing Order No. 134.

Adjourned till Thursday 23 September at 1.30pm.

Witnesses

The following witnesses gave evidence. Transcripts can be viewed on the [inquiry publications page](#) of the Committee's website.

Tuesday 13 October 2020

Theresa Steed, Home Manager, Tunbridge Wells Care Centre; **Philip Scott**, carer; **Helen Spalding**, carer [Q1–31](#)

Professor David Oliver, Geriatric Consultant, Royal Berkshire NHS Foundation Trust; **Kathy Roberts**, Chair, Care Providers Alliance; **Jane Townson**, Chief Executive Officer, UK Homecare Association [Q32–56](#)

Professor Jane Cummings, Adult Social Care Testing Director, Department of Health and Social Care; **Michelle Dyson**, Director General, Adult Social Care, Department of Health and Social Care; **David Pearson**, Chair, Social Care Support Taskforce, Department of Health and Social Care; **Helen Whately MP**, Minister of State (Minister for Care), Department of Health and Social Care [Q57–109](#)

Wednesday 21 October 2020

Dr Max Roser, Director, Oxford Martin Programme on Global Development; **Professor David Heymann**, Professor of Infectious Disease Epidemiology, London School of Hygiene and Tropical Medicine [Q110–131](#)

Professor Mark Woolhouse OBE, Professor of Infectious Disease Epidemiology, University of Edinburgh; **Professor John Edmunds OBE**, Professor, London School of Hygiene and Tropical Medicine; **Sir Ian Diamond**, National Statistician, Office of National Statistics [Q132–181](#)

Professor Axel Gandy, Chair in Statistics, Imperial College London; **Dr Clare Gardiner**, Director, Joint Biosecurity Centre [Q182–222](#)

Wednesday 04 November 2020

Professor Peter Horby, Professor of Emerging Infectious Diseases and Global Health, University of Oxford [Q223–253](#)

Professor Andrew Pollard, Trial Chief Investigator, University of Oxford; **Professor Robin Shattock**, Chair in Mucosal Infection and Immunity, Imperial College London [Q254–279](#)

Professor Wei Shen Lim, Chair, COVID-19 Panel, Joint Committee on Vaccination and Immunisation; **Kate Bingham**, Chair, UK Vaccine Taskforce [Q280–317](#)

Tuesday 10 November 2020

Professor Dame Anne Johnson, Professor of Infectious Disease Epidemiology, University College London; **Professor Sir Chris Ham**, Chair, Coventry and Warwickshire Health and Care Partnership, former Chief Executive, The King's Fund; **Professor Dominic Harrison**, Director of Public Health, Darwen Borough Council [Q318–338](#)

Professor Sir John Bell, Regius Professor, University of Oxford; **Professor Jo Martin**, President, Royal College of Pathologists; **Professor Gerard Krause**, Head of Department for Epidemiology, Helmholtz Centre for Infection Research, Director, Institute for Infectious Disease Epidemiology, TWINCORE, Hanover [Q339–367](#)

Baroness Harding, Chair, NHS Test and Trace; **Dr Susan Hopkins**, Chief Medical Adviser, NHS Test and Trace [Q368–472](#)

Tuesday 24 November 2020

Professor Devi Sridhar, Professor of Global Public Health, University of Edinburgh; **Alex Thomas**, Programme Director, Institute for Government [Q473–500](#)

Rt Hon Matt Hancock, Secretary of State for Health and Social Care; **Dr Jenny Harries**, Deputy Chief Medical Officer for England, Department of Health and Social Care; **Clara Swinson**, Director General for Global and Public Health, Department of Health and Social Care [Q501–619](#)

Tuesday 01 December 2020

James O'Rourke, family carer; **Steve Scown**, Chief Executive, Dimensions UK [Q620–643](#)

Iain Bell, Deputy National Statistician and Director of Population and Public Policy, Office for National Statistics; **Professor Kevin Fenton**, Public Health and Regional Director for London, Public Health England [Q644–673](#)

Dr Habib Naqvi, Director, NHS Race and Health Observatory, NHS Confederation; **Professor Doctor Ramani Mooneshinghe**, National Clinical Director for Critical Care, NHS England and NHS Improvement [Q674–704](#)

Wednesday 02 December 2020

Professor Dame Sally Davies, Chief Medical Officer for England (2010–2019); **Sir Mark Walport**, Government Chief Scientific Adviser (2013–2017) [Q705–739](#)

Sir Oliver Letwin, Cabinet Office Minister (2010–2016); **Lord Mark Sedwill**, Cabinet Secretary (2018–2020) [Q740–769](#)

Wednesday 09 December 2020

Sir Patrick Vallance, Government Chief Scientific Adviser; **Professor Chris Whitty**, Chief Medical Officer for England; **Dr Jenny Harries**, Deputy Chief Medical Officer, Department for Health and Social Care; **Dr June Raine**, Chief Executive, Medicines and Healthcare products Regulatory Agency (MHRA) [Q770–865](#)

Tuesday 26 January 2021

Sir Simon Stevens, Chief Executive, NHS England [Q866–943](#)

Wednesday 26 May 2021

Dominic Cummings, Former Chief Adviser to the Prime Minister [Q944–1240](#)

Thursday 10 June 2021

Rt Hon Matt Hancock MP, Secretary of State for Health and Social Care [Q1241–1508](#)

Published written evidence

The following written evidence was received and can be viewed on the [inquiry publications page](#) of the Committee's website.

CLL numbers are generated by the evidence processing system and so may not be complete.

- 1 Action on Salt and Action on Sugar ([CLL0078](#))
- 2 Age UK ([CLL0039](#))
- 3 Ali, Junade ([CLL0007](#))
- 4 Alzheimer's Society ([CLL0060](#))
- 5 Amnesty International ([CLL0004](#))
- 6 Anchor Hanover ([CLL0076](#))
- 7 Ask Research ([CLL0040](#))
- 8 Association of Anaesthetists ([CLL0014](#))
- 9 Association of Clinical Oral Microbiologists ([CLL0080](#))
- 10 Association of Dental Groups ([CLL0044](#))
- 11 Association of Healthcare Cleaning Professionals (AHCP) ([CLL0093](#))
- 12 Asthma UK and British Lung Foundation ([CLL0030](#))
- 13 Baker, Mr Ralph ([CLL0024](#))
- 14 Bealt, Dr Jennifer (Research Associate, The University of Manchester); and Shaw, Professor Duncan (Professor of Operations and Critical Systems, The University of Manchester) ([CLL0049](#))
- 15 Blackman, Mr Bob (Member of Parliament, UK Parliament) ([CLL0056](#))
- 16 Blood Cancer UK ([CLL0048](#))
- 17 Boon, Joe ([CLL0116](#))
- 18 Briscoe, Mr Simon (Director and consultant, Independent) ([CLL0096](#)), ([CLL0097](#))
- 19 Bristol Care Homes ([CLL0015](#)), ([CLL0016](#))
- 20 Bristow, Aubrey (Consultant Anaesthetist, Anaesthesia Ltd) ([CLL0022](#))
- 21 British Dental Association ([CLL0074](#))
- 22 British Geriatrics Society ([CLL0064](#))
- 23 British In-Vitro Diagnostics Association ([CLL0019](#))
- 24 British Infection Association ([CLL0079](#))
- 25 British Society for Immunology ([CLL0069](#))
- 26 Bupa Dental Care ([CLL0085](#))
- 27 Cancer52 ([CLL0068](#))
- 28 Care England ([CLL0013](#))
- 29 Carers Trust ([CLL0061](#))
- 30 Carers UK ([CLL0090](#))
- 31 Centre for Britain and Europe, University of Surrey ([CLL0059](#))

- 32 Center for Immuno-Metabolism, Microbiome and Bio-Energetic Research, UK ([CLL0112](#))
- 33 Chair of NHSE Clinical Reference Group Infectious Diseases ([CLL0088](#))
- 34 Chisholm, Julian ([CLL0111](#))
- 35 Cohen-Almagor, Prof Raphael (Chair in Politics, University of Hull) ([CLL0032](#))
- 36 Company Chemists' Association ([CLL0020](#))
- 37 Connolly, Professor John (Professor of Public Policy, University of the West of Scotland); and Baglin, Christine ([CLL0052](#))
- 38 de Londras, Professor Fiona and Lock, Daniella, COVID-19 Review Observatory, Birmingham Law School, University of Birmingham ([CLL0075](#))
- 39 Dimensions ([CLL0105](#))
- 40 Edmunds OBE, Professor John (Professor, London School of Hygiene and Tropical Medicine) ([CLL0010](#))
- 41 GAMA Healthcare ([CLL0077](#))
- 42 Gatherer, Dr Derek (Lecturer, Lancaster University) ([CLL0006](#))
- 43 General Medical Council ([CLL0119](#))
- 44 Glassborow, Nigel ([CLL0110](#))
- 45 Griffiths, Mrs Joanne (Managing Director , JMJ Upvc windows limited); Gray, Mrs Karen; Levy, Ms Elaine; and Huxley Mrs Margaret ([CLL0021](#))
- 46 HPAPI Project Services Limited; JJP Protection Limited; and Big Pharma, UK advanced manufacturers, UK NHS Medical Professionals various and others ([CLL0031](#))
- 47 Hatton, Professor Chris (Professor of Social Care, Dept of Social Care and Social Work, Manchester Metropolitan University) ([CLL0037](#))
- 48 Hatton, Professor Chris (Professor of Social Care, Dept of Social Care and Social Work, Manchester Metropolitan University); and Hastings, Professor Richard (Cerebra Chair of Family Research, Centre for Educational Development, Appraisal and Research; University of Warwick) ([CLL0038](#))
- 49 Healthcare Distribution Association UK ([CLL0001](#))
- 50 Healthcare Infection Society ([CLL0071](#))
- 51 Heneghan, Professor Carl (Director, Centre for Evidence-Based Medicine; and Professor of Evidence-Based Medicine, University of Oxford); and Gupta, Professor Sunetra (Professor of Theoretical Epidemiology, University of Oxford) ([CLL0117](#))
- 52 Hilton, Mr Samuel (Research Affiliate , Centre for the Study of Existential Risk) ([CLL0092](#))
- 53 Human Rights Watch ([CLL0050](#))
- 54 Infection Prevention Society ([CLL0065](#))
- 55 Institute of Biomedical Science ([CLL0083](#))
- 56 Institute of Civil Protection and Emergency Management ([CLL0054](#))
- 57 Jamieson, Gillian (Psychotherapist, Soprano soloist, self-employed MBACP) ([CLL0095](#)), ([CLL0114](#))
- 58 JKS Bioscience Limited ([CLL0002](#))
- 59 LGA ([CLL0005](#))

- 60 Lang, Professor Trudie (Director, The Global Health Network , University of Oxford) ([CLL0043](#))
- 61 Laskiewicz, Dr Marek (Reader, Polish University Abroad [PUNO]) ([CLL0033](#))
- 62 Lauder, Dr Mike; and Lightfoot, Prof Nigel ([CLL0051](#))
- 63 Marie Curie ([CLL0102](#))
- 64 MedCity ([CLL0104](#))
- 65 Moore, Dr Alfred (Lecturer, University of York); and MacKenzie, Dr Michael (Assistant Professor, University of Pittsburgh) ([CLL0035](#))
- 66 Muckelt, Paul E, Hardy-Johnson, Dr Polly; Strommer, Dr Sofia; and Barker, Professor Mary, University of Southampton ([CLL0106](#))
- 67 National AIDS Trust ([CLL0091](#))
- 68 National Care Forum ([CLL0118](#))
- 69 National Pharmacy Association ([CLL0099](#))
- 70 Nursing and Midwifery Council ([CLL0082](#))
- 71 Osborn, Mr David ([CLL0113](#))
- 72 Pawson, Prof Ray (Emeritus Professor, University of Leeds) ([CLL0025](#))
- 73 Public Health England ([CLL0121](#))
- 74 RECOVERY trial ([CLL0047](#))
- 75 Reunite Families Uk ([CLL0027](#))
- 76 Robinson, Phil (Founder, Managing Director / Chief Scientific Officer (ret), KBioscience Ltd); and Curtis, Jon (Founder, Chief Automation Officer (ret), KBioscience Ltd) ([CLL0055](#))
- 77 Royal College of Midwives ([CLL0073](#))
- 78 Royal National Institute of Blind People (RNIB) ([CLL0108](#))
- 79 Royal Pharmaceutical Society ([CLL0084](#))
- 80 Royal Society of Chemistry ([CLL0045](#))
- 81 Royal Statistical Society ([CLL0100](#))
- 82 SC Johnson Professional ([CLL0036](#))
- 83 Safer Disinfectant Network ([CLL0086](#))
- 84 Sense ([CLL0042](#))
- 85 Sickle Cell and Thalassaemia All Party Parliamentary Group ([CLL0101](#))
- 86 Sims, Andrew ([CLL0126](#))
- 87 Snell, Mr Geoff ([CLL0041](#))
- 88 Society for Applied Microbiology ([CLL0029](#))
- 89 Spire Healthcare ([CLL0026](#))
- 90 Sudall, Edward ([CLL0109](#))
- 91 Sufbury & Lavenham Hotels Forum ([CLL0120](#))
- 92 Tench, Professor Ralph (Director of Research, Leeds Beckett University); and Bridge, Dr Gemma (Research Evidence Impact Officer , Leeds Beckett University) ([CLL0003](#))
- 93 The Care Quality Commission ([CLL0070](#))

- 94 The Evidence-based Medicine Consultancy Ltd ([CLL0115](#))
- 95 The Health Foundation ([CLL0089](#)), ([CLL0123](#))
- 96 The Nuffield Trust ([CLL0087](#))
- 97 The London School of Economics and Political Science ([CLL0098](#))
- 98 The Physiological Society; and Centre for Ageing Better ([CLL0062](#))
- 99 The Royal College of Pathologists ([CLL0063](#))
- 100 Turning Point - Health and Social Care Organisation ([CLL0094](#))
- 101 UK Clinical Virology Network ([CLL0072](#))
- 102 UK Pandemic Ethics Accelerator ([CLL0124](#))
- 103 University College London ([CLL0023](#))
- 104 University of Kent, Kent Law School ([CLL0081](#))
- 105 Urology Trade Association ([CLL0012](#))
- 106 UsforThem ([CLL0057](#))
- 107 Versus Arthritis ([CLL0067](#))
- 108 Voluntary Organisations Disability Group ([CLL0053](#))
- 109 Watt, Dr Andrew ([CLL0122](#)), ([CLL0127](#))
- 110 Woolhouse OBE, Professor Mark (Professor of Infectious Disease Epidemiology, University of Edinburgh) ([CLL0011](#))

List of Reports from the Health and Social Care Committee during the current Parliament

All publications from the Committee are available on the [publications page](#) of the Committee's website.

Session 2021–22

Number	Title	Reference
1st	The Government's White Paper proposals for the reform of Health and Social Care	HC 20
2nd	Workforce burnout and resilience in the NHS and social care	HC 22
3rd	Pre-appointment hearing for the Chair of the Food Standards Agency	HC 232
4th	The safety of maternity services in England	HC 19
5th	The treatment of autistic people and people with learning disabilities	HC 21

List of Reports from the Science and Technology Committee during the current Parliament

All publications from the Committee are available on the [publications page](#) of the Committee's website.

Session 2021–22

Number	Title	Reference
1st	Direct-to-consumer genomic testing	HC 94
2nd	Pre-appointment hearing for the Chair of UK Research and Innovation	HC 358