Witness Name: Paul Dinkin

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UK COVID-19 INQUIRY

WITNESS STATEMENT OF PAUL DINKIN (MCKINSEY & COMPANY)

I, Paul Dinkin, will say as follows: -

Opening Remarks / Personal Introduction

1. I am grateful for the opportunity to assist the Chair and Inquiry with its work.
2. I am a Partner at McKinsey & Company, where all my work is dedicated to helping publicly funded healthcare systems, including the NHS, to deliver equitable, high-quality health and care.
3. During the Covid-19 pandemic, and with the support of many expert colleagues, I led or oversaw most of the support we provided to NHS Test and Trace.
4. Before addressing the questions in the Inquiry's request for evidence, it would be remiss of me not to reiterate what we all know: The period under discussion was unprecedented in living memory in many ways—every day brought news of unfathomable heartbreak amidst an ongoing struggle to respond adequately to a crisis that constantly threatened to overwhelm many countries.
5. During the period of our support, we worked with civil servants from the Department of Health and Social Care, the Office for Life Sciences and Public Health England, as well as with experts seconded from the NHS, research bodies and local authorities. The challenges and decisions that they faced every day were rarely straightforward.

6. Amidst all the complexity, the mental as well as emotional toil that they, along with all health service workers experienced, it is my memory that the importance and gravity of the task at hand was never lost on any of these professionals, and the dedication and commitment to do the best they could was constant.

A. Background and our work in Public Health

7. McKinsey & Company is one of the world's leading providers of management consulting services. Founded in Chicago by James O. McKinsey in 1926, McKinsey has offices in 137 cities across 65 countries. Our London office was opened in 1959. For over 70 years, McKinsey has worked alongside government organisations to address the most urgent public health challenges, offering solutions that improve population health and that seek to significantly and positively impact society.

8. We have deep experience and expertise on major public health topics spanning health promotion and protection, including pandemic response, disease surveillance, climate and environmental health risks, antimicrobial resistance, mental health, maternal and child health, non-communicable diseases and the support of equitable health access and outcomes.

9. Within the context of our Public Health work, we have capabilities in project management, organisation and governance design, implementation design and delivery, operations, and innovation, as well as building capabilities in our clients to enable them to be more self-standing over time.
    a. *Pandemic preparedness and response*: Building resilient response systems and supporting response to infectious disease outbreaks and public safety crises, globally in affected countries.
    b. *Vaccines and infectious disease*: Supporting the development, distribution and use of vaccines and therapeutics to tackle the global burden of infectious disease, including Covid-19.
    c. *Service delivery implementation, innovation, and design*: By deploying a complementary set of capabilities, we help clients create, launch, and scale effective and sustainable public health solutions empowering and caring for patients and communities.
    d. *Global health operations*: Bringing leading-edge thinking in procurement, manufacturing, quality and supply chain to global public health, making medicines affordable and available for everyone.

e. *Public health analytics and technology*: Joining deep technical expertise with extensive experience supporting public health bodies to use data and infrastructure resources better.

f. *Prevention, promotion, and equity in public health*: Leveraging expertise across public health to support the delivery of more equitable solutions in health promotion and disease prevention.

g. *Climate and health*: Supporting strategic and tactical understanding of the public health risks posed by potential changes in climate.

B. Our decision and approach to supporting the TTI organisation

10. In common with many other organisations, McKinsey was focused on doing all it could do to help support the national response to the pandemic and the subsequent recovery process.

11. This crisis was unprecedented in living memory, and presented constant, fresh challenges. Complex, multi-layered systems, supply chains and distribution mechanisms that would usually take years to devise were needed in weeks.

12. From the start of our support, we knew that COVID-19 was testing the UK health system and public health infrastructure like never before. We understood the goal of effectively identifying and limiting chains of transmission, which would save lives, and we were committed to supporting that effort as best we could, alongside the many other external organisations upon which the Government drew for support.

13. For reference, as set out in the National Audit Office's June 2021 report on TTI, a list of the top 10 suppliers that supported the TTI organisation was as follows. Note that our own support for the organisation ended in September 2021, shortly before the operational integration of the programme into the UK Health Security Agency.

Consultancy	Committed contract value (£m)	Spend to end of March 2021 (£m)
Deloitte LLP	298	174
IBM United Kingdom Limited	46	21
Accenture (UK) Limited	30	18
The Boston Consulting Group UK LLP	30	28
PA Consulting Services	30	10

Limited		
Zuhlke Engineering Limited	25	12
Bramble Hub Limited	17	8
BAE Systems Applied Intelligence Limited	15	8
McKinsey & Company Inc.	14	12
Ernst and Young LLP	12	9
Total	**516**	**300**

Our approach to public sector client service

14. McKinsey has some fundamental principles it applies to all engagements in the public sector:

    a. we provide policymakers with the data and fact-based analysis they need to support informed decision making by our clients; but we don’t recommend or make policy

    b. we help public sector institutions to implement the decisions taken by policymakers and improve outcomes for citizens

    c. we support our clients in building the required organisations, systems and capabilities to implement programmes

15. We take account of a mix of sources, including our in-house research and the findings of other experts. Any (e.g., demand and capacity) models we build are designed as scenario-planning tools and are not predictive, and we ensure the role they are designed to play is clear to clients.

16. Our structure and ways of working ensure we bring the expertise of the whole of McKinsey to bear (subject to conflict management protocols), including our experience in other countries facing similar challenges. We do this to deliver the best possible insights for our clients.

17. We will not second McKinsey colleagues into internal roles inside public sector organisations. Instead, we work based on contractually agreed deliverables.

18. All work by McKinsey with the UK Government is contracted under UK public sector procurement regulations.

19. We will not undertake evaluations to decide who wins government contracts or engage in lobbying for other clients.

20. We will not provide clinical recommendations.

21. We follow relevant data protection and handling restrictions and adhere to the highest level of confidentiality in our client work. Consistent with other professional services firms, we follow strict staffing protocols to prevent conflicts of interest.

22. All of this was reflected in our support for the TTI organisation:
    a. With the exception of six days' pro bono support in March 2020 following a request from the Health Minister, Lord Bethell (see paragraph 29 below), each programme was commissioned either through a direct award under a public framework that had been competitively tendered or through a competitive tender process.
    b. No-one from McKinsey took on any line role or decision-making responsibility within the TTI organisation.
    c. Our role was not to guide strategy or policy, and not to provide any clinical advice. Rather, we provided data and analytics, operational and project management support to leaders in the organisation accountable for decision-making in the areas where we were contracted.
    d. Any support we provided was formally signed off by the relevant, accountable public official.
    e. In March 2020, the Cabinet Office, supported by Crown Commercial Services, agreed fee rates with multiple consultancy firms for public sector Covid response work. All our work was commissioned and invoiced under these agreed rates.

C. McKinsey leadership and governance

Ensuring that the work we undertook was robust and effective

23. Internally, in addition to reviews of any proposed scope of work by our Risk team, we oversaw delivery of our Covid-19 response work at weekly internal meetings where partners serving the UK public sector (in particular, the Responsible Partners for our work with TTI, with central government and the leaders of our public sector work in the UK and Europe) discussed the progress and impact of our work to ensure it was delivering on client expectations and positive societal impact and that we were continuing to operate within our risk guardrails and comply with our internal

administrative processes. With respect to TTI, as with other work, the basis for those discussions was the specific commissions we were delivering against rather than on any broader matters.

24. This was complemented by similar internal meetings at a regional and global level to ensure that we were effectively and appropriately drawing on expertise and research insights from other countries. These meetings were chaired by the senior partners leading our public health and pandemic response work globally or within Europe. They focussed on (i) understanding the common challenges faced by our teams working to support pandemic response in Europe and internationally, (ii) connecting teams to the best internal experts on specific topics, and (ii) sharing research and fact packs that had been led by dedicated internal McKinsey teams, that could support our teams working (including those working for TTI), or could be shared directly with our clients. I give examples of our research and publications at the end of this statement.

25. Within this broader context, each programme of work had a named Accountable Senior Partner and Responsible Partner to ensure robust oversight of our work and assure its quality. Following our usual governance and oversight procedures, these colleagues oversaw and reviewed the scoping and outputs of our work, managed a full-time project manager and team as well as input by relevant expert colleagues for the duration of each commissioned piece of work, and ensured the submission of contracted work products and additional ad hoc commissions to the contracting bodies with whom we worked. Our work for TTI was principally orchestrated and overseen by the following McKinsey colleagues:
    a. Paul Dinkin, Partner, UK – Responsible Partner for our support across the organisation as a whole.
    b. Jonathan Dimson, Senior Partner, UK – Responsible Partner for our support for Trace, specifically.

26. In practice, and in keeping with our model of client service, our support saw us directly draw on and involve a much wider group of senior colleagues (in the UK and globally) with expertise relevant to the specific topics we supported, including public health, pandemic preparedness and response, in vivo diagnostics, digital and analytics and operations, as well as our internal healthcare research team. Those colleagues were closely involved in leading different elements of our support and working with TTI colleagues directly.

27. Much of our work relied upon close collaboration with teams within TTI, the NHS and DHSC, as well as across HMG and local government partners. In each piece of work we undertook, we worked for a senior publicly-appointed official in TTI, who identified which parts of the organisation or external partners we needed to work with.

D. Summary of our involvement in TTI

28. The following relates to the client service McKinsey provided to TTI between 1 January 2020 and September 2021, when our support ended.

Background to our involvement

29. Our involvement in TTI began on Thursday, March 19, 2020. It was initiated by the parliamentary office of the Health Minister, Lord Bethell, and his senior civil servants, who reached out to the then head of McKinsey's London Office, Dame Vivian Hunt, to ask if we could assist with some rapid insights research into the latest developments around antibody testing globally (which countries were using it, and some general market information based on publicly available sources).

30. At that point, the Government had already established a Coronavirus Mass Testing Programme and plan.

31. We were subsequently asked by the newly appointed Programme Director, Kathy Hall, for support with their efforts to accelerate the scale-up of the National Covid-19 Testing Programme.

High-level overview of our support

32. Over the ensuing 24 months, we were commissioned to carry out three strands of work:

    a. Much of our work was focused on supporting efforts by the NHS to scale the number of Covid-19 tests being secured and delivered. This was a critical pillar of the national response to Covid-19.

    b. We were tasked with delivering a short programme of work in June-July 2021 to support the Trace pillar in redesigning its organisational ways of working. This would embed a stronger role for local authorities and local public health officials—seen as critical to the programme's success—and then help set up a national call centre later in the year.

    c. We delivered two programmes of forward-looking work focused on organisational arrangements for TTI: the first in May 2020, on organisational considerations for the TTI service as it matured, and the second, in December

2020, on in-depth international case studies of how other countries organised their public health arrangements. These aimed to ensure a lasting legacy integrating new capabilities built during the pandemic into the future public health landscape.

Governance of TTI and the senior officials we worked to:

33. TTI's organisational structure and governance evolved considerably throughout the period we supported. Throughout, our work was overseen by public officials who were either members of the organisation's Executive Committee (which included the Chief Operating Officer of TTI, the Chief Information Officer, the Chief Medical Officer, the Chief Customer Officer, and was chaired by the Chief Executive Officer) or reported to members of that committee.

34. During that period, the principal public officials we worked to, were:

    a. *Scale up of Testing:*

        i. The five Directors of the testing programme during the period of our support (we also worked to their direct reports):

            1. Kathy Hall (civil servant), Director of the Covid-19 National Testing Programme

            2. Brian Hall (civil servant), Director of the Covid-19 Testing Programme, NHS Test and Trace

            3. Sarah-Jane Marsh (seconded from the NHS), Director of Testing, NHS Test and Trace

            4. Annelies Look (civil servant), Director of Testing, NHS Test and Trace

            5. Mark Hewlett (civil servant), Chief Operating Officer of NHS Test and Trace

        ii. The Chief Customer Officer, Sidonie Kingsmill

    b. *Refinement of the Trace service:*

        i. Haroona Franklin (civil servant), Divisional Director for Trace

    c. *Organisational arrangements:*

        i. Dyfed Alsop (civil servant)

        ii. Richard Gleave (Chief Operating Officer, Public Health England)

35. We worked either directly to this group of colleagues or in some instances to their direct reports.

36. Any outputs from our support are owned by our client and were signed off by the accountable public official we worked with within NHS Test and Trace.

McKinsey's implementation role in relation to TTI

37. The Inquiry has asked what policies and decisions McKinsey was responsible for.

38. As set out above, our implementation role was to provide analytical support and evidence to support civil servants' decision-making. We did not take on any line management responsibilities within the organisation, manage or direct any public servants or other contractors, or make any policy decisions whatsoever, at any point, on strategy or operational issues.

The decision to use private suppliers

39. The National Testing Programme, and then NHS Test and Trace, were established to achieve the scale necessary to meet the country's requirements for Covid-19 testing capacity. The organisation grew very rapidly, enabled by a programme of secondments from across HM Government, Public Health England, academia and the NHS, complemented by support from the private sector, the army and others.

40. National policymakers and officials were responsible for deciding whether and to what extent to centralise the services delivered by TTI, and to judge whether the necessary capacity and capabilities were available internally or best brought in from elsewhere in the public, private or third sectors. Evidently, it was the view of those officials that growing as an organisation that could provide 100,000 tests per day within a short period necessitated more capacity, and capabilities, more quickly, than appeared available from the public sector (including NHS England and Public Health England) alone. Alongside that, we would note the critical importance of continuing to place at the heart of that operation the deep knowledge, expertise and leadership of colleagues from within the existing public health landscape and wider civil service.

41. With respect to our own implementation support, our given objective and area of expertise in each phase of work for TTI was to build or strengthen capabilities and train the civil servants who would use the analytics and research insights we provided. This we did repeatedly as the organisation grew.

42. In addition, and in the case of Trace, our brief support for that pillar in part focused on implementing a delivery model that achieved a more effective balance between national and local leadership. (Prior to the pandemic, the responsibility for disease

tracing was local capability, largely anchored in local authorities. In the pandemic, TTI initially set up a national tracing capability drawing on outsourced private sector capacity. There was a need to integrate the work of local teams on the ground (who had local insights, community connections, ability to visit people, but lacked a flexible technology platform and ability to flex resources between localities) with the national capability (which had national insights, national connections as well as the technology platform and resource capacity). The focus of our support was to help design a hybrid model and clarify roles and accountabilities to enable the country to draw on the advantages of both the local and national capabilities, to increase effectiveness of the tracing response.)

E. Specific programmes of support

43. In the Inquiry's Request for Evidence, the Inquiry asked about three particular programmes of support:

    a. 'It is understood that McKinsey was contracted by the UK Government to define options for the 'vision, purpose and narrative', of the NHS Test and Trace Programme ('TTI')'

    b. 'and were contracted to develop a dashboard for testing and turn this into a digital platform.'

    c. 'It is understood that McKinsey may have had a role in reviewing the TTI system', referencing an article in The Independent newspaper on 15 July 2020.[1]

UK Test & Trace Future-State Organisation Options

44. The labelling given to this work in the media as limited to "Vision, Purpose and Narrative" does not accurately reflect the full scope or aims of the work undertaken. Our remit was not branding, marketing or public relations.

45. In May 2020, we supported the new Executive team of NHS Test and Trace in defining potential organisational structures and critical capabilities as it considered how to transition into an enduring public health function.

46. Commissioned via direct award, this was a six-week programme of work, outside of day-to-day operations. We were asked to analyse key choices for how TTI might transition from an urgently formed "Covid-19 crisis" response service to a permanent capability with a wider health protection remit in the future.

[1] The Independent, 15 July 2020 **(Exhibit PD/27-INQ000507885)**

47. The objective was to provide some preliminary thinking and analysis in relation to future evolution of the UK's Test & Trace Programme once it matured rather than to comment on or shape any immediate pandemic response activities or choices.

48. The work was conducted through the consideration of several sets of design choices around organisational purpose and remit, organisational design and operating model (including interfaces with other partner organisations, and choices around being a delivery vs policy setting organisation) and the breadth and depth of required capabilities (for example, the ability to scale capacity up and down as required and to effectively engage individuals and communities, either directly or through partner organisations).

49. The work was conducted by a joint team over six weeks in three two-week sprints and included over 25 interviews with colleagues from across TTI and the broader public health landscape. At the end of each sprint, the project team presented interim findings to TTI leadership for guidance on content and prioritisation for the coming sprint. It was deliberately future-focused and separate from the work of standing up the new organisation to protect against COVID-19.

50. The work took place during a period of considerable uncertainty, noting (but explicitly setting aside) substantial policy decisions that would need to be made over time with respect to, for example, the role and remits of Public Health England, NHSX and NHS Digital. Given this context, it sought to define a set of capabilities that could be transferred back into (or indeed drawn from) the NHS or other entities as those policy decisions evolved.

51. Questions relating to public health compliance or adherence fell outside of the scope of work requested of us by commissioning clients.

52. Working alongside civil servants and medical professionals from the NHS and Public Health England, we reported to Dyfed Alsop, the senior civil servant appointed to advise and steer the work.

53. At its conclusion, rather than conclude with a definitive roadmap, the work fed into the ongoing strategy and planning exercises being led by the existing Programme transition team.

Review of TTI

54. The article published in The Independent in July 2020, referenced in your Request for Evidence, and describing McKinsey and Company as having been drafted in 'to review the Test, Trace and Isolate system', was mistaken. The work it referred to was

the same programme described above in paragraphs 44-53, setting out organisational considerations for the TTI capability as they matured.

55. The work did not involve evaluating current or previous arrangements or the Government's response to COVID-19. It was entirely future-focused.

Digital analytics dashboard for reporting testing volumes

56. We did not design or build any digital platforms for Testing (or any part of TTI).

57. As described in the more detailed overview below, we designed several reporting dashboards and provided wider analytical support to assist with reporting and demand and capacity planning for Testing.

F. Detailed overview and chronology of our work and its impact

Analytics and project management support for efforts to scale the number of Covid-19 tests being secured and delivered (April 2020-December 2020)

58. McKinsey supported the Testing programme as it grew beyond the provisions of the NHS' laboratory network ('pillar one') into a more extensive network of public and private laboratories ('pillar two') that could meet the Government's target of 100,000 tests per day. This included:

    a. Analytics support for reporting on the number of tests performed in England and the Devolved Administrations, and to support weekly demand and capacity planning.

    b. Modelling current and forecast testing capacity and activity for NHS pathology networks and labs across the country to support the appropriate provision of supplies and maximise the available capacity as an input to decision making on the provision of supplies. These models were developed by McKinsey and Company for TTI in collaboration with TTI's data and analytics teams, and with input from DHSC's data science groups. Scenarios for the spread and evolution of COVID-19 within the population was taken from SPI-M's projections, normally updated fortnightly.

    c. In the autumn of 2020, we supported Sarah-Jane Marsh in developing and implementing a winter plan aimed at meeting HMG's 100,000/tests a day target. We worked with project management groups and individual teams across the TTI organisation (including the strategy, engagement, data, finance, Testing Supplies, HR, clinical governance, planning and PMO teams) and network of laboratories to identify risks to realising this capacity and resolve bottlenecks.

59. Our focus during this phase and throughout was on supporting operational management—in this case, helping an analytics function respond to modelling requests within hours, not days, and building the demand forecasting capabilities that covered all Pillars of Test, all regions of the UK, and all test types and modalities of distribution.

60. Through this, we supported the Testing team in building the capability, reporting dashboards, information gathering, and problem-solving routines necessary to manage the continued delivery of a complex and rapidly evolving plan. This was a complex exercise given the rapidly evolving organisational structure and resourcing, the plethora of project management (PMO) teams, and the evolving demands of the programme itself.

61. We did not advise on testing policy (that is, who should be prioritised for testing, how often, why, and through what route). We also did not provide any estimates of the virus's evolution in the population or how it might be stalled.

62. Similarly, we were not commissioned to and did not analyse equalities or access. The demand and capacity modelling that we performed did estimate the potential demand for tests for specific target groups which were considered or prioritised for access to testing by ITT or No10 policy teams (for example, to enable testing in schools by age group, for community testing by borough, for testing in workplaces for specific industries, for testing in healthcare or social care settings), working closely with the policy and delivery teams responsible for these areas of testing provision. But we were not commissioned to consider access for disadvantaged groups. Our assigned focus was to look at specific drivers of required test volumes. Separate teams within TTI focussed on test policy, delivery and uptake, and considered access as part of this.

Implementation support to build the data and analytics capabilities of NHS Test & Trace (Summer 2020 – Spring 2021)

63. As the testing programme grew, data and analytics capabilities were built in every part of the organisation. We supported the design of a hub-and-spoke data and analytics organisation for testing with a resource plan that could support recruitment. This plan was developed by understanding the different analytical teams dispersed through the organisation at that point, evaluating the different data and analytical needs that the organisation as a whole required to function, and estimating the

teams, functions and resources that could fulfil this. The resulting resource plan brough together into one hub-and-spoke data analytics organisation the existing ~50-60 analysts, and proposed vacancies for a further ~50-60 resources that would be needed for the organisation to function. We also facilitated the development of the initial work plan against which delivery could be tracked.

64. We operated a small PMO that helped the leaders deliver this plan of work to mature the quality of data and analytical tools available.

65. Finally, we were commissioned to provide rapid-response support to meet the 50+ analytical modelling and reporting requests received per day, from operational teams within TTI; from community public health teams; from government departments across HMG including Education, DHSC, BIS, Cabinet Office, No 10, the Office of the Chief Scientist.

Implementation support to enable mass testing of the population (October 2020 – July 2021)

66. By late 2020, planning for mass testing using rapid turnaround technologies became the highest priority for the programme. We were commissioned to support the scale-up of rapid turnaround testing technologies over several months. As part of our support, we established, and then handed over to civil servants:

    a. A 'New Supplier Mapping' function that identified, triaged (to ensure the right TTI scientific-led team reviewed submissions) and managed over 500 suppliers to bring additional testing capacity to the UK population as quickly as possible. This function acted as the front door for any supplier to the TTI organisation. It existed to simplify how potential suppliers interacted with TTI, ensured one version of the truth in terms of potential suppliers who had contacted TTI, and was able to provide clarity on the status of any potential supplier (had their submission been reviewed?, etc). The function interfaced with the relevant scientist-led TTI technology teams (for each of the different testing types such as PDR, lateral flow, LAMP), who were responsible for assessing different suppliers by technology type. The function was not responsible for any direct assessment and operated before any review of an individual supplier occurred. We did not define the triage criteria for suppliers or decide which suppliers were to be used. Instead, our role was to define how this function should work and support day-to-day operations. Over time, we handed over the full running of this function to civil servants.

    b. The 'Design Authority Review' as a decision-making vehicle, where scientists and clinicians reviewed the effectiveness of 290+ products. Our role was to define the operations of this function to meet the outcomes set out by civil servants and then support its operation. This including facilitating a twice-weekly effectiveness review meeting, in which the Director of Supplies Innovation at TTI could be provided with relevant product assessments (whether scientific, operational or commercial) by the expert teams within TTI and DHSC. We engaged with these teams to ensure timely decision-making, that decisions were catalogued correctly, and any 'next steps' captured and followed up, etc.

c. A demand and capacity capability for Lateral Flow Tests, that provided responsive estimates for the capacity required to meet different testing policy options proposed by HMG, and supported daily demand and capacity meetings chaired by senior directors to help inform their decision making on the purchasing of sufficient tests, and their distribution to ensure they were available where needed.

67. During the same period, we supported TTI in planning for the piloting and potential implementation of Daily Contact Testing (DCT)[2]. Daily contact testing was initially planned to support continued operations of 1) critical national infrastructure, and 2) schools / education. Further pilot programmes were subsequently rolled out to explore the general population and priority locations identified by Directors of Public Health within localities across the country. Within critical national infrastructure, the planned roll out was based on the Cabinet Office prioritisation framework focusing on groups who could not work from home (e.g. UK border force) based on three criteria (criticality of sector, exposure to disease and proximity to others in the workplace, and regional COVID-10 prevalence). Specific occupations within each of the prioritised categories was determined by the policy team within DHSC in discussion with the Chief Medical Officer. Within the schools programme, five schools were initially onboarded while we supported during phase 1. Decisions were taken by the DCT Programme and Evaluation Oversight Board which met regularly to provide guidance across all programmes within DCT.

Implementation support to enable an effective response to new variants (late 2020 - 2021)

68. McKinsey supported the design and implementation of a continuous improvement function for the Testing Operations team, including a focus on improving the end-to-

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[2] DCT involved limited release from self-isolation following a negative test using a lateral flow device (LFD) and repeating this each day for 7 consecutive days after being identified as a close contact of someone who has tested positive for Covid-19. This DCT principle was considered by NHS Test and Trace as an alternative to self-isolation **(Exhibit PD/28-INQ000587583)**.

end response to new variants. This team helped to halve the time (8 days down to 4) it took to complete the genetic sequencing of new variants of the virus.

69. In addition, we provided several weeks of project-management support to identify and progress seventeen data and technology workstreams that would enable NHS Test & Trace to identify and respond to new variants more effectively. This included helping technical colleagues in TTI to scope each workstream, identifying interdependencies, and facilitating meetings to track progress and escalate any issues that needed resolving.

70. Finally, we provided a short programme of support in November 2020 to analyse the private testing market in England and how it might evolve as the country transitions away from publicly funded and supplied testing.

Implementation support for the Trace 'pillar' (August-October 2020)

71. In August 2020, we undertook a programme of support for the Trace 'pillar' to evolve its delivery model. We worked with national and local public health colleagues to design a more balanced national/local service – seen by public health directors as a key step in recovering performance and establishing a more enduring capability.

72. Our work to evolve the delivery model involved several linked efforts which were designed jointly with NHS leaders and multiple groups of Local Authority leaders. The work included: creating a clear set of national, regional, and local activities with clarity on roles and accountabilities for Trace; separating specialist Health Protection Teams of clinicians to protect their time for activities requiring clinical expertise; creating options for local delivery leadership to make the national statement on "local by default" operational, launching remote compliance checking for self-isolation including phone follow ups to ill individuals, redesign of technological platforms to cover case management, analytical insights, link to the app, and system performance management. As a result of our work, the Tracing system was able to balance activities and responsibilities between national and local teams.

73. Later in 2020, we helped design a national complaints-handling service for Trace to enable service feedback and improvement. The initial service for complaints was a regional contract with the South Central Ambulance Service which quickly became overwhelmed in the pandemic. We helped to design a national service which consisted of: a website channel with self-service and chatbot support, a national call centre service to replace the regional ambulance service, and a social media presence to respond to enquiries and complaints from the public. We were not involved beyond launch.

Research insights support for potential future organisational arrangements (May and December 2020)

74. As highlighted above, we provided two short programmes of support focused on organisational questions – both forward-looking.

75. The first in May 2020 on organisational considerations for the TTI service as it matured (described in paragraphs 44-53 above).

76. In December 2020, officials from Public Health England and the Department of Health and Social Care commissioned us to develop in-depth international case studies and research insights into how public health arrangements are organised in different countries to inform thinking about the evolution of the public health landscape in England. The outcome of this commission was a report, with case studies, provided to DHSC.[3]

G. Lessons for the future

77. COVID-19 presented a public health challenge unprecedented in recent memory. It resulted in enormous pressure on the NHS and on the UK's diagnostic capacity while also emphasising the importance of improving the public's access to diagnostics as part of a wider effort to address the underlying health of the population through improved prediction, prevention, and diagnosis of disease.

78. In response to the crisis, the UK established a global scale diagnostics capability that, at its peak, was testing more people per capita on a regular basis than any other country in the OECD. Alongside this, the country took important strides forward in its digital infrastructure and in the sharing of diagnostics data within and across the NHS and public health entities and in starting to change public attitudes towards personal responsibility and public health.

79. On the back of those developments, there was, and possibly still is, an opportunity to ensure that investments made did not just address immediate challenges but act as a catalyst, helping accelerate progress towards the establishment of a modern UK diagnostics infrastructure that improves the health of the nation and boosts the UK economy.

80. As well as a focus on physical infrastructure, this would include the development of a target operating model that supports the NHS, public health, industry and academia to work in partnership to: improve the understanding of diseases, provide rapid local

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[3] The outputs from this work are owned by the commissioning clients, who were Gila Sacks (DHSC) and Richard Gleave (Public Health England)

access to diagnostics, support greater integration of health and care services, develop and roll out new innovations, and give people greater responsibility for and control over their health, while securing access to the infrastructure and expertise that may be required for future public health crises.

81. This could help accelerate delivery of many of the UK's highest profile objectives in this space, including those outlined in the UK life sciences and industrial strategies, the Genome UK strategy, the Richard's report on community diagnostics, previous Carter reports on pathology, and the wide-ranging work of HDRUK, the Office of Life Sciences and others on how to use data to support research, innovation and population health.

82. Collectively, these strands of work all have a role to play in improving the nation's health, leaving the country better prepared for future pandemics, improving NHS productivity and reducing health inequalities.

83. We have not stayed closely enough involved with TTI or UKHSA to have a definitive view on how much of that opportunity has been captured (certainly in some areas, like the expansion of community diagnostics, there has been significant progress) or on the legacy of the National Testing Programme or preparedness for future health emergencies.

84. Similarly, we have not done a piece of work that analyses what the UK could have done differently, or could learn from, its COVID-19 response overall, or TTI in particular.

85. However, we have researched and published widely on preparedness and response for health emergencies during and since the height of the pandemic, including on how public health systems should learn from the global response to COVID-19 and better prepare for future pandemic threats. We shared this research with our teams supporting pandemic response, directly with our clients, and made our analysis freely available on our website. This includes the following:
    a. 'Critical care capacity: The number to watch during the battle of COVID-19' **(PD/29-INQ000587582)**
    b. 'Contact tracing for COVID-19: New considerations for its practical application' **(PD/30-INQ000587581)**
    c. 'Genomic sequencing: A vital tool in combatting the pandemic' **(PD/31-INQ000587575)**
    d. 'Accelerating pandemic response efforts: An interview with CEPI's Richard Hatchett' **(PD/32-INQ000587580)**

e. 'Not the last pandemic: Investing now to reimagine public-health systems' **(PD/33-INQ000587578)**
f. 'Measuring preparedness: Are public health systems ready for the next pandemic?' **(PD/34-INQ000587577)**
g. 'Ten lessons from the first two years of Covid-19' **(PD/35-INQ000507893)**
h. 'Future-proofing health systems for climate risks and pandemics' **(PD/36-INQ000507894)**

Statement of Truth

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

Signed: PD

Dated: 10 June 2025