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## **UK COVID-19 INQUIRY**

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### **WITNESS STATEMENT OF DR STUART WAINWRIGHT OBE**

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## Contents

Section 0: Introduction .....	3
Section 1: GO Science's role, function and responsibilities between 1 January 2020 and 24 February 2022 .....	5
Section 2: Provision of scientific advice and analysis to Government in emergencies .....	6
Section 3: Key meetings which GCSA/GO Science attended and/ or provided materials for .....	20
Section 4: GO Science's role in public health communications .....	22
Section 5: The extent to which GO Science liaised with, or provided information to departmental chief scientific advisers in UK government departments (during Covid-19 pandemic).....	24
Section 6: The extent to which GCSA liaised with, or provided information to his counterparts in the devolved government administrations of Scotland, Wales and Northern Ireland .....	28
Glossary of Terms .....	31

## Section 0: Introduction

I, Dr Stuart Wainwright OBE, will say as follows:-

- 0.1. I was the Director of the Government Office for Science (GO Science), a position which I held from December 2019 until June 2023. The facts in this Statement come from my personal knowledge or the records of GO Science. I am duly authorised to make this Statement on behalf of GO Science, pursuant to a Rule 9 request from the Inquiry dated 21 September 2022.
- 0.2. As Director of GO Science, I was responsible for running the organisation in support of the Government's Chief Scientific Adviser (GCSA) – ensuring the Prime Minister and Cabinet received the science advice they needed, and driving systemic improvements across His Majesty's Government (HMG) in how science is used.
- 0.3. I have a PhD in microbiology and a degree in genetics from the University of Sheffield. I am a policy fellow of the University of Cambridge's Centre for Science and Policy.
- 0.4. I was employed within the UK Civil Service for over 20 years undertaking a wide range of strategy, science, policy and operational roles in the Cabinet Office, the Department for Business, Energy and Industrial Strategy (BEIS), the Department for Environment, Food and Rural Affairs (Defra) and outside HMG. I have extensive experience of strategy and policy development, the provision of science advice, research systems, crisis management and organisational leadership. I became the Chief Executive of the UK Centre for Ecology and Hydrology (UKCEH) in June 2023.
- 0.5. This Statement is the first of two statements in response to the Inquiry's Rule 9 request of 21 September 2022. It provides an overview of the structures and role played by GO Science, including that of Sir Patrick Vallance, the GCSA at the time of the UK Government's response to the Covid-19 pandemic between 1 January 2020 and 24 February 2022. In particular, I seek to address in this statement, on behalf of GO Science, questions 1(a)-(c), 2, 3(a)-(g), 6, 11(a)-(h), 14 and 15 as set out in the Rule 9 Request. A glossary of terms referred to within this Statement is appended to assist the reader.

- 0.6. Before turning to the detail of GO Science's responses to the Inquiry's questions I wish to make the following general observations which are intended to assist in placing the role of GO Science, and the provision of science advice during the course of the pandemic, in their proper context.
- 0.7. First, when considering the UK's response to the Covid-19 pandemic, it is important to assess the entire period of the pandemic rather than seeking to evaluate particular periods in isolation. Responding to the crisis presented an unprecedented challenge, and it seemed likely early on that this could be a long pandemic. Critically, one can only gain a full understanding of what occurred in the pandemic by having a full view of all the critical periods. For example, it is important to understand how scientific developments, new data, and lessons learned at earlier stages fed into decision-making later on; and a proper understanding of what happened and why later in the pandemic (for example winter 20/21) is important in assessing what happened and why earlier in the pandemic.
- 0.8. Second, the state of scientific knowledge and understanding developed rapidly in response to the accumulation and analysis of data from a wide and diverse range of sources. The scientific community (academia, government scientists and civil servants) in the UK pulled together extraordinarily well to support government efforts and this happened at a scale and pace we had not seen before. During specific periods of the chronology, such as the initial 3-month period identified by the Inquiry as a particular focus of Module 2, the state of scientific knowledge and understanding changed, and an evaluation of the advice given at specific points requires careful identification of the scientific picture at that stage, set in the context of the long term nature of the pandemic.
- 0.9. Third, in any major area of policy and especially in a crisis situation, decision-makers draw on a wide range of advice including policy, operational, economic and science. As will be described in these two witness statements, considerable efforts were made throughout the pandemic to ensure that the science advice being provided to Ministers by the GCSA, the Chief Medical Officer (CMO) and the Scientific Advisory Group for Emergencies (SAGE) was made public and subjected to public scrutiny. This was achieved in a variety of ways including (perhaps most visibly) the regular appearance of the GCSA and the CMO in televised press conferences, and through the publication of papers. There were great benefits to being so transparent regarding science advice, and it meant that this advice was subject to particularly intensive media scrutiny. Other advice

provided to Ministers – including science and medical advice from other sources, economic advice, and advice relating to social impact – was neither so public nor available for the same level of scrutiny and media attention. There is a risk that this may have created a misapprehension in public understanding about how and on what basis decisions were taken. The science advice provided by the GCSA, the CMO and SAGE was an important element of the advice being provided to HMG during the pandemic but inevitably it was only one of the constituent parts that fed into decision making.

## **Section 1: GO Science's role, function and responsibilities between 1 January 2020 and 24 February 2022**

### **The Government Chief Scientific Adviser (GCSA)**

- 1.1. The GCSA is responsible for providing scientific advice to the Prime Minister and members of the Cabinet, advising the government on aspects of science for policy and ensuring and improving the quality and use of scientific evidence and advice in government. The GCSA is a permanent secretary level post and reports to the Cabinet Secretary. The GCSA is supported by GO Science, an office of the Department for Science, Innovation and Technology (DSIT). The GCSA is the head of the Government Science and Engineering profession and co-chair of the Council for Science and Technology, an independent expert committee which provides advice to the Prime Minister. From June 2021 until March 2023 the GCSA also held the role of National Technology Adviser, a role that focussed on policy for science and technology.

### **GO Science**

- 1.2. GO Science is responsible for: giving scientific advice to the Prime Minister and when required Cabinet committees; ensuring and improving the quality and use of scientific evidence and advice in government; providing scientific advice in the case of emergencies, through their secretariat role with SAGE; helping the independent Council for Science and Technology provide high level advice to the Prime Minister; supporting strategic long term thinking in government

through Futures and Foresight; and developing the Government Science and Engineering profession.

- 1.3. The two major missions for GO Science are firstly: science advice mechanisms that are efficient, effective, speak truth to power and are embedded permanently in government systems; and secondly, achieving visible impact through both proactive and demand led science advice that is relevant, excellent, and delivered fit for purpose.
- 1.4. As part of their duties, GO Science and the GCSA comment on the methodology of the National Security Risk Assessment (NSRA) which is overseen and managed by the Cabinet Office. The NSRA is a classified document, although it is summarised in a public-facing version, the National Risk Register (the Register). The GCSA reviews the NSRA methodology and promotes the role of departmental Chief Scientific Advisers (CSAs) and other scientific advisers in the process, but does not have responsibility for approving content; this rests with departments.

## **Section 2: Provision of scientific advice and analysis to Government in emergencies**

### **The Scientific Advisory Group for Emergencies (SAGE)**

- 2.1. SAGE (SW/01 - [INQ000218363]) aims to provide coordinated, timely scientific and technical advice for decision makers to support UK cross-government decisions in the COBR Cabinet Committee, with advice commissioned by Cabinet Office. It brings together a range of experts and delivers consensus advice in the form of minutes. This is standard practice for all activations of SAGE and is consistent with the manner in which other UK Science Advisory Committees and Councils operate.
- 2.2. Individual government departments are responsible for the provision of science advice on matters relating to their own areas of policy responsibility. SAGE advice may be one of the inputs to this, but departments are also free to use their own choice of internal and external experts and advisors. The Department of Health and Social Care (DHSC) and Public Health England (PHE, now the UK

Health Security Agency, UKHSA) are responsible for the provision of science advice on health matters, including health emergencies, in most situations.

- 2.3. SAGE is an ad hoc independent advisory group that is convened to provide scientific advice to support decision-making in COBR in the event of a national emergency. SAGE is activated by the Cabinet Office or as a “pre-SAGE” on a precautionary basis by the GCSA. SAGE does not make decisions or set policy. Its advice is limited to scientific matters and is a cross-disciplinary consensus view based on available evidence at the time. SAGE participants are scientific experts from Government, academia, and industry from a range of fields relevant to the nature of the emergency and the specific issues under consideration. GO Science will usually provide the secretariat. SAGE is not a permanent body, and as such SAGE has no standing membership. Instead, individuals are invited to attend and participate where it is considered helpful that they should do so. Guidance on participation is available in the ‘Enhanced SAGE Guidance’ document available on GOV.UK.
- 2.4. During the Covid-19 activation, SAGE was co-chaired by Sir Patrick Vallance (GCSA) and Sir Chris Whitty (CMO), as is usual for a predominantly health related emergency. The CMO reports to the Permanent Secretary of the DHSC.
- 2.5. SAGE met 105 times from January 2020 to February 2022, the longest continual period for which it had been convened since its inception. Previously, SAGE was activated to respond to short lived emergencies. As of April 2022, 1229 papers have been produced, considered by or available to SAGE with respect to the Covid-19 activation. As is discussed in greater detail below, all meeting minutes, and all but three of the papers discussed by SAGE, have been released on GOV.UK.
- 2.6. SAGE was mobilised rapidly at the start of the coronavirus crisis by the GCSA with an internal GO Science response team activated on 3 January 2020. This response was initially on a precautionary basis to identify any potential, imminent questions or challenges that would necessitate the provision of complex scientific or technical advice. The GCSA and CMO assembled a group of eminent experts from key disciplines, particularly medicine, public health, epidemiology, virology and behavioural science, with the first SAGE meeting convening on 22 January 2020. The GCSA and the CMO also called upon pre-existing specialist groups of experts, the Scientific Pandemic Influenza Group on Modelling (SPI-M), and the New and Emerging Respiratory Virus Threats Advisory Group (NERVTAG).

- 2.7. To increase the breadth of SAGE Covid expertise various sub-groups were established to focus on particular topics, for example behavioural science, children, ethnicity and the environmental modelling group, to name a few (see Table 1). There is no standard definition of a SAGE Covid sub-group, and the way in which they were established varied – this is because some were new groups established to answer a particular question (task and finish groups) or to examine in more depth a particular topic over time, and others were existing groups established in other government departments which reported in through SAGE only for the duration of the pandemic (e.g. SPI-M, which is an existing DHSC expert group). Another set of groups, such as NERVTAG, were operationally independent of SAGE, but worked closely with SAGE throughout the pandemic response and the Chair regularly participated in SAGE. Individual SAGE participants were often involved with the work of a number of different groups.
- 2.8. In order to provide support to the volume of work being produced by the GCSA, SAGE and its sub-groups, GO Science scaled its Covid response teams from a staff of five in January 2020, to a core team of 77 in May 2020. Staff were working a seven-day, extended hour shift pattern for most of the year, drawing on additional staff from scientific agencies, the wider Civil Service and academia. The CSA and science advisory teams of other key government departments also faced challenges during this period.
- 2.9. The role of the SAGE secretariat (SW/02 - [INQ000218362]) is to support SAGE and its sub-groups in coordinating and providing scientific advice that helps support ministers in making evidence-based decisions. This role includes:
- a. activating and deactivating SAGE;
  - b. arranging and managing meetings;
  - c. providing a bridge between SAGE and other elements of COBR;
  - d. ensuring transparency (including note taking and publication);
  - e. identifying, coordinating and managing the SAGE work programme;
  - f. supporting SAGE participants to work with the media where this is required;  
and
  - g. facilitating information flows between SAGE and other advisory groups.

Additionally, during the Covid pandemic, the team at GO Science was responsible for:



- h. Wider domestic and international engagement on Covid science (e.g. with academia, industry, the National Academies<sup>1</sup> and with international counterparts);
- i. Facilitating wellbeing support for SAGE participants and advising on any security concerns they had as a result of their SAGE work;
- j. Responding to Public and Parliamentary scrutiny including requests for information received under the Freedom of Information Act, on the subject of Covid;
- k. Acting as the National Core Studies Secretariat<sup>2</sup>.

2.10. The secretariat role for SAGE sub-groups and groups who worked closely with SAGE was carried out by GO Science and other government departments, detailed below.

Table 1 – The Secretariat for SAGE sub-groups and other associated groups

Name	Description	Secretariat	Subgroup	Other	Comment
SPI-B	Scientific Pandemic Insights Group on Behaviours	GO Science	X		Convened 24 February 2020, was convened by DHSC as Scientific Pandemic Insights Group on Behaviours and Communications – SPI B&C – in previous emergencies.
Ethnicity sub-group		GO Science	X		First meeting 22 August 2020
VSCG	Vaccine Science Coordination Group	GO Science	X		First meeting 18 December 2020

<sup>1</sup> The National Academies are: the Royal Society, the Academy of Medical Sciences, the Royal Academy of Engineering and the British Academy.

<sup>2</sup> The National Core Studies are described in greater detail below.

SCWG	Social Care Working Group	DHSC (GO Science from April - June 2020 due to lack of DHSC capacity and capability)	X		Care Homes Group established early April 2020 but became part of SCWG's remit by September 2020.
TFG	Interdisciplinary Task and Finish Group on the Role of Children in Transmission	DfE (GO Science from May 2020 to July 2020)		X	Established May 2020
EMG	Environmental Modelling Group	HSE	X		Established April 2020
TWEG	Transmission in the Wider Environment Group	Defra	X		Established April 2020
TWG	Transmission Working Group	GO Science		X	This was a subgroup of EMG
SPI-M-O	Scientific Pandemic Influenza Group on Modelling (Operational)	DHSC	X		SPI-M was a pre-existing advisory group, and became a sub-group of SAGE Covid in January 2020.

HOCl	Hospital Onset COVID-19 Working Group	PHE/NHS		X	Established April 2020 from June 2020 became an advisory group within NHSE. Also known as Nosocomial transmission Group
MEAG	Moral and Ethical and Advisory Group	DHSC		X	First meeting 10 March 2020
CO-CIN	COVID-19 Clinical Information Network	DHSC		X	First meeting April 2020
SWG	Serology Working Group	PHE/DHSC		X	Established February 2020 and disbanded in April 2020. The group's work is now part of UKHSA's surveillance programme for COVID-19.
NERVTAG	New and Emerging Respiratory Virus Threats Advisory Group	PHE/DHSC		X	An established advisory group.

2.11. SAGE participants were experts from a broad range of disciplines from both inside and outside Government. The SAGE secretariat maintains links to learned societies and lists of experts in a range of fields (e.g., public health and those with expertise in natural hazards) who can be called upon during an emergency. Experts from outside Government, contributed on a voluntary basis<sup>3</sup> whilst still employed by their home institution or organisation and were brought in to provide insight and expertise, as well as to challenge and debate issues under

<sup>3</sup> To note that the extended duration of the demand for Covid-19 science advice from HMG placed an unprecedented burden on universities – the employers of many SAGE participants. HMG secured funding in support of those universities most affected to provide cover for the academic's duties enabling key SAGE participants with the most severe time and workload constraints to continue their work on SAGE as appropriate.

consideration. On a number of occasions, scientists and clinicians from outside the UK contributed to SAGE or sub-groups. For example, following earlier meetings and discussions with the GCSA and CMO, members from the Centre for Epidemic Response and Innovation in South Africa attended SAGE Covid 97 (the 97<sup>th</sup> SAGE meeting on Covid held on 29 November 2021), to discuss the Omicron variant in South Africa.

- 2.12. Experts from inside Government who participated in SAGE included departmental CSAs. Their role, both generally and in respect of SAGE, is described further below. The secretariats of the scientific advisory groups from across government departments and the main policy customers from Cabinet Office and DHSC were also invited.
- 2.13. As the pandemic response grew, an official from each department was invited to attend SAGE. This was usually the CSA. However, other departmental officials from Cabinet Office, DHSC, HM Treasury (HMT) and No. 10 attended as observers to allow them to hear the discussion directly, to feed in any required policy perspectives and to ask questions. Observers did not contribute to the scientific advice. This is normal practice in SAGE activations.
- 2.14. The names of the officials who attended as observers was recorded in the minutes; as described above those minutes were published through GOV.UK (though redactions were made in line with policy to remove the names of junior officials).
- 2.15. The secretariat needed to manage SAGE meetings to balance the need to keep the meeting and discussion small enough to be workable, particularly in an emergency response, against the obvious benefit of departments across both Whitehall and Devolved Administrations (DAs) being well sighted on both the latest science advice and the considerations behind it. This inevitably involved placing some restrictions on numbers of attendees from a single department or organisation. To assist with this further a distinction was made between participants and observers.
  - a. Participants – whether government or external science advisers – were experts making a direct contribution to the discussion.
  - b. Observers were from government departments and agencies and may occasionally have contributed (for example to clarify specific policy

challenges). There was also an expectation that they would disseminate both the latest information, and the discussion behind it, to their home department or organisation. However Cabinet Office remained the prime customer of advice from SAGE.

- 2.16. Clinical advice and associated operational science and guidance was developed outside of the SAGE framework (primarily by PHE, the NHS or DHSC, depending on the nature of the guidance), although occasionally shared with SAGE for information.
- 2.17. Whilst the role of SAGE was to provide consensus scientific advice to the centre of government, science advice was also provided to individual government departments by other internal and external experts. Evidence and advice were generated by departments, to feed into their specific policy and/or operational remit. Advice from other independent scientists not involved in SAGE was also occasionally sought from (or received directly by) officials and others in Cabinet Office and No. 10.

#### **The SAGE commissioning process**

- 2.18. The mechanism by which scientific advice from SAGE and its sub-groups was provided to the centre (the Prime Minister, No.10, the Cabinet Office, COBR and other Ministerial groups) was the consensus science advice from SAGE meetings. This was captured in the minutes.
- 2.19. SAGE was activated as part of a cross-government emergency response and had strong links to the Cabinet Office throughout the pandemic. The Cabinet Office (initially COBR) was the primary commissioner of SAGE and SAGE sub-group work. SAGE also commissioned work from experts and expert groups.
- 2.20. DHSC (as lead government department for the pandemic) was involved with the provision of science advice through SAGE in a number of ways. In terms of the meetings and consensus advice, the group was co-chaired by the CMO and both the department itself and DHSC-family organisations (DHSC, UKHSA (then PHE) and NHS) were well represented amongst attendees and contributors to SAGE. DHSC pandemic policy leads were routinely invited as observers to SAGE meetings. The DHSC Secretary of State held a key role in both COBR and other Ministerial groups through the pandemic response and thus directly received SAGE advice.

- 2.21. At the start of the pandemic response (from January 2020 to March 2020) the Civil Contingencies Secretariat (who provide the Secretariat for COBR) acted as the main customer for SAGE advice and engaged in the commissioning of advice. During March 2020 more teams within Cabinet Office were formed, running new cabinet committees that also sought advice from SAGE.
- 2.22. Between March 2020 and May/June 2020, a commissioning process was co-ordinated and managed within the Civil Contingencies Secretariat, and a 'commissions tracker' was held in Cabinet Office.
- 2.23. The commissioning process changed from May onwards as responsibility for commissioning advice moved to the newly formed Covid-19 Task Force (C-19 TF) in Cabinet Office.
- 2.24. Over summer 2020 GO Science worked with the new C-19 TF to establish a revised commissioning process. The aim of this was to ensure the requests coming to SAGE and sub-groups were triaged and tracked properly. A dedicated SAGE Commissioning Team (SCT) within the SAGE secretariat in GO Science worked regularly with C-19 TF to refine and prioritise questions from policymakers. This included screening requests for those that concerned departmental matters and therefore were outside of SAGE remit.

#### **Preparation of SAGE advice**

- 2.25. SAGE Covid-19 agendas were set with the agreement of the Chairs. The discussion at each SAGE meeting was based on the situation and science advice needs of COBR initially, or other cabinet committees that followed. This would be commissioned through the standard process which is described above.
- 2.26. Meetings of sub-group chairs, which became a Science Coordination Group (SCG), met from May 2020, usually weekly, to agree work and agenda items. This was a planning meeting and did not involve the provision of scientific advice. This was usually chaired by the GCSA and participants included the CMO, CSAs, deputy CMOs, representatives from the DAs, Cabinet Office and DHSC policy leads and chairs or representatives of the subgroups.
- 2.27. SAGE advice was usually produced quickly, but quality was ensured through using evidence assessment, challenge and the development of consensus statements. Expert sub-groups brought papers to SAGE for discussion, challenge and agreement. The SAGE consensus statement was based on the

body of scientific evidence presented by its expert participants, and only constituted advice upon the GCSA and CMO formal sign off.

- 2.28. Once consensus advice in the form of minutes had been prepared by SAGE, it was the role of the co-chairs to relay and explain this advice to the Prime Minister, COBR, and other Ministerial groups. Ministerial meetings (including COBR) and the Ministerial Implementation Groups (MIGs) were the responsibility of the Cabinet Office, who prepared and provided the papers.
- 2.29. The SAGE minutes were drafted by the SAGE secretariat in GO Science immediately after the meeting. Once signed off by the GCSA and CMO, the advice was circulated to SAGE participants, and a broader distribution list of recipients across UK government. The consensus advice reflected in the SAGE minutes was discussed, challenged and agreed at the meeting. Due to time constraints, the volume of work and to reduce the risk of leaking of advice prior to publication, draft minutes were not routinely circulated; however, SAGE minutes were occasionally reissued if SAGE participants subsequently identified errors.
- 2.30. Teach-in sessions were arranged to provide an opportunity for participants to hear directly from an expert in the relevant field, and to ask questions to better their understanding and awareness of the current science advice relevant to any policy or operational work underway.
- 2.31. From January 2020 onwards the GCSA and CMO also interacted with peers and experts internationally in informal groups, bilaterally, multilaterally and via the World Health Organization (WHO)<sup>4</sup> throughout the pandemic to share expertise and experience. Individual SAGE participants also drew on their academic networks in the course of their work, which are often international in nature.

#### **Publication of SAGE advice**

- 2.32. In previous emergencies for which SAGE has been activated, the scientific advice produced by the group has been made public after the crisis has ended (unless publishing would have national security implications). However, given the potentially protracted nature of the Covid-19 pandemic, the GCSA recognised the need to act in a different way and to routinely publish the SAGE minutes and papers to ensure public access to the Covid-19 scientific advice informing policy decisions.

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<sup>4</sup> CMO is the UK representative on the WHO Executive Board.

- 2.33. Following liaison with and after obtaining approval from the Cabinet Office, a batch of SAGE papers was published on 20 March 2020 on GOV.UK, and then on 30 March 2020. Between these releases and May 2020, GO Science prepared to publish SAGE minutes on GOV.UK (see below).
- 2.34. To ensure transparency GO Science also worked to obtain permission and release of the names of SAGE participants, which took place on the 4 May 2020. Permissions to release the names was obtained from participants.
- 2.35. On 29 May 2020 all the meeting minutes from SAGE meetings 1-34 were published on GOV.UK. From this point, GO Science routinely published SAGE minutes and papers within two weeks of the SAGE meeting, except where those papers were still under active policy consideration or where there was a national security risk in publication. From February 2021, GO Science published HTML versions of all minutes and key papers to increase document accessibility, allowing a wider audience to access the documents.
- 2.36. All SAGE meeting minutes have been published on GOV.UK, as well as all but three papers discussed at SAGE meetings, and details of participants where they have agreed to their name being published.

#### **Responsibility for the provision of scientific advice and analysis**

- 2.37. Provision of scientific advice to government was not exclusively delivered by either GO Science or the GCSA. Responsibility for the provision of science advice in health emergencies usually rests with DHSC and UKHSA (then PHE).
- 2.38. In addition to working with and across government throughout the pandemic, the GCSA and GO Science had regular contact with the National Academies (the Academy of Medical Sciences, the British Academy, Royal Academy of Engineering and the Royal Society) to seek additional independent science advice on various issues, either through direct engagement with officials in other government departments or through commissioned reports listed below:
  - a. British Academy (BA): "COVID-19 and Society: Shaping the COVID decade" March 2021. To produce an independent review of the potential long-term societal impacts of COVID-19.
  - b. Academy of Medical Sciences (AMS): "Preparing for a challenging winter 2020/21" July 2020 and "COVID-19: Preparing for the future" July 2021. Expert led evidence reviews to inform understanding of scenarios for



winters 2020/21 and 2021/22 and challenges these would present for the UK.

- c. Royal Academy of Engineering (RAEng): “Infection Resilient Environments” Phase 1 2021 and Phase 2 June 2022. To identify interventions needed in the UK's built environment and transport systems to reduce infection transmission.
- d. BA/AMS: “Historic and Geographical Patterns of Health Inequalities” February 2022. To address: to what extent are the geographic spread of COVID-19 infection and mortality rates distinguishable from place-based health outcomes over the past 200 years? What are the causes and consequences of this? And what needs to change?
- e. The Royal Society convened:
  - (1) DELVE ‘Data Evaluation and Learning for Viral Epidemics’ was a multi-disciplinary group to support a data-driven approach to learning from the different approaches countries were taking to managing the pandemic;
  - (2) The Rapid Assistance in Modelling the Pandemic initiative (RAMP) brought modelling expertise from a diverse range of disciplines to support the pandemic modelling community already working on COVID-19.
  - (3) Science in Emergencies Tasking - COVID (SET-C) was a group drawing on the expertise of Royal Society Fellows and others to respond to requests for rapid science advice on topics relevant to tackling the pandemic.

2.39. At the start of the Covid-19 pandemic, in January 2020, the GCSA, experts and key UK funders of research and development identified several areas where the UK needed to increase its research scale or infrastructure to respond to key near-term strategic, policy and operational needs regarding Covid-19. In addition, in October 2020, the National Core Studies (NCS) programme was established. Six National Core Studies were set up and managed by eight leads detailed in the table below.

Table 2 – National Core Studies Programme and their leads

<b>National Core Study</b>	<b>Description</b>	<b>Led by</b>
Epidemiology and Surveillance	Collecting and analysing data to understand how COVID-19 affects the UK, including the prevalence of COVID-19 in the general population and how it changes over time, and the economic and societal impacts of COVID-19.	Professor Sir Ian Diamond, UK National Statistician, Office for National Statistics.
Transmission and Environment	Understanding transmission of COVID-19 in the workplace, on transport and in public places.	Led by Professor Andrew Curran, Chief Scientific Adviser, Health and Safety Executive
Clinical Trials Infrastructure	Accelerating large-scale COVID-19 trials for drugs and vaccines.	Led by Professor Patrick Chinnery, Clinical Director, Medical Research Council, and Dr. Divya Chadha Manek (OBE), Head of Business Development, Vaccines Taskforce.
Immunity	Understanding immunity against COVID-19 by predicting individual risk, working to protect against infection, preventing reinfection, and preparing for future pandemic challenges.	Led by Professor Paul Moss (OBE), Professor of Haematology, University of Birmingham.
Longitudinal Health and Wellbeing	Understanding the long-term impacts of COVID-19 on mental, physical, and economic health.	Led by Professor Nishi Chaturvedi, Professor of Clinical Epidemiology, University College London,

		and Professor Jonathan Sterne, Professor of Medical Statistics and Epidemiology, Bristol Medical School.
Data and Connectivity	Making UK-wide health and administrative data available and accessible to all.	Led by Professor Andrew Morris (CBE), Director, Health Data Research UK.

2.40. The NCS had an Oversight Committee chaired by the GCSA with representatives from Scotland, Wales, England, and Northern Ireland. Members of the Oversight Committee included:

- a. Sir Patrick Vallance, GCSA (Chair)
- b. Professor Sir Chris Whitty, CMO
- c. Professor Dame Ottoline Leyser, United Kingdom Research and Innovation (UKRI)
- d. Professor Sir John Bell, Oxford University
- e. Sir Jeremy Farrar, Wellcome
- f. Professor Sir Mike Ferguson, University of Dundee
- g. Professor Dame Anne Johnson, University College London
- h. Sir Harpal Kumar, Grail
- i. Dr Lynda Stuart, Gates Foundation
- j. Dr Rob Orford, Chief Scientist for Health, Wales
- k. Professor David Crossman, Chief Scientist for Health, Scotland
- l. Professor Ian Young, Chief Scientist for Health, Northern Ireland

2.41. The committee offered expert advice and guidance to each study, provided quality assurance, and conducted rapid reviews of requests for new funding.

2.42. An international panel provided further insight from a global perspective. Membership included:

- a. Professor Margaret Hamburg, Chair, American Association for the Advancement of Science
- b. Professor Gagandeep Kang, Division of Gastrointestinal Sciences, Christian Medical College, Vellore, India
- c. Professor Gabriel Leung, Dean of Medicine, Hong Kong University

- 2.43. As secretariat, GO Science worked with NCS leads to establish the formal links with policy makers and delivery partners within and outside government. This included: the Cabinet Office led C-19 TF, Covid-19 Vaccines Taskforce, Covid-19 UK Genomics Consortium (COG-UK), Genetics of Mortality in Critical Care (GEL-GenOMICC) and the four National Academies.
- 2.44. For the NCS, a range of government departments and organisations (including GO Science, BEIS, UKRI, National Institute for Health and Care Research (NIHR), Health and Safety Executive (HSE) and HM Treasury (HMT)) have all been involved in decision-making relating to governance or funding of the programme.

### **Section 3: Key meetings which GCSA/GO Science attended and/ or provided materials for**

- 3.1. I am asked to confirm the key meetings which GO Science attended and/or provided materials for. I have interpreted “key meetings” to be ministerial and Cabinet meetings, attended by the GCSA, GO Science Director, and deputies for these posts. I have also included SAGE, as the key meeting GO Science was responsible for.
- 3.2. The specific role of GCSA or GO Science senior officials at the meetings listed below would have been dependent on the agenda set by either Cabinet Office or No. 10, depending on who held the secretariat role. The secretariat was also responsible for the preparation and provision of materials for these meetings.
- 3.3. **Cabinet** – Cabinet Office secretariat
- The GCSA attended several Cabinet meetings for Covid agenda items to update Ministers throughout the pandemic response, from 31 March 2020 onwards.
- 3.4. **COBR (M)** – Cabinet Office secretariat
- A cross-departmental ministerial committee convened to respond to national emergencies. The GCSA first attended on 24 January 2020.
- 3.5. **COBR (O)** – Cabinet Office secretariat

A cross-departmental committee for senior officials convened to respond to national emergencies. A Director or Deputy Director from GO Science attended most of these from February 2020.

Note as the pandemic response progressed, and Cabinet Office structures developed, the COBR model developed to include COVID-O, COVID-S and MIGs (see below).

3.6. **COVID-O (Operations)** – Cabinet Office secretariat

Held from 2020 to 2022 to discuss operations. They were chaired by the Prime Minister, the Chancellor of the Duchy of Lancaster (CDL), or a Secretary of State. The PM, Chancellor, Health Secretary, CDL, GCSA, CMO, UKHSA (PHE), No.10, and Cabinet Office were usually present. GCSA first attended on 23 June 2020 to provide any updates on science advice that were required.

Separate Covid-O (O) meetings were held for officials only.

3.7. **COVID-S (Strategy)** – Cabinet Office and No. 10 secretariat

Held from 2020 to 2021 to discuss strategy. Chairing and attendance were consistent with COVID-O. GCSA first attended 31 March 2020.

3.8. **General Public Sector Ministerial Implementation Group (MIG)** – Cabinet Office secretariat

Chaired by the CDL to look at preparedness across the rest of the public and critical national infrastructure, excluding the NHS. MIGs were established on 17 March 2020. Usually attended by a Director or Deputy Director from GO Science.

3.9. **Healthcare Ministerial Implementation Group (MIG)** – Cabinet Office secretariat

Chaired by the DHSC Secretary of State to focus on the preparedness of the NHS, ensuring capacity in the critical care system, as well as the medical and social package of support for those shielding. MIGs were established on 17 March 2020. Usually attended by a Director or Deputy Director from GO-Science.

3.10. **Regular Covid updates with the Prime Minister (dashboard)** – No. 10 secretariat

The PM was regularly briefed on the Covid situation. The meetings varied in frequency depending on the stage of the pandemic and were later known as the “dashboard” meetings. The attendance varied but included the PM, Chancellor,

Health Secretary, the CDL, GCSA, CMO, UKHSA (PHE), No.10 and Cabinet Office. GCSA first met the Prime Minister to discuss Covid-19 on 10 February 2020.

3.11. **Quad Meetings (Prime Minister, Chancellor, Health Secretary and CDL) – No. 10 secretariat**

Small group meetings organised by No.10 and chaired by the Prime Minister. The meetings focussed on strategy. The attendance varied but included the PM, Chancellor, Health Secretary, CDL, GCSA, CMO, Cabinet Secretary, No.10 and Cabinet Office officials. GCSA first attended 15 April 2020.

3.12. **Scientific Advisory Group for Emergencies (SAGE) – GO Science secretariat**

SAGE meetings were co-chaired by the GCSA and the CMO. The frequency of meetings varied through the course of pandemic.

## **Section 4: GO Science's role in public health communications**

- 4.1. Communications and messaging were led by the No. 10 Press Office and other government organisations such as PHE, DHSC and the NHS. The limited input of the GCSA and GO Science into these activities is set out below.
- 4.2. SPI-B sub-group (see Table 1) advice frequently referenced behavioural science principles for communications in emergencies. Participants from SPI-B were asked for their advice on some messaging campaigns in the early days of the pandemic.
- 4.3. SPI-B was only one component of the behavioural science contribution to the pandemic response.

### **GO Science and the GCSA's media and public engagements**

- 4.4. GO Science and the GCSA do not have a mandate for public health communications, these are and were owned by Cabinet Office, PHE, HSE, the NHS and the CMO.
- 4.5. At the direct request of then Prime Minister Boris Johnson, the GCSA participated in the Covid-19 press conferences, to communicate the science advice that was given to government. No other official from GO Science attended the press conferences.

- 4.6. The GCSA and GO Science were involved in the following media engagements:
- a. The GCSA appeared in 52 Covid-19 press conferences between 3 March 2020 and 21 February 2022.
  - b. The GCSA appeared in 12 Select Committee Hearings in both the House of Commons and the House of Lords between 17 March 2020 and 30 March 2022.
  - c. The GCSA gave 16 public interviews, speeches, and other press briefings between 4 March 2020 and 28 October 2021.
  - d. The GCSA authored eight articles for media outlets and on GOV.UK between 15 March 2020 and 24 December 2021.
  - e. The GCSA (or deputy GCSA Professor Dame Angela McLean) provided 39 background technical briefings between 2 February and 18 December 2021, to science and health correspondents, for them to ask more technical science-focused questions and help inform their reporting on the current Covid and relevant data. These briefings were non-attributable and not for quoting.

Further detail relating to these engagements is contained in the Chronology provided to the Inquiry by GO Science.

#### **Addressing disinformation in the public domain**

- 4.7. GO Science and the GCSA had no formal role in countering the proliferation of disinformation, other than through the instances of media engagement, and continued commitment to transparency as set out above, and in the management of direct requests made to them under the Freedom of Information Act 2000 (FOIA).
- 4.8. During the period of 1 January 2020 to 22 February 2022, GO Science received 275 requests related to Covid-19 under FOIA, the first of which was received on 7 April 2020. The majority of these FOIA requests were resolved by referring the requestor to the publicly available SAGE advice, and on occasion to other reliable sources of information about Covid-19. GO Science responded to 97.5% of accepted FOIA requests within the statutory deadline of 20 working days. There were only two instances during this period in which GO Science was referred to the Information Commissioner's Office, who found no case to answer.
- 4.9. In light of the limited role in public health communication played by GO Science I am not in a position to provide a view on the extent to which public messaging was successful, or on the maintenance of public confidence in the UK

Government's response to Covid-19 matters, as these were dependant on a combination of factors outside of the organisation's realm of professional expertise.

- 4.10. I am asked about the impact on public confidence about alleged breaches of rules and standards by, among others, advisers to the Government. I do not consider that I am in a position to express an authoritative opinion on the impact of particular allegations of breaches of rules and/or standards by advisers to the Government and I am not aware of any data held by GO Science that would assist in this regard. As an organisation, GO Science took compliance with the prevailing rules and standards seriously. On 5 May 2020 the media reported that Professor Neil Ferguson had broken the restrictions in place at the time. He stepped down from participating in SAGE on the same day. His research group continued to provide input to SPI-M-O.

## **Section 5: The extent to which GO Science liaised with, or provided information to, departmental chief scientific advisers in UK government departments (during Covid-19 pandemic).**

### **CSA role**

- 5.1. Chief Scientific Advisers (CSAs) are senior science advisers in UK government departments. They are usually employed at Director General or Director level, the second or third most senior position for a civil servant in UK government departments, sitting just below a permanent secretary. Their role is to provide key science advice to their department's Ministers, support the use of science within their department and work together as part of the CSA Network to address cross-departmental issues. They are line managed within their own department, and receive pastoral line management from the GCSA, who works through GO Science to support their recruitment, induction and performance management, as well as meeting 1:1 on an approximately monthly basis. They are normally appointed for a fixed term from outside Government (academia or industry).



- 5.2. CSAs perform an independent challenge function to their department, providing challenge and leadership at the centre of the department, to ensure that science and engineering evidence and advice is robust, relevant and high quality and that there are mechanisms in place to ensure that policy-making is underpinned by science and engineering. Their role is to bring scientific and engineering evidence to the centre of decision-making in government and to provide oversight and assurance of science and engineering capability and activities in their department.
- 5.3. CSAs also oversee departmental processes for providing or commissioning science and engineering advice. CSAs work alongside the other analytical disciplines (economists, operational researchers, social researchers, statisticians) and with ministers and senior teams, to ensure robust, joined-up evidence is at the core of decisions within departments and across government.

#### **CSAs and SAGE Covid**

- 5.4. The principal formal mechanism for providing information to CSAs on the progress of the Covid-19 pandemic was through SAGE meetings and minutes, and CSAs were routinely invited to SAGE. There was initially a physical constraint limiting the number who could attend because meetings were conducted in person, however once remote capability was developed, attendance expanded rapidly, and CSAs were able to dial into all meetings. CSAs were included in the distribution list for SAGE minutes.
- 5.5. Depending on the matters discussed at each meeting, CSAs either contributed to the scientific advice on the basis of their departmental scientific remit or their own area of research expertise, or listened to the discussion to ensure that they were in a position to disseminate the information to their respective departments, for policy making or operational delivery purposes.
- 5.6. The CSAs who attended most frequently were from the FCDO (Charlotte Watts, 97 meetings), MoD (Angela McLean, also acting deputy GCSA and SPI-M co-chair, 89 meetings), HSE (Andrew Curran, 74 meetings), Home Office (HO) (John Aston, 63 meetings and then Jennifer Rubin, 32 meetings). A summary of departmental CSAs is detailed below.

Table 3 – Summary of departmental CSAs

<b><u>Department</u></b>	<b><u>CSA</u></b>	<b><u>Start date</u></b>	<b><u>End date</u></b>
Department for Business, Energy and Industrial Strategy	Professor Paul Monks	Oct-20	Present
Department for Business, Energy and Industrial Strategy	Professor John Loughhead CB OBE	Oct-14	Sep-20
Department for Digital, Culture, Media and Sport	Professor Tom Rodden	Jan-19	Present
Department for Education	Osama Rahman	Apr-18	Sep-22
Department for Environment, Food and Rural Affairs	Professor Gideon Henderson	Oct-19	Present
Department for International Trade	Dr Mike Short CBE	Dec-19	Present
Department for Levelling Up, Housing and Communities <sup>5</sup>	Professor Alan Penn	Jul-19	Present
Department for Transport	Professor Sarah Sharples	Jul-21	Present
Department for Transport	Professor Phil Blythe CBE	Jun-15	May-21
Department for Work and Pensions	Trevor Huddleston	Aug-17	Present
Department of Health and Social Care	Professor Lucy Chappell	Aug-21	Present
Department of Health and Social Care	Professor Sir Chris Whitty	Jan-16	Aug-21

<sup>5</sup> Previously Ministry of Housing, Communities & Local Government

Food Standards Agency	Professor Robin May	Aug-20	Present
Food Standards Agency	Professor Guy Poppy	Aug-14	Jul-20
Foreign and Commonwealth Office	Professor Carole Mundell	Oct-18	Sep-20
Foreign, Commonwealth and Development Office	Professor Dame Charlotte Watts <sup>6</sup>	Sep-20	Present
Health and Safety Executive	Professor Andrew Curran	Mar-15	Present
His Majesty's Treasury	Philip Duffy	May-20	Present
Home Office	Professor Jennifer Rubin	Jan-21	Present
Home Office	Professor Sir John Aston	Sep-17	Dec-20
Met Office	Professor Stephen Belcher	Dec-16	Present
Ministry of Defence	Professor Dame Angela McLean	Sep-19	Present
Ministry of Defence Nuclear	Professor Sir Robin Grimes	Oct-17	Nov-21
National Police Chiefs' Council	Professor Paul Taylor*** <sup>7</sup>	May-21	Present
National Security	Alex van Someren	Jul-21	Present

<sup>6</sup> The Foreign, Commonwealth and Development Office was created in September 2020. Previously Charlotte Watts was the CSA for the Department for International Development

<sup>7</sup> New position, no previous Police CSA

National Security	Sir Anthony Finkelstein CBE	Dec-15	Jun-21
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- 5.7. The CSAs usually meet weekly as a network. These meetings were used to share updated information based on SAGE output. It was also an opportunity for matters to be escalated for the GCSA's and CMO's attention to be discussed at SAGE, following which arrangements would be made to facilitate this. Sometimes the network meetings would give rise to the formation of sub-groups.

## **Section 6: The extent to which GCSA liaised with, or provided information to, his counterparts in the devolved government administrations of Scotland, Wales and Northern Ireland**

- 6.1. Devolved Administration (DA) representatives were regular attendees of SAGE, and DAs received all SAGE minutes and papers at the same time as Whitehall departments. In addition the GCSA attended meetings, including COBR, with Devolved Administration First Ministers where they received briefings on SAGE advice.
- 6.2. The GCSA has no formal line management relationship with his counterparts in the DAs. As part of their role with all CSAs, the GCSA maintains strong informal links through both regular 1:1 meetings and the DA's membership of the CSA network. The GCSA is involved in the appointment of DA CSAs. A list of the CSAs of the DAs during the period covered by Module 2 is below:

Table 4 – List of CSAs of the Devolved Administrations

<u>Devolved Administration</u>	<u>CSA</u>	<u>Start date</u>	<u>End date</u>
Northern Ireland Executive	Dr Robert Grundy <sup>8</sup>	Sep-21	Present
Northern Ireland Executive	Professor Ian Young <sup>9</sup>	Nov-15	Present
Scottish Government	Professor Julie Fitzpatrick OBE	Jun-21	Present
Scottish Government	Professor Sheila Rowan MBE	Jun-16	Jun-21
Welsh Government	Professor Peter Halligan	Mar-18	Feb-22

6.3. During the coronavirus pandemic, the primary mechanism by which science advice was shared was through attendance of DA representatives at SAGE meetings. All DAs were invited to attend. SAGE minutes were also circulated to DA representatives following the meetings.

6.4. A second and important mechanism also existed through the network of Chief Medical Officers across the four nations, who were also invited to attend SAGE and who met regularly between themselves. Representatives of Public Health England, Public Health Wales, Public Health Scotland, and the Public Health Agency (NI) attended and met regularly to determine what actions were needed to disseminate the information to their respective departments, for policy-making or operational delivery purposes. Often several attendees from each DA were present at SAGE.

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<sup>8</sup> Robert Grundy is the chair of Matrix, the Northern Ireland Science Industry Panel, and represents NI on the CSA network while they are recruiting for a CSA

<sup>9</sup> Prof Ian Young, CSA to the Department of Health

- 6.5. Each of the DAs has its own crisis management arrangements which included mechanisms for coordinating scientific and technical advice, to inform their strategic decisions within their jurisdiction and statutory competence. For this reason, the DA CSAs (or acting CSAs, see Table 4) did not necessarily lead on the pandemic response for each DA and therefore did not necessarily attend SAGE and related discussions. Representatives varied depending on the response and science advice arrangements in place in each home nation, with each identifying the most appropriate people to both participate and observe on the DA's behalf. For this reason, a range of CMOs, deputy CMOs, CSA for health and other officials from across the DAs contributed to SAGE advice. The Chairs of specific DA Covid-19 science committees (where established) attended SAGE.
- 6.6. As well as being involved in SCG meetings (see above), the SAGE secretariat also arranged for DAs to join regular '4 nations' meetings, specifically to ensure DAs were well engaged in planning. Like SCG, these meetings did not result in the production of science advice. These were fortnightly meetings initially chaired by a GO Science Director or Deputy Director.

### **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.

**Personal Data**

**Signed:** .....

**Dated:** 23 August 2023

## Glossary of Terms

Acronym	Meaning
AMS	Academy of Medical Sciences
BA	British Academy
BEIS	Department for Business, Energy and Industrial Strategy
C-19 TF	COVID-19 Taskforce
CCS	Civil Contingencies Secretariat
CDL	Chancellor of the Duchy of Lancaster
CMO	Chief Medical Officer
CO	Cabinet Office
COBR	Cabinet Office Briefing Rooms
COBR (M)	Cabinet Office Briefing Rooms – Ministerial Committee
COBR (O)	Cabinet Office Briefing Rooms – Senior Officials Committee
CO-CIN	COVID-19 Clinical Information Network
COG-UK	COVID-19 Genomics UK Consortium
Covid O	Covid Operational Response
Covid S	Covid Strategic Response
CSA	Chief Scientific Adviser
DAs	Devolved Administrations
Defra	Department of Environment, Food and Rural Affairs
DfE	Department for Education
DHSC	Department of Health and Social Care
EMG	Environmental Modelling Group

FCDO	Foreign and Commonwealth Development Office
FOIA	Freedom of Information Act 2000
GCSA	Government Chief Scientific Adviser
GEL-GenOMICC	Genetics of Mortality in Critical Care
GOS/GO Science	Government Office for Science
GSE	Government Science and Engineering Profession
HMG	His Majesty's Government
HMT	His Majesty's Treasury
HO	Home Office
HOCI	Hospital Onset Covid-19 Working Group
HSE	Health and Safety Executive
JCVI	Joint Committee on Vaccination and Immunisation
MEAG	Moral and Ethical Advisory Group
MIG	Ministerial Implementation Group(s)
MoD	Ministry of Defence
NCS	National Core Studies
NERVTAG	New and Emerging Respiratory Virus Threats Advisory Group
NHS	National Health Service
NIHR	National Institute for Health and Care Research
No.10	Number 10
NSRA	National Security Risk Assessment
PHE	Public Health England (latterly UKHSA)
PM	Prime Minister
RAEng	Royal Academy of Engineering



RAMP	Rapid Assistance in Modelling the Pandemic initiative
SAGE	Scientific Advisory Group for Emergencies
SCT	SAGE Commissioning Team
SCWG	Social Care Working Group
SPI-B	Scientific Pandemic Influenza group on Behaviour
SPI-M	Scientific Pandemic Influenza Group on Modelling
SPI-M-O	Scientific Pandemic Influenza Group on Modelling Operational Sub-group
SWG	Serology working group
TFG	Interdisciplinary Task and Finish Group on the Role of Children in Transmission
TWEG	Transmission in the Wider Environment Group
TWG	Transmission Working Group
UKHSA	UK Health Security Agency
UKRI	UK Research and Innovation
VSCG	Vaccine Science Co-ordination Group
VTF	Vaccine Taskforce
WHO	World Health Organisation