Witness Name: Caroline Lamb
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UK COVID-19 INQUIRY
MODULE 1

STATEMENT BY THE DIRECTOR GENERAL FOR HEALTH

This statement is one of a suite provided for Module 1 of the UK Covid Inquiry and these should be considered collectively. In relation to the issues raised by the Rule 9 request dated 6th December 2022 served on the Scottish Government, in connection with Module 1, the Director General for Health will say as follows: -

Introduction

1. This statement combines contributions from the Chief Medical Officer (CMO) for Scotland, the Chief Scientist Office (Health), and the Chief Nursing Officer (CNO) for Scotland. As such this statement focusses on the clinical and scientific aspects of pre-pandemic planning and should be read in conjunction with the previous statement from the Director General for Health and Social Care, in response to the Module 1 Rule 9 notice ref M01/SG/01 dated 4 November 2022. Further information on statistical analysis and data science, as well as formulating and communicating expert advice can be provided if required. As a matter of course, those involved in policy development for the Scottish Government are required to consider the impact of this on the population, including individuals with one or more protected characteristics. This is routinely carried out through the completion of an Equality Impact Assessment.

2. In addition to those named in the Rule 9 Professor Jason Leitch CBE is the National Clinical Director, and works alongside the CMO and CNO as one of Scotland's three most senior clinical advisers. The National Clinical Director is responsible for quality in the health and social care system, including patient safety and person-centred

care, NHS planning and implementing quality improvement methods across the government and the broader public sector. The National Clinical Director was not involved in pre-pandemic planning.

In Relation to the Chief Medical Officer Directorate (CMOD)

3. The current CMO is Professor Sir Gregor Smith. He is a GP and former medical director for primary care in NHS Lanarkshire and began working for the Scottish Government as a medical adviser in primary care in 2012. As medical adviser, he was part of the negotiating team for the Scottish GP contract, subsequently leading the development of a new quality framework for general practice in Scotland. Professor Sir Smith was appointed Deputy Chief Medical Officer (DCMO) in 2015, interim CMO in April 2020, and CMO in December 2020. He is also an Honorary Professor of the University of Glasgow.

4. Previous CMOs have been Catherine Calderwood (February 2015 to April 2020), Aileen Keel as Acting CMO (April 2014 to February 2015) and Sir Harry Burns (September 2005 to April 2014). Aileen Keel also served time as DCMO for the Scottish Government prior to their appointment as CMO, whilst Catherine Calderwood served time as a Senior Medical Officer.

5. Although the proposed date range of the Rule 9 covers the period 11th June 2009 to 21st January 2020, Professor Sir Smith was not CMO during that period. Accordingly, some of this statement is inevitably influenced by his time as interim CMO and CMO, from April 2020 onwards.

Overview of CMOD

6. The CMOD seeks to achieve the best health and care outcomes for people by working with ministers and stakeholders to protect and improve public health, and to oversee the effectiveness of healthcare services in Scotland.

7. The CMOD is responsible for:

    a. Providing policy advice to Scottish Ministers on healthcare and public health
    b. Leading medical and public health professionals to improve the mental and physical wellbeing of people in Scotland

c. Providing clinical advice on professional standards and guidelines
d. Investing in research, particularly related to the NHS; and
e. Encouraging young people to take up jobs in the medical and public health sector

8. The CMOD is part of the Health and Social Care Directorate which is headed up by Caroline Lamb, who was appointed Chief Executive NHS and Director General Health and Social Care in January 2021.

9. The Chief Executive of NHS Scotland provides strategic direction to the NHS in Scotland and drives performance, efficiency, value for money and the delivery of sustainable safe, effective and person-centered services – currently with a particular focus on the operational response to the Covid-19 emergency. The Director General for Health and Social Care is responsible for maintaining a high standard of care for the people of Scotland and for providing support to Scotland's health and social care professionals. The Director-General Health and Social Care is a member of the Scottish Government's (SG) Corporate Governance Board.

10. The Cabinet Secretary for NHS Recovery, Health and Social Care is Michael Matheson MSP who was appointed in March 2023. Prior to this, from May 2021, Humza Yousaf MSP held the post of Cabinet Secretary for Health and Social. Prior to this the role was held by Jeane Freeman (June 2018 to May 2021), Shona Robison (November 2014 to June 2018), Alex Neil (September 2012 to November 2014) and Nicola Sturgeon (May 2007 to September 2012).

11. The position was created in 1999 as the Minister for Health and Community Care. After the 2007 election the Ministerial position was renamed as the Cabinet Secretary for Health and Wellbeing. After the 2011 election the full Ministerial title was Cabinet Secretary for Health, Wellbeing and Cities Strategy. After the 2016 election, the name of the post was changed to simply Cabinet Secretary for Health and Sport. In the 2021 cabinet reshuffle, the post was retitled to Cabinet Secretary for Health and Social Care, and in March 2023 retitled Cabinet Secretary for NHS Recovery, Health and Social Care.

12. The Cabinet Secretary for NHS Recovery, Health and Social Care is responsible for NHS recovery and remobilisation, primary care and GPs, community care, acute services, unscheduled care, NHS performance, workforce, training, planning and

pay, patient services and patient safety, health and social care integration, health improvement and protection, quality and improvement, person-centered care, eHealth, NHS estate, Centre of excellence for rural and remote medicine and social care, and allied healthcare services.

13. The Cabinet Secretary for NHS Recovery, Health and Social Care is supported by two Ministers, the Minister for Public Health and Women's Health, and the Minister for Social Care, Mental Wellbeing and Sport. Prior to the March 2023 cabinet reshuffle, the Ministers supporting the Cabinet Secretary were titled Minister for Public Health, Women's Health and Sport, and Minister for Mental Wellbeing and Social Care.

14. Key ministers over the relevant time period are listed below.

Cabinet Secretary for Health
Nicola Sturgeon – May 2007 – Sept 2012
Alex Neil – Sept 2012 to November 2014
Shona Robison – November 2014 to June 2018
Jeane Freeman – June 2018 to May 2021
Humza Yousaf – May 2021 – March 2023

Junior Ministers for Health
Shona Robison – Minister for Public Health – May 2007 to May 2011
Michael Matheson – Minister for Public Health – May 2011 to November 2014
Maureen Watt – Minister for Public Health – November 2014 to May 2016
Jamie Hepburn - Minister for Sport, Health Improvement and Mental Health – November 2014 to May 2016
Aileen Campbell – Minister for Public Health and Sport – May 2016 to June 2018
Maureen Watt – Minister for Mental Health – May 2016 to June 2018
Clare Haughey – Minister for Mental Health – June 2018 to May 2021
Joe Fitzpatrick – Minister for Public Health – June 2018 to December 2020
Kevin Stewart – Minister for Mental Wellbeing and Social Care – May 2021 – March 2023

15. Details of the role of CMO as well as the wider SG in the management of public health incidents can be found in the *Management of public health incidents: guidance*

on the roles and responsibilities of NHS led incident management teams (2020), provided: [CL2/0001 - INQ000130954]

NHS Territorial Health Boards

16. The 14 territorial health boards have corporate Board-level responsibility for the protection and improvement of their population's health and for the delivery of frontline healthcare services. These boards have core functions under the 2008 Act in terms of public health. Each has a public health team led by a Director of Public Health (DPH). These public health teams are responsible for providing services across all of the domains of public health and for working in partnership within the health board and with external organisations and communities to improve population health outcomes. In a few areas, the DPH is a joint appointment between the NHS Board and the local authority. Public Health Directorates within health boards vary in size, organisation and links.

Directors of Public Health (DPH)

17. The DPH's role is central to the effectiveness of public health across the country, ensuring locally-sensitive responses to national priorities and policies. Thirteen functions are agreed to be part of the role of DPH. They are as follows:

    i. Providing public health advice to the NHS Board
    ii. Providing public health advice to the local authority
    iii. Contributing to corporate leadership of the Board
    iv. Producing an independent annual report
    v. Providing leadership and advocacy for protecting and improving health and reducing health inequalities
    vi. Managing the Board's specialist public health team and associated support staff and resources
    vii. Ensuring the Board and its staff have access to timely, accurate and appropriately interpreted data on population health
    viii. Ensuring the implementation of NHS components of Scottish Government public health or health improvement policies
    ix. Overseeing the coordination and effectiveness of screening programmes
    x. Communicating with the public via the media on important public health issues;

xi. Contributing to emergency planning
xii. Ensuring all appropriate infection and environmental surveillance and control measures are in place, and
xiii. Ensuring health needs assessments are carried out.

18. Additionally, DPHs meet collectively and have scope to ensure appropriate consistency of approach across Scotland. DPHs engage with Government officials and clinicians, including the CMO. This includes through the National Incident Management Team (NIMT) and incident management meetings.

SAGE and other UK scientific advisory groups

19. Scientific Advisory Group for Emergencies (SAGE), and bodies such as New and Emerging Respiratory Virus Threats Advisory Group (NERVTAG) are, part of the critical function of how evidence is received and considered. They play a critical part in a critical situation. SAGE tries to identify what evidence is needed, whether it exists, and if so, where it can be obtained.

20. As CMO, Professor Sir Smith attended Scottish Government resilience meetings, depending on the issues being discussed and the need for clinical advice. The CMO is routinely informed when SAGE is being convened, but attendance at the meetings may be taken up by other senior clinicians, depending on availability or the issue being discussed.

21. From the perspective of the CMO, the urgent, immediate response of these bodies is effective for a short period. During the pandemic, SAGE persisted for a long period, as did many of these bodies. Their members were able, capable individuals. Reliance was placed upon the members for a long period. That challenged personal resilience and organisational resilience. It is difficult to find a way around this, the need to have as many advisers as possible with experience in the particular area being considered and the relatively small pool of experts to draw on, but in the future, from the CMO perspective, support requires to be given to both individuals and donor organisations. In addition, an appropriate supporting structure needs to be in place, including administrative support.

22. Questions about the operation of SAGE, including decisions about attendees and how meetings are organised, are for the UK Government to answer (SAGE

Secretariat sits in the Government Office for Science, known as GO-Science). At the Scottish Government level there is internal discussion and decision among advisers about who would be the most appropriate attendee(s) at SAGE for the Scottish Government's interests. In the timeframe mentioned for this request (2009 - January 2020) there was no Scottish Government equivalent of SAGE.

Formulating and communicating expert advice to Scottish Government decision-makers in civil emergencies

23. In Scotland, where a decision requires to be taken by ministers that may, or is likely to, impact on the health of members of the public, it is embedded in Scottish Government processes that clinical advisers are involved at an early stage. Clinical views are sought and attendance requested at decision-making meetings, such as Scottish Government Resilience Room (SGoRR) or Cabinet, whether that is the CMO, DCMO or other senior clinical advisers.

24. In order to formulate advice to ministers, the CMOD seeks to identify trusted sources of evidence (for example published, peer reviewed journals) on which to base its advice. In a novel situation, such trusted sources of evidence may be absent. In that case, CMOD can look to data from our own country, but can also rely on information that has been shared globally from other countries, based on the experiences of those other countries. The overarching principle, as a clinical adviser to ministers is, first and foremost, whether the evidence under consideration is of sufficient quality for the purposes of decision making. There are three broad categories for assessing the quality of evidence: low, medium, and high confidence. One of the functions of SAGE and other advisory committees is to consider sources of evidence and their quality.

25. In planning for an emergency, from a clinical perspective, a number of things are important. A response needs to be mobilised; the emerging crisis managed; and everyone must know their role and what is expected of them; and the likely impact of the crisis needs to be assessed. A key consideration is reducing the impact of the crisis on society. As a clinical adviser, it is very advantageous to be able to bring evidence to bear. However, in a new and emerging crisis, such as the Covid-19 pandemic, the evidence about likely scale and type of the impact was unclear and ambiguous. In emergency situations, particularly (although not exclusively) ones that extend over the longer term, those people working to manage and cope with the

crisis are invariably doing so in an intense environment. Working hours are long and stressful, and there is little ability to get rest time.

26. At the outset of the pandemic, there was no model or construct available on how this new coronavirus would behave. A number of research groups were set up to look at this. Meetings then took place at which the research findings were brought back, discussed and challenged. These meetings would try to arrive at a consensus on what the research meant. The ability to form advice based on consensus rather than just personal conviction is important. This is particularly so where the data and research is so new that it has not been peer reviewed. Forming that consensus is the most important aspect. Meeting participants would consider whether there was low, medium or high confidence in what had been found. They would then look to determine how the degree of confidence could be improved. Participants knew that the availability of data was absolutely key, and were constantly looking for ways to make the evidence more robust.

27. The focus was on getting as much data as possible: new research projects were constructed and Intensive Care audits were carried out. If a consensus established that we were comfortable with the statistics (and the interpretation of those of statistics), the next step was to convey that information to those who required to make decisions. Communication was key as it was necessary to ensure those being advised understood the statistics, what they meant, and the degree to which importance should be attached to them. It was important to convey to the decision makers the need to understand the statistics, and for them to be thinking in those terms in order to make their decisions.

28. Where there is doubt or ambiguity, as there undoubtedly was at the outset of the Covid-19 pandemic, it is important to apply the 'precautionary principle'. That is a dynamic process that gradually evolves according to the development of understanding of risk. In the early days of the pandemic, the greatest risk was to life (rather than economic loss). Risk tolerance was, therefore, necessarily low. There was a consensus of a need to guard against the NHS being overwhelmed. The tolerance level changed, as more information about the way the virus behaved was gained. For example, the introduction of dexamethasone made a huge difference to treatment when it was introduced. And the availability of vaccines changed the risk tolerance once again.

29. The risk tolerance was therefore dynamic. There has always been the mistaken belief that risk tolerance was set only to reduce the loss of life and to safeguard the NHS. But there was a really strong evidence base, which developed over the course of 2020, that showed that suppressing the virus would lead to quicker economic recovery, as it improved confidence of people to use bars, shops, etc. Countries which were able to supress the virus effectively showed quicker economic recovery, whereas allowing the virus to run more freely had a negative effect on recovery of internal economies. In addition, there was a grave risk at times of 'partial suppression'. That is, punitive protective measures - as society might have considered them to be - would have partially suppressed, but not to the extent where one could simply open everything up again. It would have had effects on workforce, on consumer confidence, etc. The result would have been that the nation would not have emerged from restrictions as fast as might have been expected.

30. In Scotland, our approach was to apply protective measures earlier and more restrictively than many other countries. For example, there were various instances when restrictions remained in Scotland, which had been lifted in other parts of the UK. Scotland took a more proportionate approach to suppress, to balance the considerations across each of the four dimensions, (i.e., the "four harms") in a way which would enable us to reduce any disproportionate amount of harm to society, and to the economy, and that would allow us to protect the NHS. Scotland has a higher instance of multi-morbidity, especially in younger people, than elsewhere in the UK. There is also a high population of older people in Scotland. It was known from an early stage, that Covid-19 tended to be more severe in older persons and those with pre-existing health conditions. The population was therefore considered to be particularly vulnerable and perhaps more so than elsewhere in the UK. In Scotland, a careful approach was taken in recognition of this. This was a pure application of the precautionary principle.

The role of advisers

31. The role of clinical advisers was to try to equip decision makers with as much information as possible to allow them to come to informed decisions, based on available evidence. That was not always possible, particularly in the early stages of the pandemic, as discussed above, because this was a novel coronavirus and it took time to build an evidence base. For example, in the context of vaccines, the decision makers were provided with the advice, and then they decided who to prioritise for the

vaccine. Decision makers were receiving a wealth of advice, not only from health advisers, such as the CMO, but from other advisers including economic, political and social advisers. Health advice required to be weighed in the balance with other advice and it was certainly not the case that clinical advisers actually made any of the decisions. Of course, the risk tolerance will have a natural leaning towards reducing harm from that source. Health advice was given from the perspective of protecting lives and the NHS.

32. The role of the CMO, and their team, is as independent clinical advisers to government. The way the role of CMO is set up has the effect that it sits slightly separately to the rest of government. As a clinician and as a scientist, the CMO's first duty is a professional and ethical one, to the regulatory body, which is the GMC. To remain as a medical doctor, the CMO cannot breach good medical practice which provides the CMO with their independence. In addition, an important part of the role of CMO is to be able to use judgement and experience to be able to communicate effectively and fully, so that commitment to professional and ethical requirements as defined by the GMC is not breached.

33. The CMO or a DCMO would be in attendance to provide clinical advice in SGoRR. In terms of transparency with the public, the minutes of the meetings of the Covid-19 Advisory Group were published on the Scottish Government website and the CMO or DCMO attended dozens of lunchtime media briefings to allow public scrutiny by the media. It was considered important that senior clinicians like the CMO and the national clinical director were accessible.

The preparedness of the UK and Scotland for the Covid-19 pandemic

34. Many of the processes which were necessary to mount a response to the Covid-19 pandemic were in place. For example, even in retrospect, it is really quite incredible how quickly a test for Covid-19 was developed once the necessary information had been obtained from China. However, that is not to say it is not possible to improve, and it would have been useful to have been able to respond even more quickly than was the case. In terms of future pandemic planning, a novel coronavirus has not been identified as the most likely pathogen to reach pandemic status. The evidence available indicates that pandemic flu is more likely to present the most significant threat.

35. For the future, critical infrastructure to mobilise a response as quickly as possible is necessary. 'Infrastructure' would include mass testing capabilities; collection and collation of data; a concentration of experience that allows people to work together as closely as possible; and an ability to form the necessary advising structure. A 'national reference laboratory' for public health is another valuable consideration for the future rather than there being a number of small laboratories spread across the country in Scotland. A 'virtual construct' is envisaged. That is, the labs may be on different sites, but operating a national and standardised approach, thus making it easier to co-ordinate a response, rather than working with a number of organisations. For the perspective of the CMO, Scotland's laboratory response was very good but, for the future, a unified and standardised approach across a network of laboratories would provide benefit across the One Health agenda. There should also be sharing agreements and formal links to international data and knowledge (whether that is through UK Government, or directly between Scotland and international organisations, for example, the European Centre for Disease Prevention and Control). Currently there are links, but these appear to more person dependent, in other words, about 'who knows who'.

36. The CMOs of the four nations collaborated on writing a paper, *Technical Report on the COVID 19 Pandemic in the UK,* provided [CL2/0002 - INQ000130955]. It was published in December 2022 and is a publicly available document available on the Scottish Government's website. It was written to provide guidance to future CMOs, in the event of a future pandemic. In that paper, the CMOs discuss what worked well and what they may want to see done differently going forward. It is a very technical, evidence based and objective document.

37. The World Health Organisation (WHO) worked with other countries to try and share as much information as possible. Like everyone, their learning was done in a very public way. It was a fast moving environment filled with ambiguity. This coronavirus was novel and behaved differently in some respects to previously known coronaviruses.

Pandemic Flu preparedness planning

38. The Scottish Government fed into a UK led process of a pandemic flu plan, the UK Influenza Preparedness Strategy 2011. It had been developed at a UK level, further to the Swine Flu pandemic. Between 2015 and March 2020, when Professor Sir

Smith occupied the role of DCMO, there was no clinical input from the DCMO in terms of forming or developing that plan. In about 2017, the DCMO was asked about how best to communicate aspects of that plan – particularly to Scottish health boards and resilience partnerships. Reviews of available information were carried out. The DCMO was part of a group that reviewed that information, and considered it in the context of a 'system response' in Scotland. That is, this group tried to identify key information from the UK plan which could be reflected back to Scottish structures, or adapted where there was a different operational structure in Scotland. The plan was refreshed towards the end of the last decade in light of feedback from exercise 'Cygnus'. The group sought to communicate to the health boards and resilience partnerships the aspects of the guidance that they should take particular note of, and sought to assist them to adapt it to Scotland. It was therefore essentially a 'highlighting and communicating' exercise of existing plans and guidance, rather than developing new guidance. One of the key functions as DCMO was to emphasise the importance of the plans and guidance because of the clinical impact a flu pandemic would have.

39. Exercise Cygnus was a multiple-day table top exercise. Scotland's participation was slightly different from England. Scotland had government level input and observation. Professor Sir Smith and John Connaghan (then Chief Operating Officer for NHS Scotland) went through the exercises. A report was produced from that exercise, which Scotland was not involved in producing, but access to it was given by our colleagues in England. The report contained a number of recommendations for people to consider.

40. Emergency planning exercises have a critically important role in pandemic planning. They enable people to get a sense of what their role is, should a real emergency occur. It tests out where there may be gaps in knowledge, or structures and processes. Table top exercises are very useful and beneficial as people are put in the position where they need to consider how they would make decisions, often very difficult decisions, in an emergency situation. People are asked to consider what they would do, should certain events occur. There are very often useful discussions about unforeseen ethics and policy dilemmas that exercises provoke.

Ensuring the UK and Scotland's future pandemic preparedness

41. From the CMO perspective, there are three priorities.

42. The first is 'learning'. In Scotland a 'Committee for Pandemic Preparedness' has been set up, to consider areas where recent experience and emerging evidence might strengthen future approaches in responding to a pandemic. For example, very early in the pandemic, our laboratory response was good, but could have been even better if there had been networks of public health laboratories already working harmoniously to standardised procedures.

43. Also in relation to learning, the four nations CMOs jointly authored a CMO paper which may be of assistance for future CMOs in pandemic planning, as referenced earlier in this statement. That paper is publicly available. Further, our knowledge of genome sequencing and its use in epidemiology should be further developed across a range of pathogens. This should be captured under a broader health agenda, the One Health that takes account of human, environmental and animal health, under one agenda.

44. The second priority is to make sure systems of data exist that allow as full an understanding as possible of what is going on across the system. The 'tools' need to be understood. There requires to be collaborative work with analysts and researchers. There needs to be proportionate information governance, that allows the ready sharing of information across organisations when it is for the public good. There are times when some of the data laws prevent or impede the ability to share information rapidly and quickly. That has been a problem across the course of the pandemic.

45. Finally, the last thing is for Scotland and those who work in Scotland to be formalised into international networks, or communities of practice. That would allow the rapid sharing of information and intelligence across borders. The world is a small place, and it is critical that we have good constructive and open health relationships across the globe, as incidents can move very quickly. The pandemic showed that such relationships across the globe are there to be explored. These should be built upon.

46. Cooperation, nationally and globally, is critical. From the perspective of the CMO, throughout the Covid-19 pandemic, the four CMOs of Scotland, England, Wales and

Northern Ireland enjoyed exceptionally good and productive professional relationships.

47. Throughout the Covid-19 pandemic, there was co-operation also between the CMOs office and the CSA and CNO, the clinical advisers, national clinical director and CSO health. It was a collegiate form of working which existed across all four nations as mentioned in the preceding paragraph. There were regular meetings between the UK CMOs, often on a daily basis in some weeks. A further UK wide group involved most senior clinicians, CNOs, CMOs and scientific advisers. This met twice weekly in evenings at the height of the pandemic, and weekly thereafter. Evidence was carefully considered and clinical advice for colleagues and ministers formulated. That level of co-operation professionally places Scotland and the other nations of the UK in a very good position to overcome challenges in coming years to improve the health of society.

48. During the Covid-19 pandemic, the CMO, had at least two nominated deputies at all times. This was a contingency measure identified right from the beginning in case one had to take time off. This system strengthened the leadership at that time. When Professor Sir Smith was appointed CMO, he brought in a second DCMO (previously there had been just one). At the height of the Covid-19 pandemic, there were three DCMOs for Scotland. The CMO has therefore had a team of vastly experienced senior clinicians. The CMO and DCMO team took the decision very early on never to meet in person, so as to avoid any potential for spread of viral illness between them. That way of working existed for many months.

Involvement in future pandemic preparedness plans

49. The Standing Committee on Pandemic Preparedness will be a permanent advisory group to the Scottish Government. It has been established to bring together scientists and technical experts to advise the Scottish Government on the future risks from pandemics, and to ensure Scotland is as prepared as it can be. The CMO is a member of this Committee, which is chaired by Professor Andrew Morris. The minutes are published on the Scottish Government website. An interim report has also been published.

50. Each of the CMOs of the four nations has a place on the UK Health Security Agency's advisory board (UKHSA AB). As part of that, the CMO received and

considered papers, which begin to describe how the UK as a whole prepares for threats (respiratory diseases in particular). It is understood that reports of the advisory board will be published and that the meetings are open to members of the public for transparency.

51. The UKHSA AB examines various threats around the world and looks at the UK's potential ability to respond to those. One aspect that has been examined is the greater likelihood of zoonoses (diseases transmitted from animals to humans) in the future. We all live in close proximity to animals/nature. 'Horizon scanning', which is effectively the work of the UKHSA AB, has taken place for various threats that may arise in the future. Climate change and the potential for higher global temperatures, that might alter the likely patterns of disease, have been considered.

52. Evidence suggests that it is only a matter of time before there is another pandemic. It is considered more likely that a pandemic will be caused by a virus rather than bacterium or fungus.

53. Covid-19 mutated and evolved quickly. The Alpha, Delta and Omicron variants allowed it to transmit more quickly. The considerations for the future are whether it will develop so as to be able to evade a host's natural immunity or vaccine immunity. At some point, the WHO will declare the emergency response to the current Covid-19 pandemic to be over. At that point, it will be important for there to be national surveillance systems to continue to monitor the virus and its behaviour as it will continue to cause illness and periodic surges in disease.

In relation to the Chief Scientist Office

54. The Chief Scientist Office (Health) remit comprises health research, development and innovation within the NHS in Scotland. The role of Chief Scientist (Health) is recruited for a period of three years and tends to be held by a senior clinical scientist. Since 2009, the following individuals have held the post:

- Sir John Savill – June 2008 – September 2010
- Professor Andrew Morris – March 2012 – February 2018
- Professor David Crossman – November 2017 – April 2022
- Professor Dame Anna Dominiczak – July 2022 – Current

55. Between 30 September 2010 and 1 March 2012, the Chief Scientist post was reviewed. This review concluded that the post should remain to provide a lead in championing science as a key driver of the economy and provide advice on Government policy and its direct investment in scientific activity in our universities and other institutions.

56. The Chief Scientist Office (CSO) is part of the CMOD in the Scottish Government, reporting to the Director General Health and Social Care, who is also the Chief Executive of the NHS in Scotland. The CSO was established in 1973 and has had a Chief Scientist since its inception. The aim of the CSO is to identify, promote and encourage research which addresses the health and healthcare needs of the people of Scotland. CSO seeks to catalyse the research strengths in Scotland and funds research which is of direct relevance to the strategic priorities of the NHS. The CSO research budget supports research infrastructure in the NHS and a range of grant and programme awards.

57. The Chief Scientist (Health) is part of the network of specialist Chief Scientists and Scientific Advisers within the Scottish Government led by the Chief Scientific Adviser, and is an ex-officio member of the Scottish Science Advisory Council (as described in the response from the office of the Chief Scientific Adviser for Scotland).

58. The CSO's main tasks are to: (i) ensure that the NHS in Scotland is research and innovation ready by funding NHS Boards to maintain their research infrastructure and provide appropriate national infrastructure; and (ii) ensure access to funding opportunities for researchers in Scotland to conduct health research. In particular, the CSO runs two research committees which, through independent award committees, funds translational research across all health specialties.

59. During the period between the 2009 and 2019, the CSO has operated open competitive response mode research grant and fellowship schemes providing opportunities for applied research across a wide funding remit covering the range of health conditions and public health and healthcare challenges in Scotland. This has included supporting research on infectious diseases that are present in the Scottish population, although no research projects with 'pandemic' in the title were identified from a search of the CSO research database between 2009 and 2019. Funding for applications submitted to these schemes is subject to independent expert peer

review with funding recommendations made by independent expert committees. Further information regarding the *Response Mode Funding Scheme* and *Fellowship Funding* is provided: [CL2/0004 - INQ000000] and [CL2/0003 - INQ000000].

60. The CSO invests, through NHS Research Scotland, in research infrastructure that allows Scottish health boards to host and participate in a wide range of clinical research including:

- Clinical research facilities - purpose-built environments with specialist clinical research staff where patients take part in clinical research studies
- Biorepositories - providing access to high-quality, well-characterised tissue from NHS Scotland for use in approved research
- Data safe havens – providing secure specialised platforms for the use of NHS electronic data in approved research, and
- Clinical Research Networks and Specialty Groups that support research in specific clinical areas, including in infectious diseases, which has supported a wide range of research in NHS Scotland including:
  - Studies of the development and treatment of acute and chronic infectious diseases such as gastroenteritis, hepatitis, HIV, influenza, meningitis, pneumonia, septicaemia, sexually transmitted infections, skin and soft tissue infections, tuberculosis and urinary tract infections
  - Studies of the prevention, treatment and control of hospital-acquired infections such as MRSA (Methicillin-resistant staphylococcus aureus) and CDD (Clostridium difficile disease)
  - Prevention of infections by vaccination particularly acute infectious diseases such as childhood rashes, hepatitis, herpes viruses, influenza, meningitis and pneumonia; and
  - Studies in microbiology laboratories of clinical infectious diseases.

61. CSO also contributes financially to the National Institute of Health and Care Research (NIHR) in order that some of NIHR's research programmes are open to applications from researchers in Scotland. These programmes (Efficacy and Mechanism Evaluation, Health Technology Assessment, Health Services and Delivery, and Public Health Research) also provide opportunities for research related to infectious diseases including pandemic-related research (further information is made available on the NIHR website, provided: [CL2/0005 - INQ000000]).

Scientific, medical and technical support for Scottish Government decision-makers in civil emergencies

62. The Chief Scientist Office (Health) and Chief Scientist (Health) functions are to oversee research, development and innovation within the NHS in Scotland.

Inter-organisational co-operation

63. The Chief Scientist Office (Health) and Chief Scientist (Health) have regular meetings with their counterparts across the UK, the Medical Research Council, other Research Councils and major medical research charities, and sits on the Office for Strategic Health Research (OSCHR).

Planning for a pandemic

64. Planning for pandemics was not typically part of the Chief Scientist (Health) role within the period 2009-2020.

Future risks, reports, and lessons learned exercises

65. Following this period, the Chief Scientist (Health) does sit on the Scottish Government's Standing Committee of Pandemic Preparedness (SCoPP).

In relation to the Chief Nursing Officer Directorate (CNOD)

66. The CNOD, includes (i) the Chief Nursing Officer for Scotland (CNO); and (ii) the Deputy Chief Nursing Officers for Scotland (DCNOs). The CNO reports to the Director General Health and Social Care of the Scottish Government, who is also the Chief Executive of the NHS in Scotland. The post holder is a clinician who must meet the specialist expertise criteria shown:

- A nurse, fully registered in the UK with the Nursing and Midwifery Council, and
- Professional experience of leading and developing Nursing and Midwifery professional workforce, in particular to find creative and imaginative ways to develop sustainable services.

67. The CNO has oversight and responsibility for delivery of the CNOD priorities. This includes making a tangible difference to NHS Scotland and the lives of the people of Scotland, ensuring excellence in Nursing, Midwifery and Allied Health Professions (NMAHP)/health-care science (HCS) and services.

68. CNOD's policy responsibility includes the following areas:

- Student nurse, midwife and paramedic intake
- Leading on NMAHP and HCS
- Modernising and improving NMAHP and HCS care services and standards of practice
- Leading on all aspects of healthcare-associated infection and antimicrobial resistance policy, and
- Leading on professional healthcare regulation for all regulated groups.

69. A chronological list of those to have held the posts of CNO and DCNO (Associate CNO in some instances) over the period under review can be found below:

- Alex McMahon - October 2021 (interim), appointed December 2021 – present
- Amanda Croft - January 2021 - August 2021
- Fiona McQueen - (interim November 2014 – March 2015) appointed April 2015 - March 2021
- Roslyn Moore - January 2010 - November 2014
- Paul Martin - 2004 - 2009

70. The below names and indicative dates are to the best of our knowledge and where there are gaps, no Associate or Deputy CNO was in post:

- Anne Armstrong Deputy CNO - April 2021 – present
- William Findlay Associate CNO - Jan 2022 - present
- Irene Barkby Associate CNO - August 2020 - present
- Mark Richards Associate CNO - April 2022 - present
- Diane Murray Deputy CNO - 2016 2021
- Ann Holmes Associate CNO (Chief of Midwifery) - approximately 2016-2021
- Karen Wilson Associate CNO - 2011 - 2012

- Margaret McGuire Associate CNO - 2010

71. The CNO is supported in their leadership and governance role by civil servants who support the delivery of the key priorities.

72. A chronological list of the post holders during the period in focus can be found below. There are currently two CNOD Deputy Directors (DD) and Heads of CNOD. Post holders are listed as below:

- Jason Birch Head of CNOD and interim DD - September 2022 to date
- Rachael Dunk Head of CNOD and interim DD - January 2022 to date
- Christine Ward Head of CNOD and interim DD - September 2020 – August 2022
- Greig Chalmers, Head of CNOD and interim DD - December 2019 – August 2020

Prior to the appointment of Greig Chalmers as interim DD, there was no DD role in CNOD. Instead, CNOD was led by the Head of Unit (Head of CNOD).

73. Key ministers over the relevant time period are listed in paragraphs 11 to 15 above.

Inter-organisational cooperation and key expert partners within and outside Scottish Government

74. As part of their role, the CNO and DCNO in Scotland routinely cooperate with key expert partners within and outside of the Scottish Government. CNOD was not represented at WHO pre-pandemic planning meetings or COBR meetings, so far as CNOD can establish from its records.

75. The Inquiry has also previously been notified that where CNO participation might have reasonably been expected, neither the CNO/DCNO nor representatives of CNOD were invited to join the Flu Pandemic Readiness Boards. Decisions made on UK and Scottish Government group membership were the responsibility of those leading the Flu Pandemic Readiness Boards during 2017 to 2019.

76. CNOD are not aware of the then CNO, Fiona McQueen (November 2014 – March 2021), being invited to represent Scottish Government/CNOD at Westminster or

Scottish Parliament in respect of pre-pandemic planning. There is no record available in previous years to establish if former CNO/DCNOs attended planning sessions for the likes of Swine Flu.

77. Whilst CNO policy teams participate in regular meetings with their counterparts across the UK, no pre-pandemic planning would have been led by CNOD. UK Government or Scottish Government leads seeking clinical advice could have requested CNO input, but decisions made at these meetings or contributions to briefings would have been documented by those leading and not by CNOD. To the knowledge of current staff and based on records available, CNOD did not participate in pre-pandemic planning on the policy responsibilities of the directorate.

Statement of Truth

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

Signed Personal Data

Dated: _____