Witness Name: Dr Carol Tannahill

Statement No.: 1

Exhibits: CT1

Dated: 15 December 2023

UK COVID-19 INQUIRY

WITNESS STATEMENT OF DR CAROL TANNAHILL

In relation to the issues raised by the Rule 9 request reference M2A/CT/01 dated 29 August 2023 in connection with Module 2A, I, Carol Tannahill, will say as follows: -

Introduction

1. I am Carol Tannahill, and I held the position of Chief Social Policy Adviser in the Scottish Government from April 2014 to September 2021 (part-time until March 2020). I chaired the Scottish Government's Advisory Sub-group on Education and Children's Issues from the end June 2020 to September 2021 (being absent during the period September-November 2020 for surgery and subsequent treatment); and the Advisory Sub-group on Universities and Colleges from May 2021 to September 2021. I retired at the end of September 2021.

2. The Inquiry's Rule 9 request asks me for a witness statement relating to the role I played and my knowledge of the role played by other core decision-makers in relation to the management of the Covid-19 pandemic in Scotland during the period January 2020-April 2022. The Request sets out a number of questions which I have

answered to the best of my ability. Where I am unable to answer a question or am in a position to answer only part of a question, I have indicated that in this response.

3. In preparation for producing this statement, I had email correspondence from, and was provided with relevant documents by, the Scottish Government Covid Inquiries Response Directorate. I also had one virtual meeting with staff from the Scottish Government Covid Inquiries Response Directorate.

A. Sources of advice; medical and scientific expertise, data and modelling

a) Professional background, roles and responsibilities

4. After qualifying with a master's degree (MPH, 1985) and PhD (1989) in Public Health, and prior to my moving to my full-time role with the Scottish Government, I worked in a series of public health jobs. My areas of focus were health promotion and population health research and policy, particularly in relation to addressing health inequalities. I was Director of Health Promotion at Greater Glasgow Health Board (1997-2001), Senior Adviser in Health Development at the Public Health Institute of Scotland (2001-2003), and Director of the Glasgow Centre for Population Health (2003-2020). I was awarded honorary membership, and then fellowship, of the Faculty of Public Health. The behavioural sciences were an integral part of my undergraduate (BA in Human Sciences) and postgraduate degrees, my work in public health involved applying behavioural sciences principles, I have taught behavioural science components in public health courses, the research with which I have been involved has incorporated and tested behavioural science theories and principles, and I have been awarded Fellowship of the Academy of Social Sciences. I have no experience in the health protection/infectious disease control domains of public health.

5. In 2014 I was seconded from NHS Greater Glasgow and Clyde to work part-time in the Scottish Government, in the role of Chief Social Policy Adviser – a newly-created position which involved working across Government Directorates to strengthen the focus placed on tackling inequalities and on achieving the outcomes embedded within the National Performance Framework. I worked full-time in Scottish Government from March 2020. Shortly thereafter my responsibilities changed to focus on the Covid response. In June 2020 I was asked to establish and chair the Advisory Sub-group on Education and Children's Issues. At that point I also became

a member of the Scottish Government Covid-19 Advisory Group (SGCAG). All minutes and papers for this group have already been provided to the Inquiry. I was the lead advisor for Social Harm in the Scottish Government's 'Four Harms' assessment process, and with the Chief Social Researcher I worked to broaden the analytical base to inform decision-making. In May 2021 I was asked to chair an additional Advisory sub-group, for Universities and Colleges, to support planning for the start of the 2021/22 academic year.

6. I retired on 30 September 2021, for personal and family reasons. I timed my retiral taking account of the progress that had been made in controlling the pandemic (including the significant impact of vaccination), and to enable me to see through my advisory responsibilities relating to the starts of the academic years for schools, colleges and universities.

b) Principles/policy behind the use of medical/scientific advice in the Scottish Covid-19 pandemic response

7. My understanding of decision-making during the pandemic is that decisions were made by Ministers, informed by the advice given by advisors. There was a rhythm of advice, based on outputs from meetings of advisory groups and of senior civil servants. There was also advice provided to Ministers on an ongoing basis by their respective lead Directors/Directors General, and by the senior clinical advisors.

8. The First Minister, Deputy First Minister and Cabinet Secretaries appeared committed to hearing, understanding and following scientific advice. As advisors we were required to demonstrate the scientific basis for our advice. The science was, of course, developing throughout the pandemic so the basis for scientific advice changed and grew stronger during the period.

9. I remember the First Minister emphasising the importance of following the science, and seeing ministerial decisions being clearly underpinned by the scientific advice given. This was, in my view, critical for building and sustaining public confidence. It was also critical for building and sustaining the commitment of the many academics, other advisors and partners working with the Scottish Government as part of the pandemic response.

10. I am asked about the key policies which underpinned the Scottish Government's approach to the management of the pandemic. I am unsure what is meant by policies in this regard. This witness statement addresses a number of policies, in particular as they applied to education and children's issues (the primary focus of my role). As I will set out, I believe that scientific advice (including social science) played an important part in informing these policies. That advice was sometimes developed in relation to policy options. Policies sought to reduce the spread of the virus; lower incidence, prevalence, and Covid-related deaths; ease pressures on the health and other systems; and address not only Covid-related harm but also the wider harms resulting from the pandemic. While there was a clear emphasis on minimising deaths, I have no recollection of this over-riding all other concerns. Policies to reduce transmission and to create safer environments existed throughout the period of my involvement.

c) Informal Decision Making and Communication

11. The meetings in which I was involved to formulate advice or communicate it to Ministers deployed formal government processes. I have no awareness of key decisions being underpinned by advice communicated outside formal processes. Informal meetings in which I was involved in the course of my everyday work (for which minutes/recording were not considered necessary) included planning meetings with members of the secretariat or other civil servants involved in bringing papers/requests to the advisory group(s), calls/meetings with individual members of the advisory groups as part of my personal briefings and chairing responsibilities, and supervisory meetings. Such informal meetings were subsidiary in nature and not for the purposes of formulating advice.

12. From March 2020, I was a member of the WhatsApp 'ECJ Director group' which was used to communicate among the Directors/Director General of the Education, Communities and Justice grouping in Scottish Government. This was administered by the office of the Director General (DG) for Education, Communities & Justice. In addition to myself, membership comprised the then DG, and Directors with responsibility at that time for Children and Families, Early Years and Childcare, Community Safety, Housing & Social Justice, Learning, Justice, Advanced Learning & Science, Social Security, and the Scottish Prison Service. That WhatsApp Group was not used to discuss, or provide, advice relating to the Scottish Government response to Covid-19. I have the Group messages (to February 2021) and a small

number of messages with individuals archived on my personal phone. The latter similarly do not relate to the formulation or conveying of advice. My work phone was returned to Scottish Government when I retired. From March 2021, 'ECJ Director Group' was replaced by a 'DG Communities' WhatsApp Group (reflecting changes in the Scottish Government organisational structure). I have no messages from the 'DG Communities' group.

13. Advisory Group and sub-group meetings were minuted by the respective secretariats for these groups. To my recollection this was not done from audio recordings. The minutes were non-verbatim, and provided a record of what was covered, key points of discussion, and conclusions reached. The Chair would approve a draft minute, and the final minute would be agreed by group members at the subsequent meeting. Individuals' views would not generally be recorded in the minutes. In my opinion the minutes of SGCAG and the sub-groups with which I was involved provide an accurate summary of what was discussed and concluded in those meetings. My notebooks provide notes of the range of meetings I attended during the period. Having reviewed these notes I do not believe that there were any informal meetings which were part of the decision-making process or of significance in their own right in terms of the matters discussed.

14. While I remember being told of conversations that had taken place between Advisors/Directors General/Directors and Ministers, I am not aware of informal or private communications, WhatsApp groups or group chats being used to communicate advice or make key decisions. I hold no such communications. I no longer have access to messages, emails, MS Teams chats etc, which would have been on the Scottish Government devices (laptop and phone) which were returned to Government when I retired. My understanding throughout the period I worked at Scottish Government (including during the pandemic) was that the formality of process, including clarity of roles, recording of decisions etc was to be followed at all times. I have no recollection of any additional guidance, policies or frameworks being introduced during the pandemic.

d) Scottish Government Covid-19 Advisory group ("SGCAG") and SAGE

Constitution, membership and role of the SGCAG

15. SGCAG brought together a range of expertise and perspectives, from within and outside Government. Its membership reflected its role of providing good scientific advice, and as such it did not cover all of the competing interests which would be affected by decision-making. The Group included expertise in relation to: public health and health protection, epidemiology, clinical advice, immunology, behavioural science and – to an extent – at risk and vulnerable groups. There was no-one specifically bringing expertise in health economics or ethics, and although I did not perceive these as gaps at the time, in retrospect I think these might have been helpful additions. SGCAG was supplemented by a number of sub-groups, each of which brought in additional perspectives. SGCAG also should be seen as one part of a complex ecosystem of structures and partnerships providing insight and intelligence into Government as the pandemic progressed. This ecosystem included groupings bringing together expertise in areas such as education (through the Covid Education Recovery Group, CERG), public health (through the Directors of Public Health Group), and local/regional public services (through the Scottish Resilience Partnership, Local Resilience Partnerships and the Multi-Agency Coordination Centre (MACC), for example).

16. I was invited to become a member of SGCAG at the end of June 2020 when the education and children's issues sub-group, and my role as Chair, had been established. I could have made a contribution to SGCAG earlier had I been invited to do so, but there were others on the group who were able to provide behavioural science and broad public health inputs. I attended SGCAG meetings and associated 'deep dives' from July 2020-August 2021, except for during the period September-November 2020. I believe that the system whereby SGCAG and its sub-groups advised on scientific matters was appropriate, recognising that the advice from these groups was supplemented by a range of other data, insights and perspectives as part of the totality of the advisory and decision-making processes in Scotland. I do not recall having any concerns regarding the adequacy or sufficiency of the advice provided by SGCAG. Rather, I felt that the group used evidence well, considered a range of perspectives, and reached clear conclusions. I had no involvement with SAGE or its sub-groups but found a number of the outputs helpful for informing the advice being produced in Scotland.

17. I remember feeling that, within and throughout the range of meetings in which I was involved, the capacity to fully consider and understand the impacts on different population sub-groups was less than ideal. I also remember feeling that more weight was placed on statistical modelling and on biomedical science than was placed on wider human experience and social science. I expressed both concerns but cannot recall the exact forums or dates in which I did so. I should add that while I did – and still do – feel that there was a degree of imbalance, I recognised – and still recognise – that in the prevailing circumstances the priority was to contain the spread of the virus. Without achieving that, other harms would escalate. There therefore was a sound and legitimate rationale for placing greater emphasis on the direct impacts of Covid-19. Moreover, processed information relating to the projection and prevention of other harms was not available in the same way as it was for the direct impacts.

Sub-groups

18. As Chair of the sub-group on education and children's issues I was responsible for: planning and agreeing agendas, papers and presentations for meetings; liaising with Scottish Government colleagues with related policy responsibilities (e.g. for learning, early years and children) and those involved in different aspects of the Covid response (e.g. testing); chairing meetings, and engaging with group members between meetings as required/helpful; agreeing meeting minutes for the group's approval prior to publication; overseeing the drafting of, and finalising, advice notes for approval by the Chair of SGCAG and the CMO; contributing to report writing; presenting advice to the Deputy First Minister (DFM) and Ministers responsible for education and children's issues; bringing material, questions, and issues relating to children and education to SGCAG; contributing to SGCAG from the perspective of impacts on children and education; presenting evidence and advice to other groups, in particular the Covid Education Recovery Group (CERG); responding to inquiries from external partners.

19. The education and children's issues sub-group was convened when it became clear that the overall SGCAG did not have the capacity and expertise to provide dedicated advice relating to education and children's issues, and such advice was needed. The added value, role and membership of an additional group needed to be agreed, and Ministers needed to be assured that such a group would not provide advice contrary

to that of SGCAG. Perhaps it could usefully have been convened earlier, but it was established at pace once the need was clear and the remit agreed.

20. The group was the primary advisory structure for decisions relating to education (primary and secondary), early years settings (nurseries, childcare), and children's community-based activities (play, sports etc). It met on a regular basis (initially weekly), was well-attended, and had constructive and fruitful discussions. It was supported effectively with available analysis and it produced advice that was found to be robust and helpful by Ministers and key stakeholders. My understanding is that it was widely regarded as playing an effective and helpful role. I wish to express my gratitude to my fellow members for their commitment to the Group and its purpose, and for giving their time and expertise so freely and flexibly in demanding and pressing circumstances.

21. In addition to engaging with Ministers and senior civil servants, I (often with other group members) engaged directly on a regular basis with the Covid Education Recovery Group (CERG), which was co-chaired by the Deputy First Minister/Cabinet Secretary for Education and Skills, and COSLA's spokesperson for children and young people [CT1/001 - INQ000370353]. In addition, the education and children's issues sub-group engaged with Public Health Scotland, beyond its direct membership of/representative on the subgroup; and with Directors of Public Health through their representative on the subgroup and the DCMO. Engagement with schools, Departments of Education, local authorities, and early years providers was managed through the established relationships between these stakeholders and the relevant Directorates of Scottish Government.

22. The sub-group had access to all of the analysis from the Covid Analysis Division, which included *State of the Epidemic* summaries, population modelling, international comparisons, and data from surveys of public attitudes and behaviours. It also was provided with Covid-19 educational surveillance reports from Public Health Scotland and school attendance data from the Education Analysis Division of Scottish Government. Where data were available about schools in England, including when there were changes to policy, these were also considered in detail. Sub-group members were able to bring analysis and information about impacts and policies adopted in different countries, including from WHO; and about observed impacts within different settings in Scotland. In addition, Public Health Scotland provided sub-group meetings with Literature Scanning Reports on the current knowledge of

Covid-19 and children and young people. These included international evidence and were considered routinely at meetings from October 2020.

23. I am asked whether the work of the sub-group would have been assisted had it been able to conduct relevant research or commission. There were a number of areas where the sub-group would have liked further information and analysis. From memory, these included: social and educational impacts on different subgroups of children, including those regarded as being more vulnerable (whether clinically, or socially); fuller information about the uptake and quality of remote learning; better and more timely data on ventilation in schools; and research into the immediate impacts on the mental health and wellbeing of children and young people. Research into these areas, had it been available or commissionable in the necessary timeframe, would have enabled the subgroup to be more holistic in its assessment of the harms to children and young people during the pandemic, and in the advice it provided to Ministers. Such research – especially if it had been of a sufficient scale to look at different population sub-groups – would also have helped to ensure that the advice was more fully informed by an understanding of the likely impact on inequalities within society. However, it would not have been realistic or feasible for the sub-group to undertake or commission research within the timeframes in which we were working, and we were well served by the literature scanning reports produced by Public Health Scotland. As evidenced in minutes and papers for the sub-group, there was regular attention paid to – and concern about – inequalities and the wider impacts of Covid control and mitigation measures.

24. I do not recall the sub-group providing advice in relation to additional research that was required.

Operation of advisory structures

25. The primary audience for the provision of advice, from SGCAG and the sub-groups, was the CMO, First Minister, Cabinet Secretaries and Ministers. Relevant senior civil servants also received the advice. I had no direct advisory function towards other organisations.

26. My impression was that personal and working relationships between advisors and key ministerial decision-makers were respectful, effective and open, and this helped the response. Personally, my main direct relationship with a ministerial decision-

maker was with Mr Swinney in his capacity as Cabinet Secretary for Education and Skills. From my perspective that was a good and constructive working relationship. Our meetings always involved policy civil servants, which ensured attention to practical implementation issues alongside the science. The CMO and NCD were the primary scientific advisors to the First Minister and Cabinet, and they drew on advice from a range of sources including SGCAG and its sub-groups. I provided no advice directly to Cabinet meetings but was involved in a range of forums including SGoRR and the Four Harms Group. There was provision made in these meetings to consider impacts on and decisions relating to children and young people, and to look at what we understood about social harm more widely. The breadth of social harm and the relative lack of quantitative data, together with the dominant concern to address direct Covid harm (Harm 1), meant that consideration of social harm was less deep and effective than would have been desirable in an optimal situation.

27. I was involved in the production of advice provided by SGCAG (from June 2020-September 2021, except for the period September-November 2020), the Advisory Sub-group on Education and Children's Issues (from June 2020-September 2021, except for the period September-November 2020) and the Advisory Sub-group on Universities and Colleges (from May-September 2021). All of the minutes of meetings and advice generated by each of these groups during the periods indicated has been provided to the Inquiry by the Scottish Government Covid Inquiries Response Directorate.

28. In my view SGCAG worked effectively. It produced advice in a timely way, based on discussion of available evidence, and informed by the policy priorities and context into which the advice would be received. The CMO was the primary commissioner of the advice, I believe, and attended SGCAG meetings when he was able. DCMOs also attended. The CSA was a member and provided a key link with SAGE. The NCD was not a member but attended some meetings. These senior officials often provided a contextual input, and then listened to the discussion. With the exception of the CSA, they were present more to hear the evidence and discussion than to be part of the advice generation process. I am not aware of the way in which differences of views among advisers and experts were communicated to core decision-makers, or whether they were.

29. A Deputy CMO was a member of the Advisory Sub-group on Education and Children's Issues and played an invaluable role in it. They were able to advise the

sub-group of any priorities, issues or concerns that the CMO or Cabinet Secretary for Health and Sport would want the sub-group to be aware of; and they provided necessary clinical knowledge and public health medicine expertise to the sub-group. The sub-group's draft advice was always sent to the CMO and to the Chair of SGCAG for their approval prior to being submitted to the Cabinet Secretary, First Minister and key Ministerial colleagues. This was to ensure that the CMO, as lead adviser and having a wider contextual overview, was supportive of the advice, and that it was consistent with advice coming from SGCAG. I was responsible for preparing and finalising advice notes emanating from the sub-group. I am not aware of the specifics of the process for SGCAG.

30. I was not aware of decision-makers indicating that they were being overloaded with information. Indeed, my recollection is that they were keen to understand the issues as fully as possible. Advice notes were kept as brief as appropriate, with the scope for further information to be provided either in fuller reports or at meetings. The advice provided was sometimes in relation to specific commissions from policy colleagues and was sometimes of a more general nature. There was regular feedback, either from myself or from Learning Directorate colleagues, to the sub-group about how the advice had been taken forward in the Ministerial decision-making process.

31. The secretariats supporting SGCAG and the education and children's issues sub-group played a significant role in ensuring that advice was commissioned effectively. For the sub-group, in advance of a meeting there were discussions with the policy colleagues involved in commissioning the advice (I was often involved in these discussions) to clarify the 'ask' and ensure that the sub-group was provided with the necessary background and data where available. The policy colleagues would also attend the meeting to introduce the item and respond to any questions, but they did not participate in the discussion or advice-generation process. As is evident from the meeting papers, the sub-group's advice was sometimes commissioned in very general terms and sometimes in relation to specific policy options that were being considered. The involvement of policy colleagues helped to ensure that the advice produced was relevant to the policy options under consideration. I can think of no occasion when our considerations or advice were restricted by palatability. I remember there being times when the requests for advice needed to be prioritised, but I have no recollection of advice being delayed or of there being a lack of clarity about what was required of the sub-group.

32. *State of the Epidemic* updates from the Scottish Government Covid Analysis Division, together with modelling, were a standing item at SGCAG and sub-group meetings. Within the education and children's issues sub-group these were supplemented with Public Health Scotland's *COVID-19 and educational surveillance* reports, commissioned by Scottish Government and presented also to CERG meetings. These data sources and summaries played a significant role in informing the advice. I believe that the system worked well and was sufficiently contemporaneous to enable accurate, real-time decision making.

33. Attention was paid to ensuring that the sub-group advice was clear and comprehensible, through production of concise advice notes, reviewed by senior colleagues prior to submission to Ministers. Time was invested in discussing the advice in meetings with Ministers and key partners, and in responding to any questions/points of clarification raised. The basis for the advice notes was documented in minutes made publicly available. As far as I am aware, all inquiries and Freedom of Information requests were responded to. Background reports summarising the evidence used to underpin the advice were also published, with references to sources of data and evidence. The sub-group was committed to transparency, clarity and comprehensibility and I believe we followed processes to achieve those outcomes.

34. I am not aware of the full range of mechanisms that existed for the First Minister and other core decision-makers to challenge advice provided to them by SGCAG, but I was involved in some on-line discussion seminars involving the First Minister and Cabinet Secretaries, with members of SGCAG, where there was direct engagement with the science and evidence. The First Minister and others were deeply engaged, keen to fully understand the science, and able to ask questions/challenge what was being said.

35. I am not in a position to provide the detail of the mechanics by which meetings were conducted, and advice generated within, SGCAG. As far as I am aware, the agendas for SGCAG meetings would have been agreed by the Chair and secretariat. There were regular slots for updates from the sub-groups, and I would be contacted in advance to ensure that adequate time was allocated to any issues that needed discussion in relation to children and young people.

36. SGCAG advice, and that of the education and children's issues sub-group, incorporated considerations from a range of disciplines and, in my opinion, was not too heavily influenced by any particular scientific discipline at the expense of other considerations. The processes of formulating the advice allowed for different perspectives to be expressed. Statistical modelling, despite its acknowledged limitations, was our best source of contemporaneous analysis for predicting the progression of the pandemic and the consequences of potential actions. We had opportunities to liaise closely with the team of analysts involved in producing the models, in order that different policy options could be incorporated and impacts on different age groups assessed. We also considered a range of evidence and data from other sources, to ensure that the implications of the models were not looked at in isolation.

37. I am unaware how conflicting medical and scientific information and advice was communicated to key decision-makers by SGCAG, and I am unaware of any external assessment or peer review of SGCAG. I am also unaware of any instances where medical or scientific advice or data modelling was provided by SGCAG but not followed. I cannot recall any Scottish Government decisions that ought to have been informed by medical or scientific advice where such advice was not sought. I also cannot recall information from patient groups or other representative groups being discussed at SGCAG. I had no involvement in links with SAGE or SPI-M/SPI-O or SPI-B. I am therefore unable to comment in any informed way on the role SGCAG played in relation to these groups, and how effectively those relationships worked.

38. SGCAG was tasked with providing medical and scientific advice. It was not established to look at and weigh up the full range of considerations and impacts of the pandemic, but other impacts arising from the pandemic and the measures put into place were recognised in its discussions. The route to weighing wider health harms, societal and economic impacts against the Covid harms was through the Scottish Government's 'Four Harms' mechanism which was set out in the April 2020 *Framework for Decision-Making* [CT1/002 - INQ000131025]. A Four Harms Group was established in late October 2020 providing a forum for collective consideration, involving key leaders from outside Scottish Government as well as a wide range of civil servants from across Government. The December 2020 Scottish Government publication *Framework for Decision Making – Assessing the Four Harms of the Crisis* [CT1/003 - INQ000131028] described how the four harms approach worked, summarising key aspects of the analysis deployed.

39. SGCAG advice was formulated following consideration of available evidence and discussion of options. Data would be made available to the group from the Covid Analysis Division/SG analysts. In addition, individual group members would bring data from their own research/research groups. The latter approach was not systematic, but it was efficient and enabled access to a range of data, including those not in the public domain. It was a pragmatic way of working given the required pace of advice-generation, and was a useful addition to the dashboards, statistical models and *State of the Epidemic* reports produced by Government analysts. A range of views would be expressed by individual group members, bringing different expertise and evidence in considering the issues. The expertise of epidemiologists, public health experts, infectious disease experts and behavioural scientists was all part of the advice formulation process. The Chair would ensure that all members had the opportunity to contribute. Working with the secretariat, he would then summarise the discussion and distil the formulation of advice. The CMO, or a DCMO, would hear the discussion and be aware of any dissent/differences in perspective. Where divergent views were expressed, this was reflected in the summary minutes.

40. Modelling was carried out by colleagues in the Scottish Government's Covid Analysis Division. The models produced were used comprehensively, being presented in most if not all meetings of SGCAG and the education and children's issues sub-group. The team involved in producing the models was responsive to requests for specific assumptions to be incorporated, to enable the modelled impact of particular policy options to be assessed. For understandable reasons, models were sometimes not available until the day of the meeting, which meant they had to be interpreted by group members with no advance preparation – but otherwise the system worked well.

41. International evidence was provided to SGCAG through inputs from some group members. Analysis of the experience in a range of countries was also provided by Covid Analysis Division. Deep dives included attention to the experience of other countries. The literature scanning reports from Public Health Scotland, provided to the education and children's issues sub-group, summarised international evidence on the current knowledge of Covid-19 and children and young people. International evidence was considered in all these ways, but advice was tailored to the Scottish situation and the options available here.

42. I am asked to outline any issues faced by the medical/scientific advisory structures available to the Scottish Government (including SGCAG) in relation to resources and funding during the pandemic. As noted in paragraph 23 above, there were some evidence gaps that could helpfully have been filled if that could have been achieved in the timescales required. It would also have been helpful to have had more resource in the system to gather and review international evidence and experience of implementing different policies. Overall, however, I did not see the availability of resources as materially constraining the ability to deliver the required advice in my areas of responsibility.

43. I have no understanding or awareness of any limitations imposed due to the devolution settlement. As education is a devolved matter, the advice with which I was most closely involved was not affected, other than by the need to be quite clear about the rationale for any advice that resulted in a difference between Scottish Government and UK Government policy.

44. I was not aware of SGCAG liaising with local government. In relation to education, and early learning and childcare issues, liaison with local government was carried out by the respective policy leads. In addition, the sub-group provided inputs to meetings of CERG, which was co-chaired by COSLA and involved Chief Executive and Director of Education representatives from local authorities. Scottish Government liaised with local government in a range of forums. For example, representatives from local government were members of the Four Harms Group and were closely involved in discussions held there about the reasons for – and implementation of – local restrictions.

Conclusions and lessons learned

45. In my opinion, the procedures for preparing and communicating medical and scientific advice to inform core decisions made by the Scottish Government in connection with the management of the pandemic were fit for purpose. A greater degree of peer review/scrutiny of advice might be valuable in a future pandemic, subject to the feasibility of providing and considering this in the timescales required, but given the requirement for advice to be timely and coherent, and given the range of expertise involved in informing and developing that advice, I believe that the system that was put in place in Scotland during the Covid-19 pandemic was effective and appropriate.

46. From my particular vantage point I had no concerns regarding the performance of the First Minister, any Cabinet Secretary, Minister, senior civil servant, or any special advisor or individual in charge of a significant aspect of the Scottish response to the pandemic, as regards their understanding and appropriate use of medical and scientific advice provided to them. I had no direct dealings with UK Government.

B. Initial understanding and responses to Covid-19 in the period from January to March 2020

a) Initial understanding of the nature and extent of the threat

47. During the period from January to March 2020 I was not involved directly in any aspect of the Scottish Government's response to the emerging threat of Covid-19. My awareness and understanding of the threat came from the briefings provided by the CMO, NCD and Health Directors at the weekly Scottish Government Directors' Network meetings, and from general media coverage. I was therefore aware of the worrying rapidity, scale and severity of impact seen in China and Italy in particular during this period, and the likelihood and then inevitability that Covid-19 would reach the UK. These views were being expressed publicly and to decision-makers within Scotland by colleagues who had much deeper knowledge about the situation and the data than I did at that point. I did not see any added value in making my less informed views known. I am asked when I became aware/how my understanding evolved during this period as regards a number of specific aspects of Covid-19 transmission and impact. I am unable to provide precise dates for each of the cited items. The situation and understanding of it were rapidly evolving in nature, and my knowledge developed as scientific evidence accumulated and was reported within the Sottish Government and on the media. I am not in a position to specify the extent to which the infection fatality rate was understood by late January 2020, or to say whether the mortality rate was considered to be low.

48. The Scottish Government responded quickly by creating a new Covid Directorate, and by moving an increasing number of civil servants into the Health Directorates to support the response. Considerable efforts were made to ensure that all areas of the Scottish Government were aware of the threat and of the emerging evidence about transmission, severity, at risk groups, etc. Over the period January-February 2020 I was increasingly aware that Covid-19 could have major implications for Scotland, but

I did not know what those would be or their likely duration. I am unaware of the rationale for the timescale for establishing SGCAG and not in a position to assess whether there would have been benefit in establishing it sooner.

b) Pre-lockdown response

49. The responses put in place pre-lockdown were, to my recollection, appropriate responses to the increased threat. I was not involved in advising on decisions during this period. I am asked for my views on a number of specific decisions, and I am unable to remember how I felt about each one of these. I remember understanding and accepting the rationale given for those decisions listed in my Rule 9 request that were taken by the Scottish Government, and I do not recall having any concerns about the UK-level and WHO decisions referred to.

50. I believe the precautionary measures put in place by the Scottish Government, such as the issuing of respiratory and hand hygiene behaviours guidance, to have been an appropriate response in the period to early March 2020. Investment was made to communicate the messages in different formats and forums in order to reach all parts of Scottish society. As more evidence emerged about the role of large events in providing exposures and enabling spread, it became clear that greater emphasis needed to be placed on messages about distancing, reducing mixing, and the risk of large numbers gathering together. These measures were central to decisions such as the 15 March announcement that all indoor and outdoor events of 500 people or more should be cancelled. The particular significance of airborne transmission and the critical role played by ventilation became increasingly clear later in the pandemic.

51. I do not recall a particular strategy regarding the need to prepare for a second wave from the outset of the Covid-19 pandemic. I remember clearly the recognition that the pandemic would likely extend for a long period. The consequent acceptance of the need for long-term planning was appropriate.

52. I am asked for my understanding of the term 'herd immunity' and the extent to which seeking herd immunity formed part of the Scottish Government's early strategies. Herd immunity occurs when a significant majority of a population becomes immune to an infectious disease (through infection or vaccination), thereby reducing the risk of the disease spreading within that population. Herd immunity can thereby provide protection to those who are not immune. I believe that the term was mentioned in a

media briefing, but to my knowledge there was never a 'herd immunity' strategy as part of the Scottish Government's response.

C. Testing

53. A sub-group on testing was established by SGCAG at an early stage (this was before I was a member), led by the Chief Scientist (Health). It is my understanding that advice on testing was one of the first pieces of advice submitted to the CMO and Ministers, and the subject of an early 'deep dive'. The strategic role of testing – together with specific issues such as the Test Trace Isolate (TTI) strategy, contact tracing, testing capacity, case-finding, deployment of testing in relation to different groups and settings, and self-isolation – was discussed regularly by SGCAG.

54. My personal role in relation to testing only concerned the use of testing by staff and pupils/students with regard to attendance at school, early learning and childcare settings, universities and colleges. Advice about the role of testing in enabling schools to open, and remain open, was provided by the sub-group on education and children's issues at various points throughout the pandemic. I was not directly involved in the approach taken to develop the testing strategy or the Test and Protect/TTI scheme. I fully agree that testing was vital given the nature of SARS CoV-2 but am not in a position to provide an informed response in relation to the questions I am asked about whether the testing strategy and its operation were appropriate, proportionate, timely and effective.

D. Decisions in relation to non-pharmaceutical interventions ("NPIs")

55. Non-pharmaceutical interventions were deployed throughout the Covid-19 pandemic to reduce the spread of infection and to mitigate harms. The more restrictive NPIs, such as lockdowns and the closure of schools, were only deployed when community prevalence and transmission were at levels not controlled by the more routine/ongoing NPIs (such as social distancing, and the use of face-coverings). The move to the tiered system involving more regional/local restrictions occurred when there was no longer a rationale or need for a 'whole of Scotland' approach, given that some regions/local authority areas had much lower infection levels and R numbers than others. This situation was a consequence of different population structures and densities in different parts of the country, the effects of the vaccination policy, and the impacts of geographical differences in facilities and physical environments.

56. My recollection is that decisions about imposing and easing NPIs reflected analyses of the state of the epidemic, together with understanding and evidence about the effectiveness of the various NPIs. Issues of practicality were taken into account, as were insights from public polling (including about compliance).

57. A list of NPIs is included within my Rule 9 request. Of these, I am able to provide informed input in relation to: the closure and opening of schools, reduction in person-to-person contact, the use of face-coverings, and testing – particularly as these NPIs related to children and young people, and to early years and educational settings. Although I was not involved in providing advice in relation to public transport, the education and children's issues sub-group did address school transport.

58. The rationale for the closing and opening of schools is set out in paragraphs 82, 89, 92, 93 and 97 of this witness statement and in the sub-group advice notes of 16 July 2020 [CT1/004 - INQ000215480], 3 February 2021 [CT1/005- INQ000274021] , 12 February 2021 [CT1/006- INQ000343870], 3 March 2021 [CT1/007- INQ000274022], 4 August 2021 [CT1/008- INQ000321319] and the 31 December 2020 [CT1/018 - INQ000370354] submission to Ministers. Consideration and articulation of the potential wider health, social and educational impacts of a decision to close schools were a core part of the advice-generation process throughout the period of the sub-group's existence, and are evident in the content of the advice notes and in the minutes of sub-group meetings. Advice about school closures was only given after considerable weighing-up of the impacts of such a decision, and always in the context that moving away from in-person learning should be a last resort. Less restrictive NPIs – such as the wearing of face-coverings, physical distancing between adults, and the stopping of higher transmission-risk activities (such as assemblies and choirs) – were put in place to enable schools and early years settings to stay open for as long as possible during the pandemic.

59. Advice was also provided at various times about school transport. In July 2020 [CT1/004 - INQ000215480], the sub-group advised that "*Dedicated school transport should be regarded as an extension of the school estate and physical distancing measures are not necessary (subject to continued low levels of infection within Scotland).*" Other mitigations including ventilation, improved cleaning regimes and hand sanitising should be in place. This July advice was strengthened in August 2020 [CT1/009 - INQ000321335] with the recommendation that "*Guidance on face*

coverings for school transport should be brought in line with that for public transport, with all passengers being required to wear face coverings, unless exempt for health or other reasons." February 2021 advice in relation to the phased return to in-person learning emphasised that 2m distancing should be put in place as part of the process of phased return. In March 2021, advice reduced the need for 2m distancing on school transport [CT1/010 - INQ000398447], and the advice relating to the return to school in August 2021 [CT1/008- INQ000321319] stated that the need for distancing in school transport will cease when the decision is made to move to baseline mitigations.

60. Regular polling of public attitudes was put in place to provide data about tolerance for and compliance with the NPIs. Feedback was also received from education and early years providers within the advisory sub-group, from CERG, and from policy colleagues through their networks. Appreciation to the public for their compliance – and recognition of the challenges being faced by people in light of the duration of the pandemic and the associated NPIs – was regularly built in to the First Minister's (and others') public communications. We were all aware that this was taking a considerable toll on people, and on some groups of people more than on others. The NPIs were not imposed lightly but were seen on careful consideration and the basis of balanced judgement as necessary mitigation measures – and in some cases, measures which enabled important services/activities (such as education, and access to health care) to continue.

61. Different NPIs had different impacts and purposes, and their value varied over time as the nature of the pandemic changed and more evidence was generated about modes of transmission and the effectiveness of different mitigations. They also had to be seen as a 'package'. Some NPIs had a particular role to play in relation to asymptomatic cases and transmission – testing being a good example of this. Others, such as the use of face-coverings and social distancing, were particularly important to reduce the risks arising from Covid-19 being an airborne disease. The Shielding strategy was put in place to support those who were identified as being particularly clinically vulnerable to Covid-19. The other, whole-population, NPIs provided added protection to those most at risk. I am not aware of any NPIs being developed specifically to take account of long Covid, but uncertainties about the long-term effects of Covid-19, even for people not at high risk (including children and young people), were certainly a consideration in the advice produced regarding NPIs.

62. My knowledge about those most at risk did not change greatly over time. From early on in the pandemic it was clear that older age and clinical vulnerability were two key risk factors. Public health training makes one aware that, across a range of health harms, those with the least resources and power are those most likely to experience the worst outcomes. Therefore, the likely impact on health and other inequalities was something of which I was very aware. The exposure of key workers was also something I understood from an early stage. Awareness of the additional risk to people from black and Asian groups occurred later, becoming particularly clear with the publication of the Public Health England report *Beyond the data: Understanding the impact of COVID-19 on BAME groups*, in early June 2020 [CT1/011 - INQ000217693].

63. I am also asked to describe how my knowledge of the risk of long Covid developed. I recall being aware that potential long-term health effects needed to be taken into account alongside the immediate/shorter-term impacts of Covid on people's health and on health and care services. I cannot recall when the term 'long Covid' first became part of SGCAG's considerations, but I do remember a full discussion on long Covid at the SGCAG meeting on 7 January 2021 [CT1/012 - INQ000218035] and at the education and children's issues sub-group on 15 June 2021 [CT1/013 - INQ000398448]. Evidence about long Covid emerged throughout the pandemic (and is still emerging) and was considered on an ongoing basis by both SGCAG and the sub-group.

64. I cannot recall when I became aware of the risk of asymptomatic transmission or the risk from Covid-19 being an airborne disease. However both of these factors influenced the advice I was involved in providing from the outset.

65. The rationale for use of face coverings was primarily to protect other people from infection (which might be asymptomatic) from the wearer. It was also recognised that face coverings provide some protection for the wearers themselves. In my view, the SG strategy around face coverings was appropriate, proportionate and timely. In relation to face coverings, the advice that I was directly involved in supplying concerned their use in educational and early years settings. This advice was influenced by a recognition of the importance of facial expression and feedback in child development, and of clear and effective communication as part of learning and teaching. It also recognised that some children with additional support needs would not react well to wearing a face covering/not being able to see other people's faces;

and others who were clinically vulnerable to Covid would require additional protection. Consequently, in July 2020 the advice was that "*Face coverings are not required for most children (those clinically advised to wear a face covering would be an exception). Adults in schools do not need to wear face coverings as long as they can retain two metre distancing.*"

66. In August 2020, following the publication of WHO advice on the use of masks for children, the sub-group strengthened its advice: secondary school pupils and adults should be required to wear face coverings in communal areas in schools; senior secondary pupils attending college or university for courses, or workplaces for training or work experience, should wear face coverings in those settings; and all passengers on school transport should wear face coverings unless exempt for health or other reasons. The advice also stated "*If there is a local cluster of cases, a decision may be made locally to recommend face coverings for all secondary school pupils including in the classroom until any outbreak is resolved.*" At the end of October 2020, the sub-group concluded that its previous advice on face coverings in schools and early learning & childcare settings should be strengthened and augmented to manage the main area of risk within schools: adult to adult transmission [CT1/014 - INQ000346389]. Advice in early 2021, relating to the phased return of pupils to school, continued to emphasise the importance of protective measures, including the use of face coverings, reinforcing the previous advice. A discussion on face coverings at its meeting on 4 May 2021 [CT1/015 - INQ000375326], [CT1/015a - INQ000375327], [CT1/015b - INQ000375328] [CT1/015c - INQ000375329], [CT1/015d - INQ000375330], [CT1/015e - INQ000375331], [CT1/015f - INQ000375332], [CT1/015g - INQ000375333] [CT1/015h - INQ000375334], [CT1/015i - INQ000375335], [CT1/015j - INQ000375336], [CT1/015k - INQ000375344], [CT1/015l - INQ000375345], [CT1/015m - INQ000375346], [CT1/015n - INQ000375347] led the sub-group to conclude it was premature to change its advice in advance of an imminent SAGE review becoming available. The issue was discussed again on 18 May and 1 June when the group's conclusion was that face coverings should remain in place until the end of the school year. The advice provided by the sub-group in relation to the return to school in August 2021 [CT1/008- INQ000321319] was that adults and secondary-aged pupils should wear face coverings in communal areas and when moving around the school building, and that this mitigation should remain in place for a period after the end of September.

67. Concern about NHS capacity was a major factor in decision-making. From memory, this was particularly the case early in the pandemic and over the December 2020 to February 2021 period. It was a factor in the modelling used to inform decision-making throughout the pandemic. I was not directly involved in providing any advice in relation to the NHS and do not feel that I am in a position to comment in an appropriately informed way on the measures imposed in that context. A Public Health Threat Assessment sub-group of SGCAG was established, which provided an early consideration of winter 2020/21 preparedness. I understood and supported the emphasis placed on ensuring adequate NHS capacity, implications across the health system including primary care, and concern for the workforce.

68. I am asked to explain my understanding of the Scottish Government's rationale for and strategy around the NPIs imposed in relation to school closures, to say how appropriate, proportionate and timely these measures were in my view, and to summarise the advice I/SGCAG provided. These questions are addressed in paragraphs 82, 89, 92, 93 and 97 of this statement and referenced additional material. I have also summarised key considerations in the process of generating advice about school related NPIs in paragraph 58.

69. With respect to the extent to which the Scottish Government took account of the impact of the virus and measures to control its spread on vulnerable and at risk groups (older people; children and young people; disabled people; ethnic minorities; asylum seekers and refugees; people of different religions or beliefs; sex; and sexual orientation), it is my recollection that there was a clear focus on many if not all of these groups. As evidenced in this statement, there was considerable emphasis placed on children and young people, for example; and to illustrate the account that was taken of other groups, I remember the NCD investing time in meeting with and understanding the needs of people of different religions and beliefs; and that an Expert Reference Group on Covid-19 and Ethnicity was established, reporting to the Minister for Older People and Equalities. There was not the same approach taken for all vulnerable/at risk groups, but I do not think that would have been feasible, given the time pressures and changing nature of the pandemic.

70. When providing advice about NPIs, in those situations where I had direct involvement and am able to comment, account was taken of the needs of several of the at-risk groups listed in my Rule 9 request. The NPIs, however, required compliance by a significant proportion of the population in order to be effective. Moreover, in some

situations, a differentiated response would potentially have brought with it a stigma or increased risk for some groups. The situation therefore varied by group and by NPI and I think it is fair to say that the approach generally taken was to try to balance the whole population risks with the needs of and risks to particular groups, and to ensure that there was necessary support in the community (through third sector organisations, volunteers or public services) to ensure that any additional risk as a result of NPIs was reduced for those more vulnerable individuals and families.

71. With regard to children and young people, we were aware that their personal risk from the virus was generally lower than it was for adults, and considerably lower than for older people. We therefore recognised that children/young people themselves, individually and as a group, stood to gain less from NPIs while being vulnerable to these measures' social, educational and developmental disadvantages. Nevertheless, the advice provided from the education and children's issues sub-group did advocate for a range of NPIs to be deployed at different points. Key factors underpinning that advice were as follows: children do not exist in isolation, and could therefore transmit infection to parents/grandparents/other adults who themselves may be vulnerable; school staff would have a higher degree of exposure to the virus than other workers who could work from home and separate arrangements would need to be made for staff who had particular vulnerabilities or risk factors; within any school grouping there will be some children/young people who have a higher level of clinical vulnerability and need a greater level of protection; there was ongoing face-to-face educational provision for at risk children (to ensure that they could continue to be visible and receive the support they needed outside the home) and children of key workers; and the full – including longer-term – effects of Covid on children and young people were not fully understood.

72. I was not involved in advising on medical vulnerability. In the advice I was involved in preparing, the Deputy CMOs ensured that the circumstances of those who were medically vulnerable were considered appropriately.

73. As above, I was not involved in advising on the needs of those with pre-existing medical conditions. In the advice I was involved in preparing, the Deputy CMOs ensured that the circumstances of those who had pre-existing medical conditions were considered appropriately.

E. Decisions relating to the first lockdown

a) The imposition of the national lockdown in March 2020

74. I believe that the decision to impose a national lockdown in March 2020 was appropriate, proportionate, timely and effective. It reflected the fact that the measures in place prior to lockdown were not containing the virus, which was spreading rapidly. There was growing pressure on services, rising levels of public anxiety, and awareness of the experience of other countries where lockdowns had been imposed. I was not involved in providing any advice at the time of the lockdown in March 2020. Had I been, I do not believe I would have advised a more aggressive suppression strategy before mid-March. Reference is made in my Rule 9 request to the imposition of lockdowns earlier in Spain and France. It would be easy to say in hindsight that it would have been better for the UK to have locked down sooner, but in my view such an assertion would represent underestimation of the uncertainties of the time, the complexities that needed to be teased out and weighed up, and the logistics of introducing mitigations to counter the consequences of restrictions.

75. Taking account of the lack of an infrastructure for testing, the absence of a vaccine, the various uncertainties about how the virus was transmitted, its effects in the short and long terms, and the risk profile for adverse consequences; and given the rate of spread and the experience of China and Italy in particular, I believe that lockdown was the appropriate and commensurate response. I do not see how a national lockdown could have been avoided in March 2020. I consider that it was key to protecting both the population as a whole and the most vulnerable (including medically vulnerable) members of the population, and I recall that there was explicit attention paid to supporting the latter. I believe the approach taken was the most likely to meet the needs for whole population suppression of Covid on the one hand, and the particular needs of vulnerable groups and individuals on the other.

76. With regard to exiting lockdown, my understanding in March 2020 was that the decision to exit would be based on case numbers, capacity in the health and care system, and information about public attitudes and compliance. I do not remember any specific exit strategy at that point.

77. During the period to September 2020 I remember becoming aware that vaccine development was progressing well and I think I recall being told that people might be

being vaccinated before Christmas. I cannot recall what I knew about quantities likely to be available or about the likelihood and timing of an effective treatment for Covid-19 infection.

b) Continuation of the first lockdown

78. Although 'Zero Covid' would have seemed a desirable state to reach by summer 2020, I do not think I would have considered it realistic given the transmissibility of the virus, the occurrence of asymptomatic presentation and transmission, the absence of a vaccine, the potential for mutations, and the limitations of NPIs. I am asked for my views on the timeliness and appropriateness of a number of core decisions taken during April and May 2020. I was not involved in advising on any of these decisions but recall believing the decisions to be appropriate and timely.

79. I learned a number of lessons from the first lockdown. First, regarding the impact on vulnerable/at risk groups, my main lesson related to the criticality of community infrastructure/services, third sector organisations and volunteers in knowing their local community and being present to provide the support needed. The work carried out by local resilience partnerships, the investment made in the Shielding strategy including the delivery of essential supplies, and the assistance provided through the Food Fund (which involved support targeted at specific at risk groups, and funding for critical third sector and community response organisations) were all crucial in reducing the harm experienced by at risk groups. Scottish Government and its national partners regularly considered at risk/vulnerable groups and provided what support they could nationally, but the important role of local leadership was essential.

80. My learning about the nature of the SARS-CoV-2 virus continued to develop, but the lockdown clearly confirmed that a reduction in interpersonal contact was essential, and an effective way of reducing spread. Within the Scottish population, the high levels of anxiety and worry associated with coronavirus reduced in April compared with the end of March. Awareness of, and claimed adherence to, compliance measures was high and remained stable during April, though there were some indications that support for following government advice and staying at home was beginning to reduce by the end of the month. There was evidence, from surveys of public attitudes, of a high level of public awareness/understanding of the significance of the Covid-19 laws and regulations, and that the vast majority of respondents rated

the Scottish Government as doing a good or very good job [CT1/016 - INQ000131029].

F. Decisions relating to easing the first lockdown in the period from 29 May 2020 to 7 September 2020

a) General

81. Of the decisions relating to easing the first lockdown, I was involved in the provision of advice relating to the reopening of schools after the summer break. I was not involved in advising on the development of the route-map, but I am aware from minutes of meetings that this was considered by SGCAG. I do not recall having any concerns about the appropriateness of the route-map.

82. The announcement that schools would be allowed to reopen on 11 August 2020, with pupils expected to be in class full-time from 18 August reflected the advice given in July by the education and children's issues sub-group [CT1/017 - INQ000182873], which noted that "*Any decisions about re-opening the school estate should be contingent on a continued low incidence (new infections each day), low prevalence (proportion of the population infected) and low reproduction rate (indicating whether the pandemic is growing or shrinking).*" The July 2020 advice focussed on the need for physical distancing, concluding that "*Subject to continued suppression of the virus, and to surveillance and mitigations being in place, the balance of the evidence suggests that no distancing should be required between children in primary schools. The evidence is less clear for older pupils but at present we support the same approach being taken in secondary schools on the basis of the balance of known risks, the effectiveness of mitigations and the benefits to young people of being able to attend school.*" The advice reflected the consideration given by the sub-group to particular categories of children and staff, including those with underlying health conditions, and to BAME staff, pupils and families. The rationale for the advice is set out in the document. Key considerations included expected reductions in case numbers, the understanding that children played a limited role in transmission, the risks to children's development (academic learning, peer relationships, safety, wellbeing and mental health) from school closures and from social distancing, and the recognition that school closures are likely to increase educational, and other, inequalities.

83. Reflecting on lessons learned as a result of the experience of this period, the main learning for me was about the value of having an advisory sub-group, focussed on education and children, and bringing together a range of expertise in formulating its advice. That such a group could be convened rapidly and become effective quickly were important lessons. The experience of virtual meetings was still relatively new, and there was learning about how these enabled efficiency during the intensity and pressured timescales of the pandemic. Another lesson was the value of CERG, being co-chaired by the Cabinet Secretary for Education and Skills, which enabled the sub-group's advice to be presented to and interrogated by key stakeholders including Trade Unions representing staff working in early years and education settings, Directors of Education, Local Government, Education Agencies, and representation from the Youth Parliament. The combination of having both a scientific advisory group and a group of senior education leaders, with distinct roles but regular interaction, resulted in greater confidence in and support for the decisions being taken.

84. I have been asked for my views on the Eat Out to Help Out Scheme and about the extent of Covid-19 infection in Scotland at the time it was introduced. It was clear that this scheme would result in people mixing, and an associated increase in cases, at a time when it was important to keep community transmission low in order that schools could re-open after the summer break. My recollection is that the extent of Covid-19 in Scotland at that time was relatively low, but I have no memory of any suggestion that Scotland was Covid-free or virtually Covid-free, and it seems very unlikely that anyone would have been suggesting that the country was completely Covid-free.

G. Decisions relating to the period between 7 September 2020 and the end of 2020

85. I was absent from work, undergoing surgery and subsequent treatment, from the start of September 2020 to mid-November 2020 and am therefore unable to provide evidence relating to the specific decisions during this period about which I am asked to provide views. I became more fully informed about the emerging science relating to the Alpha variant on my return to work.

H. Decisions relating to the second lockdown (January 2021 to 2 April 2021)

86. My understanding of the greater transmissibility and potentially greater viral load associated with a new Covid-19 variant (B.1.1.7, the Alpha variant) developed in the

week running up to Christmas 2020. Given that evidence, and the fact that many local authority areas in Scotland were showing a rising incidence of infection, there was a recognised need to strengthen restrictions. Modelling indicated that, even with a second lockdown, cases could increase. In polling, over a quarter of respondents admitted doing something that breached the guidance that was in place. The effect of school closures on R_o was expected to increase from the previously established 0.2 to about 0.34.

87. I understood the relaxation of restrictions for Christmas Day 2020 to be a reflection of the social harm (including through loneliness) and the difficulties in coping that people were reporting as the pandemic progressed, and the high value placed by many in the population on Christmas as a time for family and celebration. Based on the science, the relaxation message was accompanied by advice not to gather unless it was important to do so, and to ensure ventilation was in place and other NPIs were followed where feasible. The move to level four restrictions on 26 December 2020 was based on evidence about the transmission and growth rates being seen at this time in Scotland and across the UK. I do not recall the timing of the public communications about these decisions.

88. The move to a second lockdown on 4 January 2021 was a result of the evidence that the Boxing Day 2020 restrictions were not sufficient to control spread. Stricter measures were needed to control this variant. The decision took account of the learning and experience from the first lockdown, including evidence of its effectiveness in reducing spread and bringing infection rates, deaths and hospitalisations down.

89. With regard to school closures, the Advisory Sub-group for Education and Children's Issues met at short notice for an extra meeting on 31 December 2020 and provided advice to the Deputy First Minister/Cabinet Secretary for Education and Skills that evening [CT1/018 - INQ000370354]. The sub-group advised the Cabinet Secretary that "*schools should remain closed beyond 18 January, with remote learning being put in place for an extended period. This would be done as a precautionary measure in light of the new variant. The position will need to be reviewed on a regular basis (such as fortnightly) to ensure schools do not remain closed for longer than necessary. It is important to emphasise that in the autumn term, the return of children to schools does not appear to have been a driving force in the upsurge of cases across Europe. A decision not to open Scottish schools in January would be*

based on the characteristics of the new variant, the need for further evidence, and the importance of acting early and in a precautionary way." A series of wider principles were also set out.

90. I am asked for my views on The Great Barrington Declaration, which expressed concerns about the impacts of lockdowns and advocated for focused protection of those at highest risk. This was published during the period when I was absent from work. I was not involved in any discussion about it. Its emphasis on the lower risk facing children and young people, and on the wider harms resulting from restrictions, are echoed in the considerations that took place within the education and children's issues sub-group and its resultant advice, and in SGCAG. However, the Barrington approach of population segmentation is not an approach that we advised. Given that community/population prevalence was the major determinant of the number of cases in schools and given that children and young people do not exist in isolation, a whole population approach was the one that we recommended.

91. With regard to the timeliness and appropriateness of core decisions and announcements made between 19 January and 6 April 2021, those that relate to education and children's issues were based upon the advice provided by the sub-group, reflecting the state of the epidemic and wider evidence relating to the impacts on children and their education and development.

92. The phased reopening of schools and of early learning and childcare settings from 22 February 2021 reflects the advice from the Advisory Sub-group on Education and Children's issues, of 3 February [CT1/005- INQ000274021]. This stated: "*Based on the current balance of evidence, ELC and early primary could open in full from 22 February, subject to the continued decrease in the levels of community transmission and in the prevalence of the virus. This reflects the key developmental stage of this age-group, for socialisation as well as learning and development; the evidence that young children are less likely to transmit the virus and to have serious health effects from it; recognition that these children are less likely to successfully engage with remote learning than are older children; and that vulnerable children at this stage are less able to access other resources for their protection and wellbeing than are many older children.*" The advice also stated "*The most recent modelling also suggests that there would be a low risk of breaching NHS capacity if a very small cohort of senior phase pupils also returned from 22 February on a limited basis for the purposes of practical assessment for the alternative certification model of national*

qualifications. This limited return of senior pupils recognises the criticality of in-person learning and assessment for these young people."

93. On 3 March 2021, the advice given was for a phased return of secondary school pupils from 15 March, subject to a final decision checkpoint as close to that date as feasible. The advice note [CT1/010 - INQ000076078] from the education and children's issues sub-group emphasised the impact of school closures on children and young people and stated that "*a national approach to phased return is the way to ensure greater consistency of offer and support for the largest number of children and young people.*" On 23 March [CT1/019 - INQ000398457], the sub-group considered the evidence regarding the role of physical distancing and recommended that "*the planning assumption should remain for a full return after the Easter break with a return to the policy of physical distancing that was in place in the 2020 autumn term. Two metre distancing should remain in place between adults, and between adults and children who are not from the same household, but should not be required at all times between pupils.*" On 6 April [CT1/020 - INQ000398465] the sub-group "*was content that the latest data on the state of the epidemic supported the planned return to full-time in-person school-based learning*" and considered whether, as part of the preparations for a full return to school, there should be any change to its advice on mitigations, beyond the relaxation of two metre distancing between young people in secondary schools, recognising in particular the impact of the restrictions on the most disadvantaged and vulnerable children and young people.

94. The second lockdown was implemented in response to the need to reduce the spread of the new variant. Data were indicating that the Boxing Day restrictions were not sufficient to keep R at or below 1. The lockdown did result in a reduction in transmission and prevalence and therefore achieved its purpose.

95. The decision to provide advice in early January 2021 to close schools again was very difficult, particularly given the educational and social impacts of remote learning, the proximity for senior pupils to their assessments and examinations/certification, and the importance of protecting vulnerable children and young people. The closing of schools also had wider impacts on parents, workforces and thereby the economy. However, it was recognised that the spread of the new variant and its enhanced transmissibility meant significant challenges were facing the healthcare system and there was very little scope to have schools open without losing control of the virus. My learning was that it was better to act early and decisively. This retained

confidence in schools being viewed as safe environments and enabled the phased reopening after a few weeks.

I. Decisions relating to the period between April 2021 and September 2021

96. During the period between April and September 2021, the decisions taken by Scottish Ministers became more fine-grained, easing restrictions when the risk of an activity was known to be low (e.g., meeting up outside) and where community prevalence and spread were contained (resulting in differences in restrictions between local authority areas). At the time it was clear that these relaxations were important for the economy, and for wider societal wellbeing. In taking these decisions, Ministers also sought to ensure that restrictions were not in place longer than they were required to be. I remember appreciating and being supportive of this approach at the time, although it was also clear that the restrictions were becoming more nuanced and less easy for the population to understand (both in rationale and practicality). The decisions taken during this period reflected the Four Harms approach in place within Scottish Government, seeking to address in a prioritised way social, wider health, and economic harms (for example through the mid-April decisions to allow outdoors meeting-up across different households, and the reopening of outdoor hospitality, gyms and non-essential retail) while continuing to reduce the likelihood of direct Covid-related harms (for example through limiting travel, enabling outdoor rather than indoor activities, and applying the 'levels' approach, underpinned by area-based rates of Covid). It was my experience that the Four Harms approach enabled a range of risks and benefits to be made explicit and to be built into the advice given to Ministers.

97. I was closely involved in advising on restrictions to be in place in schools from the start of the academic year commencing August 2021. The relevant advice from the education and children's issues sub-group was published on 4 August 2021 [CT1/008- INQ000321319]. While recognising that "*mitigations should remain in place for no longer than is necessary given the state of the epidemic and evidence about risk*", the sub-group "*strongly*" advised "*a precautionary, staged approach to the removal of mitigations*". Regarding mitigations, the sub-group recommended that "*to allow time for all remaining staff to have the opportunity to be fully vaccinated, and to monitor the impacts of the updated policy on self-isolation in children and young people, other mitigations that are currently in place in schools should remain in place for the period to the end of September (subject to review).*" Evidence relating to the

impact of easing wider restrictions and the return to schools in August 2021 was discussed at sub-group meetings on 24 August, 7 September and 21 September 2021, when "*sub-group members agreed that it was important to wait for further data before easing mitigations, but on the basis of current trends it was likely that at their next meeting on 5 October they would advise a move to baseline mitigations following the October holiday*" [CT1/021 - INQ000398476].

98. The effectiveness of the vaccination programme had a major influence on decision-making during this period. It also resulted in a focus on children and young people (who were unvaccinated) as the population group now more vulnerable to infection and responsible for transmission. Advice about the new academic year [CT1/008 - INQ000321319] recognised that there should be a presumption against placing greater restrictions on children and young people than on the rest of society as the vaccination programme progressed. The sub-group's advice paid particular attention to options for self-isolation and testing, recognising the disruption caused to children's education, learning and development – and to family life and employment – from repeated instances of self-isolation as contacts of cases. Other mitigations in place in schools "*should remain in place at the start of term and for a period of up to six weeks*". Given the greater proportion of cases occurring in children and young people at this point, and recognition that school return would result in a greater degree of mixing between households, this advice, with its emphasis on regular review points, was in my view appropriate and proportionate.

99. Within SGCAG and the sub-groups, and in the Scottish Government more widely, it began to be possible to pay greater attention to recovery from the pandemic, and to what a recovery strategy needed to address. The lessons I learned relate to the challenge of developing recovery plans at the same time as responding to the ongoing pandemic; and about the need to judge what comprised commensurate mitigation measures for schools, colleges and universities at a time when community prevalence of Covid-19 was much reduced but children and young people remained largely unvaccinated and the effects of long covid still unclear.

100. I retired at the end of September 2021, following a handover period (from late August) with Linda Bauld who became Interim Chief Social Policy Adviser at that point, and took over responsibilities as Chair of the Advisory Sub-groups on Education and Children's Issues, and Universities and Colleges, as well as

membership of SGCAG. I was not involved in advice relating to the COVID passport scheme or the rules relating to travel.

J Care homes and social care

101. I was not involved in providing any advice in relation to care homes and social care and am therefore not in a position to provide an informed response to the questions asked in this section.

K Borders

102. I was not involved in providing any advice in relation to the management of Scotland's borders and am therefore not in a position to provide an informed response to the questions asked in this section.

L. Covid-19 public health communications

103. It is my view that the public health communications from the Scottish Government were clear, reliable and timely. The daily media briefings/announcements from St Andrews House, clarity of communication and leadership from the First Minister, involvement of senior leaders from key partner organisations (such as Police Scotland) and deployment of a small number of clinical advisors fostered a high level of public awareness, understanding and confidence in the decisions being taken. The personal investment and time commitment made by colleagues – especially the NCD, CMO and First Minister – in communicating widely and through different media and forums was remarkable.

104. I was involved in overseeing public polling to track population awareness of, and self-reported compliance with, public messaging. I circulated summary reports of the polling findings produced by the Covid-19 Analytical Hub to Ministers and civil service colleagues on a weekly basis from March 2020 to July 2020. These included information on public behaviours from multiple sources. Thereafter, data from the weekly YouGov Scotland surveys was summarised for Ministers and others by colleagues in the Scottish Government Communications Directorate, through their Public Insight Bulletins. Longer reports on public attitudes to coronavirus produced by the Covid-19 Analytical Hub were published on the Scottish Government website between April 2020 and November 2021. I was not involved in any

conversations/provision of advice directly about communication strategy, but I believe that the polling results were regularly taken into account by those in the Communications Directorate and others involved in the media briefings and announcements.

105. I have no recollection of guidance or rules imposed on advisors to regulate their behaviour or communications. The Terms of Reference for SGCAG and the education and children's issues sub-group [CT1/022 - INQ000370355] stated that "*Information arising from SAGE and the COVID-19 Advisory Group is official sensitive and should not be shared outside these structures*" – and (for the sub-group) "*Any inputs shared with the sub-group for discussion will be considered confidential and not for further sharing*." When individuals agreed to join these groups, they agreed to the condition in their invitation letter.

106. I personally did not take part in any mass media/direct public communication during the pandemic. I believe that those who did on behalf of the Scottish Government played a major part in building and maintaining public awareness and confidence.

107. I am asked for my view about the role played by a series of specific events/infringements in undermining public confidence. It is my view that those infringements which happened in Scotland (by the then CMO in April 2020 and by the First Minister in December 2020) were addressed promptly with appropriate apologies and subsequent actions. This was not the case for all infringements. 'Partygate' in particular has resulted in high levels of public anger and dismay, and a belief that 'there was one rule for us, and a different rule for them'. In future, the public will need to have clear evidence and reassurance that this is not the case. Decision-makers will need to comply fully with the guidance and regulations in place for the public.

108. Public polling data do not suggest any specific decline in confidence linked either to the circumstances surrounding Catherine Calderwood's resignation in April 2020 or the First Minister's breach in December 2020. Weekly polling summary reports show that 82% thought the Scottish Government was doing a good or very good job to contain the virus in the period 13-17 April 2020 [CT1/023 - INQ000370356]. The previous week (6-10 April) the question had not differentiated between Scottish Government and UK Government, and 65% of respondents indicated that they thought that Government was doing a good or very good job [CT1/024 -

INQ000370357]. The *Public Attitudes to Coronavirus: January update* [CT1/025 - INQ000302512] shows that over the period mid-November to mid-December 2020 there was a decline in the proportion of the population rating Scottish Government as doing a good or very good job to help Scotland deal with the pandemic. However, the trend is gradual and it is hard to see any specific impact resulting from the First Minister's breach.

109. If there is a future pandemic in Scotland, I would recommend a repeat of the communication approaches taken for Covid-19, and of the tracking/public polling that enabled assessment of the reach and effectiveness of the communication.

M. Public health and coronavirus legislation and regulations

110. I had no role in advising on legislation or criminal sanctions, and am not in a position to comment in an informed way as to whether the Scottish Government's strategy was appropriate, proportionate, timely and effective in this regard. SGCAG discussed adherence to Covid-19 regulations at various points, and summarised behavioural science literature for decision-makers. Key messages related to supporting people to enable adherence, recognising that constraints will be different for different groups; the importance of people feeling that the rules are there *for* them, rather than to punish them; that being punitive is likely to create disincentives; and co-production can be helpful – engaging with people can improve uptake.

N. Key challenges and lessons learned.

111. I provided no oral or written evidence to UK Parliament Select Committees investigating the government response to the pandemic.

112. I provided no oral or written evidence to the Scottish Parliament Committees investigating the ways in which decisions were taken by the Scottish Government in connection with the management of the pandemic.

113. I participated in no reviews or lessons learned exercises, beyond the stocktake reviews that we undertook in the education and children's issues sub-group (for example on 4 August 2020 and 24 August 2021) to consider how the group was working, its role and added value, and any changes required. I recall similar discussions taking place in SGCAG.

114. This statement covers my understanding of the key issues and junctures in the decision-making process in managing the pandemic in Scotland, as I was involved in those.

115. I am asked to state what I consider the key challenges were in relation to core decision-making undertaken in the management of the Covid-19 pandemic in Scotland. The key challenges were: the scale and severity of the threat from a 'new' virus; the unprecedented nature of this pandemic in the lives of those involved in Government in Scotland; the rapidity with which situations developed; the pressures faced by the NHS, social care and other key workers; the levels of public anxiety; and the fact that the science was evolving at the same time as the pandemic was progressing. There was no existing evidence-base on SARS-CoV-2. Timescales for decision-making were very short, considerations in the face of inevitably limited evidence were multifaceted and complex, and the stakes were very high. I believe that the advisory structures worked well and provided clear advice that was valued and accepted by decision-makers. Communication channels between advisors and Ministers were open, and people were clear about their responsibilities and roles. Scientific and other advisors from outside Scottish Government gave of their time and expertise willingly – and over a much longer period than was originally anticipated.

116. With regard to the aspects of decision-making with which I was involved, I have wondered whether more priority could have been placed on supporting vulnerable children and on prioritising the social and educational harms resulting from the regulations and guidance put in place. Having reviewed the minutes and papers from the education and children's issues sub-group I am reassured that we did consistently highlight these issues alongside the need to minimise disruption to schooling and early years support. It felt necessary at the time to focus the specifics of the advice on measures to control the virus, but perhaps we could have provided a wider spectrum of advice. I am unable to say whether that would have made our advice more or less impactful, whether the necessary evidence existed at the time, or whether timescales would have enabled wider advice of sufficient quality to be developed. Both at the time and in retrospect my overwhelming belief is that the processes in place worked efficiently and effectively, and that the advice produced was generated through processes which accurately reflected the science available at the time and additionally took into account experiential evidence and wider impacts.

117. In my experience during the pandemic, the value of involving a range of advisors and different types of expertise in the formulation of advice was clear. The important roles of secretariats in supporting and administering the work of advisory structures, and the need to resource those administrative functions well, are also key lessons. I was very well served by the secretariats of both the sub-groups and SGCAG, and by the wider support provided from Learning Directorate, and from other key colleagues throughout the process. The leadership and commitment shown by Ministers and by so many civil servants created a culture where expectations were high and people gave their all to play their parts in managing the pandemic. As far as I was aware, relationships with partner organisations were good overall, although at least in the early stages there was a sense from outside Scottish Government that communication and openness were less than ideal. Given the essential role played by community-based organisations, particularly in relation to providing support for those with particular needs or vulnerability, more emphasis could perhaps have been placed on ensuring that the experiences and challenges within communities – and of different population groups – were heard and understood within the Scottish Government, and given more weight in decision-making processes.

118. I retired before the focus within Scottish Government turned to lessons learned, and before the work of the Scottish Government's Standing Committee on Pandemic Preparedness properly commenced. I do not know who has been involved in lessons learned exercises and whether these have involved all the perspectives that would enable a full set of insights to be distilled. I have not been asked for any feedback but would willingly have provided positive feedback about my experience.

119. My experience of having served on SGCAG and of Chairing two advisory sub-groups was positive overall. I believe that the groups undertook difficult roles in very challenging circumstances yet provided timely, sound, evidence-informed advice. Advisors and partners such as Public Health Scotland provided whatever inputs were requested of them. I believe that the resultant advice was respected and valued – indeed seen as essential – by the CMO and Ministerial decision-makers, and that those decision-makers were committed to understanding and following the science. I also believe that the advice was valued and respected by key partner organisations and constituencies (such as the Covid Education Recovery Group). The advisory groups were adequately resourced and supplemented by additional external expertise when required. If I were asked to serve on such structures again, I would

consider doing so (subject to personal circumstances). I would recommend a similar approach to the provision of advice for any future pandemic.

120. As will be clear from this personal statement, I believe that the core decisions taken by the Scottish Government in the management of the pandemic in those areas where I was directly involved (and therefore able to comment in an informed way) were sound decisions and reflected the advice provided from the advisory structures.

121. There are no internal or external reviews, lessons learned exercises or other reports involving, authored, overseen or responded to by me relating to any of the issues raised in the Provisional Outline of Scope for Module 2A since January 2020.

122. There are no initiatives or activities involving, overseen or responded to by me concerning the making of changes to the role and performance of the medical officers to the Scottish Government and/or expert advisory groups in light of their involvement in the response to the Covid-19 pandemic.

Statement of Truth

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

Signed: PD

Dated: 15 December 2023