Witness Name: Stephen Reicher

Statement No.: 2

Exhibits: SXR2

Dated: 13 December 2023

UK COVID-19 INQUIRY

WITNESS STATEMENT OF PROFESSOR STEPHEN REICHER

In relation to the issues raised by the Rule 9 request reference M2A/SR/01 dated 28 July 2023 in connection with Module 2A, I, Stephen Reicher, will say as follows: -

1. I am Stephen David Reicher. I am a Wardlaw Professor of Psychology in the School of Psychology and Neuroscience, University of St. Andrews. I have been employed by the University of St. Andrews since 1997.

2. This statement was prepared by me with technical assistance by the Scottish Government Covid-19 Advisory Group (SGCAG) secretariat on matters of formatting and factual accuracy. However, all comment and opinion are entirely my own.

3. Unless stated otherwise, the facts stated in this witness statement are within my own knowledge and are true. Where they are not within my own knowledge, they are derived from sources to which I refer and are true to the best of my knowledge and belief.

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

My roles and responsibilities

4. At the UK level I was a participant in SPI-B. At the Scottish level I was a participant in the SGCAG as well as a number of other groups relating to SGCAG (on compliance, on nosocomial infections, on Further Education/Higher Education recovery, on public engagement). In all cases my role was to provide advice based on my expertise as a social psychologist and, more specifically, my previous work on group processes, collective behaviour and (most directly) collective behaviour in crises.

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

5. Prior to my involvement in SGCAG (which began with a meeting on 26th March 2020), I have had minimal involvement with the Scottish Government. I had attended a couple of meetings on resilience and spoken at St. Andrews House on the psychology of resilience. I have had a number of conversations and given a number of talks on other issues, such as environmental behaviour, to people within the Scottish government. However, I had no formal association and no knowledge of what structures existed at the start of 2020 for incorporating knowledge from psychology and other sciences of behaviour in a pandemic response.

6. I became involved in the pandemic response through the Royal Society of Edinburgh. I am a Fellow of the RSE, was Vice-President for Arts, Humanities and Social Sciences from 2021 and recently, with a change of the governance structure, have become convenor for Arts, Humanities and Social Sciences. However, it was through my contacts with Rebekah Widdowfield, who previously worked in the Scottish Government and, in 2020, was Chief Executive of the RSE that my involvement came about. I emailed Rebekah on the 1st March 2020 to ask her if she knew who I should contact in the Scottish Government to offer my help – I felt strongly that proper understanding of how people behave in crises was essential to an effective pandemic response. Rebekah suggested I get in touch with Nicola Edge and Anita Morrison who job share as head of Health and Social Care Analysis in Scottish Government. I did so and they forwarded my message to the then Scottish Chief Medical Officer, Professor Catherine Calderwood. I was then invited to join the CMO's Covid 19 Advisory Group (subsequently SGCAG) on the 25th March 2020.

7. As an academic who has spent all my working life in academia, and as a scientific advisor on SGCAG, I have little knowledge about the process of decision making within the Scottish Government or of the principles that guide it. Equally, while our role was to advise ministers and their advisors, I cannot entirely say what weight our advice had in their decision making nor the respective role of ministers and advisors in that respect. I would say, however, that I did get the sense that we were listened to and had some impact. To use one small example from my own domain, I did have a concern about the paradoxical effects of telling people off for rule violation. Not only can it alienate the public, it can also create the impression that there is a norm of rule breaking amongst the public and hence have the opposite of the intended effect. I

made this point on several occasions including in one of the 'deep dives' with the First Minister. I stressed the need to highlight and praise people for rule following. Subsequently, the First Minister made a point of acknowledging the difficulties of adherence and recognizing the efforts people were making to observe the Covid rules. Perhaps she would have done so anyway. But I was told (by Professor Jason Leitch) that the SGCAG advice had factored into the crafting of her statements.

8. In my first witness statement [SXR2/001 – INQ000273800] to the Inquiry, in response to an earlier rule 9 request for Module 2, my comment that the advisory process was very much top down whereby we simply responded to questions posed to us was specifically oriented to the operation of SPI-B and relations with the UK Government. The operation of SGCAG was rather different. Of course, we spent a lot – probably most – of our time in responding to questions set to us. But at the same time we were able to put issues on the agenda, we were able to explain general principles as well as specific proposals relating to the response, and, in the 'deep dives' with the First Minister, Deputy First Minister and other ministers, we were able to have a genuine dialogue with the decision makers. Perhaps this reflects the smaller size of Scotland compared to the UK. But it was an issue I was aware of before the pandemic. I note that, in the email of 1st March 2020 asking Rebekah Widowfield for contacts in the Scottish Government (see para 6 above) I wrote: "*I have been part of various groups advising the CO on various aspects of behavioural responses in emergencies (one of my areas of research). However, I'm sure it won't surprise you to know that this is a somewhat frustrating exercise with many layers between ourselves and the decision-makers and a sense that, even if something does get through, it has been rather transformed by a process of Chinese whispers along the way. My experience in Scotland has always been much more positive*" [SXR2/002 - INQ000370210]. That perspective was strengthened by my experience of the pandemic.

9. The policy of the Scottish Government was increasingly governed by the 'four harms' approach – especially after the publication of the 'Assessing the four harms of the Crisis' [SXR2/003 - INQ000346962] document at the end of 2020. These were: (1) direct impact on health, (2) indirect impact on health and social care services as well as wider public health, (3) wider physical and mental health impacts including safety, learning, development, social cohesion, loneliness, (4) direct impact on the economy (which can also lead indirectly to health and social harms). Our remit was principally to deal with harm 1 and with discussing measures that would lower the rate of transmission and hence cases, hospitalisations and deaths. That is, we examined the

data on transmission, the factors that impacted transmission and the impact of different measures on transmission. My specific contribution as a psychologist was to advise, once the behavioural factors that impacted transmission were identified, how we might influence public behaviour. I am confident that the advice we gave was by and large factored into policy decisions. However, equally I am aware that there were other considerations relating to other harms and so I would not expect ministers simply to follow our advice on all occasions (although I would expect there to be good reasons not to do so when that happened). Indeed, in one of our deep dives I recall the First Minister being quite explicit about this. She would always listen and take careful note, she said. But we could not expect the Government always to accept our advice. All in all, I think it was fair to say that the Government was 'informed by the science' rather than 'following the science'. And, as I explain in my Module 2 witness statement (at paragraphs 138-142) I think this is the right stance to take. To quote (in part) from what I say there: "*whatever we say about outcomes and about how to impact them, we are not in a position, as scientists, to put a value on them or, where there are multiple outcomes from an action, to value them against each-other. Which is more or less important and hence what should one do? During the pandemic how do we value reducing infections against economic performance or civil liberties. Of course, we might, as scientists, argue that these are false dichotomies, that reducing infections will be good for economic performance and civil liberties. Indeed scientists have done precisely that [SXR/043 - INQ000273396]. But there will be times where there are genuine dilemmas, where different goods (and harms) are pitted against each-other and where a decision needs to be made. This will not be a scientific decision but a political decision: a matter of deciding what 'we', as a society, value most. There were many such times during the pandemic. How does one weigh the different harms of COVID against each-other? In such instances it is important that clear political decisions are made and that they are owned as such by the politicians involved. In such circumstances it would be wrong for them to claim they were 'following the science' and try to pass the accountability to others*".

10. The strategy of the Scottish Government, as I understood it, was a strategy of Covid infection suppression. That is, they rejected the notion of acquiring immunity through allowing infections to spread, at least amongst less vulnerable members of the community, but rather sought to bring infections down to a level where they could be dealt with by targeted measures (such as test, track, trace and isolate) rather than generic measures aimed at the whole population (such as limiting interactions with others). That was certainly combined with the notion that we should value

everybody's life (and the deaths of the elderly or of those with co-morbidities were not somehow less important). In that sense policy was driven by "*the idea that no death from novel coronavirus is acceptable*". At the same time the use of this phrase to characterise Scottish Government policy is potentially misleading in at least two ways. First, it does not mean that the Government harboured an unrealistic belief that all deaths could be avoided. Second, it does not mean that the Government unduly skewed its response to make harm 1 prevail over all others. It might have looked that way inside our advisory group since we were focussed on harm 1. But overall, there was a recognition that the other harms mattered as well and that they also impacted on deaths. Indeed, I have already indicated that harm 4, to the economy, was also recognised to have life and death consequences. Having said that, I would also add that there was evidence that suppressing infection effectively allowed one to remove restrictions on activity more quickly and hence was good for the economy and civil liberties as well as health [SXR2/004 - INQ000370261].

11. Our understanding of the measures necessary to suppress Covid changed as our understanding of the nature of the transmission process itself changed. Specifically, we started with a sense that Covid was like flu and largely spread by droplets and this gradually changed to an understanding that it was not like flu and spread by aerosols. One implication of this changing understanding is that the measures necessary to make us safer (the notion of things being 'Covid-safe' is misleading, potentially dangerously so, in that no measure will make us absolutely safe and so we still need to exercise caution) shift from being about individual behaviour (washing hands, cleaning surfaces, keeping distanced) to being about creating safer environments which are well-ventilated and have cleaner air. I don't think we ever fully appreciated that shift or acted on it.

The role of behavioural science – SGCAG, SAGE and SPI-B.

12. I participated in SGCAG and SPI-B. I never participated in the main SAGE group. At one level, I do not recall any conflict between the advice from SPI-B and the advice I gave on SGCAG. At the same time, we didn't simply rely on the SPI-B advice. First of all, the fact that, for a long time, I was the only behavioural scientist on SGCAG inevitably affected the focus of the advice I gave. While I have some knowledge of broader behavioural science approaches and while I was able to relay insights from other social scientists I sat with on SPI-B (especially the insights of public health experts and those with expertise in behavioural change in healthcare contexts) I was

able to say more about issues in my own area of expertise (group processes, social influence, leadership etc.). Second, the fact that SGCAG was more proactive than SPI-B made it possible to raise different issues (and write our own papers). Third, the Scottish context offered different challenges and opportunities. To take one example, in both SPI-B and SGCAG, we stressed the importance of building an inclusive sense of community so that people would act and care for each-other in the crisis. However, the form this took was different in Scotland from England. In the Scottish context it is possible to draw on the idea 'We are Scotland' because Scottishness is more likely to be understood in 'civic' terms (as including all those living in Scotland and committed to Scotland whatever their background) while 'We are England' is more problematic and more likely to be understood in ethnic terms (hence excluding those from ethnic minorities). Consequently, the advice as to how to build cohesion and solidarity was different – and indeed in the Scotland I had the pleasure of working with the 'creatives' in crafting public health adverts rooted in norms/values of Scottishness.

13. My strong impression was that the UK and Scottish Governments differed fundamentally in their broader understanding of public psychology. I wrote at length in my first witness statement (e.g. paragraphs 9-13) [SXR2/001 – INQ000273800] about the position of the UK Government who, in part influenced by the prominence of its Behavioural Insights Team, subscribed to the notion of people as 'fragile rationalists'. That is, people have difficulty in dealing with complex and uncertain knowledge at the best of times. In a crisis this is exacerbated such that they become infantilized, a key part of the problem, and have to be managed by the authorities. Scotland, however, adopted a different approach which had a greater respect for the public psychology, which was more optimistic about their ability to cope with information about the crisis and to abide by measures necessary to stem the transmission of the virus and which saw the public as a potential partner in dealing with the pandemic – part of the solution not the problem. This is encapsulated in the First Minister's stated desire in her statement of 23rd April 2020 to have a 'grown-up' conversation with the public [SXR2/005 – INQ000292547].

14. The most egregious example of this 'fragile rationalist' approach came in the notion of 'behavioural fatigue' first articulated by the English CMO, Chris Witty on 9th March 2020. This was the idea that the public would not be able to cope for long with the measures necessary to contain Covid transmission. As a consequence, it would be a mistake to impose such measures too soon for fear they would become ineffective

just as they were required. This was part of the justification for delaying action until March 23rd, a decision which allowed infections to spread widely and which greatly increased the human cost of the first wave (according to some estimates, increasing deaths by several tens of thousands [SXR2/006 - INQ000370211]). I cover this in considerable detail in my first witness statement (paragraphs 59-61, 159) [SXR2/001 – INQ000273800]. Even if intellectually consonant with a 'fragile rationalist approach' the specific origins of the behavioural fatigue idea are obscure. It certainly did not come from SPI-B, and while we made no formal statement about it, the informal discussion in the group at meetings just after it emerged publicly was one of dismay. Given the lack of behavioural scientists on SGCAG, I do not recall it being discussed at all. More generally, I do not recall the idea being used by the Scottish Government. Nonetheless, given the commitment to a unified four nations response to Covid and the financial difficulties for Scotland in imposing a 'stay at home' order before the rest of the UK, it can be argued that the behavioural fatigue notion had a profound effect on Scotland's pandemic response, led to a critical delay in taking action to reduce transmission and therefore cost many lives.

15. The notion of 'fatigue' was repeatedly invoked during the pandemic, and the impact of a fragile rationalist approach at the UK level was seen in multiple aspects of the UK Government Covid response. This is a central and recurring topic in my first witness statement. I show how it led to a culture of blame (paragraphs 105-108, 110-112), to an emphasis on punishment (paragraphs 178-179) and to a failure in acknowledging the barriers to compliance or to provide support in overcoming them (paragraphs 113, 114, 118, 176-177) [SXR2/001 – INQ000273800]. The problem with this cocktail of blame, punishment and lack of support was that it both alienated people (hence lowering their motivation to support Covid measures) and deprived many of the resources they needed to comply (even if they were still motivated to do so).

16. In my first witness statement I also make an explicit comparison between the UK and Scottish Governments in their use of a 'fragile rationalist' approach with its emphasis on blame and punishment and its lack of emphasis on support. Specifically, I contrast the Prime Minister's [SXR2/007 - INQ000370260] and the First Minister's [SXR2/008 – INQ000370207] responses to the rising rates of infection as schools, colleges and universities returned in September 2020 (paragraphs 107-109) [SXR2/001 – INQ000273800]. Whereas Boris Johnson blamed rising infections on people 'brazenly defying the rules' and responded by announcing 'tighter penalties' (fines of

up to £10,000), a greater police presence and 'the option to draw on military support', Nicola Sturgeon stressed her appreciation of young people obeying rules given how tough it was to do so, and she questioned the usefulness of imposing greater punishments. It is worth reproducing my comments on Sturgeon's approach in full (from paragraph 109 [SXR2/001 – INQ000273800]: "*In her speech, outlining the new measures to the Scottish Parliament on 22nd September [SXR/112 - INQ000273373], the First Minister explicitly repudiated the discourse of blame. She acknowledged how hard it is for people to comply with demands such as self-isolation and invoked systemic reasons for this: "It asks a lot of people, and, for some, the financial implications make it even more difficult". She also rejected the growing narrative that 'selfish' young people were the root of the problem: "let me say to teenagers in particular – I know how miserable this is for you and you have been so patient. We are trying to give you as much flexibility as we can. In return, please work with us and do your best to stick to the rules, for everyone's sake". And when she was explicitly asked whether there would be punishments for those who broke the rules, she replied: ""Our judgment at this stage – particularly given the spirit of solidarity that is so essential in our fight against this virus – is that supporting people to do the right thing is more effective than threatening harsh punishment if they can't." In this case a narrative of public goodwill and structural constraint led to the promise of support as the first-resort means of securing compliance*".

Informal decision making and communication

17. All the advisory meetings I was involved with were formal and minuted. I do not recall any meetings in which we fed into key decisions that took any other form and if there were, I was not invited to them! As for the use of online platforms, Slack was used to post papers and documents for discussion, but it was not used for the discussion itself. That happened in meetings. As for WhatsApp, I am not aware of it being used for any of our work. However I never use WhatsApp, so I simply don't know if there was any informal discussion of relevance.

18. While I don't recognise the portrait of a shadow world of informal online meetings where decisions were made without any public record of what happened, we did, of course have discussions amongst participants outside the meetings. These were primarily to do with working together on particular tasks which people had been allocated to work on and bring back to the formal meetings of the group. I personally conducted such interactions by email. For instance, trawling through my email inbox

and sent box, I can see a thread between myself, Professor Jill Pell and Professor Devi Sridhar regarding a communications strategy relating to the roll out of the vaccines [SXR2/009 - INQ000370348]. There was a to and fro as we revised and re-revised a draft, and the resultant paper was taken to the SGCAG on Monday 30th November 2020. There will be other such threads relating to other such tasks in my inbox. They will all be about such issues: developing or tidying up draft; comments on decisions made at SGCAG and so on. It would be a monumental task to track down every such email and I am entirely confident that they will not involve actually making decisions. All the decisions that were made are, to the best of my knowledge, recorded in the minutes and therefore easily and publicly available.

19. The only exception I can recall is from 20th April 2020 [SXR2/010 - INQ000370349] when the chair, Professor Andrew Morris, contacted group members by email late at night (21.12) asking for urgent advice on a number of matters such as how many cases, hospital/ICU admissions, deaths we should see before easing restrictions. A response was needed by the morning. The next day we were sent a statement to ensure it was a consensus view [SXR2/011 - INQ000370350]. But this was a special circumstance due to the lack of time to convene a meeting.

SGCAG and SAGE

Constitution, membership and role of SGCAG

20. In addressing issues to do with Scottish Government handling of the pandemic I need to reiterate two key points. First of all, I am an academic social psychologist. I have sat on a few advisory groups before based on my academic expertise in human behaviour in crises. However, I am not an expert in governance or the working of Government. Second, I sat on a number of committees – notably SGCAG in Scotland – so I can say something about what happened *on* those committees but I can say very little about what happened *beyond* those committees. So, for instance, when it comes to the breadth of membership, what interests and what expertise were included (or not included), I cannot talk about the advisory process as a whole. SGCAG was principally oriented to harm 1 of the Scottish Government's "Four Harms" model – the direct harm to health. Here we had good broad representation with expertise across a wide range of health-related disciplines including public health. I did feel a bit exposed as the only behavioural expert. I also felt that it would have been valuable to have expertise in mental health. Indeed, I wrote to the chair,

Professor Andrew Morris in early April making such a suggestion [SXR2/012 - INQ000370351]. I was assured that this was being covered elsewhere and was more relevant to harm 3 (indirect health harms). I can see the logic of this, but at the same time many of the mental health harms from the pandemic were direct rather than indirect. Moreover, there was a potential danger of certain things falling between the cracks as different groups thought others were addressing certain issues. I say 'potential' because we were not made aware of what other groups were doing. Indeed, I never understood exactly what groups there were and how they were inter-connected in the overall governance structure for the pandemic. At one meeting of the SGCAG (I can't recall which one) I was asked if a summary of that structure existed. I was met with wry smiles (I recall the overall reaction, not exactly who reacted). In sum, then, I would love to know the answer to many of the questions the Inquiry poses about governance. But I am not in a position to answer them myself.

21. I can see the argument for alternative structures of advice – such as having an expert forum, or multiple such forums. However, they create their own problems. So, for instance, if these forums are organised on a disciplinary level there is the danger of reproducing disciplinary silos which stand in the way of integrated analysis and solutions – and one of the great successes of the SGCAG, I think, was that we did indeed break down these silos, to work together as a group and to achieve together more than the sum of our disciplinary parts. If, on the other hand, these forums were to operate on a super-disciplinary level, who would select people from the individual disciplines to participate. In fact, what often happened is that disciplines set up their own expert groups. For instance, the British Psychological Society set up a number of expert workgroups on Covid-19 and I was on the coordinating group. I monitored their work and was often able to draw on it on feeding advice through SGCAG. This seemed to me to be an efficient way of combining broad expert involvement with a streamlined process able to feed advice into government in a timely manner.

Sub-groups

22. I was a member of multiple groups, not all of which were subgroups of SGCAG as I understand it. My role in each of these groups was to provide behavioural advice. Some of the groups were more obviously oriented to particular stakeholders – for instance in the case of the FE/HE recovery group. However, I don't have the records to say exactly which stakeholders were involved in the different groups. Nor can I speak to the impact of our advice. That again lies in the realm of 'beyond my

involvement' and to decisions and processes to which I was not privy. In addition, to be honest, with involvement in SPI-B, SGCAG, Independent SAGE and these various subgroups – and all this on top of my academic job for which I had no relief – I had neither the time nor the energy to monitor the fate of every single piece of advice we gave. I simply gave advice and went on to the next meeting (or lecture).

23. Having made this general point, there was one specific area which I felt – and still feel – to be particularly important and which I would like to comment on. This concerns the Public Engagement Expert Advisory Group. I was involved in the workshops which set this up with the following objectives:
    - *Offer advice on options to ensure the Scottish Government is able to fulfil the requirements for the World Health Organisation Criterion 6 – Communities have a voice, are informed, engaged and participatory in the transitions as Scotland move between stages of the Route Map.*
    - *Help to set out options for effective and proportionate engagement and participation through the current crisis and beyond.*
    - *The group will advise on methods, tools, principles and resources as well as providing practical ideas for the immediate work to optimise the opportunities for people to engage (in particular those most impacted by lockdown restrictions).*
    - *Define what "good" should look like as the Scottish Government takes a strategic approach to participation and engagement, identifying the benefits as well as what would be needed to deliver this in the short, medium and long term* [SXR2/071 – INQ000321308].

24. The expert advisory group itself ran from June-November 2020. The membership, remit and objectives are set out in the minutes of the first meeting on June 26th 2020 [SXR2/071 – INQ000321308]. Thanks to the energy and commitment of Doreen Grove, in the Scottish Government, the meetings were lively and productive. They set out a number of criteria for creating and effective and inclusive public engagement process and members were committed to establishing the advisory group as part of an ongoing process [SXR2/072 – INQ000321295]. However, as far as I am aware, neither of these aspirations were delivered in practice. Throughout the pandemic, there was never a structure which allowed people from all sections of the community (notably the most marginalised, vulnerable and deprived) to provide rapid input into the effects of specific measures that would help shape a rapidly changing policy landscape. Such input, I believe, is critical in building relationships

with these communities and also in ensuring that we understand (and are prepared with mitigations for) barriers to adherence. What is more, I think developing such a system is critical in terms of preparedness for future pandemics (and other crises).

25. One of the biggest challenges of the pandemic was how to conduct research that would help inform us as to how to deal with the crisis. I think the advisory groups and subgroups played an important role in identifying the research that needed to be done, but I am not sure they were best placed to commission research themselves, both in order to avoid conflicts of interest and also because of time pressures. Hence, I think the situation we had, where SPI-B, SGCAG and other bodies could ask for research to be done or indicate whether research was a priority, but other bodies awarded the funding was appropriate. I think there are other issues more generally about making sure that the research commissioning process is able to deal rapidly with new phenomena and emergent challenges. However, that goes well beyond the scrutiny of Covid-19 advisory groups and sub-groups.

Independent SAGE

26. Independent SAGE was an independent group of scientists who sought (a) to inform the public about the nature and state of the pandemic; (b) to make proposals about how best to suppress the pandemic; (c) to provide a 'brains trust' which would allow the public to air their concerns and ask questions relating to the pandemic. We had weekly meetings of the group, we produced papers and statements on various aspects of the pandemic which are all hosted on our website, and we held a weekly public briefing on a Friday lunchtime which was divided into three segments addressing the latest Covid figures, an analysis of a key issue (often with invited guests) and questions from journalists/the public. There was a behavioural science sub-group of Independent SAGE which I chaired, and which fed into the main groups and, where appropriate into the Friday briefings. The group produced papers on behavioural issues which are on the website. As to whether Independent SAGE had any impact on the Scottish Government, I have no idea. I don't know if they followed us, watched our briefings, read our papers and, if they did, whether these fed into our decisions. All I do know is that, for the first anniversary of Independent SAGE, the First Minister, Nicola Sturgeon, produced the following statement: "*The Covid-19 pandemic has been the hardest challenge anyone in public life has faced in decades. With a new virus there are no single voices who have all the answers. That's where the range of experts who participate in Independent SAGE have been so valuable.*

While governments have access to SAGE, Independent SAGE has played a vital role in giving the public the best information in a manner that is able to be widely understood. Independent SAGE have been clear throughout their activity that the best course of action to protect lives and the economy is to try and get levels down to their lowest possible levels. I agree and that's what I hope to continue to do in Scotland." [SXR2/013 - INQ000370226]

27. Independent SAGE was set up for four reasons. First, there was a feeling that public health concerns in particular were under-represented in the official SAGE structures. Second, there was a sense, at the start at least, there was a lack of transparency around the advisory process. Only after Independent SAGE was formed did the membership and the minutes of SAGE and its subgroups become available. Third, we felt it was important for scientists to comment not only on the science itself but also on what needs to be done practically to implement scientific insights as to how to control the pandemic. Fourth, we believed in was important to provide a direct channel of communication between scientists and the public – one where scientists could speak directly to the public and the public could ask questions directly of the scientists. The regular press conferences on the pandemic always had scientists (the CMO and CSA in particular) speaking alongside senior politicians which constrained what they could say and how. Perhaps the most important role of Independent SAGE was to provide that direct two-way channel between scientists and the public. I believe that was a critical function, especially for those groups most impacted by the pandemic. Many people have told us how Independent SAGE was their lifeline throughout the pandemic and gave them a sense of not being abandoned. I believe that the one clear lesson of Independent SAGE is the need for such a channel in future crises. It is critical both to create trust in the information and to avoid the politicisation of science which is almost inevitable if scientists only ever appear alongside politicians.

Operation of Advisory Structures

28. The final terms of reference of the SGCAG of 25th March 2020 [SXR2/014 - INQ000217419], sent to me when I joined the group, make clear (a) that our task is to support Scottish Ministers and senior clinical advisors and (b) that we will report through the office of the CMO in the first instance. We did not directly advise other organisations, although our advice to the CMO and ministers could and did, of course, impact on those other organisations. As a member of the SGCAG I myself

did not interact directly with other organisations. However, I did have links with some organisations independent of my role in SGCAG. This included advice to Police Scotland, to the University and College Union and to Universities Scotland.

29. I had no relationship with 'key ministerial decision makers' outside of SGCAG meetings. As I explained previously, I do not interact with the Scottish Government at any level as part of my job. I do not know them personally. I made contributions as part of discussions in our SGCAG meetings. The only exception to this were our 'deep dives'. Here we had direct discussions with the First Minister and other senior members of the Scottish Government. The aim of these, however, was not so much to discuss policy options as to provide a better understanding of the key scientific issues surrounding the pandemic. These might be the nature of transmission, the meaning of the R number or (in my case) building trust or the bases of adherence to Covid regulations.

30. Equally, I personally played no role in advising cabinet meetings, SGoRR meetings (whatever SGoRR might be) or the Four Harms group. At the risk of being repetitive, I made contributions to SGCAG. I assume, per the terms of reference, that the CMO's office then communicated our advice to other bodies. Whether they did so effectively or not, I don't know.

31. I cannot recall all the advice provided by SGCAG in well over 60 meetings. The advice is recorded in the minutes of the meetings and in formal advice which, I understand, have been provided to the Inquiry by the SGCAG Secretariat. I can, briefly, summarise my own advice on issues of behaviour over the period. The key point is to understand that the public are not a problem in a crisis but have the potential to be Government's greatest asset. Whether that potential is realised or not depends upon building a sense of community and hence of trust both within the public and between the public and Government. This in turn depends upon treating the public with respect and trust and providing the resources necessary to do what is asked of them. I expand on this in my first witness statement paragraphs [SXR2/001 – INQ000273800] 43-47.

32. I believe that the advice of SGCAG was clear and concise and that we addressed the issues put to us in a comprehensive and timely manner. Once again, though, I cannot comment on its effectiveness since I was not generally in a position to see how it was received. The only exception was in the 'deep dive' meetings which I have referred to previously (e.g. paragraph 29). My impression was that our contributions

were well understood and appreciated by these people. If that is an indication of the wider reception of our advice then, yes, I do think SGCAG advice was effective at least in the sense of informing the decision makers whatever their ultimate decisions might have been.

33. The CSA, CMO, DCMOs and NCD all participated (at least some of the time) in SGCAG meetings and contributed to discussions alongside other participants. There was no divide between them and the rest of us and no sense in which there were two camps which needed to be reconciled. Of course, different people had different emphases at different times. But I don't recall any recurrent divides, nor do I recall times when people felt so strongly that they felt it necessary to record dissent. Consequently, it was generally possible to achieve a consensus position on the issues we discussed. Perhaps my perspective is skewed by the fact that my focus was generally on the behavioural dimension, that for a long time I was the only behavioural scientist and that the other behavioural scientist who later joined the group is a colleague with whom I share a common overall perspective. Unsurprisingly, then, there was little disagreement to record. It could be argued that this was a little narrow and there should have been a greater range of behavioural expertise on the group. However, I also think that in terms of behaviour - and certainly in terms of how they inter-related terms of addressing/communicating with the public - the Scottish Government did fairly well (to which a sceptic might in turn retort that I would say that, wouldn't I?).

34. I don't think there was a danger of information overload from SGCAG alone. I felt that our positions were provided in a clear, concise and digestible form. However, we were not, of course, the only ones providing advice. That takes me back to my comments in paragraph 20. There were multiple groups providing advice. I never knew exactly what groups existed, whether they over-lapped and whether they provided different (and possibly contradictory) advice on the same issues. If there was a problem of overload (and coherence) it would have lain here. But I was and am not in a position to comment on it.

35. The main advantage of the 'deep dives', which I mentioned in paragraph 32, was precisely that they cut through all the complexities of the system and allowed us to talk directly to those who made the decisions. First, then, this avoided problems of translation as what we said was filtered through various messengers ending up a little like a game of Chinese whispers. That problem would have been exacerbated if

our advice was merged with other advice from other sources on the same issues. I don't know if this happened, but it is a possibility. Second, the deep dives allowed a two-way process of communication. The First Minister and others could question us on our advice, seek clarification, ask for elaborations of key points to ensure they had understood what we said. Third, the deep dives were generally structured around general issues in the pandemic science (the nature of transmission, say, or in my case, the dynamics of trust). This got us away from talking about very specific points and allowed us to communicate broad principles that applied across the pandemic response and hence ensure consistency of best practice.

36. There were times when we were told, informally or formally, about the impact of group advice. But we did not get systematic feedback on the response to all our advice. It would have been nice to know. But there was a general sense that we were taken seriously, and I appreciate that the Scottish Government was rather busy and explaining all their decisions to SGCAG was not a priority. After all, we existed to advise the Scottish Government, not vice-versa.

37. Academics disagree. We are trained to be critical, to identify problems of data and theory. That is how we move forward. At times that spills over into being contrarian. On any issue – climate change, the effects of vaccines and other medicines, and, of course, Covid – there will be people who take a dissenting viewpoint. So, if you waited for 100% consensus you would never do anything. This was certainly the case with the Covid strategy. Right from the start there were those who advocated achieving immunity through letting the disease spread – at least through the young and healthy. That position was later expressed in the so-called 'Great Barrington declaration' which advocated a policy which it called 'focussed protection' [SXR2/073 - INQ000370313] – in effect, quarantine the vulnerable but otherwise let Covid rip. But that position was certainly a minority in the scientific community, rejected by the World Health Organisation (WHO), Centre for Disease Control and Prevention (CDC), European Centre for Disease Prevention and Control (ECDC) and other bodies, and also with little if any support in SGCAG. Accordingly, I think it perfectly reasonable for the CMO to relay the broad consensus (rather than the outliers) to the Cabinet. To do anything else would have been a recipe for stasis and hence (in a situation where the key priority, according to the WHO [SXR2/015 - INQ000370212], was to 'go early and go hard' for disaster.

38. I think generally, the asks from the Scottish Government were clear – and we were also able to put issues on the Agenda. To take one small example from my own area, we were increasingly concerned that one important source of non-compliance with Covid rules came less from wilful dissent than an inability to know how to refuse invitations from others to do things that went against the rules ('just come inside for a cup of tea', 'give us a hug' etc.). Accordingly, we recruited extra expertise on social interaction and produced a paper on 'Developing the skills of compliance' [SXR2/016 - INQ000370213]. However, I do believe that there were areas of strategy where greater clarity would have been helpful. The first was around the general question of whether or not the aim was to drive infections down as low as possible ('maximum suppression') or to find ways of 'living with the virus' and to tolerate levels of infection that did not overwhelm the health service. We had several discussions of this in the late spring/early summer of 2020 and was clarified on 26th June 2020 when the First Minister announced: "*Suppressing the virus, driving it as far as we can towards total elimination, has to be our overriding priority*" [SXR2/017 - INQ000370227]. The second relates to the use of 'lockdowns' - a term I dislike as I explain in my first witness statement (paragraphs 38-40) due to its emphasis on punishment rather than support for those worst affected by the pandemic. Lockdown may temporarily depress the number of infections by limiting the number of interactions. But in the long term it achieves nothing on its own since lifting restrictions simply raises interactions and infections back to pre-'lockdown' levels – that is, unless the time in lockdown is used to change something else which impacts on transmission: developing vaccines, making environments safer and so on. It wasn't always clear if 'lockdowns' were understood in this light or, if they were, what longer-term changes would be implemented.

39. Data was critical to the Covid-19 response. It allowed us to understand the nature and extent of the threat we faced. It was, in effect, the radar which enabled us to get a picture of what was happening and respond accordingly. I am not an expert in this area, but my sense from others was that the UK and Scotland were well served in this area – not only by the Covid-19 dashboards but also by the Office for National Statistics (ONS) survey (which was critical in terms of being based on a random sample rather than relying on those who chose to get tested). I would only say that I think it would be useful to consider how we could create an analogue of the medical data with behavioural data and what sort of behavioural data would help us to respond. Certainly, we were provided with some very useful polling data throughout

the pandemic (e.g. trust in Government data) but it would be very valuable to consider what more we should collect in the future.

40. SGCAG did certainly respond to questions and commissions around particular policy options. But we certainly did not confine our advice by second guessing what would be politically palatable. Our job was to consider what needed to be done to stop the spread of the virus. It was not for us to make political judgements about how these actions would be received politically. That was the job of Government and Government made this completely clear to us. Indeed, that was one of the things the First Minister made clear to us in the deep dives (I remember the comment because it struck me as particularly frank, but I cannot recall the precise meeting where it took place). There might be times when we would suggest things which would not fly politically and therefore would not be implemented. We should be aware of that, but should not censor ourselves because of it. Once again, I return to a foundational point about the advisory process. SGCAG was but one of many inputs into the Scottish Government decision making. We were the major voice speaking on the science of the pandemic, the mechanisms of infection spread and the direct health harms of Covid-19. By and large the Scottish Government listened to and accepted our expertise (although at times leading international experts joined our 'deep dives' and allowed the Government to see if our approach matched approaches elsewhere). But they also listened to expertise in other domains and we could (and did) not expect our advice to be the only consideration in determining decisions.

41. The Agenda for meetings was put together by the SGCAG Secretariat, in conjunction (I assume) with the Chair. However, it was always possible for us, as participants in the group, to put topics for discussion on the Agenda. So, it was ultimately a combination of top down and bottom up process (as with most of what we did). The discussions of individual items were always open and inclusive. If someone had produced a paper they would introduce the discussion. Equally, those who had been at other meetings (e.g. SAGE or our own sub-groups) would generally summarise what had happened at those meetings. But after that, anyone could contribute and the discussions were generally wide ranging. At the end, the Chair would summarise the points that had been made (and I found those summaries to be fair and comprehensive). The minutes generally reproduced the summary of discussions.

42. The discussions were always wide ranging and reflected the diverse expertise in the group. In many ways this was better than SAGE with a good representation from

Public Health alongside modellers, epidemiologists and others. I found the contributions which provided a comparative perspective from different countries around the world particularly valuable. I had no particular sense that any one discipline predominated. Indeed, people were generally appreciative of what they needed from others as well as what they could contribute. I found this particularly impressive as a social scientist given that we are often positioned as a weaker ('softer') science. However, there was none of that in SGCAG (to my face at least!). To the contrary, analyses of the transmission process would show how behaviour would need to change in order to limit transmission and then acknowledge the need for behavioural expertise in order to understand how this could be achieved. Or again, when it came to modelling, it was acknowledged that analyses depended upon certain key assumptions and often the most consequential concerned behaviour (that is, what levels of contact and transmission there would be between people). So, it was not the case that some issues were of relevant to those with one form of expertise and others were relevant to a different set of individuals with a different form of expertise. Characteristically, the issues could be addressed from multiple perspectives. Correspondingly, it was not a matter of some people being pre-selected to speak to some items and others selected to speak to other items. Rather, anyone who felt they had something of relevance to contribute could do so and – in addition – the Chair would often invite people to say something if they had not spoken up. This made for rich and wide-ranging discussion which if anything were over- rather than under-inclusive.

43. There were robust discussions within the SGCAG meetings and, quite clearly, not everybody agreed on everything. Where different points were raised, this was recorded in the summaries of discussion (although precisely in order to facilitate frank exchanges, the minutes do not record who said what). What is more, the CMO and DCMOs who were involved in these debates would have been able to convey the shades of opinion to decision makers. Nonetheless, there were no real camps in the group who regularly opposed each other. Often those who disagreed at one meeting agreed at the next. Equally, I don't recall occasions where differences were so sharp that anyone insisted on recording a dissenting position to the papers we wrote or the consensus positions we provided. It is true that our emphasis was on reaching and recording consensus positions to go forward from the group. The attitude was very much that, if we were to provide evidence that was robust enough to help ministers make decisions it had to be rooted in a consensus. It would be little or no use to say 'some people think this and others think that' and, in the end,

intellectually invigorating as they could be, our discussions were not intended as academic debates for our own edification, but rapid evaluations of where we were aimed to help guide the response to an uncertain and rapidly changing situation. As the Chair repeatedly reminded us, we were there not to be important or to get famous, but rather to be useful.

44. There was much talk of 'groupthink' during the pandemic. And it might be thought that an emphasis on 'consensus' would increase the risk of group think. However, I think that would be wrong on two counts: it misrepresents the general nature of the groupthink phenomenon and it misunderstands the specific culture of SGCAG. I have written a number of pieces on the use of the 'groupthink' concept in the pandemic [SXR2/018 - INQ000370228], [SXR2/019 - INQ000370229]. It is generally used to suggest that there is a generic tendency in groups to become myopic, focussing on one issue, one problem, one solution to the exclusion of all others. The way round groupthink is therefore to dissolve the group and seek individual inputs. The problem is that many groups do not become myopic and in those that do the problem is less to do with group psychology than ideology: particular groups are more hierarchical, more deferential and less tolerant of dissent. The way to address this is not to dissolve the group (especially since group cohesion and solidarity may be essential to give people the confidence to push through in difficult times [SXR2/020 - INQ000370262]) but rather to address the structures and belief systems of groups in order to ensure that difference and critique is not treated as disloyalty. In the specific case of SGCAG, the culture was very much one of critical thinking and diverse viewpoints. This was facilitated by the Chair who encouraged a wide range of contributions and viewpoints. I never felt that expressing a contrary point of view would bring disapproval. To the contrary, I always got the impression that divergent perspectives were welcomed. So, the process of debate was very much to look at things from all angles even if, having done so, we explored whether there were elements of a consensus that could help guide decision makers. This process represented the best way of guarding against what is generally labelled as 'groupthink'.

45. I have already explained at some length that SGCAG was but one of many bodies feeding in advice to the Scottish Government and that we concentrated on but one of the several harms caused by the pandemic (reconciling these various feeds was outside the remit of SGCAG). I have also explained my own view (I cannot speak for others) that the Government should be informed by the science rather than follow the

science. Hence, I expected our advice to be weighed in the decisions made by Scottish Government, but I certainly did not expect our advice to determine these decisions. Nor was I surprised by times when they deviated. This was particularly true when it came to decisions with major resource implications given that Scottish funding is tied to expenditure in England and Wales, and it is therefore difficult to undertake any major and expensive initiative in Scotland that is not also implemented elsewhere in the UK. I think, throughout the pandemic, one of the major areas where Government did not follow the advice (particularly of behavioural scientists) was in terms of support to people to cope with Covid measures – for instance support for self-isolation. Scotland did a little more than England, but it still fell way short of what was necessary for people to stay home. But the Scottish Government could only diverge so much (not only for financial reasons but also for political reasons such as not undermining a four nations approach to the pandemic).

46. The issue of patient experience in the healthcare system is more related to harm 3 than harm 1 of the Scottish Government's "Four Harms" model and therefore was not directly relevant to the remit of SGCAG (see paragraph 20 above). Yet, lines of demarcation are always fuzzy and there are a number of ways in which it could be relevant to the processes of disease transmission. Some of these are medical (in terms of nosocomial spread, for instance, which was something we did discuss), some of these were behavioural (thus, conditions in hospital impacted the willingness of vulnerable people to take up hospital appointments). So, this again raises the question of integrating the process, making clear of who was dealing with what – and what they had done – to ensure that nothing fell through the cracks (also dealt with in paragraph 20). By happenstance, I myself had some contact with some patient groups (notably vulnerable people and bereaved families) principally though my participation in Independent SAGE and I certainly found this useful. It gave me information and perspectives that I found useful to my work in SGCAG. It may have been helpful to have made this more formal.

47. To the best of my knowledge, SGCAG rarely, as a body, put formal questions to SAGE and its sub-bodies. However, participants in SGCAG were involved in several these (SPI-M, and SPI-B) which allowed us to transmit concerns. Moreover, we were able to draw on the expertise of these groups to address issues that were not specifically Scottish. Certainly, I drew on SPI-B colleagues to help me address a series of issues relating to my work on SGCAG. To take just one example which I have already mentioned (paragraph 38) Professor Liz Stokoe, who participated in

SPI-B (and also the Independent SAGE Behavioural Group) played the key role in developing our paper, 'Developing the skills of compliance', on learning how to say no to suggestions that one break the rules.

48. Data was central to the discussions in SGCAG, and overall, we were well served by the multiple sources available to us. This became quite apparent at the point when the data ceased to become available (such as the ending of the weekly ONS surveys). If data was our radar (see paragraph 39) turning it off effectively left us flying blind. As concerns the behavioural data, there was a range of inputs on different topics (from mobility, to adherence, to trust in government) from different sources (Co-Mix, the Scottish contact survey included, but also footfall data from shops, the Scottish Government's own polling and others besides) and using different methodologies. In terms of topics (what we collected data about), there was no overall logic to what was and what wasn't collected. To take just one example, what people do is often as dependent on what they think others think (social norms) as on what they think themselves (attitudes and beliefs). So, it would be valuable to collect information on these 'meta-perceptions'. More generally it would be of use to conduct a systematic debate as to what behavioural data we should have collected during the pandemic and should collect in the case of future crises. In terms of methods (how data was collected), a key issue concerned the use of self-report data as opposed to observational data. Each has its own limitations. Most obviously, self-report is open to a series of biases due to perception, memory and social desirability [SXR2/021 – INQ000000] and may therefore be less accurate in some domains (like social distancing) where estimates are more difficult and more open to bias [SXR2/022 - INQ000370263]. On the other hand, observational data is often hard to come by and there are limits to what one can observe! So, there is no perfect methodology, it is important to be aware of the limits and assumptions in any data source and it is generally best to combine ('triangulate') different data sources such that the strengths of the one can cover the weaknesses of the other.

49. By and large, adherence to Covid measures was high. At the UK level, an early study showed that over 90% of people were complying with the lockdown even though roughly half of these were suffering financially and/or psychologically [SXR2/023 - INQ000370214]. Moreover, when people failed to comply it was less to do with lack of will than lack of resources to do so. Thus, poorer people and those from ethnic minorities were between three and six times more likely to break Covid regulations, not because they were less motivated to comply (there were no differences on this

score) but because of the practical difficulties of staying home and putting food on the table [SXR2/024 - INQ000370215]. This is further confirmed by the one clear exception to the overall picture of high compliance levels – staying at home and self-isolating when infected with the virus. Here, according to SPI-B, the rates (especially amongst the young and the poor) are very low [SXR2/025 - INQ000370216] with some figures suggesting that less than half of those affected comply [SXR2/026 - INQ000370217], at some points in time going below 20% (18.2% to be precise) [SXR2/027 - INQ000370218]. The obvious reason for this is because self-isolation is so practically difficult – not only does it lead to loss of income, but there are the issues of isolation in a crowded household, of getting food if one lives alone, of fulfilling caring responsibilities, even of walking the dog! Hence increased support leads to increased adherence [SXR2/027 - INQ000370218]. At the UK level, support was minimal, with a maximum sum of £500 available but for which only one in eight of the workforces was eligible and only 30% of those who were eligible made successful applications [SXR2/028 - INQ000370230]. In Scotland the support available was slightly greater than in the rest of the UK, but still limited. In overall terms, compliance to measures such as mask wearing, working from home and avoiding large gatherings was greater in Scotland than England, especially after July 19th 2021 [SXR2/029 - INQ000370267]. It should be noted, however, that most of these data are based on self-report methodologies.

50. The debate around so-called 'lockdowns', whether they were necessary and whether there were less restrictive alternatives has generally been highly confused in a multitude of ways (see my first witness statement, paragraphs 37-40). First of all, the term 'lockdown' itself is deeply unhelpful and deeply misleading. Certainly, there were restrictions on activity, but we never had a total 'lockdown' in which people were not allowed to leave their homes at all or allow anyone else into them. What is more, in different 'lockdowns' there were different levels of restriction, so how much restriction is necessary for something to qualify for the term 'lockdown'? Second, so-called 'lockdowns' involved a wide range of measures, not all of which were restrictions. There were also measures, such as the furlough scheme, to make it possible for people to do the things asked of them. Indeed, much of the opposition and controversy over 'lockdowns' was actually about the level of support given to individuals, businesses and localities in 'lockdown' [SXR2/030 - INQ000370231]. As I discussed above in relation to self-isolation, non-adherence was generally down to the inadequacy of support to enable people to observe Covid restrictions, not the restrictions per se. Third, lockdown is never a strategy in and of itself, it is always a

last-ditch measure to respond to the failure of other strategies. That is, when lack of action leads to a rise of infection to levels where it cannot be dealt with by targeted measures (notably 'find, test, trace and isolate') there have to be blanket restrictions on activity for everybody. Fourth, lockdown is a means of restricting contact and hence reducing the opportunities for the virus to spread. Whether one could restrict contact by asking rather than requiring people to do so is a moot point. But for there to be an effect there would still have to be such a restriction. In other words, the means might differ, but the social reality would be the same. Although it is impossible to prove, my belief is that a legal mandate was required, if nothing else as a signal as to how serious the situation was and how important a change in our lifestyles. This was clearly the case with masks where appeals were largely ineffective until mask wearing became a legal requirement – and then levels of adherence rose very quickly to very high levels [SXR2/031 - INQ000370232]. All in all, then, I think it is unlikely that contacts (and hence infections) could have been controlled without the introduction of 'lockdown' measures. I think that many of the problems of 'lockdown' came down less to the restrictions themselves than the failure to introduce commensurate levels of support. Finally, I think the real problems lay in not acting early to stop rising infections. In that context, failure lay not in 'lockdown' but in the delay in introducing 'lockdown'. It has been estimated that had Government acted two weeks earlier in March 2020, it could have saved 40,000 lives across the UK in the first wave, and had they acted a week earlier, it could have saved 30,000 [SXR2/032 - INQ000370219].

51. The debate about modelling is also highly confused, as I mentioned in paragraph 42. above. Models are not predictions of what will happen. They are projections of how outcomes will differ if certain key parameters vary. They thereby allow us to see the impact of those parameters and whether they are worth addressing. There are two ways in which behaviour was used in the modelling. One was indirect. That is, the impact of certain measures (such as imposing certain measures) was modelled using assumptions about people's resultant behaviour – notably levels of compliance. To put it another way, the impact of masks on transmission depends on various factors (such as the effectiveness of masks), but how many people actually wear masks is clearly critical. The other use of behaviour in the models was direct. That is, the impact on transmission of various levels of mixing with others could be calculated. In both cases, however, behaviour was an input into the models, not an output. We were not calculating how people would behave but rather how their behaviour would affect the spread of Covid. I think it would have been helpful to be clearer about

these issues. In particular, I think it would have been helpful to be clear about the nature of behavioural assumptions (e.g. levels of compliance) that fed into the models and to have had more dialogue between behavioural scientists and modellers in this regard. I also think it points to the possibility of a rather different use of models, which is to show the public how important their behaviour is and how much changes in behaviour impact on the course of the pandemic. This opportunity was missed, however, in amongst a wider misunderstanding of what modelling is (and isn't) all about.

52. I have already indicated (paragraph 42) the value of international comparisons on the work of SGCAG. Here, the expertise of Professor Sridhar was critical and she played a very valuable role in the group by continuously reminding us of our comparators. In addition, we did have some meetings with experts from other countries. All in all, I felt that SGCAG dealt better with the international context than the other groups I was involved in.

53. It was not the job of SGCAG to consider the impact of financial and political constraints (such as the devolution settlement) on the pandemic response except insofar as they impacted directly on the transmission of infection (say the impact of the open border on spread). Clearly both factors were critical: we might suggest measures but whether they were implemented or not depended on whether they were affordable; I alluded in paragraph 45 that Scottish Government policy was largely tied to UK Government policy for both financial and political reasons. However, on this as for so many other things, it was for SGCAG to advise on the actions necessary to deal with infection spread, it was for others to determine if these were possible in financial or political terms.

54. I cited our terms of reference above [SXR2/014 – INQ000217419] (paragraph 28). SGCAG reported to ministers. We did not report directly to local government. Our advice could be relayed to local government through the national government. However, I have no direct knowledge of how the Scottish Government liaised with local authorities.

Conclusions and lessons learned.

55. I did feel that, overall, SGCAG did work well, that we prepared and communicated our advice well, in a way that made it intelligible and useful for decision makers. Throughout my statement thus far, I have explained how SGCAG was but one piece

in the jigsaw and then we contributed advice concerning some harms (direct health threats) and not others. I can see the sense in this. To have had one single group to cover all the issues relating to all four harms (as opposed to the group which brought together the conclusions of the various bodies considering the different harms) would have made for a huge and unwieldy structure. Meetings would then either have been impractically long or else only able to skate over the surface of issues. One of the clear strengths of SGCAG is that we were of a manageable size, no-one got lost in the group, everyone could (and generally did) contribute and that we were able to cohere as a group which made us much more efficient. At the same time, as I have also explained, there were dangers of things falling between the cracks. There may have been a middle path that retained separate groups but increased coordination between them and perhaps occasional joint meetings on overlap issues (such as mental health which, to me, was as critical a direct health issue as physical health). This may be worth pondering on for the future. One other issue worth considering was the sheer workload involved. During the pandemic, I participated in SGCAG, SPI-B, Independent SAGE and many other groups on top of my academic job. The Scottish Government and the UK Government wrote to my University to express thanks for that work and for the support the University had given me. The University were certainly appreciative, but there was no relief on my workload (indeed my workload increased because of the need to move teaching online). What is more there are continuing demands – not least doing two immensely detailed witness statements for this Inquiry and seeking to be as thorough and helpful as possible! For the future I wonder if there is a means of dealing with this workload issue. I appreciate that there are complexities (it is important to ensure that scientific advisors remain independent, able to speak out, trusted by the public) but this too is worth addressing.

56. Transparency and accountability are absolutely essential if the public is to trust the science of this and future crises, and to support the policies based on it. For this reason, I think it is crucial to make sure that all we are and do – membership, papers, minutes of meetings – is available to the public. I also think it is incumbent on the Government to be clear as to how they have used that advice and, on those occasions where they diverge from scientific advice, why they have done so. As an additional measure, I can see the value of an international overview body both as a resource whose expertise we can draw upon and who can comment on our work. Finally, I think that there should be an independent scientific voice that speaks to the public and which can address their concerns. Since that was not provided in Scotland

or England, it was supplied by Independent SAGE. It is arguable that this should be done through a more institutionalised process (perhaps through the Royal Society of Edinburgh in Scotland, the Royal Society/British Academy at a UK level). Again, these are thoughts for the future.

57. In general terms, I was very impressed by First Minister, Cabinet Secretary and others we worked with. In the deep dives it was clear that they (and especially the First Minister who, unsurprisingly, dominated the debate) were on top of their brief, took the issues seriously, understood the issues and cut to the core of the matter with their questions. While we (SPI-B) had no similar experience at the UK level, what I experienced in Scotland was very clearly at odds with what I saw and what I have heard about the UK Government, the Prime Minister and their mastery of the brief.

58. At the UK level, I have great admiration for my colleagues on SPI-B. As in SGCAG, our discussions were immensely useful and it was a privilege to sit amongst such remarkable people discussing such important issues in such a focused and insightful a manner. I probably learned more in those meetings than I have in many years of study. I was also greatly impressed by the psychologists and civil servants working in government. They too were able, dedicated and remarkably helpful. My only complaint at the UK level has to do with the political level. It was quite clear, as the Government veered away from the advice it was given – not only ignoring it but openly contradicting it (see my first statement, paragraphs 171-183 in particular) – and that members of SPI-B were critical of their actions, that they began to close SPI-B down: first limiting discussion and then ending meetings entirely (I detail this also in my first statement, paragraphs 89-94) .

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

Initial understanding of the nature and extent of the threat

59. In detailing my response to the evolving threat of Covid 19, it is important to reiterate a number of points. I am not a medical scientist. I am not a health professional. My teaching and research do not focus on health. I am a social psychologist, I study various aspects of collective behaviour including mass behaviour in crises and emergencies. That was how I became involved in the various Covid advisory groups. As news of the new virus gradually increased from the end of 2019 I took note, but as

an interested citizen, not really as an academic. If I had any intellectual reaction it was more to do with the orientalist fantasies which shaped the representation of a mysterious new threat emerging from the bat caves of rural China. By the time the virus had reached Italy, it was pretty clear that it would come to the UK and to Scotland and I paid closer attention because I had a close colleague in Padova, Northern Italy who I had recently visited for some talks. We exchanged emails in late February and she described the closing of her University, the red zones in villages close to her. We also discussed the social psychological implications of all this which set me thinking about our possible contribution. Yet at the same time my focus was limited since we were in the midst of a series of strikes to do with academic pay, conditions and pensions. That was in the foreground of my mind in January and February 2020. Covid was there, but more in the background.

60. At the start, my understanding of Covid-19, of the process and the dynamics of transmission was that of an interested layperson. I read the papers, followed social media, talked to friends but I had no distinctive academic insights. It was only when I joined the various advisory groups (SPI-B, joined Feb 20th 2020; SGCAG, joined March 25th 2020; Independent SAGE joined May 25th 2020) and sat in almost daily meetings with experts in the various relevant fields, that I began to know more. Indeed, as we discussed how to educate the politicians about the nature of transmission, of the R rate, the doubling time and so on, I learnt about them myself. The importance of this for me, as a behavioural scientist, is that, only if we understand how the virus spreads and what behaviours spread it can we address the question of how we then change those behaviours. The biggest shift, of course, was understanding the centrality of aerosol spread as opposed to droplet spread, hence the lesser importance of hand and surface cleaning and the greater importance of mask wearing. In some ways, this lesson was never fully learnt and a lot of the messaging and precautions still prioritise the former over the latter.

61. I can state my views on the various actions of the Scottish Government regarding the pandemic. Yes, we should have acted earlier. We should have recognised earlier the inevitability that the coming storm would hit our shores. We should have started to put in place the elements of our response earlier (including the formation of SGCAG). We would certainly have done better if we had a functioning 'find, track, trace and isolate' system in place earlier. But I would repeat that I am a behavioural scientist. I have no expertise in many of the technical issues regarding the Scottish Government response (such as the infection-fatality rate) and hence I don't feel qualified to judge

them – or at least my judgement carries no more weight than that of anyone else down the pub. Consequently, so as not to dilute and discredit the areas where I do have some expertise, I will limit myself in what follows to commenting on areas involving the behavioural response where I do have some expertise.

Pre-lockdown response.

62. My comments on the pre-lockdown period must be subject to a further caveat. I did not join the SGCAG until after the first lockdown. Therefore, I experienced this period as an outsider to the Scottish process and have no privileged insights into the nature of the decision making process in Scotland. With this in mind, the behavioural issues in this period were centred on how people would respond to the unprecedented step of banning social activities (going to shops, restaurants and entertainment venues), limiting social interactions and confining people largely to their homes. The assumption of 'behavioural fatigue' (that the public would be incapable of adhering for long – an assumption that mirrored a broader notion that the public constitute a problem to be managed rather than a partner to be engaged – was first mentioned on March 9th by English CMO Professor Chris Whitty and was part of the reason why the UK Government delayed the initial 'lockdown' of March 2020 (for a more extended discussion of behavioural fatigue see my first witness statement, paragraphs 59-61). It may have been invoked in Scottish Government decision making, but I am not aware of it and certainly did not hear such arguments later after I had joined SGCAG. What is more, the general tenor of the Scottish discussion went against the broader logic of public incapacity of which the specific idea of 'behavioural fatigue' was part. In my first witness statement, for instance, I explicitly contrast the statements of the UK Prime Minster who adopts a 'public as problem' perspective with that of the Scottish First Minister who takes a 'public as partner' position (paragraph 109) [SXR2/033 - INQ000370233].

63. In contrast to the tendentious and 'unscientific' concept of behavioural fatigue [SXR2/034 - INQ000370234], there are a number of factors which, from previous research confirmed by the experience of the Covid pandemic, are known to impact adherence. The first is risk perception. If people don't see a danger, they won't do anything to mitigate it and as perceptions of risk decline so adherence declines [SXR2/035 - INQ000370264]. Certainly, at a UK level, we were slow in recognising the risk and indeed even when official pronouncements stressed both the overall risk and the risks of specific behaviours (such as shaking hands), the informal behaviours

of politicians (such as the Prime Minister, Boris Johnson, boasting of shaking hands with staff in hospital [SXR2/036 - INQ000370235]) undermined such an understanding. As with 'behavioural fatigue', however, the clearest examples of such behaviours are at a UK level [SXR2/036 - INQ000370235].

64. The second factor is the efficacy of mitigations. Simply highlighting risk without showing how it can effectively be mitigated against is generally ineffective [SXR2/037 - INQ000370220]. It induces fear and withdrawal. However, to combine risk information with information about effective mitigations is effective and can actually reduce fear and anxiety [SXR2/038 - INQ000370265]. It is here that the question of strategy becomes relevant at the behavioural level. The reaction to 'lockdown' will depend upon an understanding of what we are trying to achieve and of how 'lockdown' will allow us to achieve it. Some suggest that this strategy was initially based on 'herd immunity' (that is, allowing the virus to spread amongst the fit and healthy in order to acquire a sufficient level of immunity in the population to stop widespread transmission). Nicola Sturgeon has claimed that the aim was to suppress the virus right from the start [SXR2/039 - INQ000370268]. My own sense (and that of others on SGCAG) was that the overall strategy was unclear until at least June 2020 (see paragraph 38, this statement). While there had been mentions of suppression previously, it was only then that there was a clear statement that "*Suppressing the virus, driving it as far as we can towards total elimination, has to be our overriding priority*" [SXR2/017 - INQ000370227]. The early lack of clarity (and hence of what lockdown was meant to achieve) likely had a negative effect on adherence, although there is no direct evidence to show this.

65. The third factor is social identification. Again, there was ample evidence from before the Covid pandemic [SXR2/040 - INQ000370221], confirmed by data from the pandemic [SXR2/041 - INQ000370222], that identification with the community at different levels (local, regional, national) was a key element in compliance with Covid measures. If people were just doing it for themselves, many might conclude that it wasn't worth the bother. If they thought about it in communal terms, then compliance was critical to protect the community as a whole, especially its most vulnerable members [SXR2/042 - INQ000370223]. Or, as the Governor of New York, Andrew Cuomo, said early on: "*it's not about me it's about we.' Get your head around the we concept*" [SXR2/043 - INQ000370236]. At the start of the pandemic, I think this injunction to act for each other and out of personal responsibility was well observed in both the UK and Scottish Government messaging. The statement of the First

Minister in September 2020, as infections were rising again after the first summer of the pandemic, was particularly impactful: "*So though we are all struggling with this – and believe me, we are all struggling – let's pull together. Let's keep going, try to keep smiling, keep hoping and keep looking out for each other. Be strong, be kind and let's continue to act out of love and solidarity*" [SXR2/008 - INQ000370207]. Over time, however, this emphasis was lost, especially at the UK level. The emphasis became one of individual freedom and 'personal' responsibility was trumpeted to the exclusion of social responsibility [SXR2/044 - INQ000370237]. The position of the vulnerable in society was gradually downplayed and the notion of acting to protect all the community was lost. As with the previous point, even though there is no direct evidence, it is highly likely that this downplaying of the communal dimension had a negative impact on the adoption of behaviours to limit infection spread.

C. Testing

66. I very quickly became aware of the central importance of testing to an effective Covid response, in large part through the presentation of international comparisons and the fact that those countries with good testing systems available in advance were better able to control the spread of virus and were able to avoid more draconian restrictions. South Korea is one good example of this. In the UK and in Scotland we were slow in getting such a system up and running. SGCAG was clear about the importance of testing and there was concern at the delays in implementation.

67. My contribution, as a psychologist lay less in the logistics of such a system but in compliance with the system (although the two are not entirely separate as I will explain). Testing, of course, is not an end in itself. It is part of a system, the aim of which is to ensure that infected people are isolated and so cannot infect others. The system involves finding cases, testing them, tracing their contacts, getting them to isolate and providing them the support they need to do so. Test and trace are therefore, more properly: find, test, trace, isolate and support (FTTIS). If there is failure at any one of these stages then the overall system fails. Accordingly, the system has been called a 'leaky pipeline' in which problems at each stage cumulate to undermine the final outcome. There are two key factors which impact on just how leaky the pipeline will be. One is trust. Trust is critically important to compliance in general [SXR2/045 - INQ000370224], [SXR2/046 - INQ000370225]. It is particularly relevant to those behaviours involving direct engagement with authority – such as giving details of your activities and your contacts to official tracers [SXR2/047 -

INQ000370266]. The other is support. I have already addressed this issue in some detail above (paragraph 49). Support is critical to behaviours which are subject to practical constraints, like self-isolation. A system which lacks the support that people need in order to self-isolate is less like a leaky pipeline than a pipeline left open at the end so everything drains away. What is more, as evidence from the first mass testing pilots in Liverpool (conducted in the autumn of 2020) shows, lack of support doesn't only mean that people (poorer people in particular) fail to self-isolate, they also fail to get tested because they can't afford to discover that they are infected (on the one hand they lack the resources to do so, but if they fail to do so they risk large fines). As a consequence one can't even trace their contacts [SXR2/048 - INQ000370238].

68. In terms of trust, Scotland did relatively well. Unlike in England, where contact tracing was delivered through a privatised system of call centre operatives, in Scotland it was delivered through the NHS, or, to be more precise: "*Contact tracing was delivered directly by health protection professionals in teams in local NHS Boards, and by the National Contact Tracing Centre*" [SXR2/049 - INQ000370239]. Trust in the NHS stood at over 80% in 2022 compared to trust in national Government and in Parliament standing at below 40% [SXR2/050 - INQ000370240]. In terms of support, especially for self-isolation, the response was always inadequate. While there was a small basic grant available for those on low incomes or earning less than the Real Living Wage, and some further discretionary funding was available, there was never the wrap around support (including, where needed, accommodation) necessary to make self-isolation viable and which was implemented elsewhere (for instance in New York [SXR2/051 - INQ000370241]). In Scotland, as in England, self-isolation was simply impossible for many and hence they had no choice but to remain in contact with others and spread the virus.

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

69. First of all, I dislike the term 'non-pharmaceutical interventions'. A little like the term 'non-white', it sets up one alternative as the norm and judges everything else against it. Hence it creates a hierarchy: pharmaceutical interventions come first and the behavioural is ancillary. If there is one lesson that comes out of the pandemic, it is that the behavioural is of equal importance to a successful pandemic response. This is illustrated by reference to what is probably the most important of the PIs (pharmaceutical interventions) – the Covid vaccines. When these were introduced in December 2020, this did not mean that the pharmaceutical usurped the behavioural

dimension which then became less relevant. Rather, it introduced a new behavioural dimension. After all it is not the pharmaceutical itself (the vaccine) which was the 'game-changer'. It is the behaviour (getting vaccinated) and therefore vaccines put a new set of behavioural issues on the agenda: how do we ensure that people get vaccinated; how do we deal with vaccine hesitancy; how do we counter vaccine disinformation? The important thing is not to set pharmaceutical and behavioural against each-other but rather to determine how they relate to each-other. One of the great strengths of the SGCAG was precisely how we worked together as partners in this regard. More generally, the WHO gradually stopped referring to NPIs, talking instead about behavioural and social interventions (BSIs)[SXR2/052 - INQ000370242]. We should do likewise.

70. Second, the discussion of BSIs has been dominated by discussion of lockdown and a growing harm that this response to the spread of virus, rather than the spread of virus itself, was the major cause of harm. I have explained at length why I find the term 'lockdown' unhelpful and why the debate around 'lockdown' was deeply confused (paragraph 50 above). I will draw on and elaborate upon those arguments here. They key points are that (a) 'lockdown' is a non-targeted response to virus spread that results from the failure of targeted responses to deal with virus levels; (b) 'lockdown' will be ineffective in bringing down infection levels without support so that people can abide by measures and avoid infection; (c) 'lockdown' will be a wasted effort unless something is changed during the 'lockdown' period to ensure that infection levels don't simply rise to previous levels once 'lockdown' measures are lifted. My feeling is that, on the whole, when 'lockdown' measures were imposed they were, by and large, necessary if not overdue. The problems by and large related to points (b) and (c); support and change.

71. The issue of support is critical in at least three regards. To start with, ensure that people have the resources to do what is asked of them: can they afford to stay at home, are they able to isolate from others if infected and so on. The issue here is to analyse what resources are required for any given measure and to ensure that individuals have access to them. Next, ensure that people have the resources to avoid the secondary harms of compliance: can those who live alone remain in contact with others, can children still follow classes from home? The issue here is to analyse the potential harms, analyse what measures would mitigate them and implement those measures. Last, ensure that the environment people inhabit is so designed as to minimise infection: do workplaces allow people to distance, are indoor

spaces adequately ventilated and so on. The issue here is to analyse how environments facilitate transmission and redesign them accordingly. All this may seem simple and self-evident. However, the response to non-compliance throughout the pandemic in the UK was focussed on blaming people and threatening them with sanctions rather than supporting them whether this was in relation to compliance or avoiding secondary harms (see my first witness statement, paragraphs 105-108) although this was less true in Scotland (paragraph 109). Moreover, the equation of Covid BSIs with 'lockdown' and lockdown with restrictions meant that the importance of resigning environments was underplayed and the removal of measures that made people safer, such as ventilation, and therefore more able to participate in public, was represented as 'freedom' (the day they were removed dubbed 'freedom day'. Again, this was less true in Scotland. Nonetheless, if we had (and still did) put as much emphasis on system interventions to create safer environments as we did on individual behaviours to avoid contact, it would probably both have increased compliance and improved health. Indeed, I remain bemused at the lack of urgency on clean air, particularly in key environments such as schools since it not only reduces infections amongst pupils and staff, reduces absences, reduces staff turnover, it also improves general well-being, cognition and educational performance. We seem intent on continuing to maintain learning environments that impede learning [SXR2/053 - INQ000370243] [SXR2/054 - INQ000370244].

72. Education, specifically schools, is a good example of the importance of changing things during periods of 'lockdown'. There was general agreement that, whatever else one does, closing schools should be the last measure to impose in order to limit infection spread and the first to lift. This is due to the evident harms to children mental well-being, their personal and cognitive development [SXR2/055 - INQ000370245]. As time passes, we are still learning more about those harms [SXR2/056 - INQ000370246]. I think there is a case, even in retrospect, to argue that the closure of schools was necessary in March 2020 and even in 2021. But I also think that if we had used the first wave closure (and also the summer holiday break of 2020) to make key changes (which were made in other countries like Denmark) then the later closure would not have been necessary. This would have included improved ventilation and air filtering; use of other public spaces (such as museums) for classes, thus allowing more distancing; hiring extra teachers so as to allow smaller class sizes and more distancing. It would also have included ensuring that every child had both the computers and the internet connectivity to remain in touch with others and to participate in classes. Some efforts were made along these lines, with

the Government pledging a laptop for every child [SXR2/058 - INQ000370247], but they were never adequate (just over 10% of students had received a computer by September 2020 with the figure in individual local authorities varying from 2 to 17%)[SXR2/059 - INQ000370248] and this contributed not only to the overall harm but also to the inequalities created by the pandemic (see below).

73. SGCAG discussed at some length the issues of support and using 'lockdown' periods for change. By contrast we did not speculate on how long people would comply for. Indeed, such speculation implies that this is down to the individual and people have a set limit on their ability to comply. Apart from resting on dubious assumptions, such an approach is rather fatalistic. By contrast what we sought to do was address the factors which impact adherence (several of which I have addressed in this statement: clear information about risk; understanding mitigations; availability of support) in order to advise on how levels of adherence can be increased. Such an approach was even more central to the work of the compliance sub-group. In contrast to the fatalism of the 'length of compliance approach' this identifies the levers of compliance in order to shape interventions that make compliance longer.

74. Equally, and as I have already stated in relation to the 'behavioural fatigue' debate, I heard little speculation about length of compliance within the Scottish Government (paragraph 14 above). More generally, from the conversations to which was party (which, as I have also stated, were highly limited) and from their public statements, I got the impression that the Scottish Government acknowledged that compliance – and indeed infection more generally – was a matter circumstance as much as (if not more than) behaviour. It is exposure that leads to infection and hence government needs to enable people to avoid exposure – and also needs to enable people to cope with the consequences of avoiding exposure. The First Minister frequently stressed how hard it is to comply (see paragraph 16 above). The Government frequently acknowledged the need to support people both to comply and to avoid the secondary harms of Covid measures (as in the need for all schoolchildren to have their own computer). Such clear commitments were not always matched by delivery (as in the limited numbers of schoolchildren who actually got computers and other things besides). I could speculate on the various possible reasons for this (financial, political etc.) but I have no special knowledge in this regard.

75. A further consequence of recognising that infection is a function of exposure and that exposure is a function of circumstance, is that it put the issue of inequalities at the

very heart of the matter. Indeed, this was not a single pandemic but a series of very different pandemics for people in different circumstances. Marginal, vulnerable and deprived groups are, almost by definition, likely to be more exposed: they tend to live in more crowded housing, to work in more public facing jobs, to use public transport. They are less able to avoid infection by working at home, less able to isolate themselves from other members of their households when ill even if they can afford to stay off work. It doesn't stop there. Once infected, the consequences are likely to be more severe both in terms of primary harms (deprived groups tend to have more comorbidities [SXR2/060 - INQ000370249]) and secondary harms (deprived groups lack the resources to remain socially, economically and educationally engaged under 'lockdown'). To take but one of many possible examples, and to build on the discussion in paragraph 74 above, the impact of closing schools was very different for those in more or less privileged schools. Thus 84% of those in UK private schools received more than three online lessons per day during the first national lockdown. The respective figures for state grammar schools and comprehensive schools were respectively 41% and 33% [SXR2/061 - INQ000370250]. Not surprisingly, then, the Covid period increased the educational attainment gap between more and less privileged groups in the UK [SXR2/062 - INQ000370251] and in Scotland [SXR2/063 - INQ000370252] - and indeed this was acknowledged by the Scottish Government [SXR2/064 - INQ000370253]. More generally, it may be helpful to refer to the pandemic in the plural rather than in the singular. In terms of health, in terms of economic impact, in terms of overall experience, the reality of Covid-19 was fundamentally different for different groups. Staying at home signified something fundamentally different for those with a garden and could connect with their children compared to those who were confined with their children in a high-rise block with no outside space. One of the most telling comments on the pandemics was from Professor Bonnie Henry, Chief Medical Officer for British Columbia: "we are all in the same storm… but we are not in the same boats" [SXR2/065 - INQ000370254].

76. Acknowledging these realities is one thing. Dealing with them is quite another. Addressing the fundamental importance of inequalities – and the fundamentally different circumstances/experiences of different groups depends upon a number of initiatives. First, it is necessary to complement an overall understanding of the transmission process with what this means in terms of transmission within different groups and the changes/resources necessary to address this. Second, it requires an understanding of the barriers to compliance in different groups (which will be both cultural and material) and how to overcome them. Third, it requires an analysis of the

ability of those in different groups to mitigate against the secondary harms of pandemic measures and how to increase that ability. At the very least, it is necessary to create structures of dialogue and engagement whereby the perspectives of all communities – especially the most marginalised – are fed into government in a timely way so as to shape a rapidly evolving policy landscape. It is also necessary to develop rapid procedures which ensure that any policy is scrutinised for its effects on these various communities and is required to build in the necessary support and mitigations to address any problems in this regard. While there were some initial developments in this regard, (e.g. the Covid People's Panel [SXR2/066 - INQ000370255]) they were little more than rudimentary during the Covid pandemic. Developing them should be a priority in assuring preparedness for future pandemics/crises.

77. I have already indicated how social deprivation and marginality intersect with medical vulnerability to Covid-19. Indeed, the data show that, in Scotland, 3.3% of the population was shielding in June 2020, a total of some 180,000 people (although those affected, including carers and families of shielders, will be many times greater). However, the proportion of shielders varied from 14% in the least deprived quintile of the population to 26% in the most deprived quintile [SXR2/067 - INQ000370256]. The question of medical vulnerability, and of shielding, was certainly one that was of concern to SGCAG. We discussed these matters several times. However, I do not have the expertise to comment on this matter at the medical level. I would, however, reiterate the comment I made in paragraph 65 above. At the start of the pandemic, the appeal to the population was on the basis of protecting the entire community and the most vulnerable in particular. This emphasis has been gradually lost over time. We have now reached a stage where many vulnerable people feel unsafe in public spaces but their plight has become almost invisible. As I write (in October 2023) polling suggests that half of clinically vulnerable people have cancelled hospital appointments and a quarter have cancelled vaccine booster appointments over concerns at lack of Covid precautions (e.g. mask wearing by healthcare staff) [SXR2/068 - INQ000370257]. In effect, we have created and are tolerating a medical apartheid in the nations of the UK, including Scotland.

E. Decisions relating to the first lockdown

The imposition of the national lockdown in March 2020

78. I have already made a number of comments about this period in paragraph 62 above, including the fact that I did not join SGCAG until just after the imposition of the March 2020 lockdown and therefore cannot comment on either the deliberations of SGCAG or the Scottish Government in this period. I don't know their reasoning for the timing of measures or their understanding of what lockdown was meant to achieve or what their 'exit strategy' was beyond what I saw in the media. I have also explained my views on the need for and timing of the March 2020 'lockdown'. To summarise, I think the measures imposed were necessary. I think they should have been imposed earlier and that the delay cost many lives. I think the use of behavioural arguments ('behavioural fatigue') to justify delay was unscientific and unwarranted. It was not based in any advice received by SPI-B (in which I did participate from February 2020). It might have been avoidable in a completely different world where we had the structures, the culture and the experience of a full testing system (including contact tracing and supported isolation) as in the countries that had gone through MERS and SARS such as South Korea. However, even if we had taken things more seriously from the point that we first learnt of Covid at the end of 2019, it is most unlikely that we could have built up the system necessary to avoid 'lockdown' measures to contain the spread of the virus.

79. As a psychologist, I listened with interest to what others on SGCAG (and other bodies I was involved with) had to say about the development of a vaccine, but I have no specialist knowledge in this area and am not able to comment on the details of the vaccine itself. My concern was with the behavioural questions surrounding vaccine uptake and the importance of addressing them even before the initial roll-out [SXR2/069 - INQ000370258]. These were centred on building trust and associated issues of (a) transparency - being open about side effects and the inevitability of concurrent events (if enough people are vaccinated a number of them will inevitably die even if not because of the vaccine; (b) engagement (working with and through communities to explain and administer the vaccine; (c) respect (listening to and addressing doubts people might have rather than taking them as signs of pathology; (d) support (making vaccination centres sufficiently accessible, giving time off from work to get vaccinated and sick pay for those unwell after vaccination. I fear that none of these issues were given sufficient priority or addressed in sufficient detail.

Continuation of the first lockdown

80. I think the discussion around 'zero covid' was blighted by misinterpretation, partly because the term itself lends itself to misinterpretation, partly because there was wilful misinterpretation by those who advocated 'herd immunity' or 'focussed protection' strategies. The accusation is that was an unrealistic goal which led to an unbalanced and overly interventionist policy on behalf of the Scottish Government which acted to chase a mirage and so ignored all the 'collateral damage' of its actions in terms of social, educational, economic and impaired mental health. That might be true if 'zero covid' did indeed mean total eradication of the virus on a global scale in the short term. But it didn't. On the one hand it meant 'zero tolerance for Covid infections'. As in 'zero tolerance' for racism or for violence against women, this doesn't mean that one thinks these scourges will end any time soon, it is a signal that these things are serious whenever and wherever they occur and one should not be complacent about them. On the other hand, it meant 'towards zero covid'. That is, relentlessly pushing infection levels down so that, were outbreaks to occur they could be dealt quickly with by targeted responses rather than requiring population level interventions. In other words, it is a strategy to avoid the necessity of lockdowns, not a lockdown strategy. However, recognising how easily the bald term lends itself to misunderstanding, I would generally prefer to think in terms of a 'suppression' or 'maximum suppression' strategy.

81. Copies of the advice issued by the Group have been provided to the Inquiry by the SGCAG Secretariat. All minutes of group meetings are publicly available. As I have explained (paragraphs 17 and 18 above) there were no SCGAG decision making processes outside these meetings that I was aware of. The minutes are fair and they are comprehensive, they record not only the decisions but the range of views expressed in the group. In terms of recording the advice we gave to ministers I have nothing to add to them. Indeed, I have no contemporaneous notes and I would far prefer to rely on these minutes than on the vagaries of my memory.

82. It is clear from the SGCAG minutes of April and May 2020 (all SGCAG were provided to the Inquiry on 7 August 2023) that we were struggling to understand key aspects of the pandemic as new information about the transmission process occurred. Should we think of it as akin to the flu or was that misleading (in many ways, including how we defined vulnerable groups)? What was the nature and the significance of asymptomatic transmission? How susceptible were children and what was the nature of transmission in schools and between schools and the broader community? The science was emerging and hence there were differing views combined with little

certainty. In that context we took a largely precautionary principle, advocating caution in lifting measures until we were confident that the virus was under control, warning against putting too much weight on any single indicator (such as R) but rather looking at indicators in the round. We endorsed the extension of measures and the need for a steady step by step approach with relaxation fully evidence based. Moreover, the relaxation of population level measures was clearly contingent upon getting infection levels and transmission rates down to a point where they could be dealt with by a FTTIS testing system (see paragraph 67 above). Hence it was contingent not only on the state of the pandemic (coming down) but also our success in building and rolling out the FTTIS system. Any delays in the latter meant that population restrictions would have to remain for longer.

83. On the behavioural level, the group took note of the high levels of public compliance with arduous measures, but noted the practical difficulties of complying especially for more deprived social groups. The effectiveness of these measures was therefore contingent on practical support but also on clear transparent information about risks. There was emphasis on engagement with the public and the need for the Scottish Government to develop listening structures which would allow them to appreciate the impact of their measures on different groups (e.g. how limitations on funerals affect different religions – Muslim, Jewish – with different funeral practices) and the support they need to do what is asked of them. In general terms, then, the behavioural debate was less about 'what are the psychological limits to compliance which limit what measures can be introduced' than 'how can we work with communities and support them in order to maximise compliance with the measures necessary to reduce transmission'?

84. The period of the first 'lockdown' provided the following key lessons to me as a psychologist:
    - Against the expectations of some (the UK Government in particular) the public showed a remarkable level of resilience and compliance with Covid measures. The great majority of people were sticking to the rules (by some estimates over 90%) even though a substantial number (roughly half) were suffering considerable hardship in doing so [SXR2/023 - INQ000370214]. Overall, the public were not the problem that limited the ability of a committed Government to act. If anything, the reverse was true and indeed the public were a key resource with whom Government should partner to contain the pandemic.

- This resilience – and the contrast with the views (and behaviour) of the UK Government – was encapsulated, for me, in the Channel 4 News Bulletin on the day that Dominic Cummings held his press conference after his trip to Barnard Castle. The bulletin carried a story about a single parent black family with two children. The mother had Covid and was too ill to look after the children. So, the elder daughter (who was about 10) looked after the younger (about 2), feeding her tins of baked beans, which is all they had to eat. But they still did not break the Covid rules.

- A key determinant of resilience lay in the development of a sense of community and unity between people [SXR2/040 - INQ000370221]. That is, as early evidence showed, people complied principally to ensure that 'everyone comes out of this well together' [SXR2/070 – INQ000370259]. What is more, this sense of community was important not only in terms of compliance but also the emergence of mutual support which created resilience and enabled people to endure the Covid measures. It follows that building and maintaining a sense of community/shared identity is a critical aspect of the pandemic response.

- The limits on public compliance and resilience were less psychological than practical. Where people broke the rules (notably on self-isolation) it was generally due to lack of resources not lack of motivation [SXR2/024 - INQ000370215]. It follows that issues of compliance will be intimately associated with inequalities between groups and that targeted support needs to be provided to the more vulnerable and deprived groups so that they have an equal ability to do what is asked of them.

- This in turn depends upon understanding and responding to the situation of different groups. An adequate pandemic response demands the development of engagement structures which ensure that the voice of all sections of the community is heard and feeds into both the development and implementation of policy.

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

General

85. As before, the advice provided by SGCAG in this period has been provided to the Inquiry by the SGCAG Secretariat. The content of our discussions is contained in the minutes of our meetings. I have nothing to add to these. The minutes are a full and accurate record of what our activities. I can, however, provide my own views, especially on matters which relate to behaviour.

86. Over the summer of 2020 the main concerns of SGCAG were to gain a better understanding of the transmission process (for instance the degree of aerosol versus droplet spread; the role of children of different ages in the spread of disease); to determine the effectiveness of different mitigations (1 vs. 2 metre distancing, masks), to address group – notably ethnic – differences in Covid outcomes); to consider how best to communicate with the public about risk; to consider how best to use testing capacities and to develop new ways of monitoring infections (e.g. waste water) and to prepare for renewed problems come the end of summer (notably the return of schools, colleges and Universities, which occurs earlier in Scotland than in England). At no point did I get the sense of complacency and that the disease had gone away in Scotland. The same goes for the Scottish Government and indeed SGCAG noted explicitly that we were being 'heard' in Government and our advice taken seriously. The minutes of 30th July, for instance record that: "*The majority of group members expressed their satisfaction for the way the group is engaged with by the Scottish Government. Group members feels their advice is having impact and being used by policymakers and leaders*" [SXR2/075 – INQ000217836].

87. One of our major concerns about the changing advice was the danger of people being confused as to what they should do. There are two aspects to this. On the one hand, any message should be sufficiently concrete so that people know what they are being asked to do. In this sense, 'stay at home' is clear. 'Stay safe' is not. It is a general injunction but is useless without information about how to stay safe. That is, what exactly are the dangers and how does one mitigate against them. There was discussion in SGCAG about how to help people estimate their risks, say using an app. We never truly got on top of this – albeit very difficult – challenge. On the other hand, where rules change constantly it becomes difficult to know what one should be doing at any given point in time. Hence, the need to update rules and advice as the situation changes must be balanced against the need for a continuity of understanding.

88. One of the most significant changes in the course of 2020 was understanding of masks. At the start we had less understanding of their effectiveness and more concerns about possible negative effects (such as mask wearing leading to riskier behaviours elsewhere). As time went by, we were generally more favourable as the benefits became clearer and the fears proved generally unfounded. Moreover, as the importance of aerosol transmission became clearer so did the ineffectiveness of alternatives to masks (such as visors). One area in which we were divided, however, concerned mask wearing in schools. Here, the advantages in terms of reducing transmission and the social/educational/mental health disadvantages were delicately balanced and so making a call was far harder. Where we did agree, however, was that even if masks were not worn, other mitigations such as distancing and ventilation of classrooms were critical.

89. Turning to behavioural issues, there was a growing appreciation in this period of the need to support people to comply, especially around self-isolation. There was also an appreciation of the need to persuade rather than coerce people into compliance. More specifically, we emphasised the need to try and create norms around issues like mask wearing [SXR2/076 - INQ000370293]. That is, we need to associate mask wearing with the beliefs and values of important groups to which people belong – most obviously (in a Scottish context), Scotland. For instance, mask wearing is an expression of caring for others, especially the vulnerable, which is what Scots do. Or again, continuing to adhere is an expression of grit and seeing things through which is another dimension of Scottishness. In implementing these ideas I was involved in July 2020 with the #WeareScotland 'rewind' advertising campaign, working with the Senior Marketing manager ScotGov, and the creatives to turn psychological concepts into polished products. I found this involvement very rewarding and a model of how academic experts and communications experts could and should work together. Sadly, however, that was the exception rather than the rule.

Eat out to help out

90. I have no recollection of a discussion of the so-called 'Eat out to help out' scheme which I think was misconceived on many levels (not only in terms of messaging and increased virus transmission but also benefitting the more affluent at a time when many were struggling to put food on the table). Nor can I find any mention of it in the SGCAG minutes. What is more, there was no sense from the group that we were Covid- free, that the pandemic was over and that we should relax. Indeed, to the contrary, even when infection levels were very low, SGCAG emphasised the

continuing dangers. For instance, in the meeting of 16th July, the minutes [SXR2/077 – INQ000217795] record: *"Group members noted the low levels of community transmission in past weeks, with many health boards registering zero positive cases over several days"*. But they continue: *"The group recognised the importance of continuing to adhere to government guidelines to maintain this"*. In that same meeting we discussed, amongst other things, testing and testing capacity, the combination of testing with other public health measures as part of a comprehensive strategy, and the question of visiting care homes. Even if there is something I have forgotten, and we did address 'Eat out to help out' we would not have advocated this scheme (or any other) out of a sense that it is no longer necessary to take steps to suppress the virus.

Conclusions from this period

91. I had (and have) two main conclusions from this period was the need to avoid wishful thinking (and promoting wishful thinking). Thus, the lifting of restrictions by the UK Government on July 4th, clearly designed to generate headlines around 'freedom' and 'Independence Day' (in which they were highly successful [SXR2/078 - INQ000370271], [SXR2/079 - INQ000370272], [SXR2/080 - INQ000370273]) thereby encouraged an unrealistic sense that the pandemic was finished, people were safe and that they could revert to old ways. In order for people to be safe they need, first, a realistic understanding of risk levels, second to know the nature of the risks that they face, third to know how to mitigate against these risks (and to be given the resources necessary to doing so). Only in this way can any notion of 'staying safe' have meaning. Accordingly, it is important, as a priority, to communicate clearly and to provide appropriate support to people.

92. As infections fell over the summer and people were largely outdoors, it was necessary to use the time to make the necessary changes so that we could deal with the inevitable rise in infections in the autumn when children returned to school, students to University, and the workforce to their workplaces. A classic case of mending the roof whilst the sun is shining. We certainly didn't relax over that summer. SGCAG itself had 12 meetings between June and August. We sought to anticipate problems in the autumn, especially around schools and universities which we saw as major issues, not least (in the case of Universities) because of the influx of people from overseas and hence the possibility of not just new infections but new variants (as stated,the minutes of all meetings have been provided to the Inquiry by

the SGCAG Secretariat). Having said that, I think we could have done more in preparing education for the autumn and potentially avoided some of the problems as students came to University only to be confined to their halls, paying large fees for them and following classes online which they could have done from home. I think we could also have done more to make schools into safer spaces along the lines discussed in paragraph 72 above. We could also have done more to ensure the digital connectivity of those who would inevitably fall ill and have to stay home (again, see paragraph 72).

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

93. My comments in paragraph 85 apply equally well to this period. For a full and accurate record of what SGCAG discussed and proposed, the record of advice and the minutes for this period should be consulted. This also applies to subsequent periods and so, to avoid repetition, I will not make this point again (and again) for each of these periods.

94. It is also relevant to recall, and expand upon, the comments I made in paragraphs 7 and 9 of this statement. The role of SGCAG was to provide scientific advice regarding the threat posed by Covid-19 to health – what was known as 'harm 1 in the Scottish Government's 'four harms' approach - and how to mitigate against that threat [SXR2/003 – INQ000346962]. We were one of many advisory groups dealing with the various impacts and harms of the pandemic and it was the role of the Scottish Government itself to integrate that information in developing and implementing policy. So, while SGCAG did comment on scientific issues of relevance to policy decisions, respond to specific scientific queries of relevance to policy decisions and comment on policy decisions from a scientific point of view (for instance, was a 'circuit-breaker' needed to contain the spread of infection) our job was not to propose or evaluate policy decisions per se. Moreover, within the group my own job was to advise on the behavioural considerations impacting the pandemic and the likely consequences of specific measures (for instance, if a 'circuit-breaker' were introduced would people comply with it). That is where I can provide specific expertise and hence where I will concentrate my comments.

95. From September to the end of 2020, things were rapidly changing both in our understanding of transmission and with the means of preventing it. In particular we began to develop the capacity for mass testing, and vaccines appeared first on the

horizon and then as available for roll-out. The bulk of our discussion was devoted to these issues. My own focus, as explained, was on the behavioural dimension. So, in terms of testing, the issues were whether people would be willing to get tested (the Liverpool pilots, mentioned in paragraph 67 above, suggested that deprived groups might not) and whether getting tested would change behaviour. There was particular concern that those who tested negative using lateral flow devices would give up on all other precautions. Given that lateral flow tests (LFTs) were better at avoiding false positives than false negatives (if they indicated you were infected, you were, but if they indicated you weren't infected, you still might be) this could have an adverse effect. This pointed to the importance of a clear and extensive communication campaign to surround mass testing. In terms of vaccines, the key issue was whether people would get vaccinated. SGCAG distinguished between those who were 'anti-vaccine' (that is, were against the vaccine irrespective of what they were told) and those who were 'vaccine hesitant' (that is, had doubts and questions about the vaccine which could be assuaged by good information). We highlighted the importance of distinguishing between the two (if you treat anyone who has questions as dogmatically 'anti-vax', you push the hesitant into the camp of the antis), of the need to respect those who have questions and to answer them, and of the need to engage with communities and communicate through trusted members of those communities. In the rush to roll out the vaccines I fear that these points got somewhat lost.

96. As I have just mentioned (paragraph 94). SGCAG did discuss the idea of a 'circuit-breaker' of tighter regulations to contain the spread of the virus in this period. The group was split on this issue with the majority opposed and a minority in favour (as recorded in the minutes of 5th October, 2020 [SXR2/081 – INQ000217915], our first meeting following that of SAGE where they mooted the idea). Where we were united, however, was something would have to be different at the end for such an initiative to have any sense: *"Unless something changes we will (as we have often discussed) simply yo-yo in and out of restrictions"*. The things we suggested could (and should) change were (a) improving testing capacity; (b) putting in places structures and funding to allow people to self-isolate; (c) inspection and regulation of public spaces to ensure that Covid-19 safety is strictly observed. While progress was made on the first of these, we were less successful in terms of the latter two. I have already mentioned the issue of support for self-isolation several times (and mentioned that it impacted not only self-isolation itself but other things such as getting tested). The emphasis is not just mine. We repeated the point in the SGCAG meetings of 21st

September, 5th October, 19th October, 2nd November, 16th November, 3rd December and 30th December [[SXR2/082 – INQ000217900], [SXR2/081 – INQ000217915], [SXR2/083 – INQ000217942], [SXR2/084 – INQ000217959], [SXR2/085 – INQ000217976], [SXR2/086 – INQ000217996]] – that is, in every meeting in this period bar one (16th December) which was short and devoted mainly to discussion of the new Alpha (then, 'Kent') variant [SXR2/088 – INQ000218003]. As concerns regulation of public spaces to ensure they observed Covid-19 safety regulations (and complied with Health and Safety law, this was one of the greatest failures of the pandemic response right across the UK). In the entire first year of the pandemic there was not a single prosecution for health and safety violations relation to Covid – the first that did occur was in late 2021 [SXR2/089 - INQ000370274]. Indeed, during the first 'lockdown' the HSE suspended site inspections entirely, reverting to telephone conversations [SXR2/090 - INQ000370275]. In part, these failures reflect a sharp decrease in funding for the HSE and in numbers of Inspectors at a national and local level. Thus, the number of full time equivalent local authority health and safety officers in the UK fell from 1,020 in 2010 to 543 in 2017 (and fell further by 2020) [SXR2/091 - INQ000370276]. This is an issue which needs to be addressed if we are to fare better in future pandemics.

97. From what I can recall, and from rechecking the minutes, our first substantial discussion of the 202012/01 variant ('Kent'/'Alpha') was on the 16th December 2020. This has been scheduled as the last meeting of the year (indeed the final note in the minutes reads: *"Gregor Smith thanked group members for their work since the start of the pandemic. Andrew Morris noted that this is expect[sic] to be the group's last meeting in 2020"* [SXR2/088 – INQ000218003]. In the event, however, we had an additional emergency meeting on 30th December. We acknowledged the need for additional measures, we advised that FE/HE teaching should remain online, but we acknowledged the greater need for school teaching, especially for younger pupils, top remain in person given the evident social, educational and mental health harms of closing schools. Indeed, as in our discussion of the circuit-breaker, we emphasised that a failure to implement these other protective measures would make a more restrictive response more likely. To quote from these minutes: *"There is a duty of the group to reflect the risk from the new strain and the risk that control is in jeopardy and the likely impact this will have on the NHS. In the short term there may need to be different action taken in schools for the next 1-2 months. A common theme is that we should be intensifying measures that we know to work, increased emphasis on NPIs, use of testing, and include support for isolation"* [SXR2/087 – INQ000218023].

98. From November onwards, there was a growing concern with the impact of winter festivals – Diwali, Hannukah and, especially, Christmas - on the pandemic. At our 2nd November meeting, SGCAG discussed the dangers of increased mixing, of inter-generational contact and of travel home (especially by students). Debate began on whether, and for how long, restrictions should be scaled back, noting that *"Scaling restrictions back for a fortnight would present a significant risk of driving exponential growth in the virus. Some relaxation for a shorter period would be a commensurately lower risk but would still present a risk"* [SXR2/084 – INQ000217959]. There were two key considerations here. One was prevalence of the virus. The other was the issue of how people would behave. It was widely assumed that people would not be willing or able to put up with restrictions on socialising over Christmas and therefore it made sense to demand less in order to get more. As the minutes of the 2nd November meeting state: *"temporary relief from restrictions could enhance compliance for the rest of the holiday period"* [SXR2/084 – INQ000217959]. This is a somewhat watered down version of the 'behavioural fatigue' argument: human psychological frailty limits what one can do to limit infection suppression. Like 'behavioural fatigue', it had harmful consequences. However, this time it was not simply a matter of delaying action out of fear of fatigue and letting infections spiral. Rather, the assumptions of non-compliance led to an initial decision to loosen restrictions for five days over Christmas and then a last minute reduction to loosening for Christmas Day alone, followed by tougher measures from Boxing Day onwards [SXR2/092 - INQ000370315].

99. Such flip-flopping was undoubtedly unhelpful both in creating confusion over what was and wasn't allowed, and also in undermining the credibility of Government. It undermined the possibility of a clear and consistent communications campaign about what people should do to stay safe over Christmas which SGCAG and SPI-B repeatedly called for. Moreover, it led to fears that people would completely ignore counsels of caution and mix to the limits of what was allowed (a maximum of 8 people from a maximum of 8 households) and beyond. In the event (and as in the first 'lockdown') these fears were unfounded. The CoMix study showed that the mean number of contacts over Christmas 2020 was a modest 2.7., only marginally higher than the figure in January 2021 (2.5) when 'lockdown' had been reimposed [SXR2/093 - INQ000370302]. What is more, polling evidence suggests that, far from complying reluctantly, most people actually wanted restrictions on socialising over

Christmas and opposed the relaxation of measures in this period [SXR2/094 - INQ000370277].

100. The Scottish public also supported the new 'lockdown' measures introduced after Christmas and at the start of January. YouGov polling showed that 85% of respondents either 'strongly' or 'somewhat' supported these latter measures with only 10% being either 'strongly' or 'somewhat' opposed [SXR2/095 - INQ000370278]. Moreover 72% felt they should have been introduced sooner compared with a mere 3% who thought they were introduced too soon [SXR2/096 - INQ000370279]. As happened repeatedly in the pandemic, the public were ahead of the Government in calling for action: wanting measures before they were implemented, wanting measures retained longer than they were [SXR2/097 - INQ000370280]. The reality was not the Government dragging along a reluctant public but the public dragging along a nervous Government – more at the UK than the Scottish level, but to some extent for both.

101. The main conclusions I drew from this period were (a) that it confirmed the importance of implementing earlier protective measures to avoid later restrictive measures as infection levels run out of control. We should have done more to support people, we should have done more to make public spaces safer. Had we done so, and had we combined that with an efficient FTTIS system, then more draconian measures (with greater secondary harms) might have been less necessary over Christmas and into the New Year; (b) it also confirmed the dangers of underestimating public resilience in the face of Covid. Once again, we saw that people, by and large, were able and indeed willing to take action. Perhaps, in addition to watchwords for the people (such as 'stay at home'), we needed some for the Government, the first of which should have been 'trust the public'.

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

102. After the Christmas of 2020, with high rates of infection, a new variant, and the roll-out of the vaccine only just starting, there was general acceptance that stringent measures were necessary in order to stop infections running out of control, the human cost and the burden on the NHS becoming intolerable. What is more, the advent of the vaccine went some way to answering the question 'what will be different when lockdown ends' – the answer of course that people will be vaccinated thus decreasing whether people got infected, whether they transmitted the virus and

how seriously they suffered when infected (or, to be more accurate, hopefully decreasing these things since the impact on infection, transmission and serious disease were not yet clear in this period). So SGCAG broadly welcomed the measures. The biggest area of controversy was schools both because of uncertainties in the group about the extent to which children contributed to community transmission (and therefore how much keeping schools open would increase prevalence) and also because of the greater harms caused to children by keeping schools closed. We all agreed that, if we did close schools, reopening them would be a first priority.

103. There was an apparent and highly publicised alternative in the form of the so-called Great Barrington declaration, which I referred to in paragraph 37 above (and in my first witness statement paragraph 38). This argued for the removal of all measures (restrictions, support, protections alike) and to encourage the spread of the disease amongst the majority of the population while focussing protection on the vulnerable. There were many grounds for rejecting this as a chimera and, as I stated above, it had little support in SGCAG or in other scientific bodies. My own opposition is expressed in a discussion I had with Professor Martin Kulldorff as part of the so-called 'Munk Debates' [SXR2/098 - INQ000370281]. Amongst my concerns were the following:

- The notion that one could draw a ring amongst many millions of vulnerable people and protect them from the virus was simply realistic. How would they be catered for; how would they be cared for; how would they be separated from those they lived with? The tragedy of what happened in care homes was enough to indicate that the 'ring of steel' idea is a fantasy.

- Even if one were to try, the implication was that vulnerable people would be locked away and kept completely separate from the rest of society, unable to circulate in any way, stopped from using any facilities. So, while everyone else was out socialising, eating, drinking, vulnerable people would be excluded. In this sense, the Great Barrington Declaration was the real lockdown position – a lockdown more extended and more extreme than anything that actually occurred, and a lockdown which would be felt all the more for being imposed on just one section of society.

- However, the impact would not be limited to the vulnerable. If everyone were to get infected, even if the probability of extreme harm was comparatively low, the toll on individuals, the burden on the NHS and the impact on the economy (through workforce shortages) would be intolerable. This is before factoring in the harm in terms of Long Covid, understanding of which was just starting to emerge.

- An increased circulation of infection is associated with an increased probability of mutation and the emergence of new variants. This is an added danger of the 'let it rip' approach of 'focussed protection'. With the emergence of the alpha variant and of other variants on the horizon, this is an additional risk which threatens to undo all the work (notably the development of vaccines) to develop immunity, quite apart from the danger that some of these variants might be more transmissible and more serious.

- Finally, the logic of 'focussed protection' was that allowing all but the vulnerable to catch Covid would produce a level of population immunity that would stop the virus subsequently circulating in society. However, this assumed low rates of reinfection (that is, if you catch Covid once you are protected from catching it again) – a highly dubious assumption.

- In sum, then, the 'Great Barrington' alternative was no alternative at all. It guaranteed disruption, inequality and multiple harms to no assured benefit.

104. As I stated in paragraphs 81 and 82, the two key lessons I took from the first 'lockdown' were (a) the importance of providing realistic information about risk and the ways of mitigating it, and (b) using the tie wisely to make sure things are different when 'lockdown' is lifted (and indeed to facilitate 'lockdown' restrictions being lifted as soon as possible). I think the Scottish Government did relatively well on the former. They were straight with the public. They didn't promote wishful thinking. They didn't build up an emotional head of stream around the lifting of measures constituting 'freedom day' thereby limiting their ability to respond appropriately to the actual state of the pandemic. I think the record is more mixed on the latter. Of course, the vaccine roll-out was critical, but the same issues which SGCAG (and I) raised around the first 'lockdown' remained issues for the second: making environments (especially school environments) safer; monitoring the implementation of protective measures in workplaces and public spaces; providing support (especially for self-isolation. Of

course, such measures would have had major resource implications and the Scottish Government only had limited ability to introduce expensive new measures not introduced by the UK Government. Nonetheless, I believe that this was a serious weakness in the overall response.

105. As ever, I am not in a position to comment in overall terms on the various policy decisions made by the Scottish Government in this period because I am not privy to all the information about all the harms of different options. I can, however, speak to the key behavioural issues and the ways that they were dealt with. As well as ongoing issues, which I have already dealt with exhaustively (such as the need for support, particularly for self-isolation), two new issues gained prominence in the early months of 2021. The first concerned the behavioural dimensions of the vaccine rollout. Would people get vaccinated and would getting vaccinated lead to a sense of invulnerability and hence to a loss of caution with regards to getting and transmitting Covid? The second issue concerned how to maintain safe practices as we followed the various steps on the 'road map' to come out of 'lockdown'.

106. On the first issue, and as concerns getting vaccinated, the debate largely centred on the question of vaccine certification: should people be required to get vaccinated in order to gain access to various activities from international travel to going to the shops? I personally was opposed to certification. While it has some positive impacts, notably persuading those who have nothing against it but haven't got round to it (who I call the 'vaccine indifferent') to get jabbed, it runs the danger of making vaccination seem something done to us rather than done for us. Accordingly, it plays into the anti-vaxxer narrative that vaccination is a form of control and it gives the anti-vaxxer more traction in general, especially amongst those who are already distrustful of the authorities. Our own data [SXR2/099 - INQ000370294] supports this view: while vaccine certificates might increase the rate at which those not opposed get vaccinated they increase the number who become opposed. They alienate precisely those we should be seeking to win over. What is more, the debate over certification in itself distracts from the things that should be done and have been shown to increase vaccination, especially amongst marginal and minority communities [SXR2/099 - INQ000370294]. This has to do with community engagement, working with and through trusted community members, making it easier to get vaccinated by having vaccination centres/mobile vaccination units in communities, paid time off to get vaccination and so on (see paragraph 79 above). There were pockets of good practice in this regard [SXR2/100 - INQ000370295], but more could have been done.

107. Continuing with the first issue but turning now to the impact of vaccination on behaviour (would people simply abandon distancing, masking and other protective behaviours once they had been vaccinated), I think there is a danger of psychologizing what is essentially an issue of politics and messaging. The notion that there is some inherent tendency for people to respond to lessened risk in one area by behaving more riskily in others (what has been termed 'risk compensation') has become increasingly controversial in recent years [SXR2/101 - INQ000370296]. This is reflected in a range of studies showing that whether 'risk compensation' occurs or not varies from context to context [SXR2/102 - INQ000370297] [SXR2/103 - INQ000370298]. As more generally, one key determinant of how people respond to interventions such as vaccinations lies in their understanding of the residual risks, how important they are and how significant various mitigations remain. This in turn will depend on the messaging surrounding such interventions. Although, in January 2021, the UK Chief Scientific Adviser, Sir Patrick Valance explicitly stressed that even when vaccinated risks – and hence the need for other mitigations, would remain [SXR2/104 - INQ000370282], through 2020, the UK Government in particular refused to adopt or maintain other measures on the grounds that vaccination alone would be sufficient to deal with the pandemic. In so doing they rejected the 'vaccine plus' strategy [SXR2/105 - INQ000370283] (combine a comprehensive roll-out of vaccines with other strategies such as creating safer environments) advocated by the WHO and others [SXR2/106 - INQ000370284]. Such messaging (rather than anything inherent in our psychology) is precisely what is likely to undermine adherence to other mitigations and hence undermine the positive benefits of the vaccine. In short, if you are told explicitly or implicitly that 'the vaccine is enough' why do anything else? While the Scottish Government were generally more cautious in their response, the UK messaging is still widely heard in Scotland and is likely to have had corrosive effects on behaviour throughout the UK.

108. The second new behavioural issue in this period – how people would respond to the loosening of regulations as the situation improved – also raises issues of messaging. The Scottish 'road map' [SXR2/107 – INQ000246121] for coming out of restrictions was presented (like the English and Welsh roadmaps) as based on data not dates. As the document states: *"The timing of any changes will be driven by evidence and data, not predetermined dates. It is also important that we leave enough time between reviews to see the impact of changes".* The relevant data were largely derived from WHO principles, notably whether transmission is controlled and whether

there are the health service capacities to identify, test and treat all cases and also to trace and quarantine contacts. In addition, minimizing outcome risks to the most vulnerable, the existence of preventative measures in workplaces, managing import and export of cases from 'hotspots' and the participation of communities in the transition were all invoked. This constitutes a partnership approach. As the First Minister put it in her foreword to the roadmap: *"Getting the data to where it needs to be, and keeping it there, depends on us using all the tools at our disposal to maximum effect"* [SXR2/107 – INQ000246121]. From a behavioural perspective, the key thing about such an approach is that the prospect of lifting restrictions doesn't promote complacency by signalling lowered risk. Rather it promotes active engagement by signalling that progress is contingent on both Government and public doing their bit to lower transmissions. The danger, though, is once dates are announced, even if provisional, they quickly become fixed with much political invested in meeting them. Once 'data not dates' becomes 'dates not data' the signalling reverses and the danger of complacency returns. The more one stresses the dates, the less likely it is that the dates can be met (safely). That is why SCGAG and I personally [SXR2/108 - INQ000370285] stressed the importance of sticking with the data and being flexible on the dates. In this respect, I think the Scottish Government was clearer and more consistent in sticking to the principles it announced for lifting the 'road map'.

109. In overall terms, the aim of the second lockdown was to bring infections under control while rolling out the vaccine (which would make future lockdowns much less likely. In this respect, I think it was broadly successful. Where it was less successful – as throughout the pandemic, was in developing the other protections (safer environments, properly monitored, and support for self-isolation in particular) that were essential to a successful 'vaccine plus' strategy.

110. From a behavioural point of view, the key learning point in this period was the importance of community engagement, especially engagement with the marginal communities which had less trust in the authorities, and which therefore were less likely to engage with authority (notably by getting vaccinated).

I. Decisions relating to the period between April 2021 and April 2022

111. As for every other period, I need to start with two general comments. First of all, all the decisions of SGCAG are available in the minutes of group meetings which, in my

recollection are an accurate and comprehensive record of our work. Second, I will only comment on matters which are within my expertise as a behavioural scientist. There is one further comment. In this period, the frequency of meetings was reduced to one per month on the whole. There was an exception in December where, with the emergence of the Omicron variant, we had three meetings leading up to Christmas. Our final meeting was on 3rd February 2022 when it was stated *"At this point in the pandemic it is unlikely that there will be a continuing need for regular advice on the science of Covid from, or regular meetings of, the group. Where advice is required, on a new variant for example, a meeting will be arranged but otherwise matters will be dealt with in correspondence and the secretariat will continue to circulate information from SAGE and other sources as usual"* [SXR2/109 – INQ000218270]. I am therefore unable to comment on events beyond this point as a participant in SGCAG.

112. In general terms, as I have already stated in paragraph 108 above, I felt that the decisions to lift Covid measures in the period April to August 2021 stuck largely to the principle 'data not dates'. In that sense, the fact that the dates were flexible was helpful in focussing attention on the level of pandemic risk. For instance, in the June 2021 meeting, SGCAG supported a delay in lifting restrictions due to the high level of infections. The minutes record that: *"There was consensus in the group that while uncertainty prevails, we are now in a third wave with increased infections and hospitalisation but the future magnitude is uncertain. Delaying further easing of restrictions is likely to have a beneficial effect on hospitalisation but the extent of that is uncertain. A delay of at least 2 weeks should provide a clearer picture though this is also uncertain. It will be important for policymakers to consider the wider impact on the health service and health service recovery."* [SXR2/110 – INQ000218169]

113. Scotland also largely avoided the rhetoric of 'Freedom Day' (19th July 2021) which, as I explain at length in my first witness statement (paragraphs 119-131) was harmful in multiple ways: implying all Covid measures are restrictions; justifying the neglect of protections (such as clean air) and support (resources for self-isolation); suggesting that all risk has gone and hence undermining all caution and all mitigations (including vaccination) [SXR2/111 - INQ000370285]. SGCAG was very mindful of these various issues. For instance, the minutes of the 9th September meeting record: *"Group members noted that Covid measures have generally been described as restrictions. Moving forward many measures may be more appropriately described as protections, similar to those in place in industries to regulate the production of goods*

and the delivery of services for consumer safety" [SXR2/112 – INQ000218192]. The importance of framing measures as protections, not restrictions was reiterated in the November SGCAG meeting [SXR2/113 – INQ000218208].

114. In this period there were a number of recurring behavioural issues (how to get people to act safely when formal regulations were removed; how to increase vaccine take-up; the significance of mass events) all of which came to a head around Christmas 2021 in the context of the new Omicron strain. I shall deal with each of these issues in turn before considering the response to the Omicron crisis.

115. The issue of public adherence was a constant concern of SGCAG through the autumn. In August 2021 the group notes high levels of public adherence. In October, concern is expressed at the fact that activity levels in England have risen so as to be almost back at pre-pandemic levels. In November there is more concern at rising numbers of contacts with others, specifically in workplaces. It should be stressed that such figures did not indicate that people were breaking any remaining rules. Indeed, often they were being encouraged or even pressured to behave in ways that were showing in the figures (e.g. return to work) [SXR2/114 - INQ000370287]. The problem was that these behaviours increased the probability of transmission.

116. On the issue of how to sustain behaviours that suppress transmission, SPI-B produced a comprehensive paper in April 2021 [SXR2/115 - INQ000370299] which adopts what has been called a 'Swiss cheese approach of using multiple layers of protection, all of which have holes, but the holes don't align so that, in combination, the virus cannot get through. Or rather, more formally (and to quote from the paper): ***"Successful risk management involves: multiple layers of protection; a combination of physical, social and psychological measures; effective communication of risk and uncertainty; inclusion of the targeted groups in its development; continued monitoring and feedback (high confidence)"*** (bold font in the original). One of the critical elements in such an approach is that it doesn't simply hand responsibility over to the individual and absolve Government of all responsibility [SXR2/044 - INQ000370237]. It recognises, first, that we need to continue to motivate behaviour by stressing how it is about keeping each-other safe (social responsibility), second, that we need to enable behaviour by giving people both the information and the means they need to act in ways that reduce transmission. SGCAG emphasised all of these points at various times, in particular the need for Government to enable the public through information and resources. In

our August meeting, for instance, we considered how we might inform people about the standard of ventilation in different public spaces [SXR2/116 – INQ000218188]. In September we pointed to the key role of environmental health officers are in ensuring safety in such spaces [SXR2/112 – INQ000218192]. One proposal for informing people about ventilation was the so-called 'scores on the doors' scheme [SXR2/117 - INQ000370288] which was trialled in a couple of Universities. We did have some discussion in late 2021 with the Covid Ventilation Short Life Working Group of the Scottish Government. However, the group was wound up (in early 2022, I think) and so the idea came to nothing. More generally, I think that, despite warm words, more could have been done to support people in sustaining transmission reducing behaviours.

117. On the issue of vaccine take up, there was growing concern through the autumn about waning immunity amongst those who had been vaccinated early and hence the need to promote the take up of boosters. We continued to discuss the issue of vaccine certification, particularly in the November meeting. The discussion raised both arguments for and arguments against, and overall there was recognition (as before) that certification is not a simple solution – if a solution at all – and that it has contradictory effects: *"In groups that could be termed 'vaccine indifferent' certification could be an effective push to take up vaccination. Among those who are 'vaccine hesitant', there is a risk that individuals may not take up the vaccine following the introduction of tools such as certification. In groups who may have a distrust in authority, certification can increase this distrust"* [SXR2/113 – INQ000218208]. In my view, the problem with the certification debate was less to do with the effects of certificates and more to do with the way in which it crowded out other approaches, such as making vaccination points more accessible to people, allowing people paid time off to get vaccinated or to stay home if they felt unwell after the jab and (above all) engaging with communities (especially those with higher levels of distrust and lower levels of take-up, such as the black community). All these factors were acknowledged as important in the November discussion, but I don't think they were given sufficient priority in practice. To give just one example, in Israel, mobile vaccination units were set up in bars in liberal Tel Aviv, with a free drink to anyone who got vaccinated. A mobile unit was also set up in the ultra-Orthodox town of Bnei Barak, but here people got a serving of cholent (a stew traditionally served on the Sabbath) instead [SXR2/118 - INQ000370289]. In Scotland I am aware of no such imaginative schemes.

118. On the issue of mass gatherings, SPI-B produced another paper in August 2020 [SXR2/119 - INQ000370300]. This was complemented by a report of the Events Research Program which reported in July 2021 on the first phase of its study into the impact of multiple pilot events on Covid transmission [SXR2/120 - INQ000370314]. These tell a mixed story. On the one hand, some events can have a major impact. The European Football Championships in 2021 led to an estimated 840,000 cases, and some matches had a particularly strong effect. The Scotland-England game alone accounted for 30% of Scottish cases over the followed weeks with each single infected person at the game infecting on average an additional 3.5 people at or around that single day [SXR2/120 - INQ000370314]. On the other hand, other games at the Euros and other large events (such as Wimbledon) had no significant effects on transmission. This suggests that it is too simple to assume that every mass event is a Covid danger. Rather we need to look more closely at the factors which make some events dangerous. Part of this will be the level of infection at the time, some will be whether events are indoors or outdoors or mixed (for instance, people might sit outdoors to watch the game but queue for food and drink in crowded indoor concourses at half time). Much will have to do with social norms, which differ in different groups and events. In some events there may be behavioural norms which lead directly to increased virus transmission. These include singing, shouting, chanting, crowding, hugging. They also include drinking and drug taking which disinhibit people and increase risk-taking in general. Examples of such events are football and music concerts. Moreover, the risks are not limited to behaviour at the event but also around the event. Football fans, for instance, have a tradition of meeting in densely crowded pubs and then walking to the game together. Arguably, these moments are riskier than what happens in the stadium where people can be more easily controlled.

119. What all this means is that there is no one problem around mass events and no 'one size fits all' solution. It points to the need to analyse 'pinch points' for any specific event and then communicating clearly and systematically so people know where the dangers are and how to mitigate against them. More generally, while mass events are a potential risk and can, in some circumstances, play a major role in increasing transmission (as in Scotland after the Euros), the risk is not always realised. Understanding the key parameters which translate potential into reality for any given event and devising a tailored plan of mitigations is critical to improving Covid safety. This was recommended by SPI-B. By and large it was another recommendation that was mostly ignored.

120. COP 26 constitutes a case where a potential threat was not realised. The minutes of the September SGCAG meeting note that: *"COP26 will present unique challenges and the group noted the importance of recognising the potential scale of risks posed by this event and the pressure this could add to the system"* [SXR2/112 – INQ000218192]. However, data from Public Health Scotland showed that the event did not cause Covid infection rates in Scotland to rise. Part of this was down to the fact that most events were outside. However, our own research on the crowds at COP26 (as yet unpublished) suggests an additional process. One of the strong norms amongst protestors was concern for others, especially the most vulnerable. Indeed, a key theme in the protests was the need for solidarity with the people of the Global South and with Indigenous peoples who are most at risk from climate change. This norm of solidarity and concern for the vulnerable was translated into the domain of Covid with a strong emphasis on mask wearing and distancing especially in indoor spaces. This came through very strongly in the conversations and the interviews we had. It illustrates the importance of social norms, but also goes further and shows how norms, and the behaviours they invoke, are not set in stone. So, for instance, a norm of 'caring', which might normally be expressed in spatial intimacy (hugging) can be reinterpreted in the context of Covid as requiring distancing and mask wearing. This further points to the importance of group leadership and of working with and through those respected in the group (managers and players in the case of football, performers in the case of concerts) in order to develop safe practices. These are important lessons. Again, I am not sure they were ever learnt.

121. Everything changed with the emergence of Omicron before Christmas. In its October meeting, SGCAG was upbeat about the current state of the pandemic and the run-up to Christmas but then added, presciently: *"While there was some reason to be optimistic, it was noted that there is room for evolution of the virus and we must not be complacent. Delta is currently outcompeting other variants with immune escape, but the virus had demonstrated significant evolutionary tendencies and new variants could change that"* [SXR2/121 – INQ000218199]. Everything changed with Omicron. The first mention I can find of it within the advisory group was from the meeting of 2nd December, called especially to deal with the emergence of this new variant. The minutes note, at the start, that *"The meeting was to discuss the developing position on Omicron but we are awaiting data and there may be a need for a longer discussion next week"* [SXR2/122 – INQ000218231]. The minutes also note a sense of urgency, a concern with the short doubling time of infections, a need to go early

but the need for an 'exit plan' if 'go early' included new restrictions. There was a clear sense of a race: could we boost vaccines and reduce contacts fast enough to 'outrun' the virus, or would the virus spread so fast that it would overwhelm the health service and society? It was also clear that there was considerable uncertainty and it was a very close and difficult call whichever way we went with increasing restrictions. A week later, we knew some things, like the doubling rate which was estimated at 2-3 days. But there was much uncertainty about other things. Much now came down to behaviour and the meeting December 9th stressed the need for clearer advice (e.g. on face coverings) and greater support. The minutes record agreement that: *"A joint public health strategy around the UK should be considered to increase the impact of and adherence to measures, with financial support packages a part of that"* [SXR2/123 – INQ000218239]. In our last meeting of the year, on the 17th SGCAG returned again to the importance of behaviour: *"Public attitude/acceptance remains mostly positive; people are still engaging /adhering. Behavioural changes remain important and a decline in trust would be worrying as it's important that messages are effective. People were more cautious over Christmas and that made a difference. Agency is an important motivator and it helps if we can confirm to people that their behaviour can be powerful and does make a difference. People's understanding of the pandemic is also critical to their behaviour – messages that 'it's all over' would affect behaviour in a fundamental way; important that optimism on Omicron is balanced by realism on potential risks of further variants"* [SXR2/109 – INQ000218270].

122. While England decided not to reintroduce restrictions, Scotland took a middle path, placing no formal restrictions on household mixing but introducing a series of restrictions on public mixing – bars restaurants and mass events. Which was right – or whether we should have gone further as in 2020 is almost impossible to say. In the end, both Scotland and England scraped through the Christmas (and New Year) period without the NHS being overwhelmed. However, it was a damned close run thing and one more doubling of infections (half a week or less at the estimated rate) could have had disastrous consequences. Many used the outcome as a post-hoc validation of non-interventionist policies. But this is a dangerous logic. One might play Russian roulette and survive, but it does not follow that playing Russian roulette is the right decision. What is more, whether it is right or wrong to take a certain risk is not, ultimately, a scientific question. Science can help estimate the risks of different courses of action. It cannot ultimately tell you how great a risk is acceptable or how to

balance one risk (such as the harm of restriction) against another (such as the harm of increased infection). These are ultimately moral and political issues.

123. My personal view, for what it is worth, is that the restrictions imposed in Scotland were reasonable and indeed it would have been reasonable to have limited household interactions as well. Even if we got lucky and numbers of those needing hospitalisation did not outrun NHS capacity, more mixing means more transmission means more infections with all the harms to individual health (short term and long term including risks of Long Covid), load on the NHS, educational absences and workforce shortages. And had we been unlucky, the consequences could have been catastrophic. The one area where I think the balance goes clearly the other way is in terms of school closures. SGCAG was very clear on this with a constant emphasis that keeping schools open should be a first priority.

124. There is one further point I wish to make about the complex question of whether or not restrictions should have been implemented at the end of 2021. It is one which takes us back to the behavioural science and where I can therefore speak with more confidence. If one concern about taking action was a fear it would alienate the public, then I don't think that is a valid consideration. As I discussed in relation to the end of year measures in 2020, the public not only went along with Government Covid measures, they wanted the Government to go further. At the end of 2021 we see a similar story. As SGCAG noted in both January and February, people showed greater adherence than was feared. Or, as the February minutes record: *"People were more cautious over Christmas and that made a difference"* [SXR2/109 – INQ000218270]. With clear rules (and rules aren't just about obliging and enforcing particular behaviours, they are also the clearest form of messaging as to what is important) and clear support, my judgement is that we could have reduced contacts and transmission still further. Moreover, while no doubt such rules may have been resented by some they equally would have been welcomed by others. When one has the choice, saying 'no' to family who want to visit at Christmas is a difficult and potentially conflictual thing to do. When there are rules, it is much easier to say 'no'. Indeed, this issue of how to say no to risky behaviours was sufficiently important that SGCAG produced a paper about it (see paragraph 38 above) [SXR2/016 - INQ000370213].

125. As to the role of the Government in facilitating and enabling public caution, I think the picture (as ever) is mixed. In terms of communication, many of the principles

advocated by SGCAG (and SPI-B) were observed: the need to be open about risk; the need to make clear that, even if people could mix with other households, they should consider very hard whether they should; the need to stress agency and how behaviour made a difference; the importance of prioritising the social good. For instance, the First Minister's 2021 Christmas message put's its major emphasis on helping the community [SXR2/122 - INQ000218231]. On the other hand, it did little to heed the continuing calls for enhanced support either at a systemic level (making environments safer) or an individual level (support for self-isolation). If I (and SGCAG) sound like a stuck bell on these issues, it was simply because the alarm around them never went away.

126. As I indicated in paragraph 111, by February 2022, SGCAG effectively ceased functioning – at least in terms of regular meetings. Hence, I have little to say about the process of decision making after that date. In general terms, many of the issues I have been discussing around decisions in 2020 and 2021 apply to the relaxing and removal of protections in 2022. It is the same old story of 'good on communications, not so good on delivery'. Scotland avoided the excesses of 'freedom day' rhetoric that surrounded the ending of nearly all covid measures in February 2022. Scotland was not quite so gung-ho in implying that the pandemic was all over. But systemic and individual support was lacking so that, even if people did want to stay safe and keep others safe it wasn't clear what they should do or whether they were able to do it.

127. Just as there is a continuity of issues (specifically, behavioural issues) in this April 21-April 22 period, so there is a continuity in what I learnt. And since messaging during Covid was so hung up on three part lists ('Stay home/Save lives/Protect the NHS') I shall do likewise: "Trust the people/Inform the people/Support the people"… all of which is contingent on constituting persons in collective terms as 'the people'.

J. Care homes and social care

128. Scotland made disastrous mistakes around care homes at the start of the pandemic. It is estimated that 338 infected people were discharged from hospitals into care homes resulting in some 2000 deaths across Scotland. Even after the Government introduced a requirement for two negative tests before such discharges could take place (this came into force on 21st April 2020), an estimated 45 people were still transferred to care homes without being tested. This helps explain why Scotland had the highest rate of Covid related deaths in care homes of any part of the UK. Here,

47% of overall deaths linked to the virus occurred in care homes compared with 42% in Northern Ireland, 30% in England, and 28% in Wales [SXR2/125 - INQ000370301]. There is no doubt that the decisions are wrong. The First Minister has acknowledged that and spoken about her regret at the decisions [SXR2/126 - INQ000370312]. The question is whether she and her government should have known that they were wrong at the time.

129. I recall little discussion of these issues in SGCAG at the time. In checking the minutes over the period (March and April 2020), I see that the first time we talked about care homes was in our fifth meeting on 9th April [SXR2/127 – INQ000217490], with further discussion on 23rd [INQ00021751] and 30th April [SXR2/143 - INQ000217569]. However, the discussions were principally about nosocomial infections in hospitals and in care homes rather than about the transfer between them. For instance, the minutes of the 9th April meeting read: *"The chair highlighted a further point from SAGE of rising concern on nosocomial transmission. Nosocomial transmission rates vary between hospitals (e.g., UCLH 8%, Cambridge 20%). Work is underway in NHS England Trusts to establish best practice around this. [Redacted] noted that current SPI-M models are not set up to incorporate nosocomial transmission. [Redacted] also commented that there is existing concern from patients that they are at greater risk from COVID-19 in hospitals and this is become heightened once this information is made public. The chair noted the importance of nosocomial transmission and the need to establish potential consequences for Scotland's hospitals and care homes"* [SXR2/127 – INQ000217490]. There is no clear indication that SGCAG was warning the Scottish Government about the dangers of transferring elderly people from hospitals to care homes. If anything, we were warning about the dangers of being in hospitals. I make this point with the strong proviso that I am not an expert in this area and my comments are based on what I can see in the public record. Others on SGCAG will have much more insight on these issues than I do.

130. From a behavioural perspective, my main concern came a little later, in May 2020, with decisions to shield people in care homes by stopping family visits. This was controversial at the time [SXR2/128 - INQ000370303]. My feeling was that care homes were and are a special case in terms of regulations concerning social contact. This is for two reasons. The first is that people in care homes have dementia and will not understand why their families are not visiting or can only see them under very constrained circumstances. This will lead to feelings of abandonment and betrayal.

The second is that life expectancy is very limited and it makes little sense to say to someone 'live in isolation for a year so you can survive Covid' when they are unlikely to live for much more than a year in any case. Here, people may choose to take a calculated risk to see loved ones even if it increases the probability of infection and death since the alternative is to suffer an almost certain social death. Both considerations suggest that care home visiting policies may need to be more nuanced and provide more choice. The issue isn't simple, of course, because if some residents have visitors and get infected they are liable to pass it on to other residents both directly and indirectly (through care workers). To separate those who want visitors from those who don't within the same home raises major logistical problems. But at least the question of whether it is possible to give people informed choice over visiting is worth debating. I discussed this matter with others more expert in the field and raised it with the SGCAG Chair. I also raised these issues in a briefing on shielding for the First Minister held on 15th May 2020. In the event the Scottish Government retained a cautious approach to shielding. But as we learn more and more about the harms of isolating the elderly (it has been shown to have caused extreme distress, cognitive and emotional decline and even death [SXR2/129 - INQ000370304]), it will be an issue to reconsider for the future.

131. There is another issue relating care homes which still needs addressing. There is evidence that poor staffing conditions contributed to the death toll. Those homes which failed to provide sick pay, or which used bank and agency workers saw higher rates of infection amongst residents [SXR2/130 - INQ000370305]. Neither of these findings are particularly surprising. If staff work when infected because they cannot afford not to, or if they move from home to home with the potential to spread Covid not only within but also between homes, there is bound to be a problem. This cannot be addressed without addressing the general employment conditions in the sector. A 2022 Health Foundation report shows over a quarter of the UK's residential care staff to be living in, or on the brink of, poverty [SXR2/131 - INQ000370306]. While Scotland has introduced a minimum wage for care workers of £12 from April 2024, there remains a long way to go [SXR2/132 - INQ000370307]. And we will not be able to look after care home residents in future crises unless we also look after care home staff.

K. Borders

132. The issue of borders and of travel, like virtually everything else to do with Covid, involves multiple considerations, making a simple right/wrong evaluation of decisions very difficult. Travel impacts Covid transmission in multiple ways. To start with travel itself – especially public transportation – increases the spread of the virus. There is evidence that banning public transport was effective in reducing infections [SXR2/133 - INQ000370308]. Second, the process of travel increases the number of contacts one has (stopping for petrol, for refreshments etc.) and third, going to new places increases the number of novel contacts. All these things further increase the process of spread [SXR2/134 - INQ000370309]. Having said that, the major concern about travel, both domestic and international, was that it would introduce Covid, and new variant of Covid, to places they didn't exist before. In Scotland this was a particularly acute worry even before the first lockdown. For instance, an article of 20th March 2020 refers to concerns about city dwellers fleeing to the countryside and of measures to try and stop them doing so. Perhaps the most striking example is from England where Derbyshire Police dyed the water the Buxton 'Blue Lagoon' (a local beauty spot) black [SXR2/135 - INQ000370290]! There was considerable anecdotal evidence that this led to tensions between urban and rural populations (not least when Judy Murray urged urban idiots to stay home [SXR2/136 - INQ000370310]) – something corrosive of the sense of solidarity and national cohesion which (as I argue above) is important to an effective national response. But unless one seeks to hermetically seal internal and external borders (which is all but impossible except, perhaps, in small island communities), travel restrictions will only delay (rather than stop) the spread of new infections and variants. This is particularly true when there are partial restrictions with travel from some countries banned (red), travel from other countries restricted (amber) and travel from yet others unrestricted (green). In such situations, there is little to prevent people travelling from a red or amber country via a green country to come to the UK. Travel restrictions were always leaky and put off, rather than stopped, the problem. The key question, then (as with other restrictive measures) is whether and how on uses the delay to combat the infection in other ways. That could take various forms including increased vaccinations; improved find, track, trace, isolate and support policies and so on. If that is not done, the cost of restricting mobility provides only limited advantages. This point was made many times on SGCAG. I am not sure it was always answered.

133. As a behavioural scientist, the issues that particularly concerned me regarding travel and borders had to do with the conditions and cost of isolating travellers. One particularly acute problem regarded the influx of overseas students at the start of the

academic year. This was a core issue for the University and Colleges Advisory Group, set up in May 2021 and which almost immediately started discussing what would happen in September when overseas students returned to Scotland for their studies. For instance, in the meeting of 22nd June 2021 [SXR2/137 – INQ000000], there was discussion of the need for both material resources and social support from institutions. Despite this, I am not sure that every institution was given clear enough guidance to ensure a consistency of good practice. More generally, conditions for the 200,000 people consigned to quarantine hotels were notoriously poor in places [SXR2/138 - INQ000370291]. Moreover, the cost was extremely high – in some cases over £7,000 for a family of four [SXR2/139 - INQ000370292]. The consequence of this was that some families were unable to go abroad or to come home from abroad and those who were most affected were ethnic minorities (who, for instance, wanted to visit a sick relative in a country of family origin) and the less affluent. This was one of the very many ways in which Covid policies impacted different groups differently and increased social inequalities. It was also one of the many examples of Covid policy being applied without considering in advance the impact on different groups (especially the poorest and most marginal groups). The need to analyse and anticipate such impacts is one of the major things I learnt from the borders issue.

L. Covid-19 Public Health Communications

134. I have referred to communications on multiple occasions in this statement and in my previous witness statement. I have pointed to some key papers on Communications by both SPI-B [SXR2/140 - INQ000370311] and SGCAG [SXR2/016 - INQ000370213]. I have also explicitly compared and contrasted the response of the UK and Scottish Governments concerning communications in both documents (paragraph 16 of this statement, paragraphs 107-109 previous statement). Therefore, to avoid excessive repetition (some repetition is probably inevitable), I will mainly summarise what I see to be the key issues in this section and, in so doing, respond to the questions posed to me by the Inquiry.

135. I will start by addressing the process by which we advised on communications before going on to the content. There were four ways we made input on this issue. One was through the SCGAG meetings themselves which were regularly attended by the DCMOs and the National Clinical Director, along with the minutes of the meetings the CMO was not a member and only occasionally attended. A second was through the

papers we wrote of which one written in September 2020 on 'Adherence to Covid Regulations' is particularly relevant in laying out broad principles of communication [SXR2/141 – INQ000217897] and SXR2/141a – INQ000217898. A third was through the periodic 'deep dives' in which we met with the First Minister and other senior Ministers and considered various issues in some depth. Looking through my emails, I cannot find an exhaustive list of all the times adherence and communication were discussed, but I know they were at our meetings on 5th June and 29th June 2020. Finally, fourth, there was one occasion on which I was directly involved in developing the Scottish Government communications. Professor Andrew Morris is largely right in saying that SGCAG did not have a direct role in public health communications (and we certainly did not approve them), this is a partial exception.

136. I have already referred to this one occasion in paragraph 89 above. My role was to advise on whether the final product accurately encapsulated the various principles of communication we had enunciated in SGCAG. Mostly it had (and very well, at that) but there were a couple of issues. For instance, the advert recapitulated various moments of the pandemic in order to say to people 'let's not waste all the efforts we spent to get through all that by relaxing now'. As part of the 'rewind' (which gave the name to the campaign), images of empty shelves were shown. I commented (by email): *"I wouldn't have footage of 'panic-buying'. On the one hand, the evidence suggests this was over-stated, few people did stockpile, if they did it was because they were told others were doing it and, to the extent there were shortages, it was more to do with a very fragile 'just in time' supply chain that cannot cope with relatively small increases in demand. But not only is it misleading, it is dangerous. It suggests others are acting selfishly and so undermines norms of community and social responsibility. So I would have footage of the infection growing of lockdown, of surprisingly high compliance and mutual aid and applauding the NHS. I would leave anything which reinforces norms of non-compliance. We have things written on this if it would help, for instance: https://thepsychologist.bps.org.uk/truth-about-panic"*. The passage was cut as a result.

137. Personally, I found the experience of being involved in the actual production of communications very rewarding. The problem with separating the general advice from the production is that the devil is in the detail. That is, it is in the precise way that you craft a communication that you either instantiate, or undermine, the principles of good communication. In experimental practice, this would be called 'operationalisation', and you can't operationalise ideas without being immersed in

them. I don't know why this type of collaboration between the advisors and the practitioners didn't happen more. I think it is a pity that it didn't. Indeed, a couple of times I suggested to Dr Audrey MacDougall (Scottish Government Chief Social Researcher) that we meet up to discuss how we might build new productive relationships between academics, Scottish Government communications/marketing experts and creatives in order to produce effective communications in the future. It hasn't yet happened (not least because we are all so busy doing other things) but I hope it will in the future.

138. More generally, my feeling was that the Scottish Government were strong on communications – both in terms of statements from Government representatives (from the First Minister down) and in terms of advertisements/public health messaging. There was an emphasis on the collective level response, the high level of adherence was stressed and the difficulties of adherence were acknowledged there was some acknowledgement of mistakes. In general terms, the public was addressed with respect and this felt much more like a conversation between Government and public than the Government wagging its finger at the public.

139. My feeling was also that the messaging was broadly effective and that it created confidence in the Scottish Government response to the pandemic. At the SGCAG we were regularly provided with Scottish Government polling results which included measures of trust and evidence. These were not in the public domain and I don't have access to them now. I seem to recall that they were presented by the Chief Social Researcher, Dr Audrey MacDougall. I also recall that they showed consistently high levels of confidence in the Scottish Government – at or above 70%. One particular question caught my attention. It was worded something like "the best thing to do in the pandemic is what the Scottish Government tells us to do" (again, I don't recall the exact wording, but this was the gist). Public agreement with this statement was also consistently high at around 70% or more. This directly suggests that the messaging was effective.

140. This is not to say that the messaging was perfect. One basic rule of messaging is that people should know exactly what they are meant to do when they hear a message. If the message is opaque in any way the effectiveness is undermined. I refer to this in my first witness statement, paragraph 30, when addressing the UK Government's shift in messaging from 'stay at home' to 'stay alert'. While this did not come from the Scottish Government, obviously, UK Government communications are widely disseminated in Scotland through both official and social media. I also felt

there were times when messaging from the Scottish Government itself was open to the criticism of being opaque – notably the use of the FACTS acronym [SXR2/144 - INQ000370317]. I felt this was convoluted and could never remember what it stood for (indeed I had to look it up again just now to remind myself). Whenever I asked my classes of students if they could remember few if any responded positively. I know that this is far from a scientific survey and that the Scottish Government may have some survey figures. But my own feeling was that this was not good messaging.

141. Another general issue with the messaging had to do with consistency. On the one hand constantly changing rules made it difficult to keep up (speaking personally, and as someone who probably kept a closer eye on the regulations than most, I wasn't always entirely clear what was allowed where and when), on the other hand different rules in different places (both within Scotland and between Scotland and England) added to the confusion. To some extent, the changing state of the pandemic and the changing state of scientific knowledge about different mitigations (for instance, the growing understanding of aerosol spread and hence the importance of masks in crowded internal spaces) made change inevitable and therefore there had to be a balance between simplicity/clarity and adaptability to circumstance. One way of dealing with this was to be clear about the principles which governed changes in policy so they did not seem arbitrary and random. An example of this was the 'data not dates' approach to the 'roadmap' for easing Covid measures in the spring of 2021. This specified a set of measurable criteria for proceeding on each step of the road map. These were (1) successful vaccine deployment; (2) effectiveness of vaccines against hospitalisation and death; (3) infection rates at a level that do not put unsustainable pressure on the NHS; (4) no new variants of concern to alter the risks [SXR2/145 - INQ000370318]. The UK Government provided a timetable with provisional dates for each stage of 'opening up'. As I argued at the time [SXR2/108 - INQ000370285], they then invested so much political capital in lifting measures according to the announced timetable that 'data not dates' turned into 'dates not data' and so the logic of change was undermined. By contrast the Scottish government did not publish dates [SXR2/146 - INQ000370319]. This meant it was not under similar pressure to stick to them and was more able to stick to a principled 'data not dates' approach. Inevitably this meant diverging from the UK/English dates and, while this was not helpful, it was, I believe, less harmful and less confusing than abandoning principle and changing policy on arbitrary pre-defined dates.

142. Finally, as I argued on many occasions, the notion of 'communication' should not be restricted to what the authorities say. Often what they do is far more powerful in sending messages to the public. This is true in two senses. First of all, policy can have greater impact than moral appeals in changing behaviour. Repeated calls appeal for people to wear masks had little impact. In early June 2020, no more than 20% of people reported wearing masks in public [SXR2/147 - INQ000370320]. After all, reasoned many people, if it was so important, they would make it compulsory. However, when mask mandates were introduced (in England masks on public transport became compulsory on 15th June 2020 while wearing masks in shops was made compulsory from 24th July 2020), the proportion rose remarkably rapidly. By August 2020 it stood at nearly 80% and remained constant into the next year [SXR2/147 - INQ000370320]. This makes the alignment of rhetoric and policy very important. It is contradictory to tell people something is very important and not take action to address it.

143. The second way in which actions can trump words has to do with how Government members themselves act in relation to the rules that they set. This is clear given the impact of Dominic Cummings trip to Northern England on trust in the UK Government. As the work of Professor Daisy Fancourt and others showed, this incident led to a precipitous drop in trust in the UK Government (but not in the Scottish or Welsh administrations, showing that it was a specific effect rather than reflecting a general decline in trust over time)[SXR2/148 - INQ000370321]. Having said that, I think the nature of this incident and the reasons for its impact has been much misunderstood (see my comments in my first witness statement, paragraphs 166-168). To recapitulate my previous argument in brief, the key moment was not Cumming's own actions, but the response of the Prime Minister in his May 24th, 2020, press conference. Here, Boris Johnson defended Cumming's actions, stating that he had acted 'responsibly, legally and with integrity', that 'he had no alternative' and that he had 'followed the instincts of every father and every parent'[SXR2/149 - INQ000370322]. It was this official Government response – the support and the lack of apology – which turned an individual action into something systemic and which created a categorical divide between 'us' (ordinary people) and 'them' (Government). Moreover, it is the divide between 'us' and 'them' – in psychological terms, the sense of Government as an outgroup – which is at the root of the loss of trust [SXR2/150 - INQ000370323]. That is why actions of Government officials which were condemned rather than supported by Government (e.g., rule violations by Scottish CMO Professor Catherine Calderwood and SNP MP Margaret Ferrier) did not have the

same effect as the Cummings affair on confidence in Government. Equally, the public can be forgiving of violations which make politicians seem more humanly fallible and more like them (what have been called 'pratfalls' [SXR2/151 - INQ000370324]) long as the fallibility is acknowledged and is not seen to indicate an attitude of contempt. This may explain why Nicola Sturgeon's removal of her face-covering at a wake did not harm her and indeed may have enhanced her standing by making the First Minister seem more like 'one of us' [SXR2/152 - INQ000000].

144. Given how important it is for those who set the rules to abide by the rules it would be perfectly reasonable to provide guidance and rules to this effect to all those involved in the rule setting process – including advisors. I cannot recall this being done formally however, I think it was pretty clear to all of us – especially after the Cummings and Calderwood cases, but before as well – that it was incumbent upon us all to set an example. I was certainly very well aware of this responsibility on a personal level.

145. In overall terms, I think the Scottish Government was strong on communications. In part this was down to the skills of the key communicators – the National Clinical Director and the First Minister. Both were able to address the public as partners and equals and to demonstrate a feel and a concern for the experiences of ordinary people. Ironically, I think the satirical pastiche of the First Minister's press conference by Scottish comedian Janey Godley [SXR2/153 - INQ000370325] strengthened the First Minister by humanising her, making her seem like 'one of those politicians' and more 'one of us'. But the danger is that such individual strengths could prove systemic weaknesses for it is always trusting to chance to rely on a slippery quality like intuition. Rather, it is necessary to systematise the principles of good communication so that they can be harnessed by anyone in authority. That is important for the future. What is more, as I suggested in paragraph 137, I think there would be real value in addressing how academics, Scottish Government comms staff and creative agencies can work together in order to fuse sound theoretical understandings of influence with the messages government need to disseminate and the high production values of advertising experts. Scotland is a country that is small enough to integrate these different groups and pioneer something that I think could be of lasting value in Scotland and beyond.

M. Public health and coronavirus legislation and regulations

146. SGCAG discussed the issue of sanctions for non-adherence on a number of occasions. On 9th April 2020 [SXR2/127 - INQ000217490] we considered the impact of measures in terms of policing and police-community relations. On the 16th April [SXR2/142 - INQ000217520], we emphasised the importance of starting with support for the public to help them adhere and only using punishment as a last resort. On 30th April [SXR2/143 - INQ000217569], we emphasised the importance of fairness and consistency in applying sanctions. However, our main discussion on this matter was later in the year, in September when – with the return of schools and colleges – Covid cases began to rise and there were multiple media accounts of parties, raves and other forms of non-compliance. On 21st September 2020 [SXR2/082 - INQ000217900], SGCAG discussed a paper which I had drafted on 'Adherence to COVID-19 Regulations: Principles, Challenges and Responses' [SXR2/141 - INQ000217897] and which drew both on earlier papers from SPI-B [SXR2/154 - INQ000370326] and my own published work [SXR2/155 - INQ000370327].

147. The core of the argument put forward in these various papers is that it is important to distinguish between the use of laws to mandate particular protective behaviours and the use of punishment to deal with non-adherence. That is, as I argued in paragraph 142, law is a very powerful form of communication which signals the importance of a particular behaviour (or of refraining from particular behaviours). Additionally, it provides a basis for the police (and others) to approach someone and say 'you know, you should/shouldn't be doing that' – often an extremely effective way of securing adherence without having to go any further. In other words, laws can be effective in altering behaviour without the use of punishment. What is more, punishment (especially when it is seen as arbitrary, excessive and unfair) can alienate the public from the police and law-makers, thus undermining adherence to the law [SXR2/156 - INQ000397199]. This does not mean that punishments should never be used – indeed failure to punish may itself be a signal that the law should not be taken seriously and may provoke resentment when those who comply with the law see those who flout it do so with impunity. It does, however, mean that punishment must be seen as proportionate, as applied equitably and judiciously. This was recognised by the police themselves who, both at a UK level [SXR2/157 - INQ000370328] and in Scotland [SXR2/158 - INQ000370329] employed what has been called a "4 Es" (engage, explain, encourage, enforce) approach. Based on the principles of 'procedural justice [SXR2/159 - INQ000370330] (which has to do with how to build positive relationships between the public and authority in which authorities are seen to be acting for, rather than imposing on, the public) this proposes that the police should respond to acts of

non-adherence by engaging with the actor, explaining why it is important to adhere, encouraging them to do and, only as a last resort, using enforcement powers. These principles and practices were endorsed in my paper to SGCAG and the minutes of the 21st September meeting record: "being punitive is likely to create disincentives. E.g. huge fines for self-isolating leading to individuals choosing not to get a test or reveal contacts as this increases the risk of being fined. Another problem is that this alienates people and makes you less willing to comply (e.g. only comply when observed)" and also "repression is not the most effective approach in the long run. The starting point should be support and facilitation to help people comply with measures" [SXR2/082 - INQ000217900].

148. The Scottish Government by and large avoided a reliance on punishment to secure adherence, both in terms of its messaging (see paragraph 16 above) and in terms of policies. Like the UK Government, in March 2020 introduced Fixed Penalty Notices (FPNs) for violations of Covid regulations. In both England and Scotland, the initial fine was £60, doubling for each subsequent violation up to a maximum of £960 (but with a 50% reduction if paid within 14 days. However, by January 2021 the initial fine in England had risen to £200 doubling up to a maximum of £6400 while in Scotland the figures stayed at £60 and £960 respectively (and, in practice, no fine of greater than £480 was issued [SXR2/160 - INQ000370331]. What is more, the evidence suggests that the use of these punitive powers was implemented in line with the 4Es philosophy. Thus, a total of 20,410 FPNs were issued in total (equivalent to 0.5% of the adult Scottish population). However, this only represented a small proportion of the total number of police Covid related interventions. Roughly two-thirds (64.4%) of the time when the police intervened with members of the public, it was sufficient to inform people of what they should be doing. In a further fifth of encounters (20.2%) the police instructed people in what they should do. In just over 3% of cases people were actively removed. It was only in just over a tenth of cases (11.6%) that FPNs were issued and far rarer (0.7% of cases) that arrests were made [SXR2/160 - INQ000370331]. While there are issues of concern with the police response during Covid (notably to do with the disproportionate number of FPNs issued to ethnic minorities and people from financially deprived groups [SXR2/160 - INQ000370331]) it is important to recognise the success of this approach in securing adherence while avoiding tension, alienation and conflict.

149. In sum, the approach of the Scottish Government and of Police Scotland largely concurred with the advice provided by SPI-B and SGCAG. Whether they avoided a

punitive approach because of our advice, I cannot say. However, unlike the case of the UK Government, I can say that their actions did not systematically contradict what we advised.

N. Key challenges and lessons learned

150. Once again, I will limit my comments to my area of expertise: behavioural science. Moreover, since I have addressed the key behavioural challenges at multiple points and at considerable length throughout this statement, in this section I will also limit myself to a brief summary of key points regarding the nature of the key challenges posed by the Covid pandemic, of how well the Scottish Government responded to these challenges and to what could (and should) be done better in the future.

151. There are three key dimensions involved in shaping behaviour in general and health behaviours in particular. One is motivation – the willingness to act in a particular way. The second is capability – whether a person has the general psychological and physical abilities to perform the action. The third is opportunity – whether, in a specific context, external factors permit the behaviour to be carried out. This, the so-called COM-B model of behaviour change [SXR2/161 - INQ000370332], was central to the deliberations of SPI-B during the pandemic.

152. In terms of motivation, one of the key challenges of the pandemic was to get people to think of themselves in collective terms so that they would be motivated to take measures such that, even they were not personally vulnerable, they would act in order to prevent transmission of the virus to other, more vulnerable, members of the community [SXR2/041 - INQ000370222]. Related to that, it was important for people to see Government and other authorities as part of the community such that their regulations/statements would be regarded as being for the good of the community and hence the public would be motivated to abide by them [SXR2/162 - INQ000370333]. By and large, my assessment is that the Scottish Government met this challenge well. On the one hand they stressed the collective dimension in their messaging. They also avoided the various approaches which serve to alienate the public from each-other and from authority: a blame culture, an emphasis on rule violation rather than rule following, an excessive focus on punishment as a first resort for achieving adherence – and so on. In other words, as I have previously put it, the Scottish Government lived up to their declared intent to have an 'adult conversation'

with the public and treated the public more as a partner than a problem in confronting the pandemic.

153. In terms of capability, one of the key challenges is to provide people with the information they needed in order to know how to keep themselves and others safe. Without such information, even if motivated to act in ways that minimise virus transmission, people lack the capability to do so. This includes general information about the behaviours one should undertake. It also involves specific information, say on the safety of particular premises (quality of ventilation, use of HEPA filters, sickness policies etc.). In both respects there was some good work. However, I think that more could have been done. I have already referred to the confusing nature of the FACTS campaign (paragraph 140 above). There was also some talk within the Scottish Government of developing a 'scores on the doors' campaign which would provide a simple graphic indicating air quality levels in all public spaces (akin to food quality certification in restaurants and cafes). Indeed, there was a commitment to pilot a 'Covid Safety Signage Scheme' by the end of April 2022 and such a scheme does now exist [SXR2/163 - INQ000370334]. However, I don't think it is widely known and I have never seen it in place in any business or workplace.

154. In terms of opportunity, the key challenge is to identify and provide the resources necessary for all sections of the community – particularly deprived, vulnerable and marginalised groups -to adhere to Covid regulations. This is the area in which I think the response of the Scottish Government was at its weakest. On the one hand, providing appropriate resources is contingent on understanding the barriers to adherence amongst different groups and hence what is needed to overcome them. Indeed, policies will only be effective if they take into account such barriers (and, moreover, to implement policies which demonstrate ignorance of the lived experience of certain groups only goes to highlight how little the authorities understand the reality of their lives and hence serves to alienate these groups from authority). Without dedicated systems of engagement which allow fast and flexible input from such groups which can shape policy development, then the resultant decisions are always liable to fall foul of such considerations. And, while there was some talk of developing such systems (see paragraph 23 above) they did not come to fruition. On the other hand, as I have repeatedly stressed throughout this statement, even where it was aware of the issues, the Scottish Government consistently failed to provide adequate funding. The examples I have used are principally focussed on support for self-

isolation. Yet there is another area which I have not previously addressed which I think is equally important and which raises broader issues about the relationship between government and the public in developing an effective Covid response.

155. In a large-scale crisis like Covid, the state simply does not have enough functionaries to look after everyone, it relies on people to help each-other. Indeed, whereas older work on crises has conceptualised the emergency services as 'first responders' there is increasing realisation that the first people to help are those members of the public caught up in the crisis itself. They intervene before the emergency services arrive and accordingly have been dubbed 'zero-responders' [SXR2/164 - INQ000370335]. This was certainly true in the pandemic. The state could not cater for everyone who needed support, to check up that everyone was OK, to deliver food, to walk the dog… Such mutual aid was assured by the remarkable growth of informal and formal self-organisation across the UK: the 750,000 who volunteered for the NHS within a week of the first 'lockdown' (tripling the target figure) [SXR2/165 - INQ000370336]; the some 4,000 mutual aid groups that formed in the first wave [SXR2/166 - INQ000370337], the over 12 million people who volunteered to help people in their communities [SXR2/167 - INQ000370338]. However, these groups had very few resources and many people became burned out [SXR2/168 - INQ000370339]. The number of groups declined sharply after the first wave [SXR2/169 - INQ000370340]. One key issue, then, is the extent to which Government can play a role is supporting and sustaining such mutual aid groups [SXR2/170 - INQ000370341] – by providing advice, technology, premises, even funding for staff. In this way, it will be possible to embed the notion of Government-Community partnership in an organizational form and create a crisis response where the Government neither supplants community organization nor leaves organization to the community but rather acts to scaffold the self-organization of community members. This is an important way in which Government can enhance the opportunity of the public to adhere to crisis measures.

156. These conclusions, and their implications for what could be done better in the future, have been at the core of my contribution to the Standing Committee on Pandemic Preparedness, of which I co-chair the behavioural interventions and community engagement subgroup (along with Professor Linda Bauld). Originally, I had understood that our report would include a separate section on these issues. In the event, however, it was decided to make the behavioural dimension a strand in all the other sections. On the one hand, I can see the argument for this and it could be a means of ensuring the centrality of behavioural science in all that we do – after all,

whether one is thinking of building a network of researchers, considering the data we need or whatever, behaviour is always important. On the other hand, I fear that this may lead to the behavioural dimension being lost because it is always treated as secondary in each strand. I remain agnostic as to which applies.

157. More concretely, when it comes to specific initiatives which are necessary to ensure an effective response to future crises, there are three which I think are particularly important (all of which flow from the discussion in paragraphs 152 -155). The first is the need to develop a fast and flexible community engagement procedure which allows input into the policy making process in the midst of a rapidly developing crisis. The second is the need for an audit process which requires consideration of the impact of any new policy on all sections of the community and for specification of the resources that are necessary in order for adherence to be feasible for all. The third is the need to consider a system of supporting the formation, funding and longevity of community mutual aid groups. All these initiatives are critical to ensure that the community as a whole has the opportunity (as well as the motivation and capability) to adhere to crisis measures. What is more, all these initiatives address one of the most significant aspects of the pandemic. That is the centrality of social inequalities. In many ways this was not one but multiple pandemics which were experienced differently and had different impact on different groups. Whether one looks at the health costs, the economic costs, the educational costs, the social costs, in each and every case it was the poor, the marginal, the vulnerable who suffered most. Moreover, the pandemic has increased social inequalities in all these various areas [SXR2/171 - INQ000370342]. The pandemic has shone a very harsh light on the profound effects of our profoundly unequal society. We have even less excuse than before for ignoring this.

158. There is one other area in which we need to learn from and respond to what happened in the pandemic. This concerns the harms created by social isolation. It became increasing apparent as the pandemic went on that being separated from others came at a severe cost, most obviously in terms of mental health but also in terms of physical health and other harms besides (such as violence against women [SXR2/172 - INQ000370343]). What is more, once again these harm were greatly for more deprived groups [SXR2/173 - INQ000370344], not least because of issues of digital connectivity. In our book 'Together Apart' [SXR2/174 - INQ000370345], we point to the key dilemma of the pandemic: that we need to keep physically separate in order to avoid harming others by passing on infection but at the same time we

need to remain socially connected, without which we create harm for everyone. Hence our title: how do we keep socially together while being physically apart? We signally failed to address that question during the pandemic (not least because the use of the term 'social distancing' confounded physical and social distance and hence removed the possibility that one might have the one without the other – see my first witness statement, paragraph 41). But now it needs to be put back on the agenda – and not only during crises. It is telling that the WHO, recognising the costs of social isolation, has just established a commission to foster social connection [SXR2/175 - INQ000370346]. There is, I think, a strong case for doing the same at a domestic level and making social connection a key theme across different policy areas (from digital connectivity, to rural transport, to funding of community meeting spaces).

159. Overall, and whatever my criticisms of particular decisions and policies, I found the experience of being involved in SGCAG very rewarding. After years of working as an academic developing models and theories of group behaviour, it was both a pleasure and privilege to be involved in seeking to apply my understanding to promoting the social good. It was also a pleasure and a privilege to work together with such a superb group of experts and such dedicated public servants. The meetings were always fascinating and I learned a lot from them. Equally, I was impressed by the lack of ego or competition and a genuine willingness to listen to the contributions of others. More specifically, I was pleasurably surprised by the willingness of the group – in the main people from various medical and life sciences specialisms – to take the behavioural science dimension seriously. I think we all gained greatly by the skilful and inclusive chairing of the meetings which encouraged everyone to speak and which made sure that different perspectives were heard and minuted. We were also supported and guided by a very able secretariat who helped us greatly in making sure that our concerns were heard in Government.

160. I was also impressed by the encounters we had with ministers and other senior figures in the Scottish Government. In the 'deep dives' we had with them, ministers were characteristically knowledgeable, engaged and insightful. They asked sharp questions and seemed to take on board what we said. As I have already explained (paragraph 9 above), this did not mean that ministers always agreed with or implemented our recommendations. As I have also explained, I would not expect them to do so since they have to deal with other considerations and harms beyond those we considered. What I would expect, though, that they would heed our

arguments, weigh the evidence we provided and factor it into their decisions. I did get the impression that this was the case by and large.

161. All in all, I found my experience in SGCAG and its sub-groups to be very positive. The only issue was workload (see paragraph 55). For nearly three years I have has the time equivalent of a full time job on top of my University job. Moreover, this load has continued to this day with my involvement on pandemic recovery groups and the requirements of this Inquiry. I fully appreciated – and indeed strongly support – the need to investigate the response to the pandemic and how we can do better in the future. However, many of the questions asked of us have been unfocused and uninformed. Over the two statements I have been asked to provide, I have written some 60,000 words and 150 pages (again, without any relief from my academic workload). I do think that is excessive and could be streamlined. For the future, I do think it is worth considering some procedure which retains the independence of advisors but which supports the employers so they can be relieved from at least some of their daily jobs.

162. I would be happy to feed these points, and others, into any review of the operation of SGCAG and into any other review of lessons learned from the pandemic undertaken by the Scottish Government. To date, I haven't been asked to do so. I am not aware of the nature and remit of any such exercises that have been conducted so I cannot say wither my input should have been solicited.

Statement of Truth

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

Personal Data

Signed:

Dated: 13 December 2023