Witness Name: Derek Grieve
Statement: No.2
Exhibits: DG2
Dated: 04 October 2024

UK COVID-19 INQUIRY

WITNESS STATEMENT OF DEREK GRIEVE CBE

In relation to the issues raised by the Rule 9 request dated 1 July 2024 in connection Module 4, I, Derek Grieve, will say as follows: -

1. I, Derek Grieve, am currently the Deputy Director for Social Care Immediate Response and Improvement Division within the Directorate for Social Care and the National Care Service within the Directorate General for Health and Social Care of the Scottish Government. I have a Batchelor of Arts in Administration Management and a Master of Business Administration. I started my civil servant career on September 1985, in the Ministry of Defence as an apprentice engineer at Rosyth Dockyard before being recruited as an engineer in Royal Naval Armaments Depot (RNAD) Crombie in 1989. I was then promoted to a Professional and Technology Officer based in the RNAD Coulport, before returning shortly to RNAD Crombie and then moving to Kentigern House in Glasgow on promotion to a Higher Professional and Technology Officer to lead the policy team on vocational skills and learning.

2. I transferred to the Scottish Executive as a B2 policy officer (which was a level transfer) to initially work in the central finance team on 6 April 2001. I then moved on promotion as a B3 in a policy team within the skills and lifelong learning Directorate, where during this time I was promoted to a C1 to lead the youth training team. I was then promoted to a C2 to lead the sports team within the Health and Social Care DG and was promoted to become the head of Active Scotland as a C3 on 4 August 2017. I then became Head of Health Protection Division on temporary promotion to a Senior Civil Servant (SCS) on the 1 May 2019.

3. I have prepared this statement myself by reference to records and material provided to me by the Scottish Government, drawing heavily from my evidence submitted in relation to Module 2A, provided: INQ000339784. I have also received assistance from the Scottish Government Covid Inquiry Information Governance team to enable the statement to be completed.

4. 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. References to exhibits in this statement are in the form [DG2/XXX – **INQ000501311**

Roles, Functions and Responsibilities

5. Immediately prior to January 2020, I was the Deputy Director (on temporary promotion) to the Health Protection Division, within the Directorate of Population Health. This was a policy division which had responsibility for a range of health protection activities such as vaccinations, screening, organ transplantation, burials and cremations and the Public Health (Scotland) Act 2008 including part 2, notifiable diseases, notifiable organisms and health risk states, which includes provisions for the protection of public health in Scotland. I was also the programme lead for the establishment of Public Health Scotland and the Vaccination Transformation Programme. During the timeframe requested by the inquiry, I became a substantive Deputy Director (being promoted from the temporary position I was fulfilling) in August 2021 through a Senior Civil Service recruitment exercise.

6. During January to June 2020, I had policy responsibility for the initial response to the emerging pandemic, reporting to the Director of Population Health and engaging with colleagues across the Scottish Government and beyond. My role was primarily to support and advise Ministers, and in doing so I acted at all times in line with the civil service code to enable Ministers to make decisions by providing advice, and at times recommendations in the form of Ministerial submissions. In doing so I formed judgements (i.e. made decisions) about what was to be included in that advice, how it was developed, presented and framed, as well as what recommendations I provided based on the evidence and my assessment of it. I also provided supporting material and information to ensure Ministers and others were fully briefed and aware of the

situation as it evolved. I did this guided by the four values of the civil service code: integrity; honesty; objectivity; and impartiality.

7. As the inquiry will be aware, particularly during the early stages of the response, it was a highly dynamic, uncertain and evolving situation. However, well established mechanisms of engaging with colleagues (including Scottish Government policy leads, clinical experts and colleagues in other Government Departments such as the UK Government) and supporting Ministers were used throughout the response to the pandemic. From a personal perspective, this was the most challenging and pressurised period of my career in both trying to operate within an environment with extraordinarily high levels of ambiguity, coupled with working very long hours whilst dealing with a health-related pandemic which had a direct impact on the wider population, including my friends and family.

8. This personal statement covers my role leading the team preparing for the deployment of a Covid-19 vaccine, and the subsequent roll-out of available vaccines, from June 2020 to November 2022 when I left to work on response to social care. It should be noted that I transferred to a new vaccines Directorate within the Scottish Government which involved a change in line manager from February 2021 until July 2022.

9. I would wish to put on record both my appreciation and respect for colleagues both within and outwith the Scottish Government, the NHS and wider delivery partners who responded to mitigate the impacts of the pandemic. And I would also wish to acknowledge the impact Covid-19 has had on individuals, families and communities within Scotland and beyond. The impact of the policy response is not lost on me and was an issue that was front and centre in my considerations in developing advice and engaging with Ministers and delivery bodies at that time.

Key figures and decision-makers

10. The Scottish Ministers with responsibility or direct portfolio interest for the vaccination programme were as follows:
    - First Minister (FM), Nicola Sturgeon MSP (Nov 2014 – Mar 2023);
    - Cabinet Secretary for Health and Sport, Jeane Freeman MSP (June 2018 – May 2021);

- Cabinet Secretary for Health and Social Care, Humza Yousaf MSP (May 2021 – Mar 2023);
- Minister for Public Health, Sport and Wellbeing, Joe FitzPatrick (June 2018 until 18 December 2020);
- Minister for Public Health, and Sport, Mairi Gougeon MSP (Dec 2020 – May 2021); and
- Minister for Public Health, Women's Health and Sport, Maree Todd MSP (May 2021 – Mar 2023).

11. The decision to create a Covid-19 Vaccine Division was taken by Scottish Government Directors Richard Foggo and Donna Bell in June 2020 at a time when there was a desire to bring additional structure to the Scottish Government response of the pandemic and create distinctive divisions within the Health and Social Care Director General family, with clear areas of defined policy responsibility. I was asked to establish and lead a division to prepare for the future deployment of a vaccine, which was well in advance of any vaccine being available. As well as identifying and creating the internal Scottish Government resource that would be required to develop and deploy a vaccine, I and my small team at that time, engaged with external partners to identify the resource required to firstly establish a programme management office and function and identify specialist resource, predominately from NHS Boards, to support work on logistics, clinical guidance, communications, finance, security etc. to support future deployment and oversight.

12. The decision to establish a division as early as June 2020, was in my view really important as it enabled resource to be identified and set aside to prepare despite full knowledge that the development and deployment of vaccines has historically taken years rather than months to come to fruition. I felt it a privilege to be afforded the opportunity to lead this work, but the magnitude of the responsibility that went alongside it was not lost on me either.

13. The policy function for Covid-19 vaccines expanded to include all vaccination over time to become a Directorate in February 2021 led by Stephen Gallagher. I was supported for a short period (between December 2020 and March 2021) by interim Deputy Director Marion McCormack and (from December 2020 and August 2022) by Deputy Director Jamie McDougall, who led a separate division with a particular focus on inequalities and on all other existing immunisation programmes. In relation to Ms McCormack, the policy role was undertaken as a job share for the duration of this

period in an attempt to provide additional resilience at the very start of the vaccine deployment programme, given the demands and pressure being experienced at that time.

14. A programme was established to oversee the preparations (and latterly the deployment) of the Covid-19 vaccines and the seasonal flu vaccines. This was named the Flu Vaccine, Covid Vaccine (FVCV) programme and had both a programme and a delivery board and was supported through a programme management office. There were five Delivery Directors appointed through my time on the FVCV programme. In chronological order these were: Caroline Lamb (01/08/2020 - 31/12/2020); Paul Hawkins (11/01/2021 - 28/02/2021); Colin Sinclair (01/03/2021 - 31/08/2021); Karen Duffy (23/08/2021 – 11/03/2022; and Nuala Healy (14/03/2022 – 31/12/2023). The Delivery Director had operational responsibility for the delivery of the Covid-19 vaccine programme, although key operational and delivery decisions were guided by the policy and at times the delivery director sought the views of Scottish Ministers (either in person or via advice provided by policy officials in written submissions). There is a summary of submissions provided to Ministers at [DG2/001 – INQ000501310]. There is also a detailed timeline of the vaccine timeline drawn heavily from the Scottish Parliament SPICE public record at [DG2/002 – INQ000501311]. When advice was provided to Ministers seeking a view or decision on operational delivery or seeking policy clarification, this was developed and submitted by policy officials from the Covid-19 Vaccine Division, in conjunction with the Delivery Director (and their team) and often with input from clinical colleagues such as DCMO, CMO etc. and if appropriate other policy officials across the Scottish Government.

Overview of Role

15. As the head of Covid-19 vaccines policy division, I undertook a role that developed the policy which in turn informed delivery. This therefore led me to having a far greater focus on policy delivery to ensure this was operationalised in line with the policy and aligned with Ministers expectations. I therefore had considerable and detailed delivery oversight on the impact of operationalising and deploying the vaccine on the ability to respond to the pandemic.

16. As explained within my evidence submitted in relation to Module 2A, reference INQ000339784, my role throughout the vaccine programme was twofold; Firstly, to

lead the policy (including policy delivery) response and secondly, to fulfil the role of Senior Responsible Officer (SRO). The role of the latter involved me creating links (and a relationship) with colleagues throughout the UK and it was agreed with my Director (initially Richard Foggo and then Stephen Gallagher) that there would be value in me continuing to fulfil this role throughout my time leading the Covid-19 Vaccine Division given I had developed relationships with the SROs from other nations. It is also important to note that this required me to attend meetings in differing capacities when engaging with colleagues throughout the UK. On that basis I routinely met and engaged with fellow SROs on detailed operational matters regarding the planning and deployment of the vaccine, but also with fellow senior policy colleagues from Wales, England and Northern Ireland. This required me at times, to make it clear in which capacity I was engaging with colleagues, but perhaps gave me a unique insight into both the policy and the delivery considerations of how deployment was being operationalised.

17. As alluded to above, during the whole period of the FVCV programme, there was a dedicated programme management office function to track actions, identify and manage risk and ensure deliverables were achieved. However, in establishing a FVCV programme, two options were considered which included expanding the Scottish Immunisation Programme Group (SIPG) or establishing a dedicated programme with a lead director and Programme Board. This was discussed at a meeting on the 03 July 2020 with the Cabinet Secretary for Health and Sport and advice was provided to Ministers on 15 July which recommended that a stand-alone programme be created for the flu and Covid vaccine [DG2/003 - INQ000241172]. The rationale for this was based on the SIPG not having sufficient operational oversight on how vaccines could be deployed and operationalised across all NHS territorial Boards on a consistent basis, thereby leading to a risk of this not providing sufficient assurance and control over the pace and scale that would be required when a Covid vaccine became available. It should be noted that this was not universally welcomed by all vaccine leads within the territorial NHS Health Boards as there was a view from some that this disempowered local vaccination and immunisation leads given that there would be an oversight and assurance role undertaken by the Programme Board (and the programme team on their behalf) where up until this point they had only to report to their own individual NHS Board. This led to some initial tension, but this was relatively quickly resolved by working closely with all NHS Board leads and ensuring they were active members of the decision-making process through the delivery group that was established.

18. Support to the programme office was discharged by a team from NHS Nation Services Scotland (NHS NSS), although KPMG provided programme office support from 13 August 2020 until the end of March 2021. The FVCV programme also included a virtual team of clinical, delivery and policy colleagues which included logisticians, digital and technical leads, analysts, nursing and workforce leads and a series of delivery leads seconded to the Scottish Government. At times others were brought into this virtual team such as other Scottish Government officials with specific policy interests, Local Authority and third sector leads and, when appropriate, the military.

19. The FVCV Programme Board met regularly and was supported by a delivery group which met more frequently than the Programme Board. Either I or my SG colleagues attended these meeting to provide a policy view and if required sought views from Ministers by providing advice drawing on the evidence presented by delivery colleagues. The FVCV Programme Board was initially chaired by the respective policy Director at the time with Richard Foggo (between July 2020 and February 2021), Stephen Gallagher (between February 2021 and April 2022) and then this role transferring to me (between April 2022 and November 2022). The purpose of the FVCV Programme Board was to provide oversight and assurance to Scottish Ministers. Membership of the Programme Board included:

Clinical and Scientific Input
Chief Scientist
Chief Pharmacist
Public Health Scotland
Senior Clinician (Chief Medical Officer, Deputy Chief Medical Officer, Chief Nursing Officer or National Clinical Director)
Scottish Government Health Protection SMO
Delivery
Co-Chair of SIPG
NHS CEO representative
Directors of Public Health representative
Professor Sir Lewis Ritchie
Stakeholder
Patient Representative
Representative of British Medical Association

Support and reporting
Scottish Government Senior Reporting Officer
NHS NSS Programme Manager
Military Liaison

20. My initial role was to develop the scope and remit of the Programme Board, identify members and provide the resource necessary to provide a secretariat function, which was discharged through NHS NSS on the behalf of the Scottish Government.

21. To support the virtual team referenced in paragraph 18 was established reporting to a vaccine delivery director whose post was located within the Scottish Government. The exact membership of this team changed over the course of the FVCV programme, but it included SG clinicians (a Senior Medical Officer and the Chief Pharmaceutical Officer (CPO)) both of whom reported to the Chief Medical Officer (CMO). But there were also NHS colleagues including Programme managers (seconded from NHS NSS), colleagues from NHS Public Health Scotland to support communications and workforce development materials, NHS National Education Scotland (NES) to support the workforce and logisticians from NHS NSS to support the transport, storage and management of the vaccines. In terms of standing members of this virtual team, there were also SG officials from Health Workforce and my policy division. Others attended as required both from the SG and beyond. The virtual team would meet at least twice a day (often through an early morning and evening 'team huddle' via Microsoft Teams where actions would be discussed, agreed, allocated and monitored. However, there were occasions where meetings would be more frequent depending on the pace and demands of the programme on any given day. The programme office supporting the wider FVCV programme attended all of these virtual meetings to track and record actions.

22. In terms of scope, it was decided to include seasonal flu. The rationale for including seasonal flu was based on the potential impact a prevalent season of flu would have if this were to coincide with high levels of Covid-19 and/or a new variant of concern. On that basis, advice was provided to Ministers to have an expanded flu programme during 2020/21 and the FVCV programme oversaw how this would be operationalised. By including seasonal flu vaccination, this provided rich learning for how a single national vaccination programme could be managed prior to a Covid vaccine becoming available. The delivery group met regularly to discuss how to operationalise the vaccine programme and this included for example changes to the

policy position following receipt of Joint Committee on Vaccination and Immunisation (JCVI) advice, or if information came to light about the change in vaccine supply or guidance from the Medicines and Healthcare Products Regulatory Agency (MHRA) on how the vaccine(s) were to be used. Membership of this delivery group included every vaccine lead from each NHS Territorial Health Board and other relevant members (including for example clinicians) where options could be discussed and agreed. The FVCV programme often described itself as being a programme that was nationally led, but locally delivered. This was in recognition that individual territorial NHS Health Boards had the staff, knowledge and experience of engaging with their local communities and therefore the FVCV didn't seek to micromanage delivery, but rather set the guidelines and the framework to inform a local approach.

Cohorts and monitoring uptake

23. Through the early stages and planning in preparation for a vaccine, the FVCV programme knew that the JCVI would offer advice prior to a vaccine becoming available and indeed it did so highlighting that prioritisation would likely be based on clinical risk and this was received in September 2020. On that basis work began by the Scottish Government analytical division to scope out the size (at national and NHS Board level) guided by this interim JCVI advice drawing on census data from the National Records of Scotland (NRS). The programme team recognised that this may not be completely accurate or comprehensive given census data by its very nature is historic, but it did enable the development of planning assumptions to inform deployment planning. This approach continued through the duration of the FVCV programme using cohort modelling and uptake projections to monitor uptake at both a national and NHS Board level.

Modelling

24. To support the operational deployment of the vaccine programme, I along with the vaccine delivery director, often commissioned substantial modelling and analytical support to provide options to Ministers on the most effective way to operationalise JCVI advice. This modelling included for example both the cohort size drawn from NRS records, but also drew on assumptions of patient flow through vaccination centres using variables such as assumed staffing levels, number of appointments, the level of do not attends (DNAs), vaccine wastage and the time for vaccination per patient. This was undertaken via analytical colleagues in the Scottish Government,

but also with organisations such as Public Health Scotland (PHS) and when used with a set of detailed planning assumptions aided delivery.

25. There was often a time lag between JCVI providing advice and the FVCV programme being able to operationalise their advice, due to the need to take the actions required to ensure effective deployment. This included, for example, providing the materials and support (including training) of the vaccination workforce, develop consent material for patients, developing national protocols, exploring practical logistical arrangements for venues and the call-up arrangements for individuals. To put this into context, pre-pandemic advice on seasonal flu was often received in December of the year preceding the traditional flu season in Autumn. This therefore provided 9 to 10 months to secure the vaccine, plan and then prepare for operational deployment. During the Covid-19 programme the time between receiving JCVI advice and starting to administer the vaccine was compressed to around 7 days. This included for example ensuring the appropriate legal framework was in place to authorise vaccinations through the use of National Protocols in line with the Human Medicines Regulations (The Human Medicines (Coronavirus and Influenza) (Amendment) Regulations 2020), using a new regulation (247A). Details of this are set out below from slide 18 used as part of the planning for deployment "Vaccinations Programme – COVID-19 Service Delivery Framework" [DG2/004 – INQ000501312].

26. This did however, require extensive activity to be undertaken at pace necessitating close and effective working relationships with NHS Health Boards, clinical leads and others. In my experience, the virtual team approach adopted by the FVCV programme supported all partners to achieve this, although at times it did place considerable pressure on a relatively small number of key personnel and required them to work very long hours. However, as far as possible, scenario planning was used to help support what was in my view a highly dynamic and responsive deployment model.

27. One of the roles of the national delivery team was to assess each NHS Boards performance against uptake using the cohort baseline data. If performance was found to be falling short of expectations (either through a Board not requesting or using the allocated vaccine assessed against the cohort data) the delivery team engaged with the relevant Board to understand what challenges and issues the local teams were experiencing and explore if additional support was required. There was an explicit expectation that each Board would mobilise its delivery infrastructure to

accommodate and increase in line with available supply to ensure uptake was as high as possible for each cohort. But there were clearly limitations to this and at times additional support was required.

28. As part of early planning for deployment in Autumn 2020, the FVCV adopted a planning uptake assumption based on the optimum level of uptake for other vaccines of around 80%. Although both the FVCV team and Scottish Government Ministers were clear that the programme should seek to vaccinate as many people as possible with any planning assumption not limiting the programmes ambitions. An early summary of the planning is provided on slide 8 of "Update on Strategic Policy Framework for COVID", a presentation given to Ministers on Friday 6 November 2020 [DG2/005 - INQ000242470].

29. As the programme developed, our ability to monitor uptake became even more nuanced. For example the programme took a decision to require the recording of data such as ethnicity which went live on 17 November 2021. This had never been done before for a vaccination programme, but it allowed the programme to monitor uptake and highlight disparities in uptake which in turn enabled both direct engagement with specific ethnic groups, but consequently interventions to be developed that could address any barriers identified. These ranged from tailoring communication to specific groups, but also practical measures such as holding vaccination centres in mosques and churches where under-represented groups regularly met.

Engagement with the UK Vaccines Taskforce

30. The UK Vaccines Taskforce (VTF), based in the Department for Business, Energy and Industrial Strategy (BEIS), was focussed on investment, development and procurement of vaccine candidates. During 2020, the Scottish Government was invited to be part of early discussions, although these were highly confidential and predominately aimed at delivery partners in order to share intelligence and information. These were not part of the formal governance or decision-making process for securing a future vaccine.

31. Although it was helpful that Scottish Government officials were included in many of these discussions, Scottish Ministers sought assurance from Scottish Government policy officials that vaccines procured by the VTF for the whole of the UK would be

equitably shared. On that basis I requested inclusion on the governance mechanism overseeing this development work. This was not progressed by the VTF. I suspect there were concerns regarding the highly sensitive nature of the deliberations at the time. However, the Scottish Government did receive forecasts about vaccine candidates, via the UK Programme Board of which I attended which enabled me to update both Ministers and colleagues on the FVCV programme charged with delivery.

32. Once vaccines became available, a representative from the VTF attended all SRO meetings which provided an opportunity for all SROs to receive detailed updates on plans to procure and secure vaccines as well as the timing and size of any future batches which was incredibly helpful.

33. In relation to the FVCV programme in Scotland, despite there being substantial pressure and challenges, the virtual team operated well with colleagues joining the team from a range of public bodies across Scotland and giving their all to achieving a common goal. I did not perceive organisational tensions from those on this virtual team. In fact, I have reflected that this was relatively unique as in my experience the differences in organisational culture and values could have led to tension, but it did not. But over the course of preparing for a Covid-19 vaccine and overseeing the seasonal flu vaccine, the FVCV formed to become a strong and effective team, underpinned with trust and respect for each other. In a similar vein, I cannot recall any specific challenges in dealing with organisations either seeking to support the programme or delivering on the FVCV programmes behalf. Members of the virtual team changed over the course of the programme, but despite this there was always representation from clinicians, logisticians, NHS delivery, Scottish Government policy, pharmacy, digital, NHS workforce and when relevant the military. All were under intense pressure to deliver and there was therefore a strong sense of each member being trusted and valued with a clear focus on their respective roles.

34. In relation to engaging with commercial entities and organisations, at times if anything there were too many offers of support, albeit well intentioned which led to demands on the programme assessing and responding to these. This included for example offers to provide venues for vaccination centres or staff to resource the vaccine helpline, many of which were furloughed and would therefore not be available when that position changed. The time taken to work through all of these offers took time and it did place considerable pressure on the team who were

charged with planning and overseeing deployment. But of course these organisations were providing this offer of support in good faith and many outwith the eye of the public and the media.

35. I have set out above how the FVCV programme engaged with the UK Government on issues such as vaccines. I have also explained my dual role as policy lead and SRO, but I can confirm in both capacities there were regular and candid discussions about the planning and deployment of the Covid-19 vaccine. This included sharing our respective challenges and seeking advice (from both fellow SROs and health officials from each administration) on how to address these. This included sharing evidence and in relation to policy issues, at times sharing the outline of policy advice with senior officials from other administrations as it was being drafted to assure ourselves that we were considering all relevant issues and evidence available to us. I believe this level of openness and candour was a critical element to the success of the programme in both Scotland and in the other nations as there was both friendly competitiveness on the speed and spread of the vaccine deployment, but also sharing of approaches which at times influenced each other's deployment plans. I appreciate that the inquiry has asked me about a series of SRO WhatsApp messages during December 2020 and January 2021, where there were some initial tensions. But this is not indicative of the totality of the interactions and exchanges, between the SROs over the 2 years I worked with the SROs from other nations. The vast majority of exchanges and interactions, were supportive, collegiate and highly professional.

36. In relation to the SROs supporting each other, this included for example how children were vaccinated. In Scotland the FVCV programme took a decision to vaccinate children in the community rather than solely in schools where traditionally vaccines for school aged children were administered. We did this as the FVCV programme were of the view that vaccinating via schools would impede the speed of deployment and not address any concerns that parents may have regarding the safety or side effects of the vaccine given they are traditionally not present during vaccination in schools. On that basis the FVCV (with advice submitted and agreed by Scottish Ministers) decided to vaccinate in community settings which provided an opportunity for a discussion to take place between the vaccinator and the parent or guardian of the child should that be required. It also enabled the deployment of child friendly vaccination centres which were created following a meeting with Australia's Gold Coast health officials, who shared their approach to vaccinating children given they

were ahead of the UK in this regard. We shared this approach and the rationale with other SROs and I believe this may have influenced others to follow this approach delivering a mixed model of community and schools-based deployment. A summary of the key JCVI decisions that impacted on the FVCV programme is exhibited [DG2/006 – INQ000501313].

37. A wide range of advice was provided to Scottish Ministers in my role as the Deputy Director policy official responsible for the policy, planning and then the operational deployment of the Covid-19 vaccine. Either I or my team of policy officials developed and provided this advice in the same way as we would draft any advice to Ministers, drawing on as wide an evidence base as possible and ensuring this was clear, impartial and objective. For the purposes of the FVCV programme, this often included seeking direct input from delivery and clinical colleagues from the FVCV programme (including but not limited to the delivery Director, CPO and SMO) and a copy of any final draft would be shared with key personnel to ensure the advice accurately captured their views. If there were significant clinical issues associated with any advice (and there often were) explicit approval was sought from the CMO, or other senior clinical colleagues on his behalf such as the DCMO or National Clinical Director. On any occasions when the CMO or colleagues disagreed with the recommendation, rather than changing the recommendation, the advice sought to make it explicitly clear their views on the matter, including whether they agreed or disagreed with the recommendation being provided.

38. It should be noted that at times advice was drafted within a very compressed period of time and as new evidence came to light this necessitated providing updated advice (which could have a significant impact on any recommendations) but ultimately it was for Scottish Ministers to make the decisions. I am therefore unable to disentangle myself from the role of policy maker and external to the programme as the question the inquiry has posed me relating to providing examples of when decision makers did not take account of my advice.

Development, procurement, manufacture and approval of Covid-19 vaccines

39. As referenced above, I had limited involvement in the manufacture or procurement of the vaccine(s). However, discussions did take place at official and Ministerial level regarding the allocation of a vaccine when one became available. Although NHS NSS had in the past engaged with Public Health England (now the Health Security

Agency (UKHSA)) on securing vaccines on a UK basis, this was based on an agreed level of shared procurement and no agreement was in place to agree the volume or timing of allocation between the UK and Scottish Government.

40. In relation to a Covid-19 vaccine, I recognised the importance of the VTF and the UK Government investing at risk in a number of early vaccine candidates in exchange for first access to successful vaccinations. I do not recall any proposal or activity to explore a solo procurement route by Scotland for the vaccine given the highly global competitive environment for any vaccine in 2020 and the opportunity of increased buying power that would result in this being progressed at a UK level. Coordination of procurement arrangements within the UK provided an opportunity to adopt consistent messages on vaccine safety and prioritisation across the four nations which officials and clinical colleagues believed would minimise confusion and concern and promote a strong uptake in eligible groups.

Allocation of Vaccine supply

41. Given the UK Vaccines Taskforce were responsible for procuring rather than deploying the vaccine, there was not agreement in place that set out what share of vaccines procured that Scotland would be entitled to. It was therefore necessary to determine this as without agreement, planning and delivery would be challenging. On that basis an Agency Agreement was developed but the Cabinet Secretary for Health and Sport wrote to the Secretary of State BEIS, copied to the Secretary of State for Health and Social Care, stipulating that Ministers were signing up to the Agency Agreement on the assumption of access to a population share of any available vaccine [DG2/007 – INQ000499468 and DG2/008 – INQ000309562]. For the purposes of the vaccine programme, the FVCV used the Barnett formula proportion (8.28%) given there was precedent for using this when allocating financial resources. Secretary of State (SofS) for Health and Social Care (HSC) confirmed this in writing on 16 November 2020 by reply and this agreement was honoured throughout the programme. A copy of this correspondence is available at [DG2/009 – INQ000058980].

42. The Agency Agreement was however often operationalised using a high level of pragmatism and flexibility to ensure supply met Scotland deployment plans. This included for example being provided with a higher level of 8.28% vaccine at times if either other nations were not able to fully utilise these supplies, or if the FVCV

deployment plans were more advanced than others. However, officials across the four nations were in regular dialogue to maintain an overview that over a period of time Scotland (and each other nation) received the agreed overall proportion of the vaccines that were available.

43. In order to have detailed and meaningful discussions with colleagues in the VTF and UK Government Department of Health and Social Care (DHSC), detailed deployment plans, stock levels and vaccine logistics plans were shared in confidence. Colleagues in NHS National Services Scotland (NSS) were key partners in supporting the management of vaccine stock and often led on this work on behalf of the FVCV. These discussions often formed part of the regular SRO meetings where there were open, honest and candid conversations about each nations preparedness and challenges that each faced.

Approval of vaccines

44. The regulation of vaccines as with all medicines is reserved to the UK Government. This function is carried out by the MHRA and therefore all vaccines deployed in Scotland's vaccination programmes were subject to MHRA authorisation prior to deployment. In relation to the FVCV programme, the CPO provided advice to Ministers and the FVCV programme team on any clinical restrictions or advice attached to approval of any of the Covid-19 vaccines. The CPO was therefore central in the development of any advice which informed (or changed) deployment based on MHRA conditions as well as offering their professional view on the operational response to these conditions.

45. It should also be noted that the FVCV programme embedded the MHRA yellow card scheme for recording and reporting any adverse impacts or side effects post vaccination. Although the process of reporting such events to MHRA rested with Health Boards, (through local public health teams as part of their clinical governance and oversight function) Public Health Scotland was linked closely to this given their national surveillance work.

46. The process for decisions on eligibility and prioritisation was an important element of the FVCV programme given that supply would be a limiting factor, for the initial stages of the vaccine rollout. On that basis I and the policy team began work from June 2020 on developing a clear policy for the Covid-19 vaccine which would guide

deployment. This culminated in a Cabinet paper tabled and was agreed by Scottish Ministers on 30 November 2020 which recommended that Ministers should follow JCVI advice on prioritisation (based on clinical need) articulating the policy principles behind the approach for deployment. Every time the JCVI offered advice to Ministers, a submission was provided to Scottish Ministers with a recommendation and once Ministers agreed a CMO letter was drafted [examples provided: DG2/010 INQ000501314, DG2/011 - INQ000376300, DG2/012- INQ000501315 and DG2/013 - INQ000501316], alongside the development of national protocols which were issued to NHS Boards. The development of assets to support the workforce and generate patient facing materials was undertaken concurrently which supported rapid deployment.

47. It was recognised that the JCVI would not be able to finalise its recommendations until the front-running candidates had been authorised for supply by the MHRA. However, initial draft advice was provided by the JCVI in September 2020 on priority groups and this was confirmed in final advice on 02 December 2020 with further updated advice on 30 December 2020. The advice received in September, allowed the FVCV programme to start planning for deployment and on that basis, the policy team's approach was to focus on the JCVI's interim guidance, aimed at reducing severe illness and vaccine-preventable death from the virus. Urgent work was undertaken to scope out the size of each cohort and the following table outlines both the definitions used and the estimated size based on analysis undertaken.

JCVI Priority	**Group**	**Estimated population in Scotland at Dec 2020**
1	**Residents and workers in care homes for older people** *Residents and those working in long-stay residential and nursing care homes or other long-stay care facilities for older adults where rapid spread is likely to follow introduction of infection and cause high morbidity and mortality. This includes non-clinical ancillary staff who may have social contact with resident but are not directly involved in patient care, such as cleaners and kitchen staff.*	30,000 residents 45,000 staff

2	**All those over 80 years of age and over** *Starting for logistical reasons with long-term hospital inpatients who are over 80.*	250,000
2	**Patient facing, frontline healthcare workers** *Staff who have frequent face-to-face clinical contact with patients and who are directly involved in patient care in either secondary or primary care/community settings. This includes doctors, dentists, midwives and nurses, vaccinators, paramedics and ambulance drivers, pharmacists, optometrists, occupational therapists, physiotherapists, radiographers and any associated support staff of independent contractors. It should include those working in public, private, third sector and non-standard healthcare settings such as hospices, and community-based mental health or addiction services. It should include Healthcare Improvement Scotland inspectors who are required to visit premises. Temporary staff, including those working in the COVID-19 vaccination programme, students, trainees and volunteers who are working with patients must also be included.*	230,000
2	**Non-clinical but patient facing staff in secondary or primary care/community healthcare settings** *This* includes *non-clinical ancillary staff who may have social contact with patients but are not directly involved in patient care. This group includes receptionists, ward clerks, porters and cleaners.*	
2	**Laboratory and pathology staff** Hospital-based laboratory and mortuary staff who frequently handle SARS-CoV-2 or collect or handle potentially infected specimens, including respiratory, gastrointestinal and blood specimens should be eligible as they may also have social contact with patients. This may	

	also include cleaners, porters, secretaries and receptionists in laboratories. Frontline funeral operatives and mortuary technicians / embalmers are both at risk of exposure and likely to spend a considerable amount of time in care homes and hospital settings where they may also expose multiple patients. However, not included here are staff working in non-hospital-based laboratory and those academic or commercial research laboratories who handle clinical specimens or potentially infected samples as they will be able to use effective protective equipment in their work and should be at low risk of exposure.	
2	**Social care staff directly involved in the care of their service users and others involved directly in delivering social care such that they and vulnerable patients/clients are at increased risk of exposure** *This includes, for example, workers in residential care for adults and children, supported housing, and also personal assistants and social workers who have face-to-face contact in the course of their duties including child, adult, mental health officer duties and public protection. It should include Care Inspectorate staff who are required to visit care homes and other registered services. Young people age 16-18 years, who are employed in, studying or in training for health and social care work should be offered vaccination alongside their colleagues if a suitable vaccine is available.*	
3	**All those 75 years of age and over**	190,000
4	**All those 70 years of age and over and clinically extremely vulnerable individuals**	280,000 over 70 110,000 clinically extremely vulnerable
5	**All those 65 years of age and over**	280,000

6	**All individuals aged 16 years to 64 years with underlying health conditions which put them at higher risk of serious disease and mortality and unpaid carers aged 16+**	1,010,000
7	**All those 60 years of age and over**	280,000
8	**All those 55 years of age and over**	330,000
9	**All those 50 years** of age **and over**	340,000
Total	**All JCVI priority groups**	3,375,000

Patient facing, frontline healthcare workers

48. Advice from the JCVI on priority group 2 included helpful classifications of the type of staff and workforce that would be eligible for early vaccination and I have been asked to outline my input into Scottish Government decision-making around Vaccination as a Condition of Deployment (VCOD) for health and social care staff in Scotland. The inquiry may wish to note that in February 2020, there were extensive discussions across the four nations regarding the inclusion of a requirement to mandate healthcare workers in the coronavirus Act in order for flu vaccination (and potentially other vaccinations, e.g. pneumococcal) to further protect the NHS in anticipation of increased demand due to Covid-19. Although the UK Government did not proceed with this within the act at the time Scottish Ministers sought the views of the CMO, the CMO Advisory Group and SG clinical colleagues. I understand that the CMO advisory group concluded that: "There was concern that some health and social care professions may take the view that compelling people to be vaccinated as being contrary to the principle of informed consent and, therefore unethical. It was felt that if these views were aired publicly, it could run the risk of undermining the confidence of the general population in the vaccination programme."

49. Notwithstanding this, further consideration was given to mandate vaccination for frontline healthcare workers during the summer of 2020 in Scotland in advance of the seasonal flu programme. Advice was developed which explored the options and risks associated with this, **[DG2/043 - INQ000507779]**, and recommended that mandating vaccination for healthcare workers wouldn't be pursued but that: "….officials routinely monitor uptake in each NHS Board and provide Ministers with a regular update, with a view to revisiting mandation if all reasonable measures fail to achieve increased uptake". Therefore, at the very beginning of the vaccine programme, I did not feel the

need to rehearse these arguments for mandating the covid-19 vaccine as Ministers had reached a settled position on this matter.

50. However, we were aware that in July 2021, following the House of Commons approving Regulations to make Covid-19 vaccination a mandatory condition for care home staff in England from October 2021, the DHSC was due to consult on this issue. I understand advice was provided to Scottish Ministers on the 15 July 2021, provided [DG2/044 – INQ000240381], which set out the legal, ethical and practical considerations on making mandatory COVID-19 vaccination in Scotland a condition of employment for health and care home staff. The advice explained that adopting a position of mandating vaccination would be a significant departure from the then health policy and there was the potential for legal challenges, given the ethical and human rights considerations.

51. Policy officials providing this advice concluded that the regulations approved by the House of Commons could be challenged under ECHR, specifically (but not exclusively), Article 8 (right to family and private life) and Article 9 (right to freedom of thought, conscious and religion). It was also important to note that the Covid-19 vaccines had not been fully licensed and that could also result in legal challenge. The inquiry will wish to note that Dr Gregor Smith, CMO, expressed a view that there were significant ethical challenges in mandating a vaccine that could have an adverse effect profile that includes significant adverse effects, such as clotting, albeit at a very low level. Which is directly relevant to the legal question of whether mandatory vaccination is a proportionate means of achieving a legitimate aim. This advice recommended an approach that focuses on voluntary uptake, to which Ministers agreed.

52. Although there was no requirement to reach a UK wide position on this matter, I recall that there were numerous discussions at official and Ministerial level, where I and colleagues explained the rationale and approach for the position being adopted in Scotland. I can also recall that these discussions were cordial and respectful. Furthermore, the FVCV programme did not condone nor encourage the use of employers (from any sector) to seek confirmation of vaccination status as there was a clear recognition that this was an individual's private medical record and therefore this information was treated in a confidential manner at all times by the programme and those operating within it. Although mandating vaccinations were not introduced by the DHSC, there were instances where employers that had a footprint in Scotland

as well as England, which resulted in some confusion as to the implications for staff in Scotland. This included receiving some anecdotal evidence of employees within the care sector being asked to provide this information by their employer. Social care policy officials, therefore worked with social care employers, representative bodes and staff to ensure all understood the policy position in Scotland.

Clarification of JCVI definitions

53. Beyond the frontline health care workers, although the definitions of some JCVI groups were really clear, there were others which required work to clarify how best to interpret these. This included for example priority group 6, adult unpaid carers. Given the broad definition of unpaid carer in Scotland under the Carers (Scotland) Act 2016, the FVCV programme considered it appropriate to view the JCVI definition in a Scottish context given that the intent of the JCVI advice was to provide protection for those they were caring for, and to support them to continue to care, if possible, alleviating pressure on the NHS and social care. Advice was provided to Ministers on this issue and the Cabinet Secretary stated in Parliament on 23 December: "*Today, all members will receive what is becoming the weekly letter from us to them … Members will see that in the number 6 place on the list are unpaid carers, including all adult carers and young carers aged from 16 to 18.*" Carers who were able to be identified through social security and General Practice data systems were provided with letters with appointments scheduled in the winter/spring of 2021. All remaining unidentified carers were able to self-identify and book an appointment using the newly developed online booking portal or national helpline from 15 March 2021 which was accompanied by a marketing campaign and engagement with local and national carer organisations to encourage uptake. There was considerable consideration of this as an approach by the FVCV programme team and a recognition that self-identification could lead to individuals claiming they were carers when they weren't given there was no ability to independently verify their status. This was mitigated by using clear questioning when someone phoned to book an appointment at the vaccine helpline and by including clear text within the online booking form. The delivery team actively monitored take up to assess roll out with the data held by the Scottish Government carers policy team. Although there may well have been some instances of individuals claiming they were carers when they were not, the programme formed the view that take up was broadly in line with expectations, which would indicate that this risk did not materialise.

Areas where the JCVI were unclear or silent

54. Beyond carers, the FVCV took the view to expand the JCVI priority group 6 to include people with mild or moderate learning/intellectual disabilities as the JCVI advice recommended the vaccination of people on the Learning Disability register. Given Scotland did not have a learning disability register (which was in place in other nations of the UK), a decision was taken to include people with mild or moderate learning/intellectual disabilities to ensure that no one was excluded. The programme took the view that this was not a deviation from JCVI advice, but rather a practical measure to aid operational delivery. Not least as the JCVI advised that implementation of the Covid-19 vaccination programme should involve flexibility in vaccine deployment at a local level. The programme also took a decision to include people in or entering drug and alcohol rehabilitation facilities in Scotland due to their increased risk as part of JCVI priority group 6. Again this was not considered a deviation, but was in line with this cohort prioritising individuals with underlying health conditions. Overall, priority group 6 proved to be a complex and challenging group, given the relatively broad framing of the risk as articulated by the JCVI and for some categories our inability to accurately assess the overall size of the cohort. I referred to this in my WhatsApp message of 22 February in the Vaccine SRO group. I can also confirm that I spoke to the other SROs about the reasons and rationale for Scotland adopting the position it did on cohort 6 (including on unpaid carers) at many of the regular SRO calls.

55. Beyond considering cohort 6, there were some areas where the FVCV programme found the JCVI advice to be insufficiently clear and although the FVCV programme sought to set out articulate the interpretation of the JCVI advice within the various deployment plans that were published. Notwithstanding this given there were some small areas of ambiguity, such as the JCVI categories which referred to the severity/complexity of conditions or disabilities. Work was therefore required to be undertaken by the FVCV programme to confirm the complexity and 'severity' in the context of some health conditions and disabilities, and if not whether blanket invitation of such conditions/disabilities would be the most appropriate approach.

56. There were also practicalities of deployment which led to a review of eligibility. For example consideration of those about to enter into clinical treatment that would make them vulnerable or those with rare and unusual conditions and those with co-morbidities, led to a decision being taken by the FVCV programme (with CMO input)

that enabled clinicians to request vaccination sooner than the planned prioritisation of the cohort they belonged to. This position was agreed and communicated to clinicians, but was only used on a case by case basis and required a case referral where clinicians could request vaccination via the FVCV programme in such circumstances for individual patients.

57. Following advice from Scientific Advisory Group for Emergencies (SAGE) and JCVI, from early in the programme, remote and rural Health Boards were able to request the flexibility to vaccinate across cohorts, sometimes out of priority order, where it would make operational sense. This was referred to at the time as "bundling" and it enabled the vaccination of prisoners and prison staff in June 2021 to ensure Health Boards did not have to undertake multiple visits to prisons each time the programme extended the offer to new cohorts. This approach was also taken (with agreement between the local and the national FVCV delivery team) to enable vaccination teams to deploy to very remote and rural geographical areas, including small islands, where it did not make sense (given it increased the risk of vaccine wastage) to make multiple trips to vaccinate the local community.

58. I and my team recognised early in the rollout that a process was required to consider issues around how JCVI advice was implemented in practice, and to also consider groups that weren't explicitly covered in JCVI advice. A Policy Panel group was established in March 2021 comprising clinical, policy, operational, and legal experts. This allowed holistic consideration of the merits of vaccinating specific cohorts, particularly where there was no explicit basis in JCVI advice to do so, [DG2/014 - INQ000244062] [DG2/015 - INQ000243615]. Advice from the group was then considered by the Minister and a final decision taken. This is laid out in the Policy Panel Terms of Reference, [DG2/016 – INQ000376398]. Some of the issues considered by the Policy Panel included:

- Prioritisation of foster carers.
- A review of the current policy and practice around in-hospital vaccinations, including those in mental health wards.
- Vaccination of those entering and resident in drug and alcohol rehabilitation residential centres [DG2/017 – INQ000499062].
- Vaccination of seafarers.
- Vaccination of primary care givers of babies in neonatal intensive care units.

59. The policy panel engaged with other SG policy colleagues such as the unpaid carers policy team and others and helped to shape and provide evidence to support advice to Ministers. The policy panel did not make any decisions, but it was helpful in airing views and validating evidence which helped to refine advice going to Ministers. It also ensured policy colleagues were involved and sighted on how the FVCV programme (and the Cabinet Secretary of Health and Sport) were reaching views on matters which were likely to impact on their policy areas and stakeholders.

Pressure to deviate from JCVI advice

60. Several occupational groups sought priority access to vaccination based on their occupation and made representation to officials and Ministers across the Scottish Government on that basis. This was often based on their perception of the risk of exposure to the virus, rather than the clinical risk should they become infected. Although this was understandable, it was often based on a misunderstanding of the level or duration of protection that the vaccine provided in relation to preventing infection. The JCVI advised that a vaccination strategy centred specifically on occupational groups would be more complex to deliver and may require new vaccine deployment structures which would slow down vaccine delivery to the population as a whole, leaving some individuals unvaccinated for longer. Indicating that: '*…operationally, simple and easy-to-deliver programmes are critical for rapid deployment and high vaccine uptake'*. Given there was a clear Scottish Government policy position on this (as agreed within the Cabinet paper in December 2020) the FVCV programme ensured that prioritisation continued to be in line in as far as possible with JCVI advice, aligned as appropriate to the PHE Green Book.

61. However, this didn't stop the FVCV programme nor Scottish Ministers being lobbied by occupational groups such as teachers, the police, the prison service and those in critical infrastructure roles. Through the programme the Covid-19 vaccine policy team offered advice to Ministers at various times in relation to these approaches. This includes providing advice on prioritisation which is what my message was referring to from the Vaccine SROs" [INQ000477804] at page 11, 03/01/2021, which stated: "*Just to say probably the most robust advice I've ever drafted going to FM on not prioritising teachers*." As an example, there were calls from both staff and the trade unions of the NHS 24 call centre in Scotland complaining they were not being offered vaccinations. They advised that staff had been made aware that their equivalent colleagues (from 111 call centre staff) in England, Wales and Northern Ireland were

being classified as frontline healthcare workers and included in Phase 1 of the vaccination programme alongside with other frontline health and care staff. Scottish Ministers were therefore offered advice which explained that upon examination, DHSC colleagues confirmed that the 111 call centre staff should not have been classified as front line health and social care workers but confirmed that given vaccination for this cohort had commenced there was no intention to cease this. A copy of this advice can be found at [DG2/018 - INQ000241051].

62. Within this advice there is also a reference to the Scottish Ambulance Service (SAS) taking a management decision to vaccinate their call centre staff to avoid wastage, but this was not in line with the advice and guidance provided by the FVCV (or the CMO). We understand from the SAS that the management team had indications from their trade union representatives that should this offer be removed, industrial action would likely follow. It should be noted that the SAS call centre and NHS 24 call centre are co-located in the same building. This was an example of the type of issue the FVCV programme was wrestling with and what I was referring to in my WhatsApp message of 26 January 2021 when I replied to Naresh Chada stating: "…..*We had ambulance control staff threaten to strike if they didn't get it*….."

63. There was however a fine balance to be struck in how robust any public communications could be in relation to the level or duration of protection being offered from infection by the vaccine. The FVCV programme and Scottish Ministers were mindful that there were risks in promoting or highlighting the levels of protection from infection in responding to occupational groups, as it could have had a detrimental impact on wider uptake from those groups that were at higher clinical risk. This therefore proved challenging as we did not want to risk people not coming forward to be vaccinated because of the relatively short period of protection from infection, when the protection offered was predominantly based on reducing the clinical risk once someone was infected. It led to numerous challenging and difficult discussions with both stakeholder groups or their representatives such as trade unions and others. Given the limited vaccine supply during 2021 (and the need to offer two doses for maximum protection) coupled with the stage of the pandemic and it becoming clearer that vaccination provided the sustainable route out of NPIs, the issue of prioritisation became increasing intense. This pressure became even more pronounced when vaccination certification became a requirement to travel as many sought vaccination as means in which to travel for work or go on holiday. For the purposes of clarify I should explain that I did not lead on the policy or delivery activity

associated with vaccine certification which came into force in Scotland on 01 October 2021. However, I understand that more detailed information is available on this within Module 2A of the Scottish Government Health and Social Care corporate statement, M2AHSCD01.

64. The Inquiry will be aware that this was introduced at a time where many countries had introduced proof of vaccination as an entry requirement as part of their border controls. The Scottish Parliament passed a motion approving the scheme on 09 September 2021 [DG2/045 - INQ000147443] and an evidence paper covering domestic vaccine certification and the four harms approach was published in September 2021 and updated in November 2021 [DG2/046 - INQ000383489], [DG2/047 - INQ000131042]. As stated in the Strategic Framework Update (November 2021) [DG2/048 – INQ000214388] and in legislation, the aims of the scheme were to:

- Reduce the risk of transmission of coronavirus;
- Reduce the risk of serious illness and death thereby alleviating current and future pressure on the National Health Service closure or more restrictive measures; &
- Increase vaccine uptake.

65. My role was limited to ensuring those with technical responsibility for the covid app and those responsible for the systems that recorded and reported the vaccination status were aligned. I was involved in numerous discussions in relation to the potential impact of vaccine uptake, and the relative risks and benefits of promoting certification as a driver to come forward to be vaccination. I can confirm that certification didn't change the approach that the FVCV programme adopted in relation to prioritisation of vaccination, but it did mean that the programme had to deal with more frequent and at times vocal and public demands for both individuals and their representative bodies to be prioritised who at times challenged the clinical prioritisation being adopted by the programme. This translated into additional work for those leading on both vaccine policy but also on delivery and this may have had the unintended consequence of diverting resource away from activity that could have otherwise been undertaken such as addressing vaccine hesitancy or on inequalities.

66. I cannot comment on the ethical considerations of the vaccine certification scheme, but I understand that Covid Status Certification Steering Group [DG2/049 – INQ000147445] was established in March 2021, who were charged with cross-

Government coordination and governance overseeing the development and introduction of the scheme. This included a range of stakeholders and was the formal governance mechanism to capture progress, key activities and associated risks, and allowed stakeholders from various sectors and operational areas to provide their perspectives on the proposed policy. The group co-ordinated advice to Ministers and oversaw delivery of the scheme. The Domestic Certification Programme Board and Covid Status Certification Delivery Group were established in summer 2021 to implement the scheme with governance subsequently being transferred to the NSS Portfolio Management Office (PMO) to oversee delivery through a programme board.

67. Notwithstanding the policy aims outlined above, I am of the view that the requirement for some individuals to prove vaccination status to enter some countries added a different motivating factor for many, who may have historically been prepared to wait until those that were more clinically vulnerable were vaccinated first. However, I recognise that it would have been difficult not to introduce a mechanism for individuals to demonstrate their vaccination status, although in hindsight I'm not sure I or colleagues completely appreciated how this might impact upon the motivation to be vaccinated. Notwithstanding this, by providing details of historic vaccination directly to individuals (either on line or via the app), it did enable individuals to see their last vaccine date which in turn would enable them to book appointments in line with the recommended time interval between vaccination events which was an additional helpful control measure.

68. Throughout this period, the Covid-19 vaccine policy team charged with overseeing deployment and planning for the various stages of deployment, were the same people engaging with those lobbying for prioritisation and/or policy teams and Scottish Ministers who were being lobbied directly. This placed considerable strain on many of my colleagues and myself as at times we were drawn into numerous meetings and asked to develop frequent Ministerial submissions which ran the risk of detracting from effective oversight and planning for deployment of the vaccine. This led to many of the policy team working longer hours, routinely working 7 days a week and rehearsing often the same argument with different stakeholders and policy teams across the Scottish Government. I recognise that colleagues both within and outwith the Scottish Government were not as involved in the numerous discussions on prioritisation as I or my team and they were undoubtedly coming under considerable pressure themselves. I also recognise that given the programme was not being explicit on the levels of protection being offered on reducing transmission, there was

an understandable belief that the vaccine had a long lasting effect on reducing the ability to catch Covid-19 which would be very attractive to those who had high levels of exposure due to their occupation, even if they were at a relatively low level of clinical risk should they become infected. However, with limited supplies, to deviate from the agreed policy position would have resulted in potentially vaccinating younger, less clinically vulnerable people ahead of those identified by the JCVI as being at greater risk from the Covid-19 virus.

Different approaches across the UK on Prioritisation

69. As the lead policy official on vaccines within the Scottish Government and the SRO for the programme, I took part in regular (at least weekly) meetings with senior policy and delivery colleagues in the other UK nations. This provided an opportunity to share learning on vaccine deployment and over the course of deployment led to strong and effective relationships being developed coupled with a high level of trust. This included, for example, the sharing of evidence and material with fellow Government officials as part of drafting of advice to our respective Ministers and sharing, in confidence, emerging thinking from bodies such as the JCVI to facilitate scenario planning. It also provided an opportunity for each nation to provide evidence on the operational implications of an issue which the JCVI was deliberating. However, it should be noted that this evolved over time, as initially although Scotland had two observers on the JCVI, Scottish Government officials were not always involved in the discussions between the JCVI nor the secretariat and the DHSC. The formal governance of the JCVI (who reported to the Secretary of State of DHSC) has not been updated post devolution and this therefore is perhaps an issue worthy of further exploration at some point in the future.

70. Engagement with colleagues in Wales, Northern Ireland and England also provided an opportunity for detailed discussions with colleagues in BEIS and the vaccine taskforce which had responsibility for the Covid-19 vaccine supply, storage and distribution. Through this engagement, an agreement was reached by all nations' respective Ministers on the allocation of supply for each nation. This was an area which worked particularly well with a high level of flexibility regarding the phasing of supply to align as best as possible to each nation's deployment plans. This also reduced the level of vaccine wastage, which was a key consideration given the limitations of the initial supplies and the storage and transportation issues surrounding a number of the vaccines. There was also a good and effective working

relationship with the security SRO and their team from the Home Office which supported operational planning and deployment.

71. As the SRO, I was also involved in detailed (and at least weekly) meetings with each nation's SRO to discuss our respective operational deployment plans. This was a highly trusted environment with each SRO sharing the detail of their respective plans and rationale, and highlighting potential concerns and learning from their deployment experience. Whilst there was no explicit requirement for all nations to adopt the same approach, nor adhere to the same timeline, these meetings were often used to understand each nation's intention and importantly ensure communications and messaging took due regard of any differences. There was also an informal but helpful challenge function undertaken through these meetings, which is something I personally valued.

72. As outlined above there were small differences to the approach being taken by the FVCV programme in Scotland compared to other nations in the UK. But all nations chose to align to the JCVI advice although this was continually confirmed often by Ministers on receipt of JCVI advice. This therefore ensured that communication with members of the public and the clinical community would be broadly consistent throughout the UK. The one substantive area of deviation that I recall was a decision in the Autumn of 2021 by the FVCV programme in Scotland to co-administer the Covid and the seasonal flu vaccine. There were different delivery mechanisms in place elsewhere in the UK (specifically England where I believe flu was delivered via primary care settings), but a decision was taken by the FVCV programme to co-administer given this was permitted based on JCVI advice and the delivery infrastructure in Scotland supported this. As well as increasing uptake levels for flu, it should be noted that the supply and vaccination infrastructure that had been developed for the FVCV programme was fully utilised for both the Covid-19 and seasonal flu vaccines.

73. In considering prioritisation, as deployment matured, there became a well-established routine developed where DHSC colleagues would invite respective policy colleagues from each nation to a meeting to discuss forthcoming JCVI advice (and the content or any nuance to that advice that would likely be submitted to the SofS from the JCVI). Although highly confidential, these were open and candid discussions about the content of this advice and the timing of any announcements. This enabled discussions to take place with the FVCV delivery team on how to operationalise any

forthcoming advice, but it also enabled the preparation and planning for future potential advice which was invaluable. It also in turn helped to ensure this advice could be quickly operationalised as work often commenced in advance of receiving the final written advice from the JCVI, although it only tended to short cut things by a day or so, but every little helped. The FVCV team ensured that the final advice that was received aligned with our expectations and if not adjustment were made to any preparatory work that had been initiated up to that point.

74. Colleagues in DHSC led this engagement given their close links with the JCVI, and in my experience this became an important mechanism to understand any considerations that the JCVI had in their deliberations in reaching a conclusion which I could convey to Scottish Ministers and more often than not, the FVCV delivery team. The pace of this was often frenetic though and if JCVI convened early or met unexpectedly, colleagues in DHSC would inform us and schedule in a meeting immediately after the JCVI met to discuss the draft advice likely to emerge from their meeting. On that basis advice was often drafted to Ministers that day (or late in the evening) and if possible this included an early view on how this advice might be operationalised. But this was not always possible and where this was the case separate advice was provided on operational delivery and communication. There were also occasions when a four nations Ministerial meeting was arranged to discuss emerging advice to seek clarity on whether each nation was likely to accept or reject that advice. It is also important for the Inquiry to note that although there was a policy position within the Scottish Government to deliver in line with JCVI advice, there was no legislative requirement to do so. I believe that is different to other parts of the UK.

75. Although Scotland had a member on the JCVI and an observer, there were a few albeit limited occasions where the FVCV or Scottish Ministers felt that the JCVI was not considering the full range of issues affecting the deployment of their advice. Although I understand that the JCVI routinely engaged with the NHS England SRO when considering their advice, this was not routinely extended to the other nations at the very early stages of deployment. However, I found the SRO for the English programme to be thoughtful about how to present material to the JCVI and I had confidence they would also represent any issues brought to their attention via the regular SRO calls. I also recall as the programmes developed, the JCVI did start requesting submissions and evidence for all SROs as to the operational issues or challenges that the JCVI should consider when reaching a view on an issue. And I

suspect that colleagues in DHSC were key in encouraging this form of engagement by the JCVI.

76. Overall, I found there to be high levels of alignment between the four nations of the UK on prioritisation and timing. Where there were subtle differences, these were discussed in a candid and open way, with each SRO mindful of the implications of cross border issues and differences in communicating with the general public. I found the environment in which both the SROs and the lead policy officials to work within to be highly supportive, understanding and respectful.

Vaccinating children

77. The one area I can recall that caused challenges was the advice from JCVI regarding the vaccination of children with underlying health conditions. There was a delay in receiving advice for those children between 12-15 years of age without underlying health conditions. There was increasing anxiety in Scotland that children would return to school before receiving advice from the JCVI. Scottish Ministers were therefore pressing me and, I believe the CMO, to encourage the JCVI or DHSC through their connections to the secretariat, to offer advice as it would appear that there was limited understanding that there was a different academic term in Scotland compared to England. That is why I believe the First Minister responded to a question in the Scottish Parliament indicating that advice would likely be received shortly from the JCVI.

78. The First Minster's response was based on briefing I, or my team, had provided to the First Minister. The response provided to that question caused considerable concern from DHSC colleagues and the chair of the JCVI who made strong representation to me at future SRO and senior officials meetings. The Inquiry may be interested to know that in advance of the First Minister responding to this question in the Scottish Parliament, I advised the First Minister not to divulge this information, but the First Minister was of the view that she had to answer the question honestly given she had been briefed on the JCVI position and was aware that JCVI advice would be forthcoming and to do anything other than that would be to mislead Parliament.

79. Following the First Minister making this information publicly available in response to a parliamentary question, I received a letter from a senior DHSC official. I found this surprising given that it is unusual for officials to hold fellow officials to account for

what their respective Ministers did or didn't say. A copy of this correspondence is available along with my email to the JCVI at [DG2/019 – INQ000499466 and DG2/020 – INQ000493478]. I did not respond to this correspondence as I did not believe there was value in a further written exchange on this, but I did raise this verbally with DHSC to express my surprise and disappointment at receiving a letter of this nature. Particularly as I have referenced above, when I both briefed the First Minister not to make this information public, and informed DHSC in advance that there was the potential that Ministers may choose to do so. I am sure that the Inquiry will be aware that although it is entirely appropriate for officials to advise Ministers, they do so in complete recognition that Ministers need not take their advice. For completeness a summary of advice for the vaccinating of all children over the period of the FVCV programme is provided at [DG2/021 – INQ000501318].

Operational Delivery of the FVCV

80. As explained earlier, there was a FVCV delivery Director and a delivery team who led on how best to operationalise policy (including but not limited to JCVI advice). As the SRO, I shared intelligence from discussions with fellow SROs from other nations, which could include indications of likely future JCVI advice as well as any learning or challenges others were experiencing in England, Northern Ireland or Wales. As the lead policy official, I also ensured that the way in which the FVCV was operationalised was in line with both the policy intent (as set out within the agreed Cabinet paper of December 2020) and in line with Scottish Ministers expectations. If I felt this was not the case, I would seek the views of Ministers, either via a written submission or during regular meetings between the FVCV team and the Cabinet Secretary for Health and Sport and on occasions the First Minister.

81. This included the early planning and deployment in preparedness for any vaccine from June 2020, where early decisions were taken such as to secure additional cold storage facilities and assess the adequacy of existing contractual arrangements for the transportation and storage of vaccines. Given my role as SRO, I was able to update other SROs on our deployment planning and preparation and hear from others how they intended to operationalise delivery. Although each nation had differences in the structures and delivery elements of their health and social care systems, these were discussed openly and with candour between all of the SROs. I have been asked to comment on the level of differences between each nation, but I am not sure I am able to do this in any great detail. I know that Scotland was able to

do things often at a pace and scale that may have proven more challenging to do at an English level due to the scale of their programme and arguably there were more issues in relation to rurality in Scotland than in other parts of the UK. But there were what I considered to be numerous areas of innovation within the FVCV programme that I would wish to highlight including:

- Developing an online booking system;
- Creating a Vaccine Management Tool to record vaccination which was tied into future scheduling and recall;
- Text reminder system for booking appointments;
- Ability for people to reschedule their appointment;
- Recording ethnicity data to support targeted improvements on uptake;
- Empowering local systems to engage with third and voluntary sectors to support local deployment;
- Using the Scottish Ambulance Service for outreach activity to support local teams;
- Nimble deployment of walk-in centres aligned with local or national marketing and comms;
- Creating a vaccine helpline and tracking themes of queries and questions to adjust operational delivery (at a national and local level);
- Engaging with Scottish Enterprise to improve flow in vaccine centres using lean operation specialists;
- Using blue envelopes which acted as a clear prompt for action; and
- Routinely publishing vaccine deployment plans to be as open and candid with the public as possible.

Guiding factors informing deployment

82. As indicated above, the FVCV programme was aware that JCVI advised that implementation of the Covid-19 vaccination programme should involve flexibility in vaccine deployment at a local level with due attention to:

- mitigating health inequalities, such as might occur in relation to access to healthcare and ethnicity;
- vaccine product storage, transport and administration constraints;
- exceptional individualised circumstances; and
- availability of suitable approved vaccines, for example for specific age cohorts.

83. On that basis, the FVCV programme was clear from the start that the vaccinations programme must be equitable and reach everyone in Scotland. This therefore influenced numerous operational decisions such as the type and location of vaccination centres, how rurality influenced the transport and administration of vaccination, how to secure and deploy a vaccination workforce and how to communicate and engage with the general public. To that end Equality Impact Assessments (EQIAs) were undertaken and an example is included in [DG2/022 – INQ000182739].

Addressing Inequalities

84. Inclusion and equality were embedded throughout the FVCV programme in a deliberate manner. The FVCV team worked with national agencies and local Health Boards alongside local government, business, third sector and community groups to encourage engagement, remove barriers and respond to evidence of low uptake of vaccination in certain communities. To support this a new Vaccine Strategy Division was created in the Vaccinations Directorate in January 2021 with Jamie MacDougall as the Deputy Director. A team focusing on Vaccination Equalities and Inclusion was set up within this new division and on 16 February 2021 the FVCV Programme Board endorsed an inclusive approach being embedded into operational delivery. To support this an inclusion workstream was established which developed a charter which was then updated on a regular basis. A report was published on the 7 February 2022 that set out the programmes approach to inclusion and a copy of this can be found at [DG2/023 – INQ000376293].

85. On 8 March 2021, NHS Health Boards were requested to create local inclusion delivery plans, where these did not already exist. These plans were to cover the local approach to reaching those groups with one or more protected characteristic, as well as additional identified groups which experienced barriers to vaccination and were based on the PHS Health Inequality Impact Assessment and research by Voluntary Health Scotland.

86. A series of submissions were provided to Ministers over the course of the programme with regular engagement with NHS Health Boards seeking updates on each areas approach to inclusion based on the Inclusion framework that was developed along with NSS and the Vaccine Equalities and Inclusion Team. The Inquiry asked me to consider whether there were any inequalities issues, including

but not limited to, any protected characteristic under the Equality Act 2010, that either arose or were exacerbated or identified during the relevant period. I am not aware of any issues that were exacerbated, but there were a number identified including for example the uptake rates of some groups. By monitoring uptake data, there was evidence that some groups were experiencing barriers and therefore supporting information was issued to NHS Health Boards on an ongoing basis to help them develop an appropriate response so the programme could assure itself that all reasonable steps were being taken to address health inequalities.

87. A National Vaccine Inclusion Steering Group was set up, with the first meeting on 15 March 2021. The role and remit of the group was to ensure appropriate stakeholder engagement in the programme regarding issues of inclusion and equalities. The group was not a decision making forum nor part of the formal governance for the Programme, but rather a mechanism to share information and seek advice and feedback on current approaches and ideas for improvement. Membership comprised NHS Health Boards, third sector, faith and community groups, patient representatives, Deep End GPs amongst others. The group initially met weekly, which moved to fortnightly and then monthly from 2022.

88. The Inquiry has asked that I provide a copy of the minute of the Disability Roundtable on 7 December 2020. I have identified the agenda and list of actions points captured at the meeting are included in **[DG2/041 - INQ000507776, DG2/042 - INQ000507777, DG2/050 - INQ000507778].**

89. As the inquiry will be aware, shielding was a completely new strand of health policy which was established to assist in protecting people in Scotland at the greatest risk of severe illness if they contracted COVID-19. Although this was led by colleagues in another part of the Scottish Government following all the four UK CMOs jointly identifying certain health conditions which could mean someone was potentially at higher risk of negative outcomes if they contracted Covid-19. These initial groups were:

- Group 1 – Solid organ transplant recipients;
- Group 2 – People with specific cancers;
- Group 3 – People with severe respiratory conditions;
- Group 4 – People with rare diseases;
- Group 5 – People on immunosuppression therapies which increase risk of infection;
- Group 6 – People who are pregnant and have significant heart disease.

90. Recognising that some individuals met the criteria for inclusion in more than one group because of multiple health conditions. Public Health Scotland worked to identify individuals falling into these categories. Initially, approximately 136,000 individuals were identified and added to the Shielding list in March 2020. I understand that on 30 September 2020 saw the addition of adults with Downs Syndrome and people with Chronic Kidney Disease stage 5 to the Shielding List as per UK Clinical Review Panel Recommendations based on evidence from QCovid.

91. In relation to the different definitions that were used in Scotland to other parts of the UK, it is important to note that the terms used in England and in Scotland were different from the outset. I understand that the UKG category "Clinically Extremely Vulnerable (CEV)" is the equivalent of the Scottish category "Highest Clinical Risk". The difference resulted from pre-pandemic associations in Scotland with the term "vulnerable" which made it less appropriate for articulating clinical risk. This included Police Scotland's "Vulnerable Persons Database", which captured people at risk of non-clinical risk factors such as child protection, domestic abuse, issues relating to victims and witnesses of crime, hate crime and youth offending. I understand that Scottish Government officials were careful in communications to ensure people in Scotland understood the difference in language. But there was also a need to distinguish this new risk group from pre-pandemic categorisations, for example to describe eligibility for the flu vaccine. The terms "Clinically extremely vulnerable / Highest Clinical Risk" distinguished the group of people at highest risk from Covid from that existing terminology. Eligibility under JCVI group 4 was defined as per the Green Book and if those individuals who were within the shielding list had those conditions they would have been vaccinated.

Public Messaging

92. I was not directly involved in the development of public messaging given I am not a communications expert, but I did appoint a number of communications specialists to my division and engaged fully with Scottish Government communications and marketing leads. To that end, the FVCV programme sought to improve communications to ensure they were suitable for everyone in Scotland. This included working with a range of stakeholders to amplify key campaign messages and sought to communicate effectively to the population of Scotland, delivering messaging in an inclusive way to reach all geographies and seldom heard communities. This included

the production of translated assets in a range of community languages on NHS Inform (an online platform to provide advice and information), with other formats developed such as easy-read, BSL and audio. Materials were co-created by working with organisations that work with under-served communities to ensure marketing messages were impactful and would resonate with the target audience. For example the inclusion team worked with BEMIS (the national umbrella body supporting the development of the Ethnic Minorities Voluntary Sector in Scotland), Minority Ethnic Carers of People Project (MECOPP) and the Ethnic Minority National Resilience Group to develop the Vaccine Explainer Video in June 2021, which looked to address barriers to vaccine uptake. The Vaccine Explainer Video was available in BSL and multiple community languages and provided key facts about the Covid and flu vaccines for those who may be hesitant, or for those more likely to have been exposed to myths/misinformation. The Ethnic Minority National Resilience Network (EMNRN) was launched by BEMIS to enable Scotland's ethnic minority communities to support each other throughout Covid-19 pandemic.

93. Furthermore, the inclusion team worked with faith leaders and other trusted members of communities to encourage them to share positive messages regarding Covid-19 vaccination and the importance of receiving the vaccine to protect individuals and their families, friends and the community. The inclusion team also worked with the Scottish Trans Alliance to ensure that trans people received the correct information about the programme and prepared an FAQ document to support people with any questions they may have about our self-registration systems. The team supported call handlers on the National Vaccination Helpline so they had the appropriate information to ensure trans callers were treated with dignity and respect.

94. A Ministerial letter was issued to charities which supported adults who sell or exchange sex in February 2022 asking them to encourage and support their clients with accessing vaccinations. The letter also included a link to a video of DCMO speaking directly to this group to encourage them to come forward. This video had been requested and the script co-produced with stakeholder partners.

95. The programme team were aware that there was misinformation about the vaccines in the public domain, often targeted at the same under-represented groups for which uptake was lower than for others. Therefore specific products were developed to address this which included for example a Ramadan film that was created in partnership with the British Islamic Medical Association and launched in April 2021.

This video sought to reassure Muslims who were concerned about getting the vaccine while fasting and was created in multiple languages. A myth busting film fronted by Dr Punam Krishan was also developed and this video was translated into: Arabic; Cantonese; French; Gujarati; Hindi; Polish; Punjabi; Romanian; Swahili; and Urdu. On that basis, I considered that the FVCV programme was seeking to be as inclusive as possible and taking all reasonably steps to ensure the vaccine was accessible to all.

96. I am not aware of any divergence of Covid-19 vaccine messaging for Scotland in relation to the other nations. Although each nation often had a slightly different approach, the aim was often very similar. An example of this was the approach that was taken when inviting under 50 years olds to be vaccinated where in Scotland there was the 'roll up your sleeves' campaign with the subtext used by the actor within the film as doing this: "…*to get back to the things I miss*…", whereas in England their film celebrated people getting vaccinated with the voice over saying: "….*join the millions who have been vaccinated to protect yourself and others*". These were not dramatically different. If individuals from different nations watched these videos, the outcome would likely be the same as they were all being encouraged to be vaccinated, even if the methods for individuals to come forward differed.

General Practice and the impact of the Vaccine Transformation Programme (VTP)

97. As referenced above, the VTP initiated prior to the pandemic and I took on a role overseeing this upon becoming the interim deputy director for health protection in 2019. Although many interpretated the VTP as solely removing regular vaccinations from primary care (as agreed within the GP contract at that time) it was actually intended to do more than this by transforming the way vaccinations were delivered and improving uptake rates as a result. Although the VTP had not been fully implemented by the start of the FVCV programme, many of the broad issues relating to the delivery and oversight of vaccinations and deliberations on issues such as the need for a digital solution to record and track vaccination events were identified through the VTP. The principles behind the VTP were useful in considering how Scotland might deliver a vaccination programme at a national level through NHS Health Boards rather than through a network of GPs.

98. On that basis the FVCV programme designed from the outset delivery principles predicated on the work of the VTP, in that NHS Health Boards were always intended

to lead the delivery, management and oversight of vaccinations, albeit complimented by a national overview via the FVCV Programme Board. GPs and wider primary care settings were considered, but the FVCV programme (working in partnership with primary care officials in the Scottish Government who were in regular engagement with the BMA) took the view that GPs and primary care should be protected as far as possible to enable them to continue to deliver frontline healthcare given the role they were playing in local communities. There was an important role for GPs in the programme, both from initially identifying and reaching out to the elderly that were housebound, but also in geographical areas where local Health Boards considered it would be more appropriate to deliver services in partnership with GPs, but delivery was predominantly undertaken by NHS Health Boards.

99. In terms of the workforce, NHS Health Boards were able to access GPs and other clinical leads as part of the NHS bank workforce and many GPs, dentists and others volunteered for this role to be vaccinators and were renumerated accordingly.

Role of Various Partners in the FVCV

100. I have been asked to provide an explanation of the role of various partners in the delivery of the programme including Health Boards, health care professionals including doctors, nurses and pharmacists, local authorities, the armed forces and voluntary sector.

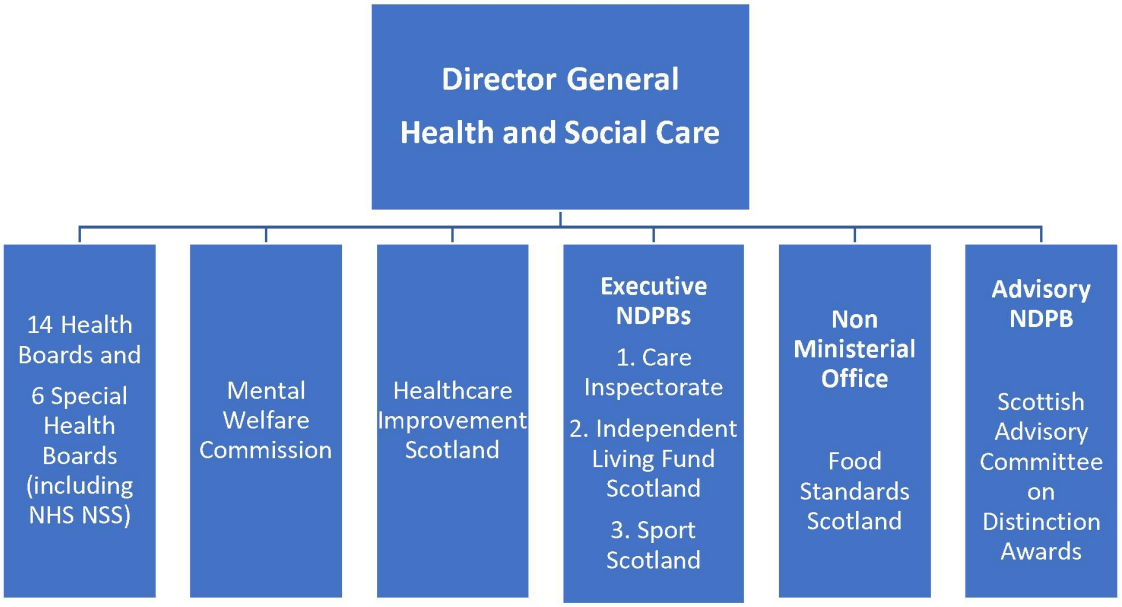
101. The National Health Service (Scotland) Act 1978 places a duty on the Cabinet Secretary responsible for healthcare (CSH) to promote a comprehensive and integrated health service, designed to improve the physical and mental health and wellbeing of people as well as to prevent, diagnose and treat illness. The CSH will make decisions that they consider are likely to assist in discharging that duty. Scotland has 14 geographical Health Boards and six non-geographical special Boards, supported by NHS National Services Scotland (NSS) and Healthcare Improvement Scotland (HIS), that are accountable to the SG and Scottish Ministers.

102. NHS Health Boards are legal entities established under the 1978 Act, with HIS later established under the Public Sector Reform (Scotland) Act 2010. NHS Health Boards are required by legislation to promote the improvement of the physical and mental health of the population and the prevention, diagnosis and treatment of illness. To ensure the delivery of this, NHS Health Boards are delegated

responsibilities by the CSH to plan, commission and deliver healthcare services and take overall responsibility for the health and wellbeing of the communities they serve.

103. The NHS (Scotland) Act 1978 sets out both direction-setting and emergency powers that allow Scottish Ministers to secure the effective continuance of services. On 17 March 2020, the CSH advised the Scottish Parliament that, under sections 1 and 78 of the National Health Service (Scotland) Act 1978, the NHS would be placed on an emergency footing for at least three months, provided: [DG2/024 - INQ000470076]. The CSH set out that she was giving instruction to the NHS and individual Health Boards to do all that was necessary to manage the expected sustained increase in the number of cases of Covid-19 and signalled that, if required, new regulations would also be brought before Parliament to achieve that aim. This statement to Parliament was followed on 17 March 2020 by a letter from the DG HSC and Chief Executive of NHS Scotland to all Chairs and Chief Executives of Health Boards. This letter stated that, in announcing the emergency footing, the CSH would utilise the direction making powers, where necessary, to instruct Health Boards to carry out certain actions in order to maintain the resilience of the NHS through the challenges brought by Covid-19.

104. In recognition of the whole-system nature of Scotland's population health challenges, PHS was established on 1 April 2020. It is jointly sponsored by, and has dual accountability to, both the SG and to local government via the Convention of Scottish Local Authorities (COSLA). This is a unique feature for a Scottish public body and requires a commitment to shared decision making, planning, and performance management in relation to the work of PHS. The graphic below sets out details of other relevant HSC public bodies:



105. Health Protection Scotland (HPS) and Information Services Division (ISD) were replaced when Public Health Scotland (PHS) became fully operational on 1 April 2020, most of their functions were transferred into PHS. PHS is a Special Health Board and was established by the Public Health Scotland Order 2019 (the 2019 Order) on 7 December 2019. It became fully operational from 01 April 2020. PHS was created to consolidate the national public health functions of health protection, health improvement and healthcare public health, underpinned by data, intelligence, and research functions. PHS is responsible for functions which were previously carried out by HPS, ISD and NHS Health Scotland (NHSHS), which was previously a national Special Health Board, now dissolved). Most of those staff were transferred into PHS from NSS as of 1 April 2020. NHS NSS is formally known as the Common Services Agency (CSA) and continues to exist.

106. PHS is Scotland's national public health improvement body. It works with partners in the public, private and third sectors to prevent disease, reduce health inequalities, and improve and protect health and wellbeing, and emphasise preventative approaches. It is involved both in developing and disseminating evidence and supporting national and local government to shape policy and programmes to help achieve a fairer, healthier Scotland. It also delivers specialist national services and provides advice, support and information to professionals and the public to protect people from infectious and environmental hazards. In terms of information services,

the organisation is driven by data and intelligence and provides a range of statistical information and analysis. It uses the full range of data (national and local, quantitative, and qualitative) to offer vital intelligence to partners across the system.

107. COSLA was formed in 1975 to represent the views of Scotland's 32 local authorities to central government. It also acts as the employers' association for local authorities. To reflect the crucial role of local government in public health matters, a unique joint sponsorship arrangement is operated with COSLA, which means that they are consulted on all strategic decision making, planning and performance monitoring for PHS.

108. As alluded to earlier, NHS Health Boards led on the delivery and roll out of the Covid-19 and seasonal flu vaccines, guided by the FVCV Programme Board and delivery team. Individual NHS territorial Health Boards were therefore responsible for performance and delivery against agreed outcomes, including for example take up as measured against each cohort within their geographical area. They were also responsible for the identification and securing of facilities and venues for vaccination, local communications and security, as well as the local training and deploying of their workforce. All of which was overseen by the FVCV delivery team, with support provided and enablers put in place such as national agreements on things like setting renumeration rates for the workforce (such as independent contractors such as GPs, dentists etc.) and providing standard products and training materials for the workforce along with communication assets for the general public. If issues, concerns or challenges faced by individual Health Boards required to be escalated to the FVCV Programme Board, this was often routed either through the delivery group, or directly from their liaison lead within the FVCV delivery team. There was a standing item on the FVCV programme board for delivery updates which facilitated this.

109. To support this work, the National NHS Boards played an important role within the FVCV. Beyond providing staff to support the programme, the National NHS Boards directly supported the FVCV programme and a summary of the type of activities they undertook is provided below:

Organisation	Role

NHS National Service Scotland (NSS)	• Logistics support (managing the Movianto contract for transportation, storage, stock levels, monitoring wastage and utilisation of stock, vaccination holding centres). This included working with NHS Boards and pharmacy teams across Scotland working closely with BEIS and VTF colleagues. • Provided programme management support via a programme manager and project support officers. Their function included logging and tracking of actions, identifying and managing risk and supporting the development of project timelines in advance of a vaccine (or new cohorts) becoming clear. • Creating and managing a Vaccine helpline call centre as a non-digital route to booking and rearranging appointments. This included developing scripts, monitoring call volumes and wait times, tracking themes of issues raised by members of the public and informing the development of the on line content of NHS Inform. • Developed an on line digital tool to enable members of the public to book and reschedule their vaccination at a local vaccination centre. • Developed an invitation system to invite specific individuals for vaccination. This included letters being sent with date, time and location for some and latterly text reminders via the National Vaccination Scheduling System (NVSS).
NHS 24	• Developing and managing vaccine information pages on NHS Inform platform. As well as providing general advice, this developed into a more sophisticated tool seeking to address information about the vaccine and the rationale for prioritisation.

NHS National Education Scotland (NES)	• Developed supporting material for the vaccinator workforce as well as assessment and accreditation where necessary. • Created and developed the digital platform that vaccinators used to record vaccination which was the Vaccine Management Tool (VMT) and the NCDS (National Clinical Data Store).
Public Health Scotland	• Created and developed public facing materials such as patient leaflets, posters and digital assets to help inform the public about the vaccines and address any queries or concerns that may be present. This included targeted material at specific groups such as those that were under represented. • Created and oversaw a clinical governance group which provided both the programme and individual clinical leads within the NHS Health Boards with advice. This included feedback from any incidents including MHRA yellow card notifications and data on vaccine updates.

110. Each organisation set out above was part of the virtual FVCV team who met frequently via daily huddles, attended delivery group meetings and where appropriate met with Ministers. The policy team attended all of these, often with the Delivery Director chairing and allocating actions and monitoring progress of previous actions, supported by the programme office.

Determining and securing Vaccination centres

111. Planning for the type and location of vaccination centres began in the summer of 2020. It was identified early on in the programme there were likely to be constraints associated with identifying and securing vaccination centres, given it was unlikely that there were suitable and adequate facilities within the NHS estate. The FVCV programme was aware that although many facilities outwith the NHS were likely to be available during lockdown, this situation could change and therefore consideration

was given to both the short term needs and availability and what might need to change as the programme developed or decisions on lock down changed. Details of the planning activities were set out in a presentation provided to Ministers on 8 December which is contained at [DG2/004 – INQ000501312].

112. During the planning phase the full range of delivery channels were considered as the following graphic (Slide 6) drawn from the strategic policy framework shows [DG2/005 – INQ000242470. The size of the blue circles sought to illustrate the likely scale of the extent each channel would be used. This was the basis of the programme planning assumptions an in the end was broadly accurate through the various stages of the deployment activity.

113. At the very beginning of the programme, given the JCVI had already provided indicative advice, the FVCV programme designed a delivery model where the vaccine and vaccinators would visit care homes to vaccinate both care home residents and staff, in a similar model used for the seasonal flu vaccine. Staff vaccination clinics based in NHS settings were used for frontline NHS staff, although as alluded to earlier, additional activity was undertaken to clarify the definition of frontline staff. The model adopted was based on the approach taken during the seasonal flu programme that the FVCV programme had recently overseen in Autumn 2020. In terms of establishing the care home outreach activity and setting up staff clinics, this was left to individual NHS Territorial Boards, albeit with guidance and a framework to support local teams [DG2/025 - INQ000147414, DG2/026 - INQ000376301 and DG2/027-INQ00147412]. Transportation and storage of the vaccine was also an important element of deployment and guidance was therefore provided to mitigate excess vaccine wastage. Finally, in preparation for any care home outreach activity, planning included ensuring consent was secured for those residents who may not have the capacity to consent. This work was undertaken in advance of the vaccine being deployed.

114. Finally in relation to those over 80 for the first phase of the FVCV programme, those in secondary care or community hospitals (i.e. inpatients) were offered the vaccine in hospital provided they were well enough to receive it. If not, they were contacted following their discharge. For those living in their own home, we used their GP surgery to invite them and arrange a vaccination appointment at a healthcare centre given the numbers were relatively small. However, for those who were housebound, domiciliary

visits were arranged (either by the community nursing team attached to the health centre or a community vaccination team).

115. As the FVCV programme worked through the various cohorts, (particularly from cohort 6 onwards) vaccination centres were identified and secured in advance of deployment working closely with local NHS Board teams. These included the capability of delivering in excess of 20,000 vaccinations per week and included mass vaccination centres such as:

- NHS Louisa Jordan, Glasgow;
- Edinburgh International Conference Centre;
- Pyramids Business Park (Bathgate);
- Queen Margaret University (Musselburgh);
- P&J Live at TECA (Aberdeen); and
- Ravenscraig Sports Facility in Motherwell

116. The rationale for selecting these were based predominately on areas of population density and details of these were all contained within the vaccine deployment plan published on 14 January 2021. It was determined that 86% of the population lived within a 30 minute drive to these mass vaccination centres, but the programme recognised that it would be necessary to make it easy for those attending these centres, so work was undertaken with both the relevant local authority and Transport Scotland to ensure good flow of traffic. This included car parking and signage, including local signs to facilitate effective flow in and out of vaccination centres. However, there were also discussions via Transport Scotland on public transport options and whether the frequency (or the timetabling) of these needed to change to support access to these vaccination centres. Work was also undertaken through Scottish Enterprise to engage with specialists in 'lean production' to support the development of models to ensure vaccination centres were configured as efficiently as possible to maximise the flow of patients, whilst minimising vaccine wastage.

117. Beyond these national vaccination centres, work was also undertaken to secure local vaccination centres within each Health Board with attention given to wider issues. Including for example a recognition that there were significant challenges for some large rural and island communities where a roving vaccination unit may be the most appropriate delivery channel. As the programme developed there was also additional support given to security considerations of vaccination centres given the rise in anti-vax activity including instances where protests turned violent, so there was close

engagement between the FVCV team, Police Scotland and the security SRO from the Home Office.

118. The FVCV programme also sought to support local NHS Boards with their outreach activity. For example during November 2020, the Scottish Ambulance Service (SAS) assisted with the delivery of flu vaccinations to citizens who required a domiciliary visit within the South Highland area of Scotland through a 'test of change' process. This test of change enabled the NHS Highland Community Vaccination Team to focus more centrally on 'walk in' clinics. The SAS provided a business case to the FVCV Programme Board proposing that Mobile Vaccination Units (MVU's) were used to support an inclusive approach to vaccination for the Covid-19 vaccine by delivering to population groups who faced barriers to mainstream vaccination pathways. This business case proposed to create three vaccinator teams, with five vaccinators per team, operating within business hours. During the test of change, this model demonstrated that when fully resourced, it could deliver a 120 per day clinic (four vaccinators) plus 15 domiciliary (one vaccinator) per individual team. Advice was provided to the Cabinet Secretary on this issue and Ministers agreed to support this model [DG2/028 - INQ000241264]. This became an important element of the FVCV outreach resource that supported local vaccination teams.

119. In relation to outreach and as alluded to earlier, specific work was undertaken to support local vaccination teams within Health Boards to engage and deliver outreach activity for groups who were under represented and/or had a relatively low uptake of the vaccine. This included for example vaccination teams visiting traveller camps, mosques and other settings to either deliver the vaccine or to encourage those who may be reluctant to be vaccinated to attend a vaccine clinic. In most cases Scotland did not use GP practices of the FVCV programme. Neither did Scotland make routine use of community pharmacies for the FVCV programme, unlike other parts of the UK, however some Health Boards did choose to use them as part of their local delivery plans. Accordingly, the model in Scotland was delivered in the main by local Health Boards (with oversight from the central Scottish Government FVCV Delivery team), with staff contracted by Health Boards or working contracted shifts (whereby many GPs and practice nurses may have worked separate to their GMS contract agreement). The FVCV programme considered it was important to protect primary care services to continue to deliver support to their patients rather than divert these services to deliver vaccinations.

120. Finally, similar to other nations there were several occasions when a Military Aid to the Civilian Authorities (MACA) request was used when it was clear that there was insufficient capacity to discharge the functions required. Support was broadly aligned to the following 3 main areas:

- Planning and logistical support – this included supporting the identification of local, regional and national vaccination centres with teams deployed to support each NHS territorial Board and the national FVCV programme team. As the programme developed this support extended to providing security support;
- Military vaccinators – despite the programme's best efforts to increase and flex the size of the vaccine workforce, there were occasions that it was simply impossible to increase to a scale that all available vaccine would be deployed in a timeous manner;
- Setting up vaccination centres – the military played an important role in setting up the centres and transporting equipment and preparing facilities for them to become vaccination centres. This included for example transforming the Louisa Jordan facility at the SECC from an acute hospital setting to become a mass vaccination centre.

121. Requests for MACA tended to be generated by myself and my team and were first cleared with Scottish Ministers through an internal process. This included providing evidence that we had exhausted all other possible options to identify and secure resource being requested from the military. There was a military liaison officer assigned to the FVCV programme and they greatly assisted in the process helping to both ensure any MACA request was clear, but also that the resource identified was fully utilised to best effect. MACA requests then progressed through the Ministry of Defence (MoD), and although the military liaison officer provided regular updates, there were occasions when I sought updates to any outstanding requests via the SRO or senior officials route with DHSC colleagues who liaised with the Scotland Office and the MoD on my behalf.

122. I found the support and the assistance from the military to be invaluable as it enabled the FVCV programme to flex and respond in a way which I suspect would not have been possible without their involvement. The MACA process tended to work really well, although as the programme evolved it became clear the importance of seeking advice and guidance from the military liaison officer who supported any application, helping me be really clear on the specific support being requested and providing clear evidence of why it was not possible to secure this resource from elsewhere. This in

turn ensured that any MACA request would have a higher chance of working its way through the approval process without delay, by reducing the risk of additional material or evidence being requested.

Managing vaccine supply

123. Supply was always anticipated to be the limiting factor to the programme in its early stages. However, in February 2021, it became clear that the UK began to experience particular challenges with vaccine supply failing to meet forecast levels. This was raised as part of the regular SRO meetings with UK Vaccines Taskforce officials, which we understand was due in part to the increase global demand and manufacturing constraints.

124. Given the programme deployed on the basis of anticipated supply, and appointments in Scotland were often scheduled weeks ahead of vaccines arriving, this resulted in some cancellation of appointments and a need to reschedule appointments. The FVCV programme were therefore aware that there was a risk in this impacting on public confidence in the vaccine programme.

125. In this context, there were increasing questions and focus in the public domain on the supply of vaccine that were available to the FVCV programme in Scotland. This translated into increased media interest and questions within the Scottish Parliament, many of which inferred that Scotland was not using all of the vaccines that were being supplied. Although there are other examples, there did appear to be some negative briefing from 'Westminster sources' (including via open comments on twitter and in the print media by the Secretary of State for Scotland) that the Scottish Government were not fully utilising the supply being provided to it and references by some MSPs reiterating this in the Scottish Parliament. This led to an element of political tension but it did not materially impact the working relationships of officials across the UK. A screenshot of an example of a story that ran on the 10 January 2021 which states that: "….*one UK Government insider explained: 'We are confident vaccines can be delivered faster than over the four weeks set out by the First Min-….",* is exhibited: [DG2/029 – INQ000501319].

126. This type of media reporting was what I was referring to in my message in the "Vaccine SROs" WhatsApp group [INQ000477804], on 11 January 2021 at page 16, where I said: "…*the politics of accusations relating to delivery being out of sync with*

supply in Scotland is proving to be challenging. This risks the strong partnership working between us all." I did discuss this with Emily Lawson (the SRO for the programme in England) and senior officials in the DHSC to explain the pressure that the FVCV programme and Scottish Ministers were coming under and how unhelpful it was that information of this nature and the inaccuracy of it was being used to criticise the vaccine programme in Scotland. The reference to strong partnership working related to my concern that if this type of information was being used by others, there was a risk that in the future none of us would feel able to be as open and candid with each other if the information we have at our disposal is used inappropriately or out of context by third parties. I also knew that all parts of the UK were experiencing supply and logistical challenges and negative briefing by one part of the UK was likely to be highly counterproductive. It should also be noted that these public accusations, ran the risk of both the FVCV delivery team and the policy team being distracted from planning and deploying the vaccine given it was the same people that were planning, preparing, deploying and supporting Ministers to enable them to respond to inaccurate or misleading accusations around the reasons for the pace of deploying the vaccine.

127. One of the reasons the accusations were incorrect was that the data being referred to by an unnamed source (or by opposition MSPs) often quoted the quantum of vaccine allocated rather than delivered to Scotland. An example of this data being used included a supply figure being quoted during an interview by the Secretary of State for Scotland and the BBC1 Scotland Politics Show on Sunday 31 January 2021. A copy of the transcript of this interview is provided: [DG2/030 - INQ000501320]. The SofS of Scotland stated in response to being asked: "…. *Just tell people what the numbers are and then they will know whether or not the vaccine is being rolled out effectively*" by saying "…*Well, I can. I could tell you the number that last Monday, which was the last one that I saw was 984,000 vaccines*". I recall this figure related to the number of vaccines allocated rather than delivered and given many of these were either held in a warehouse in England or due to arrive at that warehouse, it would never be possible for Scotland to have deployed all of these vaccines.

128. The Cabinet Secretary for Health and Sport wrote to the SofS for Health and Social Care following this interview on 31 January 2021 and stated that: "…*devolved administrations have been put in the untenable position of being unable to share this data at the request of the Vaccine Taskforce – but at the same time see these figures be briefed to the media and, apparently, to elected representatives of the Conservative party*." In this letter there was also a reference to further breaches:

"…*such 'source' briefing totally undermines the suggestion that the data must be withheld from public view for commercial in confidence reasons. That's why, despite assurances from yourself and from the Chancellor of the Duchy of Lancaster, I was surprised and disappointed to see the Secretary of State for Scotland Alister Jack give supply figures in an interview with BBC Scotland this morning.*" A copy of this letter is provided: [DG2/031 - INQ000498603].

129. Following this, agreement was reached with the VTF and BEIS to publish vaccine supply data and advice was provided to Scottish Ministers on how this could be operationalised on 17 February 2021 [DG2/032 - INQ000501322]. This included the volume allocated and the volume delivered which was subsequently published within the Scottish Government Covid daily statistics page (under vaccination subpage). I can't speak for what the other nations chose to publish, but it was agreed that there would be a release of standardised data to the devolved nations with UKG agreement.

130. Vaccine supply issues continued into spring 2021 with an AstraZeneca batch failing its quality assurance test and delays of stock arriving from India and elsewhere. This meant the levels of stock arriving each week throughout March and April 2021 often varied from what was anticipated and therefore, I and my policy colleagues increased our engagement with BEIS to seek clarity on the anticipated supply and stock levels. Over this time, I found the engagement and openness of BEIS colleagues to be exemplary, sharing detailed information on supply forecasts and real time updates if there were any likely changes to these.

131. To manage the issue of reliability of supply, the programme also undertook work led by colleagues in NHS NSS and operational leads within SG to develop a more responsive approach to allocation of available supply within Scotland and the development of a supply 'cushion' that could be deployed to avoid clinic cancellations. The programme also worked to confirm regulatory arrangements in terms of supply between NHS Health Boards in exceptional cases to help better smooth out any fluctuations of the vaccine supply chain.

132. The initial disruptions to supply, exposed weakness in the exchange of information between the UK Vaccines Taskforce and the Scottish Government, with information being shared about supply failures with little or no notice. But as outlined above, this led to improved arrangements, with weekly supply meetings taking place and information templates showing anticipated supply and demand being prepared and

updated on an ongoing basis by all parties [DG2/033 – INQ000501326 , DG2/033a - INQ000501327, DG2/033b - INQ000501328] In the Scottish Government, the health and social care analytical team played an important role in working with the VTF to effectively profile the needs of the FVCV and in future months these arrangements became highly effective with information about supply problems being shared quickly and solutions being developed collaboratively. In my opinion, this proved to be a key success of inter-Governmental working.

133. During the programme, NHS Health Boards used the NSS Service Now wastage form to monitor vaccine waste alongside the CPO providing written best practice guidelines to the NHS in Scotland to help to minimise the risk of unnecessary wastage from Covid-19 vaccine administration.

134. Colleagues in NHS NSS managed the stock allocation and transportation to each NHS Board to support their deployment plans. This included for example the ability to flex supply should any supply requested not be required, or there being an event such as a closure of a vaccine centre to ensure the vaccine(s) could be redeployed and therefore wastage reduced. In terms of initial planning assumptions, the programme assumed a 5% wastage level, but in reality a wastage of less than 2% was achieved. We know for example from management information in March 2021 wastage was recorded at around 1.8%. NHS Health Boards had a direct route to NHS NSS colleagues to discuss, secure or flex vaccine supply on a regular basis with the lead official being part of the FVCV virtual team and ensuring all members of the programme were aware and updated on any reallocation of supply. This was a significant logistical operation to oversee with the complexity of vaccines with differing characteristics (often requiring different handling and storage requirements) and using cohort data as the basis to estimate demand. We also didn't know the level of uptake and this alongside seeking to minimise wastage added an additional layer of complexity.

135. Alongside the early challenges of securing a constant flow of vaccine supply into Scotland, the FVCV programme also had to respond to unexpected changes or restrictions applied following either MHRA or JCVI advice, which made planning extraordinarily complex and challenging. In relation to these, the Inquiry has asked for a view on whether I consider the decisions on prioritisation and eligibility, vaccination of children, dosage intervals, the need and timing of boosters, limiting the use of Oxford AstraZeneca vaccine etc. impacted on the vaccination delivery programme and

roll out procedures. For each of these (and others issues that impacted upon deployment) I believe it would be accurate to say that when the FVCV used a set of assumptions to plan and then deploy, which then had to be changed, there was always the potential for this to impact on both the pace and scale of deployment. However, in my view, the FVCV recognised that the programme needed to be highly responsive, not least as much of the clinical advice and evidence was evolving and when the advice from JCVI and MHRA changed, the programme needed to respond as quickly as possible. Therefore on each occasion this happened, I believe the programme did everything in its power to both respond to the changes that were required, but in doing so sought to mitigate the risk to delaying vaccination to those that were eligible.

136. Given all of these factors it is in my view, to the credit of colleagues in the FVCV team including those from NHS NSS and within each of the NHS Territorial Boards that a logistical model evolved at pace to be able to respond to shocks in the supply chain, which could also flex to meet demands placed on them by others. As I alluded to, although initially not without its difficulties, the relationship and trust between the FVCV programme in Scotland and those in the VTF (and in BEIS) grew as did the level of openness and candour. Certainly by the early summer of 2021, this had become a highly efficient and effective underpinning element of what became a very successful deployment programme.

Cold storage chain

137. Prior to deployment, using details provided via the VTF to the UK Programme Board, it became clear that a number of the vaccine candidates had novel characteristics that were not consistent with existing cold chain and storage arrangements. In particular one of the front running candidates, the Pfizer vaccine, required Ultra Low Temperature (ULT) storage of minus 20 degrees. Public Health England indicated that it could store vaccine in advance of deployment at their holding centre via Movianto contracts, with UKG responsible under the terms of the Agency Agreement for transport of vaccines and supply to Scotland, and the Scottish Government responsible for distribution to locations beyond the border. To ensure stability of the vaccine doses, they required transport and handling via a limited number of steps (e.g. transfer to van, transfer to an ULT freezer, defrost for clinic use etc.). In order to minimise waste there was therefore a need to ensure careful planning around the cold chain logistics, not least given the very limited initial supply.

138. Via engagement with NHS NSS and delivery partners it was clear that NHS Health Boards would not have sufficient ULT storage capacity. The FVCV programme therefore moved quickly via NHS NSS to procure 23 additional freezers from between 100L to 700L capacity by November 2020 and distributed these across NHS Board locations. This was undertaken at risk given these vaccines had not yet been approved, but it was determined that this action would help to increase fridge capacity to both support the seasonal flu programme and prepare for the Covid programme (initially for the AstraZeneca vaccine and thawed Pfizer vaccine) between August and December 2020.

139. In addition, it was clear that the volume of vaccine requiring transport and the range of locations while similar to the seasonal flu programme prior to the pandemic would, on top of existing programmes, exceed the current logistics arrangements with Movianto. Following discussions with NHS NSS, it became clear that there was no other contractor that was likely to be able to fulfil the needs of the programme with the lead in time available. On this basis NHS NSS extended the Movianto contract to include cold chain transport for the Covid vaccination programme. This included arrangements for quicker delivery to a wider range of locations to help manage the flow of supply.

140. Given the limited initial supply of vaccine and the small population sizes of eligible groups in some Health Board areas, NHS NSS and CPO identified a need for a further ULT pack down facility. Which was a facility with clear clinical controls for the ability to reduce the packaging of the vaccines to different levels. Again on the basis of available expertise and facilities, it was agreed that this should be provided via the National Blood Transfusion Service.

Scheduling appointments

141. The FVCV programme invested a considerable amount of thought and energy into the scheduling and invitation system for vaccination. As part of the planning work undertaken over Autumn 2020, and following examination of available evidence for other vaccination programmes, it was considered that sending a letter with a vaccine appointment at a location, date and time was the best way to ensure the highest uptake. Planning prior to early deployment was therefore predicated on this, but it required drawing heavily from both the NHS records to identify eligible individuals and

their address as well as GP records which contained condition specific information which was imperative to invite people with eligible conditions.

142. The FVCV programme understood and appreciated that there were inherent risks with this as the GP records for example were not always up to date and there was likely to be instances where invitations where sent to members of the public who had moved, were deceased or did not have the medical condition they were coded against. The FVCV programme also took a conscious decision to send all letters inviting people to vaccination in a blue envelope. I recall the discussion with the Cabinet Secretary for Health and Sport regarding this decision as she was of the strong view that should a letter arrive in either a brown or white envelope with an official logo, this may be viewed by some as containing bad news. Whereas a letter arriving in a blue envelope would signal an invitation for vaccination. It also enabled the Royal Mail (who the FVCV programme contracted through to deliver these invitations) to prioritise delivery at their sorting offices. This was an inspired decision and became a hallmark of the FVCV programme in Scotland and perhaps unwittingly became an important example of 'nudge theory'. There were numerous examples in social media where people were celebrating receiving their or their relative's blue envelopes which were joyous to see.

143. However, drawing information from census data, NHS and GP records was hugely time consuming and required a lead in time of around 3 weeks to gather the data, assign individuals to slots in local clinics, print off the letters, post them and provide people with sufficient notice to attend a vaccination appointment. This was further complicated if there were changes in any supply assumptions or short term issues with vaccination centres such as a lack of staff or adverse weather. This led the team to consider whether it would be more appropriate to develop a digital solution, particularly for the younger cohorts, given the insights team supporting deployment indicated younger people would be more minded to select their own vaccine appointment and location to suit their own needs. It should however be stressed that prior to the FVCV, a national online booking system for vaccination had not been developed and its development was undertaken at pace and required accurate information on availability based on each NHS Boards assumption on vaccine and staffing levels.

144. To support the booking process a National Vaccination helpline was created by NHS NSS, staffed by trained personnel, working remotely, to both provide responses to any questions members of the public might have about the vaccine programme, but also to

support booking for those who may not have access to the digital platform. The FVCV did initially explore whether this function could be undertaken by NHS 24, but concluded that in a similar vein to the approach taken to primary care and GPs, felt that it was important to protect this function to allow them to respond to members of the public in relation to wider health issues rather than just vaccination.

Data and its use in the FVCV programme

145. The online booking system, NVSS (National Vaccination Scheduling System) platform was therefore developed at speed in early 2021 to provide a national solution for the scheduling of Covid-19 vaccinations. At the beginning of the vaccine programme (Tranche 1) the NVSS served as a mass scheduling database, for the first and second doses of Covid vaccinations and provided a registration and rescheduling service. Following on from this in September 2021, it was repurposed to provide co-booking appointments for Covid boosters and flu (Tranche 2) and a registration portal for unpaid carers. In October of 2021, the rescheduling portal was expanded to accommodate booking, in addition to rescheduling. Work was also carried out to provide Covid status certificates and this was integrated with NVSS for the purpose of posting and downloading certificates and eventually integrated with the Covid status app. The system was integrated with other systems, that dealt with the recording and storage of vaccination data, VMT (Vaccine Management Tool) and NCDS (National Clinical Data Store), both of which were developed by NES (NHS Education Scotland).

146. The system underwent several upgrades and had multiple improvements and additional features added. The FVCV programme recognised that there were limitations to a system that was created rapidly, had many hard coded features and had been repurposed to accommodate more than one vaccine type, which was not the initial intention. As such, there were many limitations to the amount of changes and improvements that could be delivered. In short, the programme often described itself as trying to build the plane as they were flying it and given the platform that was being used, it proved difficult to deliver refinements on a live system. But it did cope remarkably well, which is testament to the team in NHS NSS and beyond.

147. The FVCV chose not to mandate the use of NVSS initially for use in every NHS Health Board area and a number chose to continue to schedule locally. By March 2021, every Board except Highland were using the system as given their rural and complex

geography, they chose to continue with their local appointing systems and where necessary use some use of their GPs. NVSS also provided the backend platform for the online public booking platform which was introduced later in the programme.

148. In relation to recording vaccination, as alluded to earlier, a Digital Vaccine Management Tool (VMT) was developed to record a vaccination event. This provided an opportunity to include a script for vaccinators to talk through with the patient in advance of vaccination whilst also recording details of the vaccination event, providing almost real time data on uptake. Each vaccinator was provided with the digital means that contained the VMT and data was uploaded and coded within a national dashboard. Given each NHS Health Board area had clear targets for uptake for every cohort (based on population data) it was therefore possible to monitor at both a granular level (i.e. at clinic), a NHS Board and a national level how deployment was progressing. Patient data was never provided to the national FVCV team, however by monitoring progress it was possible for the national team to engage with local delivery partners to understand what barriers may be in place or what additional support might be required if deployment did not match expectations.

149. Given both the local teams and the national FVCV team had access to the dashboard that contained detailed management information on almost a real time basis, this provided an opportunity to closely monitor progress. However, there was also a recognition that this information was management information and could not therefore be reported publicly. That is why PHS collated and reported uptake statistics, which were quality assured and verified and subsequently published, albeit not on a daily basis.

Data Strategy

150. The Inquiry has asked that I explain my response to a WhatsApp message on 15-16 December 2020 on pages 3 and 4 of INQ000477804 where I said: "….*I think this merits a deeper conversation. I'm not sure my Minister agrees it is necessarily a UK programme"* and why I felt that the Scottish Minister thought that the: *"….Scottish programme that is broadly aligned to others across the UK*." I can confirm that these comments weren't specifically in relation to a discussion about a data strategy but rather the earlier message from Emily Lawson to the effect that the: "…*Pm and sos v clear this is a uk wide prog*'. As I am sure is evident this exchange was at the beginning of vaccine deployment across the UK and whilst there had been significant

interaction between the SROs on planning, by the 15 December 2020, each nation's deployment was now fully operational. The point I was making in my WhatsApp exchange was, (and I continue to hold this view given that health is a devolved matter) that I believed that Scottish Ministers did not consider the vaccination programme in Scotland to be a UK wide programme regardless of the views of the Prime Minister or the Secretary of State for Health. There were clearly elements where it would be advantageous for each nation with devolved responsibility to work together, learn from each other and support each other, but I considered that in relation to decisions taken – whether on a digital strategy or anything else, these would ultimately be for Scottish Ministers to make.

151. I was not seeking to be confrontational in my response, but simply seeking to make the point that health was a devolved matter and at that stage I wasn't sure how aware Emily Lawson was of Scottish Ministers' position on this.

152. In relation to the various references in the WhatsApp SRO exchanges to 'data strategy', I can confirm that there were discussions between the SROs relating to what vaccine data should be reported and when. This was on the back of a recognition that individual Minsters were keen to report progress, so it would be important that each nation was reporting on a similar basis. I believe in this context a Covid Vaccination Information Cell (COVIC) was discussed and why I said in response within the Vaccine SROs [INQ000477804] messages on pages 3 and 4 of INQ000477804, on 15-16 December 2020 that: "…..*my preference is to use tried and tested mechanisms such as the national biosecurity centre*."

153. As the inquiry will be aware, the JBC was established in summer 2020 by the DHSC to provide evidence-based independent analysis to inform local and national decision making in 19 response to Covid-19 outbreaks. On 10 August 2020, an agreement on the 'Participation of the Devolved Administrations in the Joint Biosecurity Centre' was reached between the Secretary of State for Health and respective Health Ministers in the Devolved Administrations. Following the completion of this, an Agency Agreement – underpinning the political commitment and providing the legal basis for JBC's operation on a UK-wide basis – was finalised at official-level and approved by Ministers. When the JBC was merged with Public Health England (PHE) and parts of DHSC, the JBC went on to form the Data Analytics and Surveillance directorate of the newly formed UKHSA in October 2021.

154. Health Ministers from all four nations attended the JBC Ministerial Board, and the Devolved Administrations were represented on the JBC Steering Board and the JBC Technical Board. Given that during my experience working as part of the early response to the pandemic during January to June 2020, I was aware that there had been substantive work on data and data reporting across the four nations. That is why I initially suggested the national biosecurity centre could have a role in the collation and reporting of vaccine data. However, you will note that these exchanges concluded with the SROs agreeing for our respective analytical teams to engage with each other and agree an approach to reporting.

Assessing delivery against the plan

155. As referenced above, due to evolving advice from the MHRA and JCVI, the FVCV programme had to flex and respond. Scottish Ministers published a series of deployment plans which set out the planning assumptions being used, the delivery methods being considered and the supporting infrastructure that would be required in an attempt to be as open and transparent with the public as possible given the programme appreciation there was likely to be a strong correlation between the levels of uptake of the vaccine and trust. There were a total of five plans developed and published as set out below:

- 14 January 2021 - Coronavirus (COVID-19): vaccine deployment plan 2021 - gov.scot (www.gov.scot) [DG2/025 – INQ000147414];
- 26 March 2021 - Coronavirus (COVID-19): vaccine deployment plan: update - March 2021 - gov.scot (www.gov.scot) [DG2/026– INQ000147413];
- 23 July 2021 - Coronavirus (COVID-19): vaccine deployment plan: update - July 2021 - gov.scot (www.gov.scot) [DG2/027 - INQ000147412];
- 30 September 2021 - Coronavirus (COVID-19): Scotland's autumn/winter vaccination strategy 2021 - gov.scot (www.gov.scot) [DG2/034 - INQ000376297];
- 21 December 2021 - Scotland's autumn and winter vaccination strategy: progress report and accelerated delivery plans - December 2021 - gov.scot (www.gov.scot) [DG2/035– INQ000376295].

156. Outwith the publication of these deployment plans, Scottish Ministers sought to update the public and the Scottish Parliament whenever there were changes to the planned approach. This included but was not limited to: a reduction in the available vaccine being supplied to the UK which resulted in appointments being cancelled; changing advice on the time interval between 1st and 2nd dose; and the role of the AstraZeneca

vaccine. All of which were communicated as part of a parliamentary statement and often contained within the daily briefings undertaken by the First Minister and followed up with wider communications. In all of these instances, Ministers and the FVCV programme sought to be as open and honest with the public as possible.

157. These forums were also used to explain the approach and rational the FVCV programme would be taking and, if appropriate, explain why this might be different to other parts of the UK or indeed the world. This was certainly the case when other countries were vaccinating children ahead of the UK, but also if there were subtle differences between Scotland and the other nations. However, it should be stressed that given all nations broadly followed the JCVI and MHRA advice, there was limited occasions where there were deviations, notwithstanding the earlier references to unpaid carers and those with learning difficulties as part of cohort 6.

158. However, Ministers and colleagues involved in the FVCV were clear that decisions on deployment and delivery had to take into account the needs of the local population and any structural mechanisms in place, and although the FVCV programme was interested in what others within Wales, Northern Ireland and England were doing, it was recognised that they too would be addressing their own needs. On that basis, as the SRO I regularly engaged with other SROs to share our emerging thinking and plans for deployment, as did the other SROs and I took this information back into the FVCV team to ensure that there was an understanding and appreciation of the approach being taken by others.

159. As referenced above, in Scotland health and social care is delivered differently to other nations in the UK given these are delivered as part of Integrated Joint Boards (IJBs). Within this context IJBs often discharge their functions though a Health and Social Care Partnership (HSCP) and for many this includes vaccination. Therefore, although the FVCV programme engaged with NHS Board leads, for some Boards the HSCP led albeit reporting into the NHS Territorial Health Board. Although it is difficult to say whether there were explicit advantages to the FVCV programme being delivered in the context of integrated services, in my experience there did appear to be close alignment between NHS and Local Government activity. Whether that be to: identify and support securing facilities for vaccination centres; engaging with the third and voluntary sector to attend centres to support people and transport the vulnerable to and from the centre; and supporting local messaging and communication. This may well have happened without services being integrated, but I believe that the

relationships and connections already embedded locally through integrated services within HSCPs, probably enhanced this joined up approach in Scotland.

Yellow Card Scheme

160. The CPO had a role in overseeing the MHRA yellow card scheme, but as part of the planning and preparation for deployment, NHS NES (often supported by NHS PHS) ensured that the products and assets used to train and deploy staff took account of the requirements of the Yellow Card scheme. I was not close to the clinical or operational detail of this (including details of the training of clinical personnel), other than to receive reassurances from both delivery colleagues and SG clinical leads that the requirements were being fully met for both the identification of any incidents and the rapid reporting of these to both the MHRA and the FVCV programme, which was mainly through the NHS PHS clinical governance group.

161. This approach enabled the FVCV programme to take account of any reflections or recommendations from clinical colleagues which could be used to update or change any workforce education materials and/or public facing communications materials. By its very nature, details of any suspected yellow card incidents were not reported in public and patient confidentiality was always protected, although there were some instances of incidents appearing in the local or national media. Indeed there were also occasions where some instances were reported that weren't yellow card reportable instances. However, the programme was aware of the potential for public confidence to be dented and therefore sought to ensure public facing communications took due regard of the need to address the risk of instances impacting on uptake.

Various Vaccine SRO WhatsApp messages

162. The Inquiry have asked that I expand on a number of specific WhatsApp messages sent as part of the SRO vaccine group from early 2021. It may be helpful if I were to explain that the Vaccine SRO WhatsApp group was not used as a decision making forum, nor as a formal escalation mechanism, but rather as a quick and relatively easy way in which the SROs could communicate with each other, outwith the regular SRO calls. This was used as an alternative to phoning each other, which is what would probably have happened had we not used WhatsApp. I certainly treated these WhatsApp messages in the same way I would have treated a phone call in that if there was something material and important I would have compiled an email to colleagues

(either within the Scottish Government or for the FVCV delivery team) and/or raised this at one of the at least daily stand up meetings.

163. It is also important to note that all of the SROs were working extremely long hours, under intense pressure and scrutiny and therefore the pace in which all were operating could mean that on occasions things may have been written in a way which on reflection may have been more direct or less measured than was otherwise intended. The inquiry will therefore wish to take note of not only the content of the WhatsApp messages but the dates and the times of these as many were sent outwith what might be considered normal working hours. But in relation to the specifics I have sought to explain below the questions that have been raised.

164. I do not retain a copy of these WhatsApp messages as I left a number of these groups and for those that I remain there is an auto-delete function enabled. I can confirm though that I did not deliberately delete these to hamper the progress of this or any other inquiry. Rather, I did not back these up and my phone has been through a number of upgrades so these (as far as I can tell) are not recoverable. As I alluded to in my previous witness statement for Module 2/2A, I have sought the support of Scottish Government IT experts who have confirmed that these messages are not recoverable. I have however, had access to these exchanges through the UK public inquiry team and offer a response based on re-reading these.

Use of differing vaccines for 1st and 2nd doses

165. The messages sent on the 02 January 2021 from the Vaccine SROs" WhatsApp group [INQ000477804] page 8 (and I believe page 9), related to advice that arose from changes to the PHE Green Book on the ability to administer different vaccines for 2nd doses. These exchanges related to references in the green book which permitted, rather than required, different vaccines to be used for future doses such as boosters and having reviewed the series of message. It would appear I and fellow SRO colleagues were seeking to clarify each other's interpretation of this and how it would be operationalised. I do not recall any specific differences in approach between the four nations regarding the use of 'mixing' of vaccines, but the exchanges were simply seeking to clarify each other's position with regards to the interpretation of the advice each were receiving. The Inquiry will note that as part of these exchanges, the SROs were thoughtful about the future supply position as well as the comms and handling of

any approach, noting that the media (including the New York Times) were already reporting on this issue.

166. I do not recall having sight of this amended guidance from the PHE Green Book in advance of it being issued, or even being aware that it was imminent. However, I accept that amendments to the green book were frequent and led by clinical colleagues working at pace and it may simply have been there was insufficient time to alert all of the SROs or for the respective clinical leads in each nation to do so. I recall this information was taken back into the FVCV programme via the delivery group meetings where all local vaccination leads were present and agreed how this would be operationalised. As a general principle the FVCV programme sought not to offer individuals the option to 'choose' which type of vaccine they would be offered, even if members of the public had a strong preference for one. Which of course is consistent with other medication offered to members of the public.

Vaccine Deployment Plan

167. The Inquiry asked me to explain a series of WhatsApp messages between the 08 and 13 January 2021 where the Secretary of State for Health and Social Care wanted this to be a UK document. I can recall that there was a desire from DHSC to publish a UK wide strategy but as you will have seen from the range of messages contained in the "Vaccine SROs" WhatsApp group [INQ000477804] from pages 13-17, between 08 January 2021 and 13 January 2021, there was concern from myself and the other SROs, that there was insufficient time between receiving a draft from the DHSC that would enable each nation to either feed into this or sign off on its contents for it to truly be a UK wide strategy. It was not clear what was driving the timeline for which the DHSC were operating to, but I and the Cabinet Secretary for Health and Sport were clear that it would not be possible to agree to the draft as a UK wide strategy without having sufficient time to feed into and review this document. However, each SRO sought to support the DHSC by providing information of each nation's current deployment activities to allow the DHSC to publish a document in line with their preferred deadline. I seem to recall that given there was insufficient time, the document published was not a UK wide strategy but rather an update document [DG2/036- INQ000501323].

168. In Scotland, the first vaccine deployment plan was developed and published on 13 January 2021 and then amended on the 14 January 2021. This included details of the

culmination of plans to deploy the vaccine at pace in line with the JCVI advice. I do not recall if other nations developed and published their own regular deployment plans, but Scottish Ministers were clear with the FVCV programme that this would be an essential element to secure and maintain the trust of the general public and would be critical to help the public understand why decisions were being taken and the importance of things like prioritisation given we would be asking many to 'wait their turn'.

169. The Inquiry asked me to expand on the exchange of messages on 13 January 2021, in the "Vaccine SROs" WhatsApp group [INQ000477804] at 19:32:48, in response to a message sent by Emily Lawson which stated that: "….*Derek we are a bit shocked that the supply figures are in your report. It's commercially sensitive information as you know*." Where I responded that: "…*Quite a lot of this information has appeared in the media over the weekend often framed as criticism of the SG not being fast enough. It would be good to have a regular published source of information in the future*". The vaccine deployment plan was developed at pace over the weekend of the 09 and 10 of January in preparation for an announcement in the Scottish Parliament on Wednesday 13 January. Information was drawn from multiple sources to populate this plan with numerous contributors across the Scottish Government and from the Covid-19 vaccine policy team and the FVCV delivery teams. During the course of the drafting of this plan, some supply information was used in the draft from a source that had been provided by the VTF that was marked as 'commercial in confidence' but this security classification had not been retained in the material transposed and this was not picked up as part of the proof reading of the vaccine deployment plan.

170. This was further exacerbated as I was ill and therefore off work on Monday the 11 January where the plan was finalised and sent to the printers for production the following day (Tuesday, 12 January) in preparation for the launch of the plan the following day as part of the statement by Scottish Ministers in the Scottish Parliament. I, therefore, did not pick up that the final version contained supply information that was given to us under a security classification of 'commercial in confidence'. Indeed when I wrote the WhatsApp response to Emily Lawson at 19:32 on 13 January, I had not fully appreciated that the information included in the deployment plan published on the Scottish Government website included commercial in confidence information as I had assumed the information used in the plan was drawn from publicly available sources. Upon realising this, I ensured that the vaccine deployment plan was taken down from the Scottish Government website first thing the following morning and I worked with

BEIS colleagues over the course of Thursday, 14 January, to ensure that the information included in the next draft of the plan did not include information that was commercially sensitive. My reference to Ms Dawson of criticism of the SG is linked directly to my references earlier where other sources were referencing supply information and accusations that the Scottish vaccine programme was being delivered too slowly compared to other parts of the UK as set out within paragraphs 155 to 159.

171. However, I acknowledge the inclusion of this information in a published document on the 13 January was an administrative error for which I apologised to Scottish Ministers, colleagues in DHSC, BEIS and the other SROs. Although as alluded to as part of my personal statement above, whilst the FVCV programme and Ministers were coming under intense pressure to be more open about supply data, that does not excuse the inclusion of commercially sensitive information in a published document. Following this, I and my team were far more attentive to any data or information published to ensure that this error was not repeated, which it was not.

172. However, as set out within paragraphs 155 – 159 above, following the amending of the Scottish vaccine deployment plan on the 14 January 2021, there continued to be disclosure of supply information from other sources. This is why in my message in the "Vaccine SROs" WhatsApp group [INQ000477804], at page 18, on 26 January 2021 I stated that "*…today is yet another day when Scotland's vaccine supply figures have been carried by the media. My Ministers are losing patience with this*." This was particularly concerning given the understandable concerns raised by colleagues in BEIS, DHSC and by the Emily Lawson about the inclusion of commercially sensitive vaccine supply information within the Scottish deployment plan that was published on the 13 January 2021. I would have therefore expected similar representations to be made to those that were using data in the public domain that derived from sources classified as commercial in confidence.

Announcements and Alignment

173. You asked me to offer a view on whether I agreed with a message posted by Gillian Richardson in the "Vaccine SROs" WhatsApp group [INQ000477804] on 9 January 2021, at pages 14-15, that "bulldozing" was "now a pattern and at some stage risked spats" and a "….lack of warning on key announcements and tokenism in decisions" which is "…..testing devolution". It is important to note that these messages were posted at the beginning of the deployment of the vaccines at a time

when all of the programmes across the UK were experiencing considerable complexity and challenges with issues such as supply referenced earlier. Whilst I don't feel able to agree entirely with the references Ms Richardson made within these messages, I do recognise that at that stage of the programme, there wasn't the level of openness or candour from DHSC or BEIS that evolved over time. There were I suspect a number of factors which led to this including for example a development of trust between the leads within DHSC and BEIS, the SROs and the officials within each of the administrations. This was helped as over the first year of deployment, there was limited churn and turnover of staff and personnel, but beyond trust it became clear that all leads were being open, candid and honest about both the success and challenges being experienced within all of the individual deployment programmes. The initial lack of candour or openness created some tensions at official level, but it didn't in itself lead to a breakdown of relationships nor a commitment from all to work collaboratively in support of each nations individual deployment of the vaccine. Where there was evidence of a lack of openness or candour, with either DHSC or BEIS, then this was raised at official level, or at Ministerial level. But it is also important to note beyond high profile announcements such as those referred to by Ms Richardson, there were some structural and process issues which may have led to a suspicion of a lack of candour or openness. This included for example, DHSC colleagues having direct access to the secretariat function of JCVI and being able to review the minutes or papers prior to the devolved administrations. The Secretary of State for Health and Social Care also received the final advice from the JCVI before Ministers in others nations, so this led to a suspicion (even if it were not the case) that the UK Government had the ability to influence or at least see the emerging views from JCVI and the vaccine taskforce before the devolved administrations.

174. By way of example, it was therefore not uncommon for either the SROs or the lead policy officials in Wales, Northern Ireland and Scotland to be brought into deliberations on issues after they had been discussed with either the JCVI secretariat or DHSC and the SRO in England. It was also clear that DHSC officials and the SofS for Health and Social Care, considered it entirely appropriate that JCVI should be reporting to the SofS rather than providing advice to all four nations at the same time. To be fair, the governance and reporting of advice from the JCVI had not been updated to reflect a post devolved context so whilst it was technically accurate that the JCVI should be reporting to the SofS for Health and Social Care, I believe this was inappropriate as the JCVI should have (in my personal opinion)

been offering advice to all four home nations Health Ministers at the same time, rather than reporting to the SofS who then disseminated this advice to Ministers and their officials in Scotland, Wales and Northern Ireland. On the same basis, I believe the JCVI should have been taking evidence and material from all nations and not only England, which as alluded to, was initially the case but was later resolved as over time it became evident that the officials in DHSC and BEIS were committed to sharing emerging information from the JCVI and the Vaccine Taskforce respectively. Which in turn led to an increase in trust.

175. I can also recall instances where the SROs from other nations were informed of announcements that were about to be made immediately before they were made, or in some instances immediately after they had been made, which placed each nation in a difficult position. I believe that this was the case in relation to my message in the "Vaccine SROs" WhatsApp group [INQ000477804] at page 11, from 4 January 2021 to 5 January 2021 at 00:11:03 relating to an announcement made by the Prime Minister about the timeline of vaccination for groups 1-4 without prior notification to all four nations which I believed put: '*….all of us on the back foot*'. The reason I believe this was challenging wasn't because Scotland wasn't able to deploy, but rather that it required each nation to re-examine its own deployment plans to consider if they were broadly aligned and if not ensure that any differences could be explained to Ministers and members of the public. I am sure England would have found this equally unhelpful if a Minister from another nation announced the timeline for groups and I suspect this may have been what Ms Richardson may have been referring to. However, this became less of an issue as the programme evolved with both the SROs and the lead policy officials being far more open and candid about plans including details of and timings of future announcements.

Wider relationships with SROs and Other Administrations

176. Notwithstanding my reflections above which were based on a series of questions posed to me, many of which were limited to WhatsApp messages during late 2020 and early 2021, it would be accurate to say that during the very early stages of the vaccine programmes deploying there were instances of tension and disagreement, as evidenced from the above. However, it is also important to put on record that following this timeframe, relationships with both the SROs and the policy official leads in all of the nations across the UK not only stabilised but were greatly enhanced. Indeed it is my view that both the SROs and the senior policy leads

became a highly effective cadre both supporting and challenging each other in a professional and courteous manner. I considered during my time as SRO and lead official, my colleagues in other nations proved to be a valuable resource to both explore the benefits and risks of any potential deployment option, but they also helped me learn from what they were doing. In reality there were few who understood the complexity or demands of the vaccination programme, but the SROs and senior officials did as we were all often experiencing very similar demands and pressures. Evidence of this supportive environment can be found in a series of messages which were sent in the midst of the response to ramping up vaccination in response to the Omicron variant within the "Vaccine SROs" WhatsApp group [INQ000477804], at page 42 on 13/12/02021 at 18:49:45 where I said: "….*How are you all doing. Not looking for updates. Just wanted to check how you are all doing*….." There then followed a series of messages of support for each other.

177. Throughout my career as a civil servant, I have seldom witnessed or experienced such close and effective collaboration across the four nations of the UK. Although it was initially a little strained at times in early 2021, it should be noted that all parties were under intense pressure and scrutiny. But once this settled down the openness, candour, willingness to support each other and desire to reflect and learn from others was, in my opinion, one of the key success factors to all of the individual vaccine programmes in each country. An important element to the success of this was that all treated each other with equal value and respected the right of each other to make their own decisions and not seek to make life difficult for each other. The level of mutual support was something I particularly valued as there were times when the sheer weight and pressure I felt under could be overwhelming, and having access to colleagues who were experiencing the same challenge was worth its weight in gold. We even found the friendly rivalry in seeking to 'beat' each other in the informal vaccine uptake league tables a motivator to go faster and learn from each other. The outcome of which of course was that simply more people got vaccinated sooner.

Barriers to vaccine uptake

178. I have described earlier how equalities and inclusion were addressed as part of the FVCV programme and how estimated cohort sizes were developed and used at a national and NHS Board level to assess uptake and deployment. I have also explained that the VMT recorded ethnicity and other data which was used to monitor

and track uptake across different characteristics within and across cohorts. This in turn enabled the FVCV programme team to develop the actions required to address these. As explained earlier, this included direct engagement with representatives of those groups that were underrepresented to design an approach and if appropriate develop communication materials that talked to the reasons for individuals being reluctant to come forward and be vaccinated. By the end of the winter 2022 programme, ethnicity was assigned to 93% and 90% of Covid-19 and flu vaccine records respectively. Prior to the FVCV programme this information was not routinely recorded for vaccinations.

179. The FVCV programme took the view that in terms of segmentation of the population in terms of communication there were probably three main groupings. One that would be highly trusting of the vaccine and the clinical advice surrounding this. The second would be sceptical and have many legitimate questions and concerns but would be open to clear, honest and candid information to allow them to make an informed choice. This may include some who could be described as hesitant. But there were a third who rather than be hesitant were unlikely to be persuaded and although a small group, could be very vocal and were often described as anti-vaxers. The FVCV programme therefore decided to invest its time and energy on engaging and supporting the first and second of these groupings and sought to both understand any concerns and address them recognising individuals right to refuse vaccination, but ensuring they had the information and advice provided in a clear and impartial way to make their choice.

180. The reasons for individuals being hesitant were numerous and have been rehearsed by others. But these included the pace in which the vaccines were developed and approved, the number of changes to the programme on things like the type of vaccine to be used, the dose interval and eligibility for some people to access AstraZeneca. The vaccination of children also raised many concerns and why additional investment in time and resources went into developing information to parents and their guardians as well as children themselves.

Vaccine hesitancy with staff

181. The Inquiry asked me to explain a WhatsApp message I sent from the 'Vaccine SROs" [INQ000477804]. On page 5, 20/12/2020, where I stated: "….*we have work*

to do with vaccine hesitancy with staff though. We had something similar on routine testing and are producing additional support material."

182. Although at this time the vaccine was available to frontline health and social care staff, we knew from experience of the seasonal flu programme that uptake could be low, or at least variable. But we also knew that healthcare workers can often be more aware of the technical and clinical data that underpins the JCVI and MHRA advice, so material and information aimed at the general public may not be as relevant as those required for clinicians who were being encouraged to come forward and be vaccinated. My message on the 20 December 2020 was based on uptake levels in some NHS Boards not being as high as the programme had predicated and the FVCV programme receiving some anecdotal evidence that there was a level of hesitancy from front line NHS staff. Additional materials and communication was therefore developed, as alluded to in my message above, given this cohort required different and at times more technical information and material to address their queries and concerns about the vaccine.

183. The programme also became aware of anecdotal evidence of some care homes not providing their staff with time off to be vaccinated. To that end my team engaged with third party bodies such as Scottish Care to seek their support to encourage their members to provide the support to care home staff to enable them to receive the vaccine.

Initiatives to encourage uptake

184. Uptake levels at both a global and cohort level were therefore driving factors for assessing the success of the FVCV programme and as the policy lead and the SRO, I took a keen and close interest in the level of uptake at every stage of the programme. On that basis, there were numerous activities to monitor and take action to respond to slower than expected uptake. This included for example monitoring delivery against the projected cohort sizes by NHS Health Board and at a national level and seeking feedback from the National Vaccination Centre (the helpline) on the types and themes of questions being posed to them. This would for example enable the FVCV team to assess if there were specific issues at a local or a national level that needed to be addressed. This could include for example inaccessibility of a vaccination centre, or lack of clarity on the timeline or method of securing a vaccine appointment. This information was monitored on a daily basis,

but it also led to an almost real time response if there were confusion or ambiguity that could be addressed through national or local comms. This could lead to Ministers providing this clarity (often via the First Ministers daily update to the media) or developing and deploying national or local media and social media assets.

185. But perhaps the biggest initiative to boost uptake was in response to the identification of Omicron as a Variant of Concern by the WHO on 26 November 2021 and JCVI issuing subsequent advice on 29 November 2021. The FVCV delivery team developed a deployment plan to support the delivery of acceleration in line with this JCVI advice, which included increasing the vaccine workforce and evaluating the capacity of the infrastructure and mechanisms for booking appointments. The First Minister outlined in a Parliamentary statement on Tuesday 14 December 2021 an intention for everyone over 18 in Scotland to be able to book a booster appointment by 31 December 2021 [DG2/037- INQ000501324]. Given the potential for increased social interaction over the festive period, the FVCV programme developed a "Boosted by the Bells" winter 2021 marketing campaign to encourage the public to come forward in order to increase uptake for vaccination.

186. There were other practical steps the FVCV programme took to support this increase in deployment which included for example pausing of the flu adult seasonal vaccination programme (based on agreed clinical advice) and introducing a temporary reduction in the 15 minute observation period to 5 minutes for mRNA vaccines to enable increased throughput within vaccination centres (again based on agreed clinical advice). Alongside prioritisation of the Covid-19 booster dose for those 18 and over instead of second doses to those aged 12 to 15. Details of the approach being taken were outlined in an updated Autumn and Winter Vaccination Strategy which was published on 21 December 2021. This included a range of actions being taken to respond to Omicron such as:

- An increase in bookable appointments from December 2021;
- Adding larger venues;
- Increased staffing in vaccine clinics;
- Deployed more drop-in activity for those eligible for boosters;
- Continued use of military support vaccinators; and
- Sending blue envelope letter reminders to everyone in these cohorts who have not yet been vaccinated.

187. The culmination of this activity enabled boosters to be delivered to 2,979,334 people before Hogmanay, which equated to 76.7% of eligible adults. It should, however, not be underestimated how challenging and demanding this was for both the local teams in NHS Health Boards, but also the national FVCV who worked extraordinarily hard to deliver this level of success.

Communications and Engagement

188. Communications and marketing Scottish Government officials were part of the FVCV delivery team and from March 2020, they developed an evolving communication strategy to inform people about the required protective behaviours needed at each stage of the pandemic (particularly as restrictions shifted over time). The strategy was built on a recognition that the population of Scotland is highly motivated to act in the name of the collective best interests and this was used as a lever to motivate and prompt the desired behaviours. The work was rooted in behavioural science, communications best practice and extensive research, drawing on emerging evidence in Scotland and overseas.

189. One of the first tasks the team undertook at the start of the pandemic was to set up polling research to help understand knowledge, attitudes and claimed behaviour in relation to coronavirus, and motivations and barriers to adopting desired behaviours among the general public in Scotland specifically. The polling ran weekly from end of March 2020 to June 2021 when it moved to fortnightly and then approximately monthly from April 2022. The questionnaire was developed for each wave – covering both ongoing metrics to monitor trends but also included new questions to address topical and emerging issues. YouGov carried out these surveys online, with a sample each wave of c.1,000 adults 18+ representative of the online population of Scotland. The report was prepared and circulated widely across the Scottish Government – informing decisions not just related to communications.

190. The polling was supplemented by a qualitative panel, recruited via an independent research agency to take part in quick turnaround insight gathering and creative testing research. Participants spanned demographics, socio-economic groups, household types including families and people living alone, employment status (including those who had been furloughed), health characteristics (including people at higher risk of Covid-19 and those with lived experience of mental ill-health) and people from different minority ethnic communities. The findings were used to inform

the implementation of the communication strategy and messaging and assess the effectiveness of advertising ideas which included action for the FVCV programme. The communications and marketing leads also led the work on monitoring emerging best practice in relation to communications approaches across the globe, such as that published on the IPR Covid-19 Vaccine Communications Resource Centre and the latest behavioural science reports on Covid-19 from respected bodies such as the Behavioural Science Centre at the University of Warwick Business School and the Behavioural Insights Team, and SPI-B publications.

Campaigns specifically developed for vaccination

191. Planning was anchored on six strategic principles:

- Driven by behavioural insights – a commitment to building on learnings from audience insight research was made to ensure communications were relevant and effective;
- Connecting meaningfully through different voices – there was early recognition of the need to include different credible voices to engage audiences across a range of socio-economic groups, ages, ethnicities, and locations – and that included partnering with influencers specific to particular communities;
- Keeping communications simple – other coronavirus research had shown that people had reduced 'bandwidth' or processing capability due to the stress of the pandemic. To ensure clarity, communications needed to be straightforward and to avoid jargon and acronyms where possible;
- Countering misinformation and disinformation with facts – an early decision was taken not to highlight false theories; based on studies showing some forms of fact checking may simply amplify false information, cementing it in audiences' minds;
- Part of a larger whole – there was recognition that the strategy was not a complete communications solution to slowing transmission of coronavirus. It had to run alongside campaigns around social distancing, hygiene, isolating, and Test and Protect. It also had to avoid undermining these when talking about vaccine efficacy;
- Ongoing optimisation – While vaccination was not a new concept, the Covid-19 vaccine was new and had been developed relatively quickly. Insights into specific barriers/motivations were used to inform vaccine communications.

192. Based on these communications principles, the 'Roll Up Your Sleeves' campaign was developed. The target audience was those eligible for vaccination at time of the campaign including healthcare workers, social care workers, those aged 80+ and older adult residents in a care home, all people 65+, clinically extremely vulnerable adults. Evaluation of this campaign undertaken from 22 February to 8 March 2021 showed that:

- 78% of campaign recognisers agreed that the advertising makes them more aware of the importance of being vaccinated; and
- 67% of recognisers claimed to have taken action as a result of the campaign

193. The overarching strategy aimed to highlight the why, how and for whom of the vaccination programme. A number of different creative approaches were used over time to keep the public engaged and help motivate action, including Roll Up Your Sleeve 1 and 2; Boosted by the Bells; Don't Let Your Protection Fade. Each built on the previous, encouraging the relevant cohort(s) to get vaccinated. All activity supported the direct mail issued by Public Health Scotland by text, email and letter inviting the public to their vaccination appointment.

194. Furthermore, additional work was undertaken to overcome vaccine uptake barriers with key audience groups such as pregnant women which led to an expert-led campaign to reassure pregnant women of the safety of the vaccine and demonstrate the need for it, a vaccine hesitant audience campaign called 'Take it from me' was delivered throughout February and March 2022. This was for those who remained hesitant to come forward for any or their next vaccine dose a specific campaign and campaign to Minority Ethnic Communities seeking to address barriers to uptake identified by minority ethnic communities.

195. Interestingly the 'Take it from me' campaign communicated the real-life case study of Jennifer, aged 23, who caught Covid-19 and was unvaccinated which resulted in her struggling to go about her normal daily activities and the impact of that on her life. Results from that campaign, inviting those eligible to come forward for the vaccine:

- 65% agreed that the advertising made them more aware of the importance of being vaccinated;
- 57% of campaign recognisers claimed to have taken action as a result of the campaign;

- 39% of the most resistant audience who had not received any doses of the vaccine by end Dec '21, claimed to take action; and
- The evidence suggested that the campaign helped to drive many of the 140,000 doses of the vaccine administered during the campaign period, including nearly 9,000 first doses among those who had been eligible for several months.

196. My overall reflections of the effectiveness of these measures were that they were highly effective as there was often evidence of these interventions translating into increased vaccine uptake for the groups and cohorts being targeted.

Dealing with Misinformation and disinformation

197. As alluded to above, the FVCV programme and virtual team included communications and marketing experts from within the Scottish Government. They were involved in all of the daily stand-up meetings and key forums such as the delivery group and the FVCV Programme Board as well as meetings to brief Scottish Ministers. Although my role was not central to this activity, I cannot underestimate the importance of the team that supported this work as the programme operated in a highly dynamic manner with the ability to measure in almost real time the impact of decisions and activity that was undertaken in relation to changes to uptake. For example, it would not be unusual for a discussion to take place in the evening as part of a stand-up meeting and actions agreed which might include the deployment of local social media or local radio assets into an area and there be a corresponding increase in uptake by the following evening. The Scottish Government marketing and communications team therefore were an integral element of the response function and were not wedded to an approach if the evidence indicated that a different response was required.

198. The team also were content to be highly experimental and trial innovative and different approaches given there was an ability to track uptake in almost real time. This was supported by a culture of taking risks and learning from when things don't go well which was both energising and highly successful. But the team did have to consider how to deal with misinformation and disinformation. During my time on the FVCV programme this took on two differing elements. I have referenced above which related to a misrepresentation of the supply of vaccine by others for which I explained. Beyond the Secretary of State for Scotland, there were other opposition

MSPs who criticised the pace of the Covid vaccine programme based on the information I can only assume was given to them by others. This was despite both a vaccine deployment plan being published in the Scottish Parliament and regular briefings from both Scottish Ministers and technical briefings from clinicians such as the CMO and NCD to MSPs as well as regularly written updates to Parliament. I believe this public criticism, played into creating uncertainty for the Scottish public about the ability of the vaccine programme to protect the most vulnerable, which in turn ran the risk of this translating into increased vaccine hesitancy given many of the public were already concerned about the pace of the development and approval of the vaccine(s). I cannot seek to explain the motives of those that sought to undermine the vaccine programme in this way, but the marketing and communications team within the FVCV programme sought to address the consequences of the concerns this approach led to. In parallel Scottish Ministers and officials pressed colleagues in DHSC and BEIS to regularly publish supply information as referenced earlier.

199. But beyond issues relating to supply, the programme was aware that there were some within the anti-vax community who were deliberately seeking to undermine and sow the seed of doubt and concern in order to dissuade members of the public to come forward to be vaccinated. Often misquoting and quoting out of context material produced by the MHRA and the JCVI. Work was therefore undertaken linking in across the four nations to support a coherent response, and I would wish to commend the security SRO based in the home office and their team for all of the work in this area to allow for an effective counter to many of these campaigns. The security SRO was a regular attendee at the SRO calls and I and my team had regular discussions with them and their team. This included but was not limited to sharing best practice and toolkits to ensure security was embedded into the design and operation of a vaccine centre. I can also confirm that communications and how each nation was dealing with dis and misinformation was also regularly discussed at many of the SRO calls and we often shared each other's material, research and insight material.

200. The FVCV programme sought to provide clear, unambiguous advice and information to allow members of the public to form their own judgement rather than to engage with disinformation or Misinformation campaigns as based on behavioural science research, it was considered this simply gave these voices oxygen in which to thrive. More often than not, these disinformation or misinformation campaigns

had a very slim kernel of truth but often distorted beyond imagination to align to the message they were seeking to convey. On balance I believe that this was the right approach as the vast majority of the public want to have the unvarnished evidence and information and be given the opportunity to form a view themselves. As alluded to there is likely to be a small proportion of the population whose view is already set and anything others say or regardless of the evidence submitted would unlikely cause them to reevaluate their position. Unfortunately, some of these anti-vax groups translated into physical demonstrations and events, some of which turned out to be physical and violent in nature. The vaccination centre in Dundee ended up being a focus for such a group within Dundee city centre in Autumn 2021, as it was being set up which led to the vaccination staff (some of whom had their children with them) having to lock themselves into the building to protect themselves until the police arrived with the protesters attacking the windows and doors of the building. I visited the centre the following day and was moved by the commitment and determination of the staff to continue to vaccinate the people of Dundee despite this harrowing experience. In my opinion the public communication of the FVCV programme was inclusive, linguistically appropriate and culturally sensitive and sufficiently targeted to those who may be hesitant and those who may be most in need and the vulnerable.

Security

201. As referenced above, security became a bigger issue for the FVCV programme as it developed. I had a dedicated team supporting NHS Boards on security consideration who maintained close and effective relationships with colleagues in the home office. This was an area in which NHS colleagues in particular were unfamiliar as security had not traditionally been a factor to be considered when vaccinating members of the public. The use of security guards at vaccination centres were therefore not an uncommon sight, although in the end there were limited security incidents. Throughout this work I shared the approach we were taking in Scotland with the other SROs and I believe the guidance and toolkit developed by my team in Scotland was also used by others in the UK.

Level of innovation

202. I have never worked on a programme that was so highly dynamic and innovative with a willingness to take measured risks in order to achieve a clear outcome that

everyone was bought into. The culture that was developed to enable this environment was critical as it was predicated on trust, honesty and knowledge that failure would be learnt from rather than punished. The policy landscape in which this operated was one where the public sector and others could come together to deliver a common agreed goal, in a highly responsive and effective manner guided by evidence and drawing on digital, communications, analytical, clinical and professional expertise. Of course, I have had elements of this during my tenure as a civil servant of nearly 40 years, but the FVCV programme took this to a completely different level. In my experience prior to the FVCV programme, organisational, cultural and financial barriers have often got in the way of delivering innovative person-centred services, but this all changed with the FVCV programme. I witnessed almost on a daily basis the public, private and third sector and voluntary services coming together to ensure local communities were protected by vaccinating the most vulnerable and ensuring the country exited lockdown. It is not uncommon for civil servants and others to be cautious and potentially risk adverse, but the FVCV programme engendered a culture of taking risks and having open conversations about these risks with decision makers such as Ministers and sharing these with the general public, who were incredibly sympathetic and understanding and I suspect appreciated being provided with all of the information and rationale behind what the programme was trying to grapple with.

203. The level of innovation was extensive and much of the detail has been referenced already. But one area I would highlight is the importance of the FVCV programme to focus on the outcome being sought rather than the input the programme assumed would be required. For example, when vaccinating rural and island communities, the programme took the view that its role was to provide the staff, guidance on prioritisation and the vaccine itself, but empower the local community to do what was required to ensure the maximum number of eligible people were vaccinated. This led to real creativity and innovation including for example island communities engaging with mountain rescue and RNLI lifeboat crews to transport people from remote areas in time to be vaccinated. This is unlikely an intervention that the central FVCV team would have considered.

204. A copy of the Audit Scotland report I referenced in my Module 2a personal statement can be found here [DG2/038 – INQ000222977]. This was published on 30 September 2021 and described the programme as making "….*excellent progress in vaccinating a large majority of the adult population in Scotland*.". Furthermore, the

inquiry will wish to be aware that a WHO report published on 13 January 2024 outlines that there were 24,234 lives saved by the Scottish Covid-19 vaccination programme which was ranked as joint 4th in the world in impacting mortality. A copy of this report is exhibited: [DG2/039- INQ000501325].

Key Challenges and Learning

205. The Inquiry has asked me to consider whether any lessons can be learned to prepare for and/or tackle a future pandemic or similar public health crisis. Before I respond to this it would be appropriate to highlight that a key challenge in relation to developing an effective FVCV programme was that no one in living memory had ever developed or delivered a population wide vaccination programme, deployed at speed with the ability to respond to emerging and at times changing clinical evidence. There were in my mind some key ingredients of success. Namely a committed and highly dedicated team of professionals within the NHS, Local Government, Scottish Government and beyond that gave their all, often at huge personal sacrifice to their friends and family working seven days a week and over very long hours.

206. The ability of a team to come together from different backgrounds and organisations to lean in, roll their sleeves up and do whatever was required was another key ingredient. As was an ability to challenge perceptions or norms alongside a desire to take risks and fail but using failure as something to learn from. This latter point was critical as it led to huge levels of innovation, but it could only thrive within a culture of respect and trust using failure as a means to take risks and learn lessons rather than apportion blame.

207. As I alluded to in my earlier personal statement, on a personal level, I have reflected on the demands placed on the relatively small number of vaccine policy officials (by Scottish Ministers beyond Health and their officials) conveying their stakeholders' view on the policy position agreed through the Cabinet paper tabled and agreed on 01 December 2020 on issues such as prioritisation, [DG2/040 - INQ000232664]. This proved to be time-consuming, and at times detracted in the ability for the policy team to fully focus on deployment and is something therefore worthy of further consideration.

208. But beyond policy officials, I have also reflected on the demands the FVCV programme placed on others. I started work on the vaccine programme in June 2020 and left in October 2022. During this time there were only a handful of people that were on this programme for its duration and it was clear that many gave everything they had, but the pressure and demands of the programme took its toll. I pass no judgement other than to thank them for their contribution and slight frustration that the vast majority of the Scottish public will never know what they did or at times sacrificed to protect the most vulnerable from infection and death. There are simply too many to name individually, but they know who they are and I will forever remember them for the role they played in delivering a hugely successful vaccine programme in Scotland.

209. As I stated in my former personal statement for Module 2A, the ability of multiple stakeholders and partners to work in a collegiate manner as part of the response, in my view created the conditions for the dramatic scaling up of the infrastructure needed to deploy the Covid-19 vaccine at pace. Specifically for the deployment of the vaccine, this was underpinned by a very strong culture of collaboration and support with partners and that was particularly true of the collegiate approach taken between policy officials, specialists such as clinicians, local authority colleagues, the third sector and many others. The well-established mechanisms to engage with four nations colleagues at policy and SRO level, underscored by trust and respect, also contributed to an extraordinarily successful vaccine deployment programme in all areas of the UK.

210. My one reflection relates to policy challenges. If there should be a future pandemic which could be addressed through a national vaccination programme, we would do well to consider drawing heavily from the experiences of those who delivered successfully in each nation of the UK. We would also do well to ensure there was close and effective working relationships in place between the SRO and policy leads of these nations, regardless of any constitutional arrangements. In relation to Scotland, I would like to suggest that in the future there may be value in protecting the team who are charged with overseeing planning and deployment from the function of challenging and probing the policy rationale as at times I found I and my policy team were torn between effectively ensuring the vaccine was deployed fully and having to justify the policy position for things such as prioritisation. This could take the form of a separate policy team dedicated to addressing evolving issues as

they arise, or seeking support from other policy colleagues elsewhere in the Scottish Government to lead on issues their stakeholders or Ministers have raised.

211. On a personal level I am immensely proud of my role and contribution to the FVCV vaccine programme. I am also intensely proud and privileged to be both given the opportunity to lead this work, but also for all of the support I received from colleagues, my wife and my family members. It is not overly dramatic to say that my life was consumed by the vaccine programme from December 2020 to Autumn 2022. But I look back on that period with immense pride and gratitude for working with the most dedicated and committed professionals I have ever had the privilege of working with. I also need to put on record my immense appreciation for the support of Scottish Ministers, specifically Ms Freeman and latterly Mr Yousaf and Ms Surgeon who rightly held me and the FVCV programme to account. However, they provided the space and authority to take risks and try things that had never been tried before. There were considerable political and practical risks associated with the FVCV programme, but their attention to detail and willingness to be challenged led to a highly trusting environment underpinned by a strong commitment to deliver successfully.

Statement of truth

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

Signed: **Personal Data**

Dated: 4 October 2024