

Witness Name: Dr Gillian Richardson

Statement No: M4/GR/01

Exhibits: 105

Dated: 16 August 2024

UK COVID-19 INQUIRY

WITNESS STATEMENT OF Gillian Richardson

I, Gillian Richardson, will say as follows: -

Introduction

1. Thank you for requesting this personal Rule 9 statement which it is hoped will assist the Inquiry in examining the scope of Module 4 of the UK Covid-19 Public Inquiry. As requested, the period covered by this statement is 30 January 2020 to 28 June 2022 ("the Relevant Period"). This addresses the period from the first cases of Covid-19 being confirmed within the UK to the date on which the Inquiry was set up.
2. As I am no longer working for the Welsh Government, I have received support from the Welsh Government's Covid-19 Inquiry Team accessing and collating information to enable me to provide this statement and the exhibits to this statement. However, since leaving Welsh Government in June 2022, I no longer have personal direct access to any emails, files, meeting minutes or records or any systems that I established to access these whilst in post, meaning all resources must be searched for and access facilitated by others.
3. The information in this statement and the material exhibited is not intended to provide a complete picture, rather this is produced to illustrate key aspects of the Welsh Government's response to Covid-19 of which I had specific personal experience and knowledge.
4. All views expressed are my own and not necessarily representative of any other individual or body such as the Chief Medical Officer of Wales, Welsh Government, or Public Health Wales.

5. I believe that the Covid-19 pandemic was the greatest global challenge facing humankind since World War II, and that it is therefore essential to capture learning and experiences through this Public Inquiry in order to better prepare, respond and safeguard the health and wellbeing of our population in the future.
6. SARS-CoV-2 (severe acute respiratory syndrome coronavirus 2), the virus causing Covid-19, swept around the world at incredible speed because of our interconnectedness and mobility and the unique characteristics of the initial viral strains.
7. Although influenza viruses had long been known to behave in this way, novel viral threats from SARS and MERS had previously largely been contained by regional responses. However, even developed nations with advanced emergency health planning and delivery systems, found these to be inadequate faced with complexity and scale of the global challenge from the SARS-CoV-2 virus.
8. In addition, rapid genetic viral shift and drift of the Covid-19 virus meant that natural immunity acquired by infection did not necessarily protect from re-infection with slightly altered strains arising a few weeks/months later meaning renewed vulnerability for individuals who had already experienced infection. Natural infection therefore offered only temporary immunity even in healthy individuals.
9. The pandemic plans of the developed nations were based on the influenza virus strains, and antiviral and immunisation platforms that had been established worldwide to counteract the still existent threat from that direction. SARS-CoV-2 did not fulfil any of these parameters. Thus, when it arrived the virus was unknown, not genetically coded, had no antibody test in existence, no antiviral remedy, and no foundational platform in place to begin work on a potential vaccine.
10. As scientists tried to address these basic elements, many individuals became severely unwell with high numbers of the elderly and immunocompromised losing their lives prematurely, being treated and dying in isolation. Health and social care professionals bravely battled to save their patients, with no remedy and no vaccine, needing reversion to early medical practices of quarantining and basic infection control measures, with only supportive therapies available

initially. All the while health and social care workers were aware that they may be personally at risk, as demonstrated by many in the caring professions that lost their lives to Covid-19 especially in the early response phase.

11. Age-old pre-vaccine era treatments such as convalescent plasma donation were re-visited, as applied research with stringent evaluation mechanisms.
12. Societies struggled with restrictions that were applied by most western nations to decrease transmission, bereavement at a distance, loss of normal societal provisions such as schooling, employment, and commemorations of special life events – weddings/civil partnerships, funerals, baptisms and birthdays.
13. Those that were clinically vulnerable were asked to become housebound for their own physical health protection, often at great cost to their mental health. The Covid-19 virus, as with other viruses e.g. Poliomyelitis, gave rise to long term effects for countless individuals from conditions such as Long Covid and clotting events such as strokes.
14. Some communities were disproportionately affected and there are ongoing effects on those that were traumatised either by exposure to the virus or the non-pharmaceutical interventions applied by Governments to protect individuals from the virus, especially children and young people, the self-employed/ owners of small businesses and those that lost health, loved ones, or livelihoods in the pandemic.
15. The NHS, unable to give normal service for other serious conditions during the pandemic period faced a mountainous backlog of need to meet as the pandemic eased and wards emptied of Covid-19 cases, but with an exhausted, traumatised and burnt-out workforce.
16. On a personal level, having caring responsibilities for my son with cerebral palsy who had just been admitted to a nursing home for young adults over fifty miles from our home in the summer of 2020, and having elderly parents over four hours' drive away, I felt the pain of many carers affected by restrictions and prohibitions on visiting, inability to regularly check on welfare or spend special occasions such as Christmas with loved ones, and the seemingly 'long wait' for the vaccine that would make normal life possible again for all of us.

17. In reality, the world-wide efforts on vaccine research meant the creation, testing, approval and roll out of Covid-19 vaccines occurred in an unprecedented short timescale.

Professional Background

18. I was privileged to study Medicine at the Wales National School of Medicine in 1985 gaining Bachelor of Medicine and Bachelor of Surgery (MBChB), before training as a General Practitioner, gaining Membership of the Royal College of General Practitioners, London ("MRCGP") with Distinction in 1990.
19. During my GP training, I took leave from the scheme to work overseas on the national evaluation of a childhood mass vaccination campaign against poliomyelitis in Morocco. Through previous voluntary surgical placements in paediatric orthopaedics in Morocco, I had become acquainted with the persistent problem of poliomyelitis, despite an active childhood vaccination programme and was concerned about possible difficulties with vaccine efficacy. I returned in 1987 to lead a team of international personnel to study this, with laboratory support provided by the National Institute for Biological Standards and Control, UK. The national vaccination programme was funded by UNICEF and resulting publications included a report to the Moroccan Government and Bulletin of the WHO.
20. Following qualification, I worked in a university linked inner-city General Practice initially. I became interested in research and epidemiology and was awarded an NHS National Research and Development Programme grant, (Mother and Child Health Division), for research into young person's health in the South Wales valleys (Principal grant holder).
21. I became aware that many of my patients' needs arose from structural and societal determinants of health and decided therefore to train in Public Health Medicine, gaining a Masters ("MPH") then Membership of the Faculty of Public Health Medicine Royal College of Physicians, Ireland ("MRCPI") before Membership then Fellowship of the Faculty of Public Health UK (London) ("FFPH"), and qualifying as a Consultant in Public Health Medicine in 2002.
22. During my Public Health training, experience relevant to my future pandemic role included the following;

- Undertook placements including Health Protection, Media training and Health Care Improvement.
 - Developed public health strategy for areas of socioeconomic deprivation in South Wales valleys communities.
 - Led a survey of immunisation coverage of babies born to hepatitis B carrier mothers, and other children and household contacts in Bro Taf Health Authority, and a survey of knowledge, attitudes and practice of GPs in relation to hepatitis B contact tracing.
 - Developed a regional strategy for improved hepatitis B vaccine delivery to newborn babies with protocols, computerised database and failsafe systems for recall leading to change at Health Authority level, later adopted for all Wales level. (Undiagnosed Hepatitis B infection in infancy greatly increases risk of liver cancer in later life).
 - Conducted a needs assessment survey of immunisation coverage of intravenous drug users in Bro Taf Health Authority, with involvement of users in planning of a resulting vaccination campaign.
 - Led Multidisciplinary responses with Local Authorities for example, with Education departments and schools during meningitis outbreaks in Mid Glamorgan.
23. When qualified, I was appointed a Consultant in Public Health Medicine. I participated in the All-Wales out of hours on call rota for communicable diseases, chemical or environmental incidents and outbreaks. I continued to participate in this rota for the next 18 years, despite changes of post and employing organisation, and attended regular Emergency planning events, including influenza pandemic preparedness and Wales Gold level emergency planning officer training.
24. Other early Consultant roles involved several specialist portfolio areas including Health Improvement with a focus on inclusion health (substance misusers, asylum seekers, homeless and other vulnerable individuals).
25. I became Director of Public Health for Caerphilly Local Health Board in 2003 leading on health protection, health care improvement and health improvement activities for the population of around 170,000 people. During this post, experience relevant to my future pandemic role included the following;
- Chaired the multi-agency Joint Emergency Planning Group bringing together partners from Local Authority, Community Health, Voluntary sector and Nursing Homes.
 - Represented the Health Board on Gwent Pandemic Influenza Health structures and on national Strategic Response Team meetings for Pandemic H1N1 Influenza.

26. In 2009/10 following the NHS in Wales reorganisation into larger regional Health Boards covering primary, community and secondary health care, I became NHS Executive Director of Public Health for Aneurin Bevan University Health Board with a population of over 600,000 people in five Local Authority areas. During this post, experience relevant to my future pandemic role included the following;

- Represented the Health Board on Gwent Local Resilience Forum (Emergency Planning).
- Sat on GOLD command (Health and Emergency Planning) for the Celtic Manor NATO Summit, Newport, working with Police, Military, and Health colleagues. Involved working with the team supporting President of the United States.
- Immunisations Local Delivery Plan designed and directed for Aneurin Bevan Health Board. Led a mass vaccination campaign for Measles, Mumps and Rubella catch up for children in five local authorities (Gwent).
- Established a strategic Health Inequities programme including roll out of 'Living Well, Living Longer' (population scale cardiovascular prevention programme).
- Exercise Golau - Directed a four nations Hepatitis C look-back exercise. Directed the NHS in Wales response and liaised with all UK nations and Public Health agencies.
- Exercise Seren - Directed blood borne virus (HIV - Human Immune deficiency Virus, and Hepatitis viruses) look-back exercise of over 700 young people following an outbreak of pseudomonas skin infections at a tattoo and body piercing business. The incident prompted drafting of the special procedures legislation in Wales.
- Chaired Gwent Area Planning Board for Substance Misuse.
- Served as Wales representative on the Association of Directors of Public Health UK Council.
- Served as Wales representative on the 2nd European Union Health Equity Programme.
- Served as Welsh Government Valleys Taskforce member alongside Welsh Government Ministers and CMO Wales Dr Frank Atherton.

27. In 2017 I became Deputy Director of Policy, Research and International Health in Public Health Wales. During this post, experience relevant to my future pandemic role included the following:
- Policy development with Welsh Government, Future Generations Commissioner, Children's Commissioner and Chief Medical Officer.
 - Worked with World Health Organisation (Venice Office), Regions for Health Network and led a work package for Wales WHO Collaborating Centre.
 - Chaired Public Health Wales's Substance Misuse Programme Board.
 - Sat on the Welsh Government Homelessness Ministerial Taskforce and the Ministerial Taskforce for the Nation of Sanctuary plan (Asylum seekers and Refugees).
 - Served as UK Lead for the 3rd Joint Action for Health Equity in Europe programme (25 countries). Led the Migrant Health work stream for UK.
 - Supervised the 'HEAR' study (Health Experiences of Asylum Seekers and Refugees in Wales), with Swansea University, third sector and peer researchers – this work achieved the Health and Care Research Wales 'Patient and Public Involvement' award.
28. Other relevant details to my future pandemic role include the following;
- Awarded Chartered Institute of Public Relations Award as a team for 'Communications in a Crisis' 2014 for 'Exercise Golau: A four UK Nations Lookback exercise into a Hepatitis C infected Obstetrician' - lookback of 26,000 individuals including children born to exposed mothers . Radio, Television and Press briefing appearances and overall coordination of whole exercise, Joint Comms lead for incident.
 - Awarded UK Social Media Award as a team 2016 for 'Exercise Seren: A lookback of young people into blood-borne virus risk following a cluster of Pseudomonas Aeruginosa infections associated with a Piercing and Tattooing business'. Radio, Television and Press briefing appearances and overall co-ordination of exercise, including incident lead for Comms.
 - Member of the Ethics Committee, Faculty of Public Health UK.

Part A: Summary of initial role within Welsh Government, October 2019 – January 2020

29. In October 2019 I joined Welsh Government on an informal basis. Due to prolonged sickness absence of a Senior Civil Servant in the Office of the Chief Medical Officer (CMO) for Wales. I began to support the Office of the CMO, at the request of Public Health Wales Chief Executive Officer Tracey Cooper, for occasional days towards the end of October 2019, at that stage 'on loan' from Public Health Wales, and on a goodwill basis. The role was Senior Professional Advisor to the CMO and included general support on key public health issues, maintaining effective relationships with Public Health Wales, and helping to coordinate the efforts of the NHS in Wales Executive Directors of Public Health sited in Health Boards.
30. By December 2019, this support was increased to three to four days per week to assist delivery of key priorities and programmes for the CMO office particularly for health improvement. I worked directly with the Chief Medical Officer of Wales as his Senior Professional Advisor.
31. As a result of this arrangement, I supported the Welsh Government including CMO, Senior Medical Officers and Civil Service colleagues. I was therefore present when the Covid-19 situation began in Wuhan, China, and when the World Health Organisation announced the global pandemic. This arrangement initially helped with the close working required between Public Health Wales, the Executive Directors of Public Health of Health Boards in the NHS in Wales and the CMO office until the necessary formal meeting structures were established.

January 2020 – May 2020

32. Before I took on the vaccine area of responsibility, and during the early stage of the pandemic, my primary focus was ensuring the CMO office had the resources, infrastructure and appropriate mechanisms in place to respond to the early stages of the pandemic. This included liaising with NHS Colleagues, officials in Welsh Government, Public Health Wales and with the equivalent personnel across the four nations to understand the extreme challenge facing the UK, its likely implications and the preparations that would need to be made, whilst in parallel building the infrastructure of an already extremely short-staffed CMO team.
33. There was a need for public health scientific and clinical specialist skills, and as the CMO team had few resources as well as sickness issues, I recruited and secured fixed term contracts for key individuals with appropriate expertise to assist the Chief Medical Officer for Wales in advising on an early pandemic response. These included a retired regional epidemiologist who had experience of SARS outbreak in China, a previous Senior Medical Officer in Health Protection who had previously worked with Welsh Government and a Consultant in Public Health Medicine who had been a Senior Policy lead in Welsh Government in the past. A (just) retired Chief Environmental Health Officer was also invited to return and a Senior Nurse in

infection prevention and control, brought into Welsh Government to support the Chief Nursing Officer, also worked closely with us.

34. I established daily initial multidisciplinary meetings of key, clinical and public health professionals, expert advisors, and civil servants as is standard practice in emergency response procedures ('battle rhythm'). This was to ensure the CMO office had staff, infrastructure and appropriate mechanisms to respond to the early stages of the pandemic.
35. I established, and participated in, an on-call out-of-hours rota for the CMO Office, for evenings, weekends, bank holidays, with a civil servant and clinical lead enabling 24-hour cover for advice to the Welsh Government, with the CMO, Deputy Chief Medical Officer (DCMO) Chris Jones and myself rostered to support rota participants, on a 1 in 3 rotation for evenings and weekends as Senior cover.
36. In accordance with standard emergency planning frameworks, I established a 'Silver' level advisory group to give early technical, clinical and public health advice to the Chief Medical Officer, who in turn was giving advice to Ministers and to the Director General Health and Social Services Group (HSSG) /Chief Executive of the NHS in Wales. They in turn were advising the NHS Chief Executives of Wales' Health Boards and Trusts. The Technical Advisory Group mechanisms later established by Dr Robert Orford superseded the need for the technical advisory aspects of this Silver group, but it continued for the purposes of information sharing for those working in the office of the CMO.
37. On 5 March 2020, Andrew Goodall, Director General of Health and Social Services and Chief Executive of the NHS in Wales wrote to the NHS organisations in Wales outlining the key roles of Senior Civil Servants in the Welsh Government in the response to Covid-19. In this letter he confirmed that I would be providing dedicated clinical expertise in my role as Professional Advisor to the Chief Medical Officer. A copy of this letter is exhibited in **GR/01 - INQ000226148**.
38. I was formally seconded to the Welsh Government from Public Health Wales in April 2020, due to the increasing workload and ongoing staffing issues in the depleted Chief Medical Officer's office.
39. In recognition of the effects of the isolation of lockdown and subsequently shielding on the wellbeing of older people in Wales, I assisted in designing a programme with Age Concern Cymru and Welsh Government officials from the Health and Social Services Group and submitted a Ministerial Advice note which led to a decision to support the 'Friend in Need' ('Ffrind mewn Angen') Programme of telephone befriending and practical support. I chaired the Project Board that oversaw the programme, involving the Older People's Commissioner for Wales, patient representatives and Age Concern.

40. I also worked with Public Health Wales, the third sector and Welsh Government officials to design bespoke communications for asylum seekers and refugees on how to access help during lockdowns.
41. By this time, I had also become Chair of the Convalescent Plasma Board for Wales, at the request of the Chief Pharmaceutical Officer, reporting back to the Chief Medical Officer for Wales. We worked closely with National Blood and Transplant services in Wales and also linked to the Mayo Institute, who were leading this work in the United States, as well as the other UK nations.
42. In addition, regular international learning meetings and WHO webinars were held. These included joint online meetings with the United States Communicable Disease Surveillance Centre, Atlanta, Public Health England (now United Kingdom Health Security Agency), Public Health specialists from Scotland, Northern Ireland, and Israel. I also attended WHO online meetings with epidemiologists from Italy, where the pandemic had hit earlier.
43. Resource limitations meant that until late Spring 2020 I operated with only ad hoc support for personal administration of approximately one day a week from a member of the Research grants team in CMO's division. Full time PA arrangements were in place by January 2021. I was assigned lead trainer for Public Health Registrars, on behalf of the CMO. These registrars were on training placements with CMO at various times during the pandemic (arranged pre-pandemic) and these assisted with the Covid-19 response also, for example by attending meetings with the CMO or myself, taking notes, or writing briefings on evidence and so on. We had very few civil servant colleagues during this period so they provided surge capacity.

My role and responsibilities in respect of the delivery of the Covid-19 vaccinations in Wales between April 2020 and April 2021.

44. In April 2020 the Strategic Recovery Group (Health) was established of which I was a member. The terms of reference of this group which I exhibit as **GR/02 - INQ000384342** included developing an overarching strategy for the recovery phase for Wales, with a primary focus on the health implications. One of the ways of doing this was to look at what countermeasures could be used to control the re-emergence of Covid and to reduce harm and loss to life. In a meeting on 7th April 2020, the question was asked 'what would a Public Health Wales mass vaccination plan look like?' I exhibit some actions to take forward from this meeting as **GR/03 - INQ000384341**.
45. In a UK Covid 19 National Health Sector Call on 18 April 2020, at which the Chief Medical Officer and I were both present, we requested earlier notice of alerts and cited the example of

an alert received at 5:00pm on a Friday afternoon on PPE contingencies. We also requested further information on options for future vaccines and specifically if there was a UK strategy in place. I exhibit the note from this meeting as **GR/04 - INQ000384499**. Following that meeting I was asked by the Permanent Secretary's Office to provide a briefing on the current position thinking in Wales on the issue of Covid-19 vaccines. I exhibit the briefing as **GR/05 - INQ000429176**. This was my first official involvement with the Wales Covid-19 vaccination programme and my involvement gathered momentum from there.

46. I began to liaise with the Head of Vaccine Preventable Diseases (VPDP) in Public Health Wales, Dr Richard Roberts. His role in Public Health Wales mirrored to some extent what I would be doing in Welsh Government towards the Covid-19 vaccination programme, so his skill and experience provided a critically relevant input into the initial set up of the vaccination programme. The Vaccine Preventable Diseases in Public Health Wales holds a leadership role which includes;

- a) System and strategic leadership of immunisation programmes in Wales.
- b) Support Welsh Government with scientific evidence, clinical advice and epidemiological intelligence to support vaccine policy development.
- c) Support for Health Boards, Trusts and Directors of Public Health to strategically manage services to achieve high uptake of vaccination and local control of vaccine preventable diseases (VPD).
- d) Support clinical services providing immunisation with guidance, training resources (including live Question and Answer webinar sessions for professionals) advice and surveillance data to support the optimal delivery of services, in particular primary care.
- e) Collaborate with other UK PH agencies in the improvement and monitoring of VPD and immunisation programmes.
- f) Provide expert input into UK groups and international networks including JCVI, PHE and WHO working groups to support development of immunisation programmes.
- g) Contribute to the evidence base supporting control of VPD through research and publication.
- h) To develop and maintain long-term surveillance of Vaccination programmes and VPD including coverage, impact, effectiveness and equality.
- i) Produce public information to support informed consent in web and physical format.

47. By 30 April 2020, I had been identified on the CMO Covid-19 Response Team as responsible for Vaccination/Immunity. I exhibit a flow chart of the roles and responsibilities of the response

team as **GR/06 - INQ000428924** and on 16th May 2020 I confirmed via email, which I exhibit as **GR/07 - INQ000428925**, that I was happy to lead on Covid-19 vaccines, which was subsequently confirmed in the Silver Group meeting on 18th May 2020, which I exhibit as **GR/08 - INQ000428926**.

48. A scoping meeting was held on 2 June 2020, to discuss future arrangements for Covid-19 vaccination in Wales. This was facilitated by the Vaccine and Preventable Diseases and chaired by the Deputy Director of Public Health Services, Public Health Wales. I attended for the Chief Medical Officer in Wales, along with Executive Directors of Public Health from Health Boards. There were discussions around UK plans as well as membership and governance of a future required Wales Board. I exhibit minutes of the meeting as **GR/09 - INQ000428942**.
49. By 5 June 2020, the Chief Medical Officer had agreed that there should be a Wales Covid-19 Vaccination Board with close linkages to the JCVI. The purpose of establishing the board was to provide a forum for Welsh Government, NHS partners, Vaccine Preventable Diseases Programme Public Health Wales and stakeholders to develop, plan and implement Covid-19 vaccination delivery for Wales. I was asked to chair the board. Andrew Goodall was content with this arrangement and keen for the retention of policy and programme oversight within Welsh Government, which I exhibit as **GR/10 - INQ000428927**.
50. At this stage I was therefore acting as Senior Responsible Owner for the Covid-19 Vaccination Programme for Wales with its incumbent responsibilities, that included ensuring the preparation, provision and input of advice into any key decisions taken by the Welsh Government in relation to the programme. During this period, I was accountable to Dr Andrew Goodall as the Chief Executive of the NHS in Wales and the Director General for Health and Social Services Group either directly or through his Deputy Simon Dean as well as to the Chief Medical Officer Wales. I remained in this position until the end of April 2021, although I did not have a letter of appointment describing my role.
51. As acting Senior Responsible Owner (according to the Infrastructure and Projects Authority) and explained in exhibit **GR/11 - INQ000429184**, I acted as the owner of the project's business case, the primary risk owner, and I was responsible for ensuring that the project met its objectives, delivered the required outcomes, and realised the required benefits. This not only meant monitoring progress on the project, but also the context within which the project would deliver. A senior responsible owner is the owner of the business case and accountable for all aspects of governance.
52. The government standard for project delivery, which I exhibit as **GR/12 - INQ000429183** also explains that responsibilities include, but are not limited to:

- defining and communicating the vision and objectives in line with policy or strategic intent
 - ensuring a real policy or business need is being addressed
 - assuring ongoing viability
 - engaging key stakeholders
 - providing the team with leadership, decisions and direction
 - ensuring the delivered solution meets the needs of the business and stakeholders.
53. Although not issued with an official letter of appointment, as acting Senior Responsible Owner for the Covid Vaccination Programme in Wales, it was the two documents exhibited in the preceding two paragraphs that informed my approach to the role of vaccine delivery, and that underpinned my decisions when building the structures and vehicles for the Wales Covid Vaccination Programme.
54. I attempted to form a small core team within Welsh Government to help coordinate the vaccination planning and infrastructure. Constraints included difficulties in identifying staff who were available to assist due to many having already been co-opted into response and programmes such as 'Test Trace and Protect', and difficulties with recruiting externally in a pandemic. The availability of surge capacity workforce was also a key pressure to progress the vaccination effort for regional Senior Responsible Owner's in Health Boards initially.
55. In July 2020 a programme manager with experience at senior level within NHS Wales joined me 'on loan' from the NHS Collaborative, followed in August 2020 by an experienced civil servant with previous service to Cabinet Office. She was allocated to the programme by a civil servant who led the immunisation policy division for CMO Wales, which consisted of two other individuals. There was no director grade civil servant in the Chief Medical Officer office at that time.
56. I worked to ensure that the programme governance structures to oversee the smooth and rapid roll out of the vaccination programme were established and embedded. I also tried to ensure that accurate records of all discussions, decisions and risk logs were kept. Regular updates were given to Director General Health and Social Services Group, Chief Executive of the NHS in Wales, Chief Medical Officer for Wales and Ministers, who were copied into all Board meeting minutes and who sometimes attended meetings. As an example, I exhibit an update I provided following a four nations meeting as **GR/13 - INQ000429059**. The programme sat within the Welsh Government's broader strategic and policy response to the Covid-19 pandemic as well as the wider UK Government Vaccine Task Force in the Department of Business, Energy and Industrial Strategy and the UK Covid-19 Vaccine Deployment Board.

The latter allowed for UK BEIS advising of current planning parameters, likely characteristics and availability of candidate vaccines procured by the Task Force and gave opportunity to explore how each devolved nation would deploy through its NHS infrastructure.

57. The first full meeting of the Wales Covid-19 Vaccination Board was held on 18 June 2020. At this meeting it was agreed that the national expanded influenza planning group would be integrated into the Wales Covid-19 Vaccination Board. Discussions focused on work areas and the workstreams that needed to be established to advise the Wales-wide delivery system and the Wales Covid-19 Vaccination Board. This mirrored the UK programme approach. Some UK-led workstreams, for example vaccine effectiveness, safety and overall prioritisation, were understood as being led for all at UK level by MHRA and JCVI, so were not duplicated. The emphasis of the workstreams was to provide solutions that could be applied by all concerned with delivery. I will outline these in paragraph 64. I exhibit the draft Terms of Reference of the Wales Covid-19 Vaccination Board as **GR/14 - INQ000428949** (initial name included “Programme” which was later dropped for ease) and the initial minutes as **GR/15 - INQ000428933**. Once established the Wales Covid-19 Vaccination Board existed until June 2021; at which time its functions were transferred to the Wales Covid-19 Vaccine Delivery Programme Board which I have addressed further at paragraph 81 below. The structure of the original Wales Covid-19 Vaccination Board was re-configured in November 2020, which I have addressed further in paragraph 79 below, when the format of the meeting was divided into Part A and Part B. Part A of the meeting was for all members including stakeholders and Part B of the meeting was for those involved in vaccine deployment or central enabling functions, whilst there was a stakeholder and deployment element of the meeting, both elements fell under the umbrella of the Wales Covid-19 Vaccination Board and remained like this until its functions were transferred in June 2021.
58. I ensured that the Wales Covid-19 Vaccination Board included representatives from all the seven Health Boards in Wales (Executive Directors of Public Health or designated lead), Wales NHS Trusts – the Ambulance service, Public Health Wales and Velindre (Cancer, Blood and Transplant Services), Digital Health and Care Wales and the Welsh NHS Shared Services.
59. I also included representatives from local government (Welsh Local Government Association) as well as Welsh Government Professional leads including Chief Pharmaceutical Officer, Health and Social Services civil servants, civil servants from Resilience, Workforce, Communications and Digital teams, as well as representatives of Professional groups and Third sector umbrella groups representing patients.

60. The purpose of the Wales Covid-19 Vaccination Board was to assure system readiness in the deployment of Covid19 vaccines to the population of Wales by providing leadership and oversight to support the planning, coordination, and management of operational delivery.
61. I invited different representatives to attend the Wales Covid-19 Vaccination Board to ensure that as far as possible the views of a wide range of stakeholders would be considered and those parties interests represented, for example prisoners which I exhibit confirmation email as **GR/16 - INQ000428930**, and the Technical Advisory Group, Welsh Government, Social Services and Statistical Modelling which I exhibit as **GR/17 - INQ000428932**.
62. The vaccination programme's mission was to be carried out as defined, but in accordance with JCVI guidance on prioritisation of vaccine roll out to at-risk groups within the population, based on age or other clinical factors or vulnerabilities. Ensuring that the JCVI advice informed planning and prioritisation parameters for the programme was achieved through a Wales co-opted member (Anne McGowan, Consultant Nurse, Vaccine Preventable Diseases Programme Unit Public Health Wales), and in due course a Welsh Government official as observer. As stated in the Welsh Government's Module 4 corporate vaccine statement M4/WG/01, Anne McGowan was a co-opted member for Wales for the JCVI, and though not a voting member, she made a valuable contribution to the discussion and had a responsibility to reflect the needs and perspectives of the Welsh vaccination system to influence decision making. JCVI decisions were considered to ensure equity of access with regular updates provided to stakeholders including the general public.
63. The ethos of the Welsh approach was '**national enabling, local delivery**'. Geographical delivery across Wales, within the parameters of Board direction was devolved to the seven Health Boards covering our population in line with their 'peacetime' (non-pandemic) lead role for delivery of vaccinations.
64. There were several '**Once for Wales**' workstreams that served as subgroups to the Wales Covid-19 Vaccination Board. These were:
- i. **Programme Workforce** – jointly chaired by Helen Arthur, Director Workforce Lead Health and Social Services Group Welsh Government and Julie Rogers, Health Education and Improvement Wales. The objective of this subgroup was to develop and implement a model for the operational delivery of any successful vaccine(s) in Wales, including the strategic approach to staffing, training and clinical governance, with enabling agreements and contracts. It liaised with all Health Board Trust and Chief Executives to ascertain the support needed, involving social care partners, primary care, and workforce directors of Health Boards and Trusts in the NHS in

Wales. I exhibit the programme workforce briefing paper as an example as **GR/18 - INQ000429096**.

- ii. **Training & Healthcare Professional Information** – jointly chaired by Anne McGowan and Clare Powell at Public Health Wales. Established to develop a range of Covid-19 vaccination training resources and courses to aid operational deployment, consider the training needs of an expanded workforce including volunteers and pathways for all levels of knowledge.
- iii. **Vaccine Logistics** – chaired by Andrew Evans (Chief Pharmaceutical Officer) and Lois Lloyd (Lead pharmacist Betsi Cadwalader University Health Board. This subgroup was established to consider the logistics of the Covid-19 vaccination delivery programme, alongside the annual influenza vaccination programme. Local Covid-19 Vaccination Planning & Delivery groups were established at Health Board level. I later ensured that this sub-group met with the military planners that were engaged by Welsh Government and that all additional relevant interested parties attended that meeting, which I exhibit as **GR/19 - INQ000429030**.
- iv. **Data, Epidemiology (surveillance, uptake), and Digital** - chaired by Dr Richard Roberts (Director of Vaccine Preventable Diseases, Public Health Wales, now retired) and Dr Simon Cottrell, (Senior Epidemiologist and vaccine equity data lead in Vaccine Preventable Diseases, Public Health Wales), with Gary Bullock and Gill Davison (both now retired) from National Information Service for Wales (now Digital Health and Care Wales). This group was comprised of representatives from Public Health Wales, National Information Service for Wales (now Digital Health and Care Wales), Welsh Government, Health Boards and Swansea University Statistical Modelling. I exhibit as an example, minutes of the meeting as **GR/20 - INQ000428970** and draft Terms of Reference as **GR/21 - INQ000428972** The objectives of the subgroup were to:
 - Produce advice on vaccination data capture systems and to develop systems for onward transmission of data from vaccination settings to healthcare records.
 - Generate an all-Wales Covid-19 dataset.
 - Facilitate identification of individuals eligible for vaccination and call/recall to vaccination.
 - Put in place full vaccination surveillance.
 - Develop and carry out national studies of vaccination effectiveness.

- Facilitate provision of data from Wales to relevant UK surveillances, adverse events monitoring and analytical studies.
- v. **Primary Care** – chaired by Alex Slade and Paul Labourne (Health and Social Services Group, Welsh Government) and Dr Liam Taylor (Aneurin Bevan University Health Board). This group included Welsh Government primary care leads and Health Board Clinical Directors for Primary Care representatives. The group worked on issues of vaccine consent for those without capacity (with the Social Care Group) and aspects of primary care vaccination including liaison with GPC Wales. Welsh Government Primary Care leads negotiated rates for Covid-19 vaccination for GPs and the Community Pharmacy sector.
- vi **Social Care Home and Domiciliary Care** – chaired by Robert Brandon (Health and Social Services Group, Welsh Government), and involving Local Authority Social care leads and Social Care Wales. The purpose of this group was:
- to outline actions and options to facilitate and support maximising flu vaccine and Covid-19 vaccine amongst social care workers, vulnerable clients and carers.
 - To understand the challenges of delivery the flu and Covid-19 vaccination programmes in social care settings.
 - To support maximum uptake of vaccines in these target groups.
 - To work closely with the communications subgroup to understand what communication activity was necessary to help promote take up of vaccine and dispel myths around the programme for the social care sector.
- vii **Communications and Media** – chaired by Doug Nicholls (Welsh Government) and Hannah Lindsay (Public Health Wales) The objective of this group was to deliver an integrated communication strategy for healthcare professionals and the public, to provide information about vaccine safety and efficacy, encourage uptake and minimise disinformation. The communications subgroup regularly fed into Wales Covid-19 Vaccination Board , including daily media monitoring reports, which I exhibit as **GR/22 - INQ000429061**.
- viii **PPE/Consumables** - chaired by David Goulding Health Emergency Planning Unit, Health and Social Services Group Welsh Government and Mark Roscrow NHS Shared Services. The purpose of this group was to explore and co-ordinate arrangements for the storage, supply and distribution of PPE and consumable products e.g. syringes, needles and vaccine diluents for the Covid-19 vaccination programme and to ensure that these

arrangements met the need to deliver the Covid-19 vaccination programme. I exhibit the Terms of Reference as **GR/23 - INQ000399852**.

65. Public Health Wales took on its normal 'business as usual' functions and therefore a Public Health Pharmacist, Gareth Holyfield, undertook the role of development and issuing of Patient Group Directives for the administration of the vaccines. Vaccine Preventable Diseases Programme led on the production of information regarding vaccines for health care professionals and acted as a repository for all public facing communication materials, with regularly updated websites and links. Dr Christopher Johnson assumed the role of Acting Director of Vaccine Preventable Diseases at Public Health Wales when Dr Richard Roberts retired. Infection prevention and control was dealt with at individual Health Board/Trust level. There was no requirement for an additional vaccine sub-group, since this remained within normal governance arrangements for the NHS in Wales.
66. I attended any subgroup that I judged as needing my input or at subgroup request, but I was not free to be a regular standing member of many, because of Senior Responsible Owner commitments for the overall programme. Subgroups were meeting frequently and having joint meetings and discussions, which would often be escalated to the Wales Covid-19 Vaccination Board for decision or advice. For example, the data and epidemiology group sought my input as to what vaccine surveillance information I, the Chief Medical Officer, the Health and Social Services Group, the Minister and the public would want to see daily prior to drafting a paper that would be considered by the Board.
67. The use of subgroups enabled the Wales Covid-19 Vaccination Board to be aware of emerging issues. For example, on 25 August 2020, it was recorded that there was a significant risk of insufficient freezer storage being available to store a vaccine requiring a temperature of -70 degrees centigrade, should such a vaccine receive regulatory approval. The mitigating action was 'assess current and identify additional sources of appropriate freezer capacity', with Welsh Blood and Transplant Service being a possible option to explore. This led to solution by liaison with the latter. Additionally, from the communications subgroup there emerged a communications workshop, which took place on 21 August resulting in the integrated communications strategy for the Covid-19 vaccination programme under the auspices of the Keep Wales Safe branding. I exhibit the Wales Covid-19 Vaccination Board programme summary status which includes the communications update as **GR/24 - INQ000428981**.
68. I liaised closely with the Knowledge and Analytical Services Division, Welsh Government, Statistical modellers and the Technical Advisory Group – especially the Behaviour and Attitudinal Subgroup. I exhibit the Covid-19 Vaccination Deployment Programme Governance as **GR/25 - INQ000429178**. This supported Welsh Government and Public Health Wales

Communication teams and campaigns and helped with the application of insights from behavioural science for the Wales Covid-19 Vaccination Board . This was to ensure that insights from behavioural science informed policy, implementation, and delivery of the Covid-19 vaccination programme, as well as engagement with other stakeholders to share thinking on the key narrative surrounding anti-vaccine issues and to link with other workstreams. I attended this Technical Advisory Group subgroup along with Welsh Government Communications leads for nine meetings starting from 1 September 2021 to 11 May 2022, for discussions and advice on vaccine hesitancy. I exhibit the Terms of Reference as **GR/26 - INQ000428987**.

69. I had ensured that the Wales Covid-19 Vaccination Board had lines of reporting and so the subgroups regularly reported, identifying current actions, risks and issues and support needed. They highlighted where, for example, national guidance was required, or additional training, extra funding needs and additional human resource. All subgroups had in their mind a 'Once for Wales' approach to delivery of their objectives. As an example, I exhibit the Covid Vaccine Consumables / PPE supplies subgroup overview, risks and current actions document as **GR/27 - INQ000428982**.
70. As Chair of the Wales Covid-19 Vaccination Board, I received regular updates from each of the Health Boards. My programme manager and I facilitated Health Boards' emergency plan testing enabling troubleshooting and identification of any foreseeable problems at local level. Each Health Board led their own tabletop exercises, which other Health Boards invited as observers to make notes, and capture comments for a post exercise debrief for mutual learning and working through issues together. The updates provided an overview, current actions, risks, and issues and perhaps critically, any support that was needed. It also meant that when Health Boards drew up their delivery plans, following Tabletop Deployment Exercises, the Wales Covid-19 Vaccination Board had sight of these alongside all other stakeholders, and therefore there was peer review of the same. I exhibit as an example an update from the Health Boards as **GR/28 - INQ000429141**.
71. The table-top exercises occurred between July and September 2020. I worked with the Directors of Public Health in Health Boards who each had oversight of their own area table-top deployment exercises, whilst the Wales Covid-19 Vaccination Board had oversight of the whole. They were designed to test mass vaccination models at scale and care home delivery models. Testing and enhancing Local Health Board plans in the joint all-Wales workshops continued throughout the summer of 2020.
72. In respect of the above, I ensured that all Health Boards received central planning parameter guidance and templates, developed by my programme manager to assist with their local

planning, ensuring a consistency with horizontal alignment across all Health Boards and resolution of any remaining issues and questions. We produced a 'live' planning parameters web-resource updated continually with any new developments such as advice from JCVI, which I exhibit as **GR/29 - INQ000401611**.¹

73. The Wales Covid-19 Vaccination Board also generated an issues log and risk register so that these could be collated, allocated and then addressed by the appropriate individual, subgroup, or board, as applicable. As an example, I exhibit a draft Issues log as **GR/30 - INQ000429025**.
74. I ensured that the Senior Responsible Owners for the Covid-19 vaccination programme were designated in each Local Health Board in the NHS in Wales, to be accountable for the programme governance and delivery of the Covid-19 vaccination programme for their own Health Board populations. Often this was the Executive Director of Public Health or another Executive team member.
75. The need for accurate record keeping and logging issues/decisions in a fast moving, technical environment meant that the Director of Vaccine Preventable Diseases, Public Health Wales, kindly allocated a member of their team with previous emergency response logging and administrative skills full time to assist our core Welsh Government team from September 2020. They assumed Secretariat for the Wales Covid-19 Vaccination Board and some subgroups also.
76. The programme was complex and unprecedented. There had not been many population-wide mass vaccination programmes in the UK. The efforts to conquer smallpox through mass vaccination in the 19th and 20th centuries had led to global eradication of smallpox in 1980. Then in 1958 the NHS delivered its first mass vaccination programme, with everyone under the age of 15 years vaccinated against polio and diphtheria. This contributed to polio being eradicated in the European region in 2002. Covid- 19 was causing high mortality and morbidity as well as threatening to overwhelm the NHS. Clearly this Covid-19 vaccination campaign needed faster results.
77. It involved the need for detailed pharmaceutical logistics and supply chain management particularly as the initial Pfizer vaccine needed to be stored at -70C before being thawed out and could then only be moved limited times within the cold chain before being discarded. We had never used a vaccine with these requirements before in the UK Health services. Planning and operational aspects needed to be based on the advice of clinicians and stakeholders (patients, clients and representing organisations), to ensure vaccine equity.

¹ This exhibit has been provided by another material provider to the UK Covid-19 Inquiry and is a duplicate of a document held by the Welsh Government and disclosed to the UK Public Inquiry.

78. The Chief Pharmaceutical Officer for Wales (Andrew Evans) and his small Welsh Government team joined the core Covid-19 vaccine team. Together with Heads of Pharmacy in Health Boards they worked in depth on logistics, storage, and readiness for pharmaceutical aspects of deployment. The Chief Pharmaceutical Officer was the Welsh Government lead for liaison with the Business Energy and Industrial Strategy UK Vaccine task force on supply. Lois Lloyd later joined us in Welsh Government as his Deputy Chief Pharmaceutical Officer Wales.
79. The vaccine programme was rapidly evolving, and I continuously liaised with vaccination leads in Welsh Health Boards, and Directors of Public Health, NHS Trusts (Public Health Wales, Velindre NHS Trust and Wales Ambulance Trust) and Welsh Government civil servants to ensure that the Welsh Covid-19 Vaccination Programme had the necessary infrastructure and governance for future delivery. As a result of this, on 12 November 2020, we divided the meetings of the Wales Covid-19 Vaccination Board (which, as described above, had been established in June 2020) into a Part A meeting (for all members including stakeholders) and a Part B meeting (for those involved in vaccine deployment or central enabling functions). Part A of the meeting became known as the meeting of the "Wales Covid-19 Vaccination Stakeholder Board" and Part B of the meeting became known as the "Wales Covid-19 Vaccination Deployment Board". All members (Part A and Part B) continued to meet frequently in the run up to deployment, but practically this meant that stakeholders could be released whilst Health Boards focused on detailed operational deployment issues.
80. The decision to divide the Wales Covid-19 Vaccination Board into a Part A and Part B at this stage were for reasons of practicality, where those involved in preparing for operational deployment stayed on to discuss for example detailed plans and parameters that were not yet in the public domain. I exhibit the meeting action notes where this was discussed at **GR/31 - INQ000429154**
81. In June 2021 the functions of the original Wales Covid-19 Vaccination Board were transferred to a newly re-configured and renamed, smaller, strategic Wales Covid-19 Vaccination Delivery Programme Board, with a new NHS chair, Carol Shillabeer, who had been the vice-chair for the Wales Covid-19 Vaccination Board which I had chaired. Stakeholders were no longer part of this re-configured Wales Covid-19 Vaccination Programme Board and so a Stakeholder Forum replaced the Part A of the Wales Covid-19 Vaccination Board. I exhibit at **GR/32 - INQ000498702** the action notes of the Covid-19 Wales Vaccination Programme Board minutes where Carol Shillabeer explained the next steps for the programme structure and governance.

82. In the run up to the launch of the first vaccine in December 2020, the Wales Covid-19 Vaccination Programme's aim, adopted by our Wales Covid-19 Vaccination Board with representation from all NHS Health Boards and Trusts, and communicated widely to those deploying was:

**'To vaccinate as many as possible, as swiftly as possible, safely
with minimum vaccine waste'.**

83. The 'vaccine waste' reference was important as we were concerned that our allocation from UK Government to Wales may not be sufficient, since the Barnett formula, upon which proportions allocated for each devolved nation was based, derived from whole population estimates, rather than the JCVI identified 'at-risk' groups by virtue of age/clinical factors. We considered the proportion of those who would need the vaccine in the initial four JCVI prioritised groups exceeded our Barnett percentage allocation for Wales, so that at the beginning of the immunisation programme we were very anxious that every dose of vaccine must count in the fight against Covid-19.
84. Allocations of vaccines received were administered to the priority groups in the order identified by the JCVI. It was a concern raised to the Wales Covid-19 Vaccination Board based on statistical advice from advisors in Public Health Wales and Welsh Government that had there been full uptake by the Welsh population there may not have been sufficient vaccine for all, however we continued to encourage high uptake in Wales in the hope that the UK Government Taskforce would be able to secure additional supplies in time to meet our need. This was against the backdrop of knowing there were other vaccines such as Moderna in later stages of development and authorisation. We had also discovered that with careful handling and preparation we could extract an additional dose from most Pfizer vials issued. This provided another mitigating factor to our supply pressures. I return to this point below, in paragraph 88).
85. If we ran out of the Covid-19 vaccine in one Health Board area, we enabled loans of vaccine between Health Boards in Wales until new supplies arrived. As it was, we did not run out of Covid-19 vaccine in Wales, but we had no spare vaccine and therefore no buffer had there been any interruptions of supply, for example if the UK Government did not receive an expected delivery, or if a batch of vaccine was not released to us (for example, if additional checks were required).
86. As a result, we were transparent in publicly reporting our wastage and 'vaccine unable to be used' (because of quality concerns for example) figures at Health Board and national levels, with each Health Board and delivery site made aware of their and their fellow organisations performance in more detail. This approach kept our wastage at extremely low levels

throughout our roll out. I exhibit as an example of the stock and distribution of Covid-19 vaccines for Wales at **GR/33 - INQ000492059**.

87. I believe Wales raised these supply share concerns in conversations between the four nations Statisticians group and at the four nations Health ministerial leads meetings, I understand an additional allocation of the national share would have been required to meet our needs for completion of these priority groups at full uptake. Exhibit **GR/34 - INQ000396131** refers.
88. In accordance with the manufacturers and MHRA guidelines, the vaccine required dilution before use and initially each Pfizer vaccine was to be delivered from five dose vials. I exhibit draft action notes of the Wales Covid-19 Vaccination Board as **GR/35 - INQ000429032** confirming this information. On 21 December 2020 the Chief Pharmaceutical Officer for Wales Andrew Evans sent me an email explaining that because of variation in the manufacturer's fill volume of some vials it may be possible to draw six doses rather than five from some batches of the vaccine, which I exhibit as **GR/36 - INQ000429089**.
89. This was discussed with MHRA, and their advice, which we relayed to our Board and Health Boards, was that drawing a sixth dose should be done on a case-by-case basis and only by experienced vaccinators. This guidance was employed by all Health Boards in Wales and further contributed to maximising Wales' allocation.
90. On 31 December 2020, the MHRA updated the UK 'guidance for healthcare professionals' on obtaining a sixth dose from a vial, which I exhibit as **GR/37 - INQ000429094**. The guidance advised that to extract six doses from a single vial, low dead-volume syringe and/or needles should be used. The change to six doses reflected the practice that Wales had discovered and was already employing.
91. I had also worked closely with the Chief Pharmaceutical Officer for Wales on Covid-19 vaccine procurement leading to an Agency Agreement with Business Energy and Industrial Strategy for the direct supply of Covid-19 vaccines.
92. The UK Government led on the work on initially funding and procuring vaccines for the UK via the Department for Business, Enterprise and Industrial Strategy. Arrangements for the direct procurement of Covid-19 vaccines for Wales were made in August 2020 and advice cleared by the Minister for Health and Social Services was set out in MA/P/VG/2623/20 which I exhibit as **GR/38 - INQ000116615**.
93. The arrangements for vaccine procurement to be led by Business Energy Industrial Strategy was through an agreement made under section 83 of the Government of Wales Act 2006. Section 83 enables arrangements to be made between the Welsh Ministers and any relevant authority for functions of one of them to be exercised by another.

94. Good progress had been made in Wales in securing appropriate facilities and equipment to receive, store, prepare and administer vaccines in a safe and controlled manner. However, there were significant concerns raised about receiving the Pfizer vaccine as planned via the original Public Health England dissemination route due to difficulties associated with cold storage, the vaccine's stability, the number of times the product can be moved safely and considerations for linked consumables. Advice was sent from the Chief Pharmaceutical Officer Wales for my approval, to clear a Memorandum of Understanding to receive the vaccine directly from the manufacturer Pfizer.
95. Together with Peter Jones, Deputy Director from Health and Social Services Group, I cleared the contents of the Memorandum of Understanding and the Ministerial Advice MA/VG/3993/20 on this, which I exhibit as **GR/39 - INQ000337320** and **GR/40 - INQ000361642**. The recommendations were sent to the Minister for Health and Social Service on 27 November 2020 for approval. The Minister was content with the contents of the Memorandum of Understanding save for certain provisions which required eight weeks' notice for delivery sites, and four weeks' notice for quantities. I exhibit the Minister's response as **GR/41 - INQ000410021**.
96. The Minister was provided with a further update to the query raised, as above, noting the Welsh Government was in a position to provide the location of delivery sites to the Department for Business, Energy and Industrial Strategy within those time frames, which I exhibit as **GR/42 - INQ000410038**. The Memorandum of Understanding between the Welsh Government and Business Energy and Industrial Strategy in respect of direct delivery of the Pfizer vaccine was accordingly agreed.
97. I established the Vaccine Clinical and Prioritisation Group (VCAP) and the Vaccine Equity Committee (VEC), whose functions I will discuss later in this statement.
98. Together with Dr Richard Roberts, I commissioned the Data and Epidemiology subgroup to develop vaccine surveillance capture mechanisms and daily reporting system from National Wales Information Service (NWIS - which later became Digital Health and Care Wales (DHCW)), and the Public Health Wales Vaccine Preventable Diseases Programme Surveillance team. A single electronic platform for all vaccinators to record details of vaccination activity and recipients was required, so that whether vaccination occurred in a GP surgery, leisure centre, pharmacy, hospital, church hall or nursing home, it would be recorded in one place in a unified way, and our system updated in as near to real-time as possible. Gill Davidson from National Wales Information Service led her small team on this vital work. This then enabled vaccination coverage updates from Dr Simon Cottrell, Malorie Perry and team, from Vaccine Preventable Diseases, showing progress, or need to further focus on area, age

– group, gender, at – risk cohort (as defined by JCVI), deprivation, ethnicity, other factors resulting in client vulnerability and combinations from this list.

Liaison between UK Nations

99. The governments of all four nations had in the initial phase committed to working together to achieve a consistent approach to vaccine deployment across the UK.
100. As the Senior Responsible Owner for the vaccination programme in Wales, I attended regular four-nation strategic UK group meetings for the Covid-19 vaccinations programme, this included the UK Covid and Influenza Deployment Board.
101. On the morning of the Oxford - Astra Zeneca and the Pfizer-BioNTech vaccine launches, the four national Senior Responsible Owners were called in to an early morning telephone conference call with the then Prime Minister Boris Johnson, together with our CMOs and Health Ministers, and the then Secretary of State for Health Matt Hancock.
102. The four national Senior Responsible Owners met regularly. I represented Wales, England was represented by Emily Lawson, Scotland by Derek Grieve and Northern Ireland by Naresh Chada. Initially Emily Lawson chaired, followed in time by rotation of the Chair. The Secretariat to Emily Lawson kept meeting notes. I verbally briefed the Chief Medical Officer for Wales and Health and Social Services Group, Welsh Government at least weekly following the meetings.
103. These meetings began a weekly rhythm from 9 December 2020, and I was continuing to attend up to 16 January 2022. My role and responsibilities included providing regular updates and sharing any new information pertinent to the vaccination programme in Wales with the Chief Medical Officer for Wales and Director General, Health and Social Services Group/Chief Executive of NHS Wales following these meetings. Before establishment of the four nations Senior Responsible Owners group, Wales had already been invited to the monthly meetings of the UK Flu and Covid 19 Vaccination Deployment Board, membership of which continued. The first specific four nation vaccination Senior Responsible Owner meeting in my diary was chaired by Clara Swinson, Department of Health and Social Care, on 20 July 2020.
104. An example of a Four Nations Meeting that I attended, and my involvement can be found in the minutes of the meeting held on 10 February 2021 which I exhibit as **GR/43 - INQ000412273**.²

² This exhibit has been provided by another material provider to the UK Covid-19 Inquiry and is a duplicate of a document held by the Welsh Government and disclosed to the UK Public Inquiry.

105. I provided an update by, as did my counterparts on the vaccine programme and vaccine statistics. I noted that Wales was continuing with the AstraZeneca roll-out largely through primary care and confirmed that a total of 345,000 vaccinations had been completed as of 9 February 2021.
106. Similarly, on 27 October 2021 I attended and chaired the four nations Senior Responsible Owners meeting and provided an update to my counterparts for the vaccination programme for Wales. I noted that in Wales we were trying to prioritise care homes, severely immunocompromised individuals and children that require two vaccination doses. I also provided percentages of vaccinations undertaken in care homes, care home workers and individuals aged 16–17year olds. I invited position statements and sharing of any concerns/issues. I exhibit minutes of the meeting as **GR/44 - INQ000412387**.³
107. I was also part of a WhatsApp group “Vaccine SROs” with the other four nations Senior Responsible Owners. This method of communicating was one of relative informality giving us as a peer group a platform to share information, or to discuss the concerns or queries of particular nations in between Senior Responsible Owners meetings, to help direct the meeting agendas. I exhibit the exchange between myself and the other four nation Senior Responsible Owners as **GR/45 - INQ000477804**.
108. I have been asked by the Public Inquiry to comment on an exchange between the 4 and 5 January 2021, the messages indicate that there was an imminent announcement due to be made which I understand was made in the evening of 4 January by the then Prime Minister of the UK about the timeline for completion of vaccination for priority groups 1 to 4, seemingly without prior consultation or notification to the three devolved nations. The first I heard of a public announcement on this was on the Senior Responsible Owners ‘WhatsApp’ group on 4 January 2021, when the Senior Responsible Owner for Scotland, Derek Grieve raised the question with the Senior Responsible Owner for England, Emily Lawson. Derek Grieve wrote at 20:07:27, “This has put us all on the back foot to explain if we can match this”.
109. As the then Prime Minister’s announcement had not been communicated across the four nations in advance, our Minister for Health and Social Services had not been aware of this proposed timeline for cohort completion when speaking to local media earlier that day, which was followed by a press release: exhibit **GR/46 - INQ000399000** refers. I raised my frustration that from my viewpoint that day, it was not at all clear who had been responsible for handling communication between England and the three devolved nations on this, and that my perception was that the Minister for Health and Social Services was not pleased to have been

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wrong footed. I must stress that I in no way held the Senior Responsible Owner for England responsible and she shared on the group that up to two hours before the announcement, it had been a matter of target numbers vaccinated rather than completion of cohorts, leading me to the conclusion that she too may have received late notice.

110. From the 'WhatsApp' Senior Responsible Owner conversation, it would appear that the Senior Responsible Owner for England had been assured that the Secretary of State had shared this information on his 'WhatsApp' group with the four nations Health Ministers and had received one Ministerial response but I was not advised who this had been. It was unclear to me what the official channels of communication should have been on this and should be for the future. At the time I was relatively new to Welsh Government and had assumed there would be official channels of communication between civil servants in order to brief Ministers before Ministerial discussions. I therefore raised this concern within the WhatsApp group.
111. As stated in my module 2B statement M2B/GR/01 (**INQ000327736**), the Chief Pharmaceutical Officer and I attended regular meetings of the UK Minister for Vaccine, Nadhim Zahawi with the Minister for Health and Social Services Wales, initially Vaughan Gething, then Baroness Eluned Morgan. My attendance was to support the Minister for Health and Social Services, provide an update on the vaccine programme where required and assist in forward identification of issues that may require Ministerial agreement. The first meeting I attended was on 16 December 2020. I continued to attend meetings until September 2021 when the meetings concluded.
112. An example of a meeting that I attended, and my involvement can be found in the minutes of the meeting held with the UK Minister for Vaccine and the Minister for Health and Social Services on 16 December 2020 which I exhibit has **GR/47 - INQ000410040**.
113. A request had been made from the Minister for Health and Social Services (Vaughan Gething MS) for an official to accompany him to provide support for a meeting with Nadhim Zahawi MP, who had recently been appointed as the UK Minister for the Vaccine Programme. The meeting was an introductory meeting, provide an update on vaccine statistics and discuss how to have a joined-up roll-out of the vaccine across all devolved nations.
114. During another meeting on 26 May 2021 with Nadhim Zahawi and Eluned Morgan, Minister for Health and Social Services, vaccine supply, the vaccine booster programme and vaccinating secondary school children were topics discussed. I raised the possibility that Wales could pilot vaccinating young people aged 16 to 17 years old who wished to receive the vaccine, through the mass vaccination centres, since we were ready to deploy as soon as JCVI recommended. We were anxious that delay in decision making could mean that many 16 to 17-year-olds would possibly have left school following spring term GCSEs/A-levels or

other examinations and therefore school-based administration would not be effective. I exhibit notes of this meeting as **GR/48 - INQ000429136**.

115. Following the meeting in which a pilot was discussed, we were not asked or funded to conduct a formal research pilot by the UK Vaccine Minister. However, Wales did begin to vaccinate 16-17-year-olds in mass vaccination centres in early August. By way of example, Swansea Bay University Health Board was welcoming drop-ins for over-16s who needed their first dose from 12 August and this followed the Welsh Government announcement on 4 August which encouraged all 16 and 17-year-olds to get vaccinated, in line with the JCVI advice. I exhibit the Ministerial announcement as **GR/49 - INQ000485831**. Uptake rates and experiences were then shared informally with four nation Senior Responsible Owners, and I understand other nations also began to use mass vaccination centres for this age group.
116. In my opinion, ministerial joint working with the UK Vaccine Minister, once appointed, was cooperative and close on the national vaccination programme effort before the change of UK Vaccine Minister (from Minister Zahawi to Minister Throup). Following this change, one-to-one video calls with devolved government Health Ministers ceased.

Military Assistance

117. Military Liaison Officers (MLOs) had been liaising with Health Boards in the Covid 19 response phase. They were assigned to each of the seven Health Boards as well as to Welsh Ambulance Service NHS Trust.
118. It was obvious that the scale of the planning task when considering mass Covid-19 vaccine deployment, in as short a time as possible, was akin to that of a battle campaign plan. A Senior Officer of the British Army based in Wales, was based in Cathays Park working in the Health and Social Services Group, Welsh Government, overseeing the contributions of the Military Liaison Officers. In June 2020 they advised that I could request an assessment visit from a Military assessor, to see whether we would qualify and benefit from additional input. At the Wales Covid-19 Vaccination Board meeting on 18 June 2020, it was recognised that military assistance may be helpful, and I was tasked with liaising internally in this respect. On 9 July 2020 I sent an email which I exhibit as **GR/50 - INQ000428962** asking for Military Planning Assistance.
119. On 21 July 2020 a visiting military assessor assessed the delivery programme for the Covid - 19 vaccination 'in order to identify any capability gaps and if necessary, request governmental collaboration at a UK level.' During the visit it was acknowledged that Welsh Government already had in place subgroups dealing with programme delivery aspects - location, environment, storage, procurement, transport, and PPE. However, we also discussed control within the delivery model and the respective responsibilities of health boards and Welsh

Government, vaccinator workforce and their training, collaboration with primary care and identifying their capacity, social care and capability gaps within the programme. The Military assessor identified a lack of experience of emergency planning within the Welsh Government wider Health and Social Services Group to mobilise such a large project on such a tight deadline. She wrote, "Currently they have a strategic lead and Dr Gillian Richardson, however they have not been able to resource for a tactical logistic planner and project manager."

120. Military personnel reported that, "Welsh Government recognise the unique planning and coordination skills that the military personnel possess to generate pace and efficiency in the planning of the delivery at health board level." I exhibit the Military Advisor team report here **GR/51 - INQ000429169**. The military advisor and I felt the military could assist and that the request should qualify, therefore, after a further discussion on 25 August I made a request for Military Aid to the Civil Authorities in processes for requesting military assistance for civil authorities, (MACA application) which needed Ministerial approval In September 2020.
121. In the MACA application, I requested approval from the Minister for military medical planners to support the vaccination programme noting that the health boards would also benefit from enhanced logistical planning knowledge. I exhibit the request as **GR/52 – INQ000409996**. The request covered the period 7 September to 2 October 2020.
122. The request was approved by the First Minister and Minister for Health and Social Services which I exhibit as **GR/53 - INQ000429002**. However, I understand this request was declined by the Ministry of Defence on 15 September 2020 as it was not considered to meet the principles of a MACA and it was considered that there was no definitive need to act, I exhibit this correspondence as **GR/54 - INQ000429003**.
123. Despite the military planning MACA being turned down, we were later sent two military logistic planners. In my opinion, the delay in being provided with military resources meant possibly slower mobilisation and slower access to military assets for the operational delivery aspects of the vaccination programme. Although at this stage we did not have a vaccine in place to deploy, our military colleagues knew better how to navigate their systems back at base to secure assets that we would need imminently should a vaccine receive authorisation. They brought additionality to the planning and preparation of MACA applications. Their resources were useful in the planning phase as they had good knowledge of emergency planning where decisions must be taken quickly. I found the support extremely helpful, in particular, having someone from another discipline assist and sense check the logistics of operational delivery and learning on the job with regards to planning tools and techniques used by the military (for

example Campaign and Branch plans, D minus plans and Observe, Orientate, Decide, Act loops).

124. I was invited to attend a meeting on 15 October to consider what work would be best aligned should we be allocated three military planning colleagues to make the best use of their skills. We identified three workstreams, one for each of the military support advisors which I exhibit at **GR/55 – INQ000429004** In the event, by the end of October 2020 two military planners, with knowledge of planning and logistics, were engaged to assist us with the final deployment planning stages of the Covid-19 vaccination programme. They were assigned to the Cathays Park Office, Cardiff office of Welsh Government, to the Covid-19 vaccination programme, for six to eight weeks under my direction.
125. The military personnel became actively involved with considering the roll-out of the vaccination programme. The Military personnel attended the Wales Covid-19 Vaccination Board on 5 November 2020, followed by orientation - sitting in on subgroups, planning meetings and so on. I exhibit the minutes of the meeting as **GR/56 - INQ000429154** I also began a regular morning in-person briefing meeting with the military planners and my programme manager with a debrief meeting at the end of each working day. This was easily facilitated because we were all based in the same building, along with Andrew Goodall and the Chief Medical Officer, who could be regularly accessed and updated on progress and needs. These daily 'focus' meetings continued until after the launch of the second vaccine.
126. The military planners, myself, the Chief Medical Officer and Andrew Goodall, being office-based in the same Welsh Government building for most of the pandemic, would have day to day informal exchanges. Military planners became part of these day-to-day interactions, essentially joining the small Core WG Covid-19 vaccine team.
127. On 12 November 2020, military colleagues and I provided an update to the Director General Health and Social Services Group/Chief Executive of the NHS, Andrew Goodall in respect of vaccine options. There were at least two vaccine options being expedited for regulatory approval. I exhibit an email including the update as **GR/57 - INQ000429058**.
128. On 16 November 2020, I met with the Minister for Health and Social Services, Andrew Goodall and military colleagues to discuss the vaccine programme's planning progress and needs. I believe we discussed scoping a larger Military Aid to the Civil Authorities (MACA) request to bring military reserves in, to be trained as vaccinators for the health boards in the initial roll out to allow a bridging time from programme public announcement and launch (dates were as yet unknown) to enable volunteer surge recruitment from civil society.
129. Following on from this, on 20 November 2020 I wrote to military colleagues requesting that the Military Aid to the Civil Authorities (MACA) be extended, and our Military Planning

colleagues remain for another three months in Welsh Government. Unfortunately, this was turned down. I exhibit this request as **GR/58 - INQ000429062**. I also reminded Health Boards on 27 November 2020 to update their capacity figures so that this could be used to support an additional MACA, which was to be a request for military immunisers on the ground and support staff. Notes from this meeting have been exhibited at **GR/59 - INQ000368620**. This MACA resulted in the allocation of military general duty staff and military immunisers from the beginning of January across all Health Boards in Wales, who provided surge support for workforce needs of Health Boards and practical assistance with setting up and staffing of mass vaccination centres.

130. One Welsh Government assigned military planning colleague was from the British Army and assisted with logistics until the end of December, with another from Royal Navy providing additional support and assistance with the overall planning and sharing of military planning tools up to the launch of the second vaccine (Oxford Astra Zeneca) on 4 January 2021. In February 2021 another MACA was approved to provide continuing vaccinator and practical support for vaccine delivery to Health Boards as discussed in an email between myself and colleagues which I exhibit as **GR/60 - INQ000429106**.
131. At that time, the risk of vaccine theft for criminal gain and the risk of vaccine sabotage, as assessed by the UK Joint Biosecurity Cell, by some anti-establishment groups who were extremely anti-vaccination was significant, (including some extremist / conspiracy theory believing groups). We had a vaccine packaging plant in Wrexham which received bomb threats and a hoax device was sent to the facility disrupting production processes and local emergency services. One member of Military personnel remained as part of the programme. To ensure no conflict of responsibilities between the military and local policing, they were employed by Welsh Government as a fixed term temporary post, to serve as the security lead for the programme until those responsibilities were able to be transferred to Welsh Government civil servants. Security aspects were then transferred to Claire Rowlands (who had joined the Wales Covid-19 programme as Policy lead for the programme) and a member of the Welsh Government Resilience and Emergency Planning team who had joined us in support. This transfer occurred when the immediate security risks had abated, on 17 March 2021. Whilst in post the security lead worked closely with policing across Wales and the Health Board security leads and established the infrastructure for security which remained until the end of programme.
132. In the spring/summer of 2021, I was told by Welsh Government police liaison personnel that I faced personal security threats. As I am not engaged in public-facing social media I was protected from knowing the details. I understood that this was in part due to being one of the main faces of the vaccination programme in Welsh Government television briefings and the

media at this time. I became one of a handful of Welsh Government individuals who had access to personalised rapid police response support, and I was issued with a personal police alerting alarm which I was asked to take anywhere outside of my home. Protestors had discovered the home address of our First Minister and arrived outside his home during the pandemic, so there was also anxiety that other's homes would be targeted over the course of the pandemic.

133. We received regular vaccination relevant security updates for the programme from the UK Joint Biosecurity leads as devolved governments covering a wide range of issues, including threats to staff in immunisation centres, harassment of head teachers regarding childhood vaccinations and so on, which would be relayed to Health Board security leads.

Vaccination strategy publication

134. By 11 January 2021 we had published our first Welsh Vaccination Strategy. This had been in production but had been finalised and published over a shorter timescale than anticipated. The background to this was that at the four nations Senior Responsible Owner meeting on 6 January 2021, which I attended, officials from the Department for Health and Social Services explained that the UK Government intended to publish a four nations Covid-19 vaccine strategy the following week. We were asked for a page of text on Wales, to be included in this UK document. This put us under some pressure to publish our own vaccine strategy, as a page of text in a UK document would not have been sufficient to explain what Wales had in place. What was proposed was seemingly too 'Anglocentric' referring only to NHS England and models agreed there. I exhibit minutes of the meeting as **GR/61 - INQ000429103**. Indeed, the Minister for Health and Social Services noted in an email to which I was a copied recipient that "he was not agreeing to be part of a programme with one page" (for Wales). I exhibit this email as **GR/62 - INQ000429104**.
135. A first draft UK Vaccine Strategy was forwarded to us on 8 January 2021 and following a review of the strategy and liaison and discussions with the Minister's office which I exhibit as **GR/63 - INQ000410060**. It was agreed that I should respond on behalf of Welsh Government. Communication with Department for Health and Social Care (DHSC) continued throughout Friday 8 January, as demonstrated in points below. I informed the DHSC on Saturday 9 January that there were key areas in the UK vaccine strategy that did not represent the position in Wales, in particular the central sections on People and Places would vary across the four nations and would therefore need to be amended to describe their different NHS workforce and deployment models throughout the UK. We were concerned that as it stood, the document may cause confusion if published with only a page for Wales, particularly with Wales NHS partners, stakeholders, our media and public. I was therefore requested to inform UK

Government in an email that I exhibit as **GR/64 - INQ000429105** that we could not sign up to the strategy as presented but would welcome further engagement on a strategy being committed to working together and maintaining as much alignment as possible.

136. It was understood that the UK Government was intent on publishing following the weekend, therefore, over the weekend of 9 and 10 January 2021 work accelerated on the Welsh Vaccination Strategy so that we could publish our strategy on or around the same day as the English Vaccine Strategy. Claire Rowlands had joined the Covid-19 Core team as a Senior Civil Servant to support Policy with Tania Nicholson by this time. Tania, Claire and I worked that weekend to draft the Vaccine Strategy for Wales. The Chief Medical Officer and the Director General Health and Social Services also had final oversight of the draft. The Minister for Health and Social Services was sighted on the draft strategy on the evening of Sunday 10 January and agreed our strategy with milestones, for publication on Monday 11 January 2021. This had allowed very little time for us to liaise with our Wales NHS partners and Regional Senior Responsible Officers for the programme in Health Boards and was therefore less than ideal. The document was then translated at very short notice into Welsh by our Government translators.
137. I note some messages exchanged in the 'Vaccine SROs' WhatsApp group and which is exhibited above at paragraph 107 regarding the Vaccine Delivery Plan. It appears that the Secretary of State for Health and Social Care expressed a wish for this to be a UK document, contributed to by all of the four UK nations.
138. A four nations Vaccine Delivery Plan document would have been possible in principle as there was good alignment on key parameters. There would have been differences in delivery models resulting from the four separate UK NHS administrations, since infrastructure and organisation differed in each, but with enough time to prepare, these aspects could have been described accurately and incorporated into a joint document. However, the final draft was shared with Senior Responsible Owners for Wales, Scotland and Northern Ireland on Friday 8 January, with full review, contribution and devolved nation Ministerial sign off requested by the Secretary of State, UK Government for a Monday 11 January release. This email exchange is exhibited in paragraph 135 above. This did not give sufficient time to consider and contribute meaningfully.
139. There was a lack of clarity over whether what had been shared with us for review earlier in the week, before Friday, were sub-sections of the overall document; and whether they were intended to refer to the four nations or just England. There was also confusion in communication as the Secretary of State was also, we were led to believe, directly contacting our Ministers.

140. Having considered the work towards the potential UK document that had been so far shared, our Minister for Health and Social Services Vaughan Gething, decided that the material and the one additional page for differences in Wales suggested by UK Government, would not be adequate for Wales to properly describe its programme. The Minister requested that a Vaccine Strategy for Wales be released on the Monday in preference. Other devolved nations also decided they could not currently contribute to the potential UK document given the timescale and material shared at that stage, which is set out in the WhatsApp exchange that I refer to above and later released their own national materials. I understand our Minister was anxious not for there to be confusion when the UK document was released with heavy emphasis on England's delivery mechanisms, which were different from Wales.
141. An additional consideration in Wales, unique I believe to the UK, is that of the need for full additional language translation of all public facing documents - in this case into Welsh, to comply with the Welsh Language Act. This meant that professional translation needed to be secured over the weekend.
142. On Friday 8 January, we were informed that the then Prime Minister had "announced yesterday it would be published on Monday and oral statement and press release planned for it". I was not aware whether the then Prime Minister had shared this information or been in contact with the First Minister for Wales or equivalent for the devolved nations on the concept or timing of any UK joint vaccination publication prior to his public announcement, and I expressed concern at the time regarding this "Lack of warning on key announcements and tokenism [of appearing to include our Ministers, but too late for them to engage meaningfully] in decisions" to my fellow Senior Responsible Owners in the WhatsApp messages I have exhibited.
143. This announcement followed the Prime Minister's announcement on 4 January 2021 which I refer to above, and upon which the devolved nations had not been consulted. I was concerned that a pattern was emerging that the devolved nations were not being consulted before announcements were made by the UK Government and it was this sentiment that probably led me to write "it's testing devolution" in my What's App conversation and express concern there may be "bulldozing" (bulldozing) through policy without reference to or consultation with the devolved nations.
144. Antonia Williams, Director of Covid vaccine deployment, Department for Health and Social Care shared on Sunday 10 January 2021 that "SOS feels we need to go ahead with a publication tmrw to meet our commitment".
145. The Wales vaccine strategy was published on 11 January 2021, which I exhibit as **GR/65–INQ000410079**.

146. By spring 2021, we had successfully launched the first two vaccines, the programme had been bolstered by a Chief Operating Officer, Jeremy Griffiths from the NHS Delivery and Support Unit, who had who had joined initially part time from being Chief Operating Officer for the Test, Trace and Protect programme in January, and a Deputy Chief Operating Officer (Adele Gittoes). Claire Rowlands had been able to recruit experienced civil servants, as well as some junior staff as additional policy support to my colleague who had been carrying a heavy policy load as sole allocated civil servant for some months. The programme was growing and becoming established, with the stop-start supply in vaccine becoming more of a predictable flow. It seemed an appropriate time for a review of progress and ensuring that the Wales vaccination programme had the resources it needed both centrally and locally to maintain momentum. By this time, I had ensured smooth transition of Programme Operational aspects to the new Chief Operating Officer and Operational leads in Health Boards had been designated to work alongside the local strategic Senior Responsible Owner leads.

February 2021 – May 2021: Transition from Senior Responsible Officer to becoming DCMO for Wales Covid-19 Vaccination Programme (26 April 2021)

147. As Acting Programme Senior Responsible Owner, I worked with Audit Wales / Archwilio Cymru during February 2021 to define the 'Project brief for (an audit of) COVID-19 vaccination roll out in Wales' which I exhibit as **GR/66 - INQ000429135**.
148. This led to the Report of the Auditor General for Wales 'Rollout of the Covid-19 vaccination programme in Wales' issued June 2021.
149. Findings included; *'Overall, the programme has delivered at significant pace, with local, national and UK partners working together to vaccinate a considerable proportion of the population who are at greatest risk. At the time of reporting, vaccination rates in Wales were the highest of the four UK nations, and some of the highest in the world. The milestones in the Welsh Government's vaccination strategy have provided a strong impetus to drive the programme. To date, the Welsh Government's milestones have been met' 'More broadly, there is much to be learnt from the positive way in which the vaccine programme has been rolled out to date. The Welsh Government and the NHS in Wales should be looking to apply that learning to wider immunisation strategies and the delivery of other programmes.'*
150. However, issues with the international supply chain, the future challenges for vaccination workforce and vaccination venues and the lower uptake for some deprived communities and ethnic groups were highlighted.
151. The Auditor General summarised the findings as follows, *'Wales has made great strides with its COVID-19 vaccination programme. Key milestones for priority groups have been met and the programme is continuing at pace with a significant proportion of the Welsh population now*

vaccinated. This is a phenomenal achievement and testament to the hard work and commitment of all the individuals and organisations that have been involved in the vaccine rollout to date. However, the job is far from over. A longer-term plan is needed that moves beyond the existing milestones and considers key issues such as resilience of the vaccine workforce, evolving knowledge of vaccine safety, the need for booster doses, and maintaining good uptake rates - especially in those groups that have shown some hesitancy in coming forward for their vaccinations'.

152. I was still acting as programme Senior Responsible Owner and requested that an internal governance review of the programme arrangements be commissioned which led to our first gateway review. I exhibit the report following the review as GR/67 - INQ000492872
153. The review made recommendations which helped in designing the emerging programme office and refreshing a slimmed down Programme Board, with resulting re-assignment of myself to clinical Deputy Chief Medical Officer role and Claire Rowlands to programme Senior Responsible Officer, although I maintained relationships along with Claire with the other 3 nation Senior Responsible Officers for continuity and continued to attend meetings and four nation Deployment Board.
154. From April 2021, I therefore became the Deputy Chief Medical Officer for Covid-19 vaccines and therefore became clinical lead for the Covid-19 Vaccination Programme, passing the programme Senior Responsible Owner role to Claire Rowlands, Senior Civil Servant.

My role and responsibilities as DCMO for the Covid-19 vaccination programme from May 2021 to June 2022

155. I worked to ensure the smooth transfer of responsibilities to Claire as incoming Senior Responsible Owner for the Covid-19 Vaccination programme and Carol Shillabeer as incoming Chair of the re-structured Programme Board between May and June 2021.
156. My Programme Manager, Programme Administrator and I worked to ensure the smooth transition of all records, Wales Covid-19 Vaccination Board (Part A and Part B) minutes, risk registers and decision logs to Claire's team, since there were now Welsh Government employees assigned that could assume these roles.
157. My role and responsibilities changed in focus following this, but some functions continued. For example, with four nation liaison, I attended four nation Senior Responsible Owner meetings for continuity, with Claire and Elin Gwynedd her Deputy when appointed, sometimes alternating. I continued to meet with Business Energy and Industrial Strategy along with the Chief Pharmaceutical Officer and to accompany the Minister for Health and Social Care to

meetings with the UK Vaccine Minister or Secretary of State for Health, if Covid-19 vaccination was on the agenda.

158. I was also at times invited to accompany Chief Medical Officer for Wales to four nation Chief Medical Officer meetings where vaccination was on the agenda.
159. I continued providing Ministerial Advice to the Minister for Health and Social Services and attending key internal and external Ministerial meetings to provide updates. Regular Health Minister updates changed to include the First Minister and I continued to attend these and provide written material and verbal updates when I became Deputy Chief Medical Officer providing information on clinical aspects, new variants of Covid-19 together with implications and vaccine equity.
160. I continued to Chair the previously established Stakeholder forum involving third sector, patient groups and professional bodies, (previous part A of the Wales Covid-19 Vaccination Board), mainly as an information sharing group, post-May 2021, until other communication mechanisms seemed more appropriate, and I then ensured members were either merged with our Vaccine Equity Committee or the partnership alliance of the NHS Confederation. An example of a Stakeholder forum to which the Health and Social Care Minister attended to meet stakeholders is exhibited as **GR/68 - INQ000429108**.
161. My role up until this point had involved ensuring provision of multiple facets of expert advice to the Wales Covid-19 Vaccination Board, Chief Medical Officer for Wales and Health and Social Services Group. Following transfer to DCMO role, I became responsible for the provision of clinical elements of this advice but continued to link closely with the Technical Advisory Group, its Behavioural insight and socioeconomic subgroups, and Chief Scientific Officer for Health Rob Orford and Fliss Bennee.
162. I liaised closely throughout with Vaccine Preventable Diseases colleagues in Public Health Wales and Officials and Senior Medical Officers in the CMO team, continuing to update Chief Medical Officer's Silver team on the vaccination programme.
163. I continued to participate in international link meetings for example with UKHSA, Centers for Disease Control and Prevention, Atlanta, USA and Israel who had large scale Pfizer evaluations, and in WHO webinars, bringing any points of learning back to Wales.
164. As Deputy Chief Medical Officer I continued to meet weekly with Executive Directors of Public Health on behalf of Chief Medical Officer for Wales, for the duration of the pandemic on aspects including vaccination programme progress, vaccine equity, recovery and re-establishment of population health programmes. I also continued to meet weekly with CMO

and senior officers from Public Health Wales and to sit on CMO's Health Protection Advisory Group.

165. I continued working closely with the Chief Pharmaceutical Officer Wales and Chief Operating Officer Jeremy Griffiths on clinical aspects of deployment, for example on the preparation and planning for the deployment of the Moderna vaccine, which was received first in the UK by an unpaid carer in Hywel Dda University Health Board in early April 2021. I will elaborate on the background to this in future points.
166. The Moderna vaccination was also raised in the Senior Responsible Owners WhatsApp exchange as exhibited at paragraph 107 above and in which Emily Lawson, Senior Responsible Owner for England, expressed surprise that Wales had initiated vaccination of Moderna. I have been asked by the Public Inquiry to provide context for this. The Moderna vaccine was deployed in Wales on 7 April 2021, in accordance with the JCVI Green Book and with the appropriate MHRA authorisations. Supplies of Moderna had been received in Wales on the 6 April 2021 in readiness for deployment.
167. On 8 January 2021, the Moderna vaccine was granted a temporary authorisation, however no Moderna vaccine was deployed under the temporary authorisation, with a conditional marketing authorisation being granted on 31 March 2021, ahead of its planned inclusion in the UK vaccination programme in April. Verbal advice was received from the JCVI on the deployment of Moderna on 5 April 2021, exhibit **GR/69 - INQ000498700** refers. This was followed with written advice on 7 April 2021, exhibit **GR/70 – INQ000498701** refers which confirmed that the JCVI advised 'delivery of the first dose of the Moderna to as many eligible individuals as possible should be initially prioritised over delivery of a second vaccine dose, in line with our published advice. In the written advice, JCVI advised that the second dose of the Moderna vaccine may be given in their view between 4 to 12 weeks following the first dose.
168. The then Minister for Health and Social Services issued a statement on 7 April 2021 in which he confirmed that the Medicines and Healthcare Products Regulatory Agency (MHRA) authorised the Moderna vaccine as safe and effective in January 2021 following stringent clinical trials and that supplies arrived in Wales on Tuesday 6 April with 5,000 doses being sent to vaccination centres in the Hywel Dda University Health Board area, and his decision to commence vaccination, exhibit **GR/71 - INQ000499751** refers. Deployment was in line with the JCVI advice, as issued in the 'Green Book' and duly deployed on 7 April. This issue was raised in the Senior Responsible Owners WhatsApp group exhibited above. As I have noted in the exchange, "We were desperately short on vaccines, so unethical to sit on". I was expressing the belief that it was important to deploy all available and approved vaccine to the

Welsh public as soon as possible. This was particularly relevant since the JCVI were also to release a statement that day on the use of the Astra Zeneca vaccine advising alternative vaccines to be used for adults below 30 years of age. as per the Health Ministers statement I have attached above, deployment of Moderna was made on 7 April 2021 in line with JCVI advice. I understand from the WhatsApp exchange that deployment was also made in Scotland that day. I understand from conversations at the time that simultaneous 'go live' had been enquired of by my Welsh Government policy colleagues with UK Government policy colleagues but there was not an agreement or a plan for a jointly choreographed release.

169. I understand the deployment of Moderna was discussed at the four nation Health Minister meeting on 8 April 2021, I was copied into the summary of the meeting in which the Secretary of State Matt Hancock MP congratulated the Minister for Health and Social Services Vaughan Gething MS on the deployment of the Moderna vaccine on 7 April and that Vaughan Gething had stated that having an alternative vaccine to Astra Zeneca had helped. I exhibit this summary as **GR/72 - INQ000499734**.
170. I had established the role of Chair of the Vaccine Clinical and Prioritisation Group (VCAP) whilst Senior Responsible Owner and had appointed Dr Heather Payne from CMO's office. This group met when there was a need to provide clinical advice to the Covid-19 vaccination programme, which included interpretation of JCVI advice for the Welsh Programme. Having Dr Payne as Chair of VCAP ensured that ethical matters were considered when developing clinical advice as she also Chaired the Wales Medical and Ethical Advisory Group. I participated in the group and following move to DCMO assisted with Chairing a rapidly accessible clinical subgroup which could meet if required. Regular interpretations of clinical advice as it applied to Wales e.g. from JCVI/MHRA were made to the Programme Board from this VCAP subgroup. I exhibit an example here of the Covid-19 Vaccination Programme decision/recommendation proforma as **GR/73 - INQ000429170**.
171. In my role as Chair for the Clinical Steering Group which was set up a sub-group of the Covid-19 Vaccination Clinical Advisory and Prioritising Group (VCAP). I recommended that this was set up with a sole purpose to review and analyse clinical developments. The group provided clinical recommendations to support the Vaccination Programme Board / Operations Board. Members included clinical colleagues from Welsh Government, Public Health Wales and the wider NHS including Primary care.
172. During the subgroup meeting on 27 April 2022, we were asked to consider the prescribing interval between immunosuppressant medication and Covid-19 vaccination, and eligibility for the spring booster for members of the group. A 3rd primary dose was recommended to be given to immunosuppressed individuals following their initial two primary course doses. As

part of Spring campaign, anyone who was severely immunosuppressed would also be offered a Spring booster. I led a discussion on identification methods to capture the groups classed as severely immunosuppressed and we made an agreement we would use those in a group 6 search. The recommendation would be presented to the programme board for approval, which I exhibit as **GR/74 - INQ000429138**.

173. I also liaised with Medical Directors, Nurse Directors and clinicians across Wales Health Boards, answering queries and discussing concerns about the Covid-19 vaccination programme in Wales. My colleague DCMO Professor Chris Jones sat on the Medical Directors group, enabling close working with Welsh Government.
174. I had established (and initially chaired) the Wales Vaccine Equity Group (VEC) whilst Programme Senior Responsible Owner and had invited the Cwm Taf Morgannwg Health Board Executive Director for Public Health Kelechi Nnoaham to join as Co-Chair, with a view to assuming the Chair in due course. The Health Boards were responsible for the equitable delivery of the Covid-19 vaccination programme in their areas. The first meeting of Vaccine Equity Committee was held on 21st April 2021. Members of this group provided oversight of the gathering, and Vaccine Preventable Diseases monitoring, analysis and tracking of routine data from daily capture to identify intelligence on inequalities in uptake from different populations (members of different ethnic groups, communities with levels of deprivation, people with specific conditions/circumstances) and explored means to improve. I remained on this group therefore as DCMO. I will expand on vaccine equity further in this statement.
175. I corresponded with Health Boards in Wales, and I issued urgent Public Health alert links which related to vaccination, and letters to the NHS partners concerning the Covid-19 vaccination programme. I will detail examples of these later in this statement.
176. I led the working group on planning and deployment of childhood vaccines in Wales for 'At risk' children aged 5 to 11 years. Our first scoping meeting was held on 8th Dec 2021 (Potential 5-11 delivery model options for 2022) which I exhibit draft minutes of the meeting as **GR/75 - INQ000429149**, followed by a meeting on 6th January once JCVI advice was known. This led to a communication to the Senior Responsible Owner and Covid-19 Vaccination Programme Board Chair on 14 January 2022 to escalate work within Digital Health and Care Wales to assist in identification of recipients, which I exhibit as **GR/76 - INQ000429150**.
177. I worked with the Wales Covid-19 Evidence Centre hosted by Cardiff University to explore research topics including those pertinent to the Covid -19 vaccination programme in Wales, I will give examples of these later in the statement.
178. I was also able to continue my Health and Care Research Wales funded research into Interpretation needs in primary and emergency health services in Wales with Swansea

University and Public Health Wales, since officially my seconded role as Deputy Chief Medical Officer was for four days a week, although in reality it was full time. I was Chief Investigator and grant holder for this work, employing two dedicated researchers in Public Health Wales.

Vaccine Clinical and Prioritisation aspects

179. Wales followed the advice of JCVI regarding the prioritisation order for the population scale programme of vaccination against Covid-19, but at times the detail of this advice required further local interpretation. The nomenclature of occupation is for example less pertinent to an individual's risk status than the tasks performed within that role. Thus, social workers conducting family welfare visits (often by video call in the pandemic) would be less at risk than social care staff performing intimate care tasks. These would include handling individuals with complex care needs who required careful manual handling, incontinence product changing, teeth brushing, helping with oral/chest secretions, and administering inhalers or rescue epilepsy medication if dealing with epileptic seizures (usually sublingually administered). We therefore included within cohort 2 all social carers in special schools who provided intimate personal care of this nature for children and young people with complex medical needs. It was further agreed that foster carers of this group of children, caring for profoundly disabled or ill children in their own homes would be similarly categorised as frontline workers on the same basis, with those caring for children and young persons with complex medical needs such as those above, being prioritised within cohort 2; and others being placed alongside unpaid carers within cohort 6.
180. Additional examples include noting that evidence suggested that a high percentage of the homeless population would fall within priority groups 4 or 6 because of their likely underlying health conditions, yet many homeless people were not registered with a GP and/or their health records were not up to date it was concluded unlikely that they would be captured within those priority groups for vaccination. As such, the Welsh Government determined that rather than attempting to identify those that fell within a strict interpretation of the JCVI advice, an inclusive and pragmatic approach which would see all homeless or recently homeless people offered the vaccination as part of cohort 6 was necessary. The advice to the Minister following discussions at VCAP noted that that inclusive approach did risk setting a precedent. However, the scope of this interpretation was limited and for a relatively small cohort of people. I exhibit minutes of the meeting as **GR/77 - INQ000429177**.
181. The Welsh Minister's policy view was that a position of inclusion over exclusion for this vulnerable group of the population was best to ensure that none were missed out.

Operationally it was recognised that that approach would require harnessing the support of those that are trusted by people who are or have recently been homeless; and adopting a model centred around 'taking the vaccine to them' with guidance expecting vaccines to be given to people in the places where they are, rather than expecting people with experience of homelessness to attend mass vaccination centres.

182. On 23 February 2021 advice was given to the Minister on a proportionate and more inclusive approach to prioritisation for those with severe mental illness or learning disability, to avoid missing those vulnerable persons who should be vaccinated. The Vaccination Clinical Advisory and Prioritisation Group had considered the information on which this advice was based and were content. The evidence from studies by both the ONS & Public Health England showed that individuals with a learning disability were at a greater risk of COVID-19 mortality than with those with no learning disability.
183. The Welsh Ministers decided to adopt an inclusive approach by adopting the guidance, which was closely based on the JCVI advice and criteria but would result in the inclusion of some individuals outside the severe/profound learning disability and coded serious mental illness groups which the JCVI had adopted. That was due to the nature of current information systems on how these groups are identified, coded and the lack of shared definitions.
184. At times queries on JCVI advice required four nation discussion. For example, at a VCAP discussion on Renal Dialysis Patients on 20 September 2021 (VCAP meeting 15), the group felt that all patients having dialysis should have a 3rd primary dose of the vaccine. I agreed to discuss at a four nations level to check how other nations were addressing. Leading to the outcome and recommendation that all patients having dialysis should have a 3rd primary dose of the vaccine. I exhibit draft minutes of the meeting (VCAP meeting 15, 20 September 2021) as **GR/78 - INQ000429167**.
185. As previously mentioned in paragraph 159, on 22 February 2021 (VCAP meeting 7) I was involved in a discussion about vaccination of the homelessness. I noted that the vaccination had not been shown to reduce transmission yet, but studies were ongoing, and I pointed to evidence that even the younger members of the homeless population were likely to have compromised immune systems due to issues such as alcohol and drug misuse and poor diet. It was suggested that VCAP recommend a national steer is given to local immunising services to reach out to people who are homeless. Our recommendation was that 'Health Boards, Local Authority Coordination Cells and Cymorth Cymru organisations should work together to identify those who were homeless and likely to be vulnerable to Covid-19. Wherever operationally feasible, vaccination should be offered in locations convenient for homeless

people (for example homeless shelters or using outreach teams) rather than relying on them attending mass vaccination centres.

186. Additionally, differences in the Welsh approach can be illustrated by the letter to the NHS from Professor Chris Jones (DCMO Wales) and myself on 14th December 2021, which I exhibit as **GR/79 - INQ000270360** in which we communicated that in order to accelerate the booster roll out, the MHRA had temporarily removed the 15 minute observation period for those receiving a different vaccine as a booster to that received for their primary course (heterologous vaccine pathway). The Welsh Government Covid-19 vaccination programme agreed this, except for certain groups who would continue with a 15-minute wait because of VCAP concerns over ability to recognise side effects. These groups were: Children of 15 years and under receiving a Covid-19 vaccine for the first time, Individuals registered as learning disabled receiving a Covid-19 vaccine brand for the first time, and Individuals lacking capacity receiving a Covid-19 vaccine brand for the first time. National updated advice in May 2022, indicated that the 15-minute post vaccination wait for all individuals 12 years and over receiving mRNA Covid-19 vaccine could be permanently removed. This followed a period of evaluation by MHRA of the effects of temporary removal of the observation period. Wales accepted this, and the new guidance superseded the earlier Wales position.

Vaccine Safety

187. Vaccine safety was as previously stated dealt with at a four nations level through the MHRA and their input into JCVI. Risks associated with the Covid-19 vaccines were communicated via JCVI who, having considered evidence, would amend advice accordingly. I did not, as far as I am aware receive direct reports of statistical side effect rates and relative risk benefit ratios for receiving vaccine (or the various influencing factors on decisions prior to JCVI communication being received), except through reports from the Wales observer attendees at JCVI, or via the medical literature or through the media.
188. The Wales Vaccination programme would receive JCVI advice and implement any changes recommended, and public messaging would follow lines issued by JCVI and PHE, so that with Public Health Wales, coherent public messaging would align with that of England, Scotland, and Northern Ireland. The JCVI had a difficult and trojan task to guide us all and I had great respect for their judgements and the leadership of the JCVI Chair who was working extremely hard at a constant pressure.
189. Following reports of some European countries' decisions not to administer the Oxford AstraZeneca Covid-19 vaccine to those aged below 40 years, on 30 April 2021 I wrote to the Chair of JCVI and Head of JCVI Scientific Secretariat, thanking them and the members of the

JCVI for their continuing support for the UK's Covid-19 vaccination programme and requesting assurance, clarity and advice on giving the Oxford AstraZeneca vaccine to those between 30 and 39 years, in light of the reported risks from other countries associated with this vaccine for that age range, and the risk-benefit ratio being less clearly in favour of receiving the vaccine. I also made the JCVI aware of the current position in Wales and confirmed as of 30 April 2021, 72.3% of 40–49-year age group and 42% of our 30–39-year age group had received at least one dose of the vaccine. I requested that any revised guidance to be issued to us as soon as possible following JCVI considerations of further evidence as many individuals below 40 years were scheduled in to have the Oxford Astra Zeneca vaccine in Wales shortly. I exhibit this letter as **GR/80 - INQ000429168**.

190. As the Deputy Chief Medical Officer Wales for Covid-19 vaccines, I would have liked to have had direct access to the research findings underpinning the MHRA advice to JCVI, but I did not. Although I do not believe this disadvantaged the vaccination programme, I do think it would have been beneficial to have given a clinical expert from each of the four nations direct access to the original research, in order for them to have seen the original material, scrutinised and tracked the decision making which had occurred on the basis of the research. On a personal level, having direct access to the research findings would have enabled a greater personal understanding and would have enabled me to explore any queries I may have had. I do acknowledge that material may have been sensitive, with data still emerging, but this could have been expressed on sharing.
191. With regards to reporting adverse events, the present system of reporting side effects is based on the yellow card scheme. These can be completed by clinicians or individuals who feel they may have been affected by a medicine, vaccine or other product prescribed by the NHS. However, it is likely that there is under-reporting not least because the method of self-reporting, despite promotion, seems little known about by the general public.
192. In my role as Deputy Chief Medical Officer for Covid-19 vaccines, I was not involved in the training aspects of the Covid-19 vaccination of the NHS in Wales staff to recognise possible side effects of the vaccine and reporting them via the yellow card scheme. The training was led and managed by Public Health Wales, who are the responsible organisation for all vaccination training in Wales.
193. Within Welsh Government, the Chief Pharmaceutical Officer led on liaison with MHRA and would have been informed of any centrally issued alerts. Again, whilst I was aware of this process, in my role as Deputy Chief Medical Officer for Covid-19 vaccination, I was not the Welsh Government lead. As set out on the MHRA website, as part of its statutory functions, the MHRA is 'responsible for monitoring all vaccines on an ongoing basis to ensure their

benefits continue to outweigh any risks. This is a requirement for all authorised medicines and vaccines in the UK. This monitoring strategy is continuous, proactive and based on a wide range of information sources, with a dedicated team of scientists reviewing information daily to look for safety issues or unexpected, rare events. For example, on 7 April 2021 MHRA issued new advice, concluding a possible link between “COVID-19 Vaccine AstraZeneca and extremely rare, unlikely to occur blood clots”. They stated that; “The benefits of vaccination continue to outweigh any risks but the MHRA advises careful consideration be given to people who are at higher risk of specific types of blood clots because of their medical condition”. MHRA advised that they would issue updated guidance for healthcare professionals on how to minimise risks, as well as further advice on symptoms for vaccine recipients to look out for 4 or more days after vaccination.

194. All patients in Wales received information sheets with details of side effects and notification mechanisms following vaccination.
195. Similarly, the Vaccine Damage Payment scheme is a UK administered scheme. In my personal opinion, it needs total reform in terms of improved information on the scheme to all those receiving vaccines, better support to those making claims, swifter resolution of cases, review of eligibility criteria, balance of probability estimation on causation, removal of the 60% disability threshold for a claim with several replacement thresholds, variable compensation dependent on future care need and harms sustained and better appeals mechanisms.

Vaccine Equity

196. Vaccination Equity was an extremely important consideration of the Covid 19 Vaccination Programme. A dedicated epidemiological surveillance programme was designed by Simon Cottrell, Consultant epidemiologist, Vaccine Preventable Diseases, Public Health Wales to track inequities in vaccine take up, to enable actions at Health Board and national level to address.
197. Whilst Acting Senior Responsible Owner, I led on production of a Welsh Government Vaccination Equity Strategy, working with a Public Health Registrar, consulting with the stakeholders on the Wales Covid-19 Vaccination Board. This was published on 23 March 2021, alongside a general update on the overall strategy, which I exhibit as **GR/81 - INQ000182538**.
198. A Vaccination Equity Committee with representation from the voluntary sector working with vulnerable groups was established. The Vaccination Equity Committee terms of reference and membership are provided in exhibit **GR/82 - INQ000182550**.

199. The first Vaccine Equity Committee meeting was held on 22 March 2021, minutes of which I exhibit as **GR/83 - INQ000429186** with the group aiming to meet every four to six weeks initially.
200. The Committee reported to the Wales Covid-19 Vaccination Programme Board and the Stakeholder Forum when established also received copies of the minutes from the Committee. Vaccine equity was a standing item in the weekly updates to the First Minister and Health and Social Services Minister to which the Chief Medical Officer Wales and the Director General Health and Social Services Group were also participants. An example of which I exhibit as **GR/84 - INQ000499730**.
201. The Vaccine Equity Committee brought together representatives from umbrella organisations representing under-served groups, third sector organisations, as well as experts from Public Health Wales and the NHS to understand the barriers to Covid-19 vaccinations for marginalised groups and worked to remove those barriers. Committee members brought their expertise and experiences to make recommendations and suggestions as to what would encourage and enable relevant groups to take up their vaccine, sharing examples of good practice and what was working or not working on the ground.
202. Membership of the group included the Office of the Older People's Commissioner for Wales, Disability Wales, Mencap, Learning Disability Wales, All Wales Forum of Parents and Carers, RNID, RNIB, the Bevan Commission, Public Health Wales, Community Housing Cymru, Citizens Advice Cymru, Cymorth Cymru (representing homeless/insecure tenancy clients) and the British Red Cross. I contacted a number of these organisations to discuss the importance of their role within the group on invitation to join. In addition, the Board accessed the Welsh Government's Black, Asian and Minority Ethnic Advisory group perspectives through their co-Chair Dr Heather Payne who chaired our Vaccine Clinical and Prioritisation group.
203. I proposed that a national Covid-19 Vaccine Equity Action Plan for local implementation was developed, setting a national direction but allowing flexibility at local level to respond to local population needs.
204. I supervised a Public Health registrar alongside my programme manager to draft a Vaccine Equity Action Plan by June 2021, focusing on five specific groups with overlaps, but offering opportunity to align;
- those with physical, sensory and learning disabilities
 - mental health patients, addictions/substance misuse clients and those experiencing homelessness
 - those seeking asylum, undocumented migrants and refugees

- members of ethnic minority groups
- residents in areas of economic deprivation

Relevant stakeholders advised on and took forward actions as detailed in the plan. It was a dynamic action plan rather than a static plan and therefore continuously evolved. I exhibit the draft Vaccine Equity Committee Action Plan as **GR/85 - INQ000387496**.

205. Within the committee, I also made contributions to a comprehensive communications and engagement plan using behavioural insights to explore and understand perceptions around vaccination. The Health Boards attempted to reduce barriers by using trusted community member voices as messengers of reliable information. Community led co-production of messages helped with understanding fears, providing an evidence base for interventions.
206. The VEC thus provided a space for shared learning through inviting local health boards to provide summaries and updates on actions and interventions taken to engage with underserved communities to increase vaccine take-up. Health boards shared their successes and their challenges with the group enabling others to introduce similar interventions.
207. I am aware that specific actions undertaken by individual Health Boards are included in the Module 4 corporate statement so I will not repeat here.
208. Once I handed the Chair role to my Co-chair Dr Kelechi Nnoaham, I still attended Vaccine Equity Committee whenever I was able. The Vaccine Equity Committee Chair was accountable to the Vaccination Programme Board and Programme Senior Responsible Owner who received reports and updates. All Health Boards sent representatives to this group and Health Boards and Trusts as NHS bodies were individually accountable for fulfilling Welsh Government accessibility standards, and any other requirements placed upon them by Welsh Government legislation (for example the Equality Act and the Socioeconomic duty).

Communications

209. I am aware that the Corporate Welsh Government statement M4/WG/01 provides comprehensive detail on public messaging in respect of the Vaccination Programme as well as approach taken by myself and others within the vaccination programme on dealing with misinformation and disinformation relating to vaccines therefore I will not repeat the same information here.
210. As Deputy Chief Medical Officer for Covid-19 vaccines, I maintained a role of providing public information on the programme including latest JCVI advice, through media presence, podium addresses with the Minister for Health and Social Services and attendance with Ministers and/or the Chief Medical Officer for Wales at various committees, on request.

211. I used surveillance data or communications data to tailor my messaging to the public. I provided public information on the evidence for vaccination and the benefits. I also provided advice on rationale for prioritisation of the vaccinations and clinical advice on vaccinations based on the emerging evidence, for example best vaccines to use for certain age groups.
212. I attempted to give clear, consistent, and accessible advice to all based on the evidence to which I had access.
213. As an example, on 16 May 2021 I provided an update via a podium address on the vaccination programme. I advised that more than two million people in Wales had taken up the offer of a Covid-19 vaccine. The official figures showed that almost three million doses of the vaccine in total had been administered in Wales in six months. This meant that 80 percent of all adults in Wales had received their first vaccine and one in three adults had received their second dose to complete the course. I also added the figures showed Wales had achieved yet another major milestone through the fantastic efforts of our vaccination programme staff, health and social care staff and the public. I exhibit the update as **GR/86 - INQ000429182**.
214. I participated in radio phone-in programmes with the public on a regular basis (for example the BBC Wales 'Dot Davies Show' where members of the public could phone in with queries), public webinars ('Ask the Expert') and webinars with professional colleagues in health and social care. I made myself available for journalists and television programmes, third sector leads and partners, as well as the different departments within Welsh Government (e.g. Education, Social Care, Culture, Leisure and Sport).
215. I was also consulted by Public Health Wales on materials for the public and professionals. For example, when children and young people orientated material was prepared by Public Health Wales to explain the Covid-19 vaccination to children, I was asked to review this on behalf of Welsh Government.
216. As stated, I liaised with colleagues in NHS Wales, for example on 23 December 2020, the Chief Medical Officer Dr Frank Atherton and I, jointly wrote to all Health Boards congratulating them on vaccinating in excess of twenty thousand individuals against Covid-19 in the first twelve days of the Wales Vaccination Programme. This was a significant achievement and a testament to the excellent planning and delivery at central and local levels and incredible efforts to mobilise deployment through the Health Boards and Trusts. I exhibit this letter as **GR/87 - INQ000429093**.
217. In the Spring of 2022, I wrote to Health Boards providing an update on the JCVI statement on Covid-19 vaccinations for 2022. I also provided an update on the spring vaccination programme and the autumn vaccination programme and thanked the Health Boards and their teams, as the immunity of those most vulnerable in our population to severe Covid-19 disease

had been maintained, with severe disease and hospitalisations remaining relatively low. I exhibit the letter as **GR/88 - INQ000270429**.

218. The Communications teams in the Welsh Government and Public Health Wales worked closely and collaboratively, with wide consultation on all campaigns and materials, involving scientists and clinicians including myself. I frequently commented on the Welsh Government's communication campaign proposals and assisted with Welsh Government social media projects at their request.
219. Welsh Government and Public Health Wales also commissioned behavioural insight work to understand barriers to adopting protective behaviours, and for vaccination aspects, the Welsh Government and Public Health Wales convened meetings with ethnic minority populations and seldom heard groups to ensure materials were sensitively designed and culturally appropriate, with an understanding of fears and concerns of these communities.
220. We worked on a specific campaign to ensure that pregnant women knew that they could have the Covid-19 vaccine, it was safe for them and their babies, and that they were at risk of severe life-threatening illness in the last 3 months of pregnancy, with attendant risks to their baby, if they contracted Covid-19. Social media interviews with pregnant vaccinated women and midwives preceded my Podium appeal to pregnant women to come forward for vaccination for their own and family's benefit, and to discuss any fears with their midwife. The JCVI guidance from the early stages of the programme had been changed but fears remained for many women and partners.
221. I gave interviews freely to media as it represented an important method of disseminating public information, but at times was disappointed to see that selective television clip edits could alter the sense of my content. After one particularly challenging BBC pre-recorded interview and editing out of a crucial second half of a sentence, I had to email all Heads of Primary Care in Health Boards and the Royal College General Practitioners in Wales, to ensure that GPs had the accurate transcript of my words. Additionally, our Welsh Government Head of Communications liaised with senior BBC management concerning the interview. From that point I tried to conduct live interviews in preference to pre-recorded. Whilst the media has a duty to rightly challenge those in authority, extreme care should be taken in editing so as not to misrepresent or report inaccurately which may confuse those delivering and those receiving vaccinations.

Vaccine Hesitancy and relationships to Vaccine Equity

222. As mentioned, I had worked with a Public Health Registrar on equity aspects of our Covid-19 vaccination programme as Public Health Wales was tracking vaccination uptake in Wales according to area, age, gender, ethnicity, deprivation and other characteristics where possible. We had commissioned in-depth enhanced surveillance reports from Public Health Wales and wrote and published a Covid-19 Vaccine Equity Strategy for Wales following consultation with NHS, Stakeholders and Welsh Government policy colleagues on 23 March 2021 alongside an overall Programme Strategy update. The strategy is exhibited at paragraph 195 above.
223. Prior to the pandemic, Wales did not have a whole population vaccination programme such as for Covid-19. The seasonal influenza vaccination programme involved vaccinating those of all ages with vulnerabilities because of age or clinical factors, and was perhaps the closest programme, however with key differences, including exclusion of healthy adults, and a predictable roll out over several months with constant supply, and well-established delivery and recording infrastructure through primary, occupational, and school health services. Therefore, the extent of any low vaccine uptake and/or disparities within particular groups was unknown prior to the start of the Covid-19 vaccination roll-out.
224. However, lower vaccine uptake within particular groups and / or communities was something we anticipated early in the deployment of the vaccine. Early advice was sought from stakeholders before the launch of the first Covid-19 vaccine, including advice on those groups with potential barriers to uptake or access. For example, an umbrella group representing those with learning disabilities and carers were part of the Wales Covid-19 Vaccination Board as stakeholders. I attach as exhibit **GR/89 – INQ000499685**, minutes of the Covid-19 Wales Stakeholder board meeting dated 11 February 2021 in which we re-iterated the principle that “no one would be left behind” and during which we discussed definitions and ways to ensure those with learning disabilities were vaccinated and we envisaged achieving this by using a blended approach of Local Authority educational teams and improved coding to identify clients. At that meeting we also discussed engaging with those experiencing homelessness. At the following meeting, exhibit **GR/90 – INQ000499709** refers to guidance on the vaccination of those suffering from severe mental illness and learning disability which was discussed. The guidance paper discussed had originated from the Vaccination Clinical and Prioritisation Advisory Panel and we discussed operational details being progressed. Also, in the same meeting we discussed the importance of local Health Board discretion to vaccinate when possible was crucial to reach those experiencing homelessness, and also for the travelling communities. Professional judgement and flexibility would underpin the blended approach being discussed, however we recognised that this could have brought challenges with regards to achieving milestones and supply, but welcomed the sensible approach being taken.

225. Directors of Public Health with responsibility for economically deprived areas, and organisations representing for example those with sensory impairment, homeless people, detained individuals, and substance misusers were also invited. Consultation with organisations representing refugees and asylum seekers, ethnic minority communities, Muslim Doctors Cymru and others also took place. The Chair of the Vaccination Clinical and Prioritisation group, Dr Heather Payne, was also Chair of the Wales Medical Ethics Advisory group and co-Chaired the Welsh Government Black, Asian and Minority Ethnic Advisory Group considering ethnic minority people's needs during the pandemic. Many of our stakeholders were part of our initial board and involved in planning and advising on increasing uptake in the groups they represented.
226. Later, behavioural insight advice was requested and received from Public Health Wales and a subgroup of the Technical Advisory Group, with leading behavioural science academics and psychologists. With hindsight further advice from young people including from ethnic minority groups would have been very helpful. Additional expert advice was welcome at all stages of the vaccine roll out and actively sought. There was, and is always however, room for more advisors.
227. The Vaccination Equity Strategy published in March 2021 sat alongside the National Vaccination Strategy, setting the 'nobody left behind' principle.
228. As Senior Responsible Owner I requested that Health Boards designated a Vaccine equity lead for their delivery programme, and these in turn established local Health Board vaccine equity groups. Health Boards were closer to their communities and had greater insights into their needs, and knowledge of prior engagement activities and community leader networks.
229. Sharing of approaches to reach communities or individuals joined by characteristics such as substance misusers, or those with serious mental illness for example were explored often with stakeholders working with or from these communities, together at the Vaccine Equity Committee. Eventually the Vaccine Equity Committee meant that Stakeholder board could be stood down.
230. Coverage data by area, ethnic group, deprivation, and other characteristics were routinely considered at all Boards, at Vaccine Equity Committee and enhanced surveillance reports on Vaccine Equity shared at the regular weekly meetings with the First Minister and Health and Social Services Minister. The Public Health Wales and Welsh Government Communications teams sat on the Vaccine Equity Committee as well as representatives from the Chief Operating Officer and policy team, Public Health Wales Surveillance team and the Vaccine Equity leads from Health Boards. I exhibit as an example the Public Health Wales enhanced surveillance report as **GR/91 - INQ000410092**.

231. The Stakeholder Forum and Vaccine Equity Committee received qualitative reports from those representing certain groups. For example, Learning Disability Wales assisted thinking on best methods to enable vaccination of learning-disabled people in Wales including those with severe autism.
232. The Public Health Wales enhanced surveillance vaccination coverage reports identified disparities in coverage throughout the vaccination programme and tracked changes over time. These reports helped to inform behavioural insight work.
233. In general, those in ethnic minorities had lower coverage than the general combined population of Wales, with initially lower rates in Asian communities especially amongst those identifying as Bangladeshi, and in the Black African community.
234. Coverage generally decreased with decreasing age in the non-vulnerable adult population and take up rates were higher in women than men, which is common for preventative health activities.
235. From my understanding, from reading the literature and feedback from Stakeholder forum and VEC, causes of low uptake varied from young women thinking vaccination would cause possible sterility, to young men influenced by negative attitudes to vaccination amongst some popular tennis/football/Hollywood celebrities, not accepting injections, which they viewed as 'unnatural' as well as thinking that they were less at risk of serious disease than most of the population.
236. Also, some members of the Muslim, Catholic and Jewish populations had concerns regarding compatibility of the vaccine products with their religion.
237. The fears of members of some ethnic minority groups such as some Asian and Black African individuals was in my opinion a result of mistrust of authorities based on past and present experiences, including the history of European colonialism and slavery.
238. The history of unethical research on black individuals in the USA such as the Tuskegee syphilis scandal is widely known and shockingly only concluded in 1972 but is only one example of differential health care facing ethnic minorities.
239. There were also deep concerns in the UK surrounding the killing of **George Perry Floyd Jr.** an African American promoter of non-violence, by a white police officer on May 25, 2020. Following his death, the City of Minneapolis settled a wrongful death lawsuit with Mr Floyd's family, and the police officer concerned was convicted of murder.
240. Additionally, in January 2021, a 24-year-old man from Cardiff, from a family of Somali heritage, died following a night in police custody on suspicion of breach of the peace then released without charge, I exhibit an extract from a web page, relating to the 24-year-old man as **GR/92**

- **INQ000429187**. His family reported that he had claimed he was assaulted in custody and had bruises and wounds that were not present before arrest. Hundreds of protestors gathered at Cardiff Bay Police Station to protest, with many remaining successive days. A member of the public was later summoned to court for breaching Covid-19 lockdown rules for allegedly organising a gathering that had more than 30 attendees.

241. On reflection, these events could have meant that some members of the Black African community would have been even more distrustful of authorities since the Covid-19 vaccination programme launched in the UK midway between the death of Mr Floyd and the conviction of the police officer who murdered him. Distrust may also have been propagated by the nationally well documented case of Mohamud Mohammed Hassan in Wales.
242. In addition, conspiracy theories such as those expressed by Q Anon, prevalent in the United States were affecting opinion globally, and US conservative evangelical beliefs on resisting vaccination were also becoming prevalent, which I exhibit as **GR/93 - INQ000429180**.
243. I also note relevant research on trust in authorities during the pandemic amongst residents of coal field areas in Wales and Appalachia, USA which I exhibit as **GR/94 INQ000429181** showed lower level of trust in Government messaging, in line with lower trust in authorities amongst those from these deprived communities, however the residents of Wales coal field areas were more in favour of Covid 19 vaccination than US equivalent, with higher trust in medical advice and in Wales devolved government, though not necessarily national UK government.
244. A programme of work to untangle the relative contributions of the many factors that contribute towards disparities e.g. deprivation, disability status, presence of mental health conditions, household composition, ethnic minority status, special characteristics and rural/urban setting was undertaken by the Covid 19 Evidence centre – commissioned by Health and Care Research Wales.
245. A body of research is therefore now accumulating regarding the relative role that each of these factors may play in contributing to disparities in coverage in Wales.
246. Research into Household composition and inequalities during the Covid-19 programme of vaccination in Wales which I co-authored and exhibited as **GR/95 - INQ000429185** examined eight household types, defined based on household size, the presence or absence of children, and the presence of single or multiple generations. Uptake of the second dose of any Covid-19 vaccine was analysed using logistic regression. Gender, age group, health board, rural/urban residential classification, ethnic group, and deprivation quintile were included as covariates for multivariable regression. Results showed, 'Compared to two-adult households,

all other household types were associated with lower uptake. The most significantly reduced uptake was observed for large, multigenerational, adult group households'.

247. A multivariable linked data population analysis was conducted in an attempt to untangle the relative contributions of different factors influencing Covid-19 Vaccine uptake. I co-authored an exhibit at **GR/96 - INQ000429188** which demonstrated that 'Overall uptake of first dose of Covid-19 vaccination was high in Wales (92.1 %), with the highest among those aged 80 years and over and females. Those aged under 40 years, those with larger household composition (aOR – adjusted odds ratio 0.38 with 95 %CI - Confidence Interval of 0.35–0.41 for 10+ size household compared to two adult household) and being born outside the UK (aOR 0.44, 95 %CI 0.43–0.46) had the strongest negative associations with vaccination uptake. This was followed by a history of substance misuse (aOR 0.45, 95 %CI 0.44–0.46).
248. The research concluded that 'Despite high-level population coverage in Wales, significant inequalities remain across several underserved groups. Factors associated with vaccination uptake should not be considered in isolation, to avoid drawing incorrect conclusions. Ensuring equitable access to vaccination is essential to protecting under-served groups from COVID-19 and further work needs to be done to address these gaps in coverage, with focus on tailored vaccination pathways and advocacy, using trusted partners and communities'.
249. Steps taken to address vaccine hesitancy included the use of social and behavioural insight research as well as working with key trusted community members locally and nationally. We worked with Muslim Doctors Cymru who used social media to disseminate positive messages appealing for those still unvaccinated to come forwards and I participated in a number of webinars arranged by the Welsh Government communications team to address vaccine hesitancy.
250. Single language Bangladeshi webinars run by Welsh Government, and local Health Board engagement with Asian and Black African communities, helped to bring Bangladeshi community coverage levels up, though this was still lower than the general population.
251. The Muslim Council for UK issued statements where they approved the Covid 19 vaccine as 'halal' (permitted), and messaging to Jewish and Catholic populations from their religious leaders also helped to overcome hesitancy, which I exhibit as **GR/97– INQ000429193**.
252. I was very pleased to learn from our enhanced surveillance programme, that work with learning disabled people, their families and representing third sector organisations in Wales had helped to ensure that vaccination levels in this population were higher in Wales than those of the general population, which is a remarkable achievement for our NHS and Social care services.

Mandatory vaccination for frontline healthcare workers and/or care home staff

253. Mandatory vaccination for front line health and social care staff was not taken forward in Wales as a result of a Ministerial decision and I understand that this has been addressed by the Eluned Morgan MS in her statement in this module. I understand that due to the high uptake of vaccination within this sector it was not considered necessary to take forward mandatory vaccination as set out in the attached email exchange to which I was a party, exhibit **GR/98 - INQ000499735** refers. The decision was a Ministerial one rather than a clinical one, but I contributed to a Cabinet briefing paper on 25 June 2021 on the mandatory vaccination of care home workers **GR/99 - INQ000485797** and **GR/100 - INQ000499736** refer. It was a decision where the Minister for Health and Social Services would have been cognisant of balancing the possible benefits of mandatory vaccination with the possible unintended harms of impaired employment relations, staff retention and staff resentment within each sector. I am aware that the proposed introduction in England was generating media attention and controversy, and that the Welsh Government was observing events when considering its own position. A letter was sent from the Chief Medical Officer and the Chief Social Care Officer for Wales on the 25 June 2021 to all registered care home service providers highlighting that in Wales 92% of care home workers had received their first dose of the vaccine and 87% had received their second dose; and due to the high level of uptake, Welsh Ministers were not at that time minded to introduce mandatory vaccination of staff, but this would be kept under review, and that staff vaccination remained an ongoing priority. I exhibit the letter as **GR/101 - INQ000499740**.

Covid-19 vaccine certification / passport scheme in Wales.

254. The Covid-19 vaccine certification scheme was a Ministerial policy led intervention, rather than a clinical decision, although clinical, socio-economic, sport, leisure and local authority advice would have all been factors taken into consideration. The aim as I understood it, was to balance health protection aspects with the desire of business and society to open up the sports, live music, theatre and night-time economy sectors following the lockdowns during which facilities had been closed. I contributed advice, mainly on clinical exclusions, but was not the lead for the Covid-19 vaccination certification process.

Strengths and Weaknesses of the Wales Covid-19 Vaccination Programme

255. There were different strategies applied and models for deployment used in the different nations of the UK. Each of the four NHS systems together with their partners knew their landscape, populations, professionals, possible programme opportunities and challenges. England devised a relatively centralised response, which could be set up swiftly, and with an impression of greater command and control, however considerable resources are needed to provide a new infrastructure for such a model, and normal business as usual processes cannot be so easily harnessed for deployment and mainstreaming at the close of special arrangements.
256. Wales had the considerable advantage of already having Integrated Health Boards covering primary and community health services through to secondary and sometimes to tertiary care, linked closely with social care through the Health and Social Care Boards, and with other place-based services, through the Public Services Boards. Wales therefore was well placed to deliver through a Health Board devolved model (though with central enablers – through the Wales Covid-19 Vaccination Programme Board). Whilst potentially slower to establish and based on mutual agreement rather than command and control, we felt such a model would increase delivery ownership and business resilience and make best use of the existing structures and systems already in place for non-pandemic vaccine delivery, governance and accountability. This would also make it easier to hand programme control back to business-as-usual delivery models at the end of the need for special enhanced arrangements due to the pandemic.
257. The Health Boards' close links with the Local Government and local third sector maximised venues and volunteer workforce. The Wales NHS model had enabled previous collaboration and integrated approaches between NHS Trusts and Health Boards which could be used to optimal effect in this programme which adopted a 'Team Wales' approach.
258. The fact that Executive Directors of Public Health sat in NHS Health Boards rather than in Local Government as in England, meant that Health Protection leadership was embedded into the NHS in Wales response including the vaccination programme. Health Boards supported their local Covid-19 vaccination programme Senior Responsible Owner's with resources. Welsh Government financial provision was made to the Health Boards. Central parameters were set and progress monitored by the Wales Covid-19 Vaccination Board, with Health Board Chief Executives responsible to NHS Wales Chief Executive (who was also the Director General for Health and Social Services Group) for meeting these.
259. The parameters for delivery and expectations of performance were set centrally in collaboration with those involved, but delivery of the programme was placed in local Health Board control in a distributed leadership model, then monitored closely through central

surveillance of coverage, stock, staffing levels and so on, within and between Health Boards and at national level. This proved a strength and set conditions for a smooth transition towards the end of the special programme arrangements.

260. Wales attempted to speed up vaccine delivery by drawing down our stocks as soon as they were allocated, swiftly distributing to Health Boards and then immediately administering them to patients. We made a conscious decision not to hold back vaccine in reserve whilst many individuals had not yet had their first dose, since even one dose of vaccine gave some protection against Covid-19. This meant a potential programme risk for example if vaccine batches failed and less vaccine than anticipated was delivered to Wales on a particular week, but this risk was calculated, controlled and mitigated, meaning clinics did not have to pause.
261. This was well captured in the BBC Radio 4 statistical analysis programme 'More or Less' by Tim Harford which reported that Wales had given one dose of Covid-19 vaccine to a larger proportion of the adult population than any other country, including Israel 'except for a few super-tiny ones'. At the time, Wales had given first doses to 83% of the adult population compared with coverage figures for England, Scotland and Northern Ireland in the low 70's%. It was estimated that if the rest of UK had used the same strategy as Wales there would have been 5 million more first Covid-19 vaccine doses administered by that date. It was stated that 'the rest of the country should be learning lessons from Wales' as 'Wales is managing leaner, faster and getting more doses into arms than anyone else' and was considered two weeks ahead of the rest of the UK in programme terms. This was largely due to our vaccine delivery infrastructure and our Chief Pharmaceutical Officer and team advice on pharmaceutical aspects of our vaccine strategy. An example of this would be the direct receipt of the Pfizer vaccine to Wales allowing increased control and liaison directly with the manufacturer.
262. Wales also permitted commencing issuing invitations to the next JCVI ordered priority cohort group when at least 50% of the cohort above had been invited, thus capturing those willing to attend as swiftly as possible and enabling the mass vaccination clinics to be used to maximal efficiency.
263. Key to enabling the Health Board delivery were 'Once for Wales' enabling workstreams which tackled issues and barriers for the programme that were common to all Health Boards and requirements for swift deployment of the vaccine.
264. For example, the Primary Care and Social Care subgroups agreed on proposals from a Health Board Clinical Director for Primary Care to use a standard consent template and standard procedures for health and social care professionals to obtain consent for Covid-19 vaccination from nursing home residents who lacked capacity.

265. The Data and Epidemiology subgroup, chaired by Public Health Wales surveillance experts worked with Welsh Government policy and professional leads to determine requirements for an all-Wales Vaccine Surveillance plan, to allow daily updates to the public and media, those administering the programme, Health Board executive directors, Covid-19 Vaccination Board members, Director General Health and Social Services Group /Chief Executive of the NHS in Wales, CMO Wales, and Ministers.
266. The Data and Epidemiology subgroup joined NHS digital expert colleagues from Digital Health and Care Wales to examine whether the all-Wales child health system already in existence was able to be used as a basis for a Covid-19 vaccination system with extension to adults. This was developed, eventually producing a single electronic platform for data capture for input by all vaccinators, capable of being accessed online remotely from any setting where vaccine was being delivered e.g. Church halls, leisure centres and nursing homes.
267. This development widened opportunities, for example, later it enabled third sector partners such as some area Drug and Alcohol services run by the third sector to offer vaccination in their own settings, helping to offer protection to some users who would have found keeping clinic appointments difficult.
268. The Workforce subgroup helped harmonise issues across Wales such as working with Health Education and Improvement Wales on a central agreement for a 6 to 1 ratio for qualified vaccinators to oversee those who were assisting. This allowed retired individuals and volunteers such as those from St John Cymru, to join the workforce under close and expert supervision.
269. Military vaccinator personnel allocated to assist in the programme roll out in Health Boards received intensive online training from a senior vaccination lead training nurse in Public Health Wales with sign off for a list of core competencies when they were deployed to the mass vaccination clinics, under the supervision of senior vaccinators from Health Boards.
270. The Wales Blood and Transplant Service had ultra-low temperature storage facilities for non-vaccine uses and as a result of Board discussions freed space to enable vaccine storage at their sites enabling the Logistics subgroup to plan onward distribution. The requirement for addition of diluent to prepare the vaccine for injection then meant that the Consumables and PPE subgroup needed to link closely with the Logistics group to ensure that no vaccine ever arrived without diluent to constitute it, even though supplies were coming from different directions. The two subgroups worked closely to guarantee supply chains to Wales' Health Boards for the duration of the programme.
271. Monitoring and publication of the percentage of vaccines wasted or judged unfit for use after re-constitution meant that even in the early stages of the programme with staff learning about

the new ultra-low temperature stored vaccines, wastage was less than 1%, often below 0.5%. Some Health Boards placed pharmacists in their mass vaccination clinics to maintain expertise in vaccine constitution, saving nurse time for administration. Clinics counted those waiting for vaccination towards the end of each day, opening only as many vials as needed since (since any remaining reconstituted vaccine remaining at the end of the day would have to be discarded) and most health boards held reserve lists of staff who could be called in at the end of days to avoid wasting any re-constituted doses.

272. The Stakeholder Forum of the Wales Covid-19 Vaccination Board enabled the views of third sector groups and patient/carer representatives to inform the programme for example, designing best way to offer vaccination to those with autism by bringing individuals in at quieter times and allocating one nurse with experience for the whole process, or offering vaccination in the individual's car or GP if preferred, to avoid distressing individuals.
273. The Chief Operating Officer met weekly with Operational leads for the Covid-19 vaccination programme in Health Boards from January 2021, joined by his Deputy Chief Operating Officer in due course. This enabled information sharing and feedback from the front-line delivery service regarding implementation of the programme to its key decision makers, since the Chief Operating Officer attended all key meetings including the Board, Stakeholder group and Ministerial weekly catch up meetings - the latter also attended by the Director General Health and Social Services Group/Chief Executive of the NHS in Wales and the Chief Medical Officer.
274. Having close liaison between Health Boards Operational leads for the Vaccine Programme meant that there was mutual assistance with problems or issues in one area of Wales resolved together with aid from neighbouring Health Boards, for example there may be loan of vaccines from forthcoming allocation if necessary.
275. There were opportunities for improvement in terms of being able to offer vaccination closer to rural communities and avoidance of need to travel for the older people and those with disabilities. These aspects were sometimes difficult due to the geography of Wales, the storage and transportation constraints of vaccine and lack of free community transport in all areas. Some third sector organisations, local authorities and even private taxi drivers (for example those in Merthyr Tydfil) offered free transportation to clinics.
276. The formation of the Covid-19 vaccination core Welsh Government team was much slower than I would have wished, as there were by then constraints for our Health and Social Services Group workforce leads regarding external recruitment, meaning internal transfer of Welsh Government staff or secondments were favoured yet, other programmes such as Test, Trace and Protect had already garnered teams from the adventurous, enthusiastic, early adopters of 'changes in job role'. There was also a generalised denuded workforce due to a variety of

causes such as shielding, long-term sickness, family caring responsibilities, lack of school and nursery with home schooling during certain periods for children and closure of adult day care. There did not seem to be the ability to rapidly redeploy staff to the next priority. This meant that individuals supporting the establishment of the infrastructure of the programme and liaising on logistics, planning, policy and governance arrangements in the early phase were incredibly stretched.

277. Welsh Government pandemic-facing teams were fully occupied with response activities. Vaccination may not be seen as an emergency need at first, but provision is needed to set up a programme as early as possible. Even though it may not appear an immediate priority, upstream investment in preventative programmes to bring the pandemic to a close is necessary to avert future emergency and shut of the constant flow of new cases in time. Senior leadership did understand and support that the team had urgent need to expand but did not seem to be able to direct reallocation of staff.
278. In terms of the wider Chief Medical Officer's office resourcing, there are lessons in ensuring a sufficiently staffed team exists in non-crisis 'peacetime' to allow for robust response to medical emergencies such as pandemics in future years, with sufficient critical mass to cover sickness and with a more resilient system, possibly including a retained bank of trusted and trained expert professionals who could be called on at short notice for rapid escalation needs.
279. I believe that emergency planning skills and experience need to be bolstered amongst any Senior Civil Servants across the Government departments who may be required to assist in future pandemics/emergency response. In my opinion they need to participate in annual multidisciplinary Emergency Planning training at Gold level with partners.
280. In my opinion the two roles of Director General of Health and Social Service Group / CEO of the NHS in Wales are compatible in a single post but resilience would be greatly enhanced if there were clearly designated deputies for each of these functions, as the portfolio for each part of the role is considerable.
281. Greater clarity on Senior Responsible Officer roles would have been appreciated at an earlier stage. Allocation of a Chief Operating Officer and Senior Civil Servant along with the Programme Office with proper resources should have occurred earlier. Senior Civil servant support at a programme's outset enables access to trusted channels and so closer links with Ministers. Also, internal staff resources are possibly more likely to be released to fellow career civil servants.
282. There were delays and difficulties in obtaining GP and other primary care contractor agreements on administering early vaccines, and negotiations between WG and relevant bodies were initially one vaccine at a time, so Pfizer agreements were granted prior to Oxford

Astra Zeneca though the latter was more useful in primary care due to less storage constraints. Different levels of agreed remuneration for GPs in different UK countries/NHS systems also hindered agreement and caused delays. UK national negotiations on primary care reimbursements for future pandemics would be helpful in my opinion.

Wider considerations and Lesson Learning

283. A major lesson from the pandemic is that it is difficult to 'fix what is broken' in a crisis. The Covid-19 pandemic exposed and enhanced existing health and socio-economic, inclusion and access inequalities and inequities. It further marginalised the already marginalised and those in need, reinforcing unfair differences in society. Building good public welfare policy and trust in establishing and implementing the rights of individuals in non-crisis 'peacetime' is required. The Covid-19 'syndemic' has been described by Bambra and colleagues, whereby synergistic factors such as inequalities in Covid-19 mortality and morbidity are related to existing inequalities in chronic diseases and the social determinants of health, which I exhibit as **GR/102 INQ000428929**.
284. I was a member of the Socio-economic harms' subgroup of the Wales Technical Advisory Group and although not able to sustain attendance during the vaccination programme phase, received their briefings. Covid-19 led to several harms and the need to be cognisant of the above factors were recognised in Wales by the addition of this as a fifth harm, which I exhibit as **GR/103 - INQ000239550**.
285. Equality considerations regarding initial pandemic response measures (beyond simple impact assessments), such as rapid consultation with third sector umbrella organisations representing vulnerable groups earlier in the pandemic for example, regarding the introduction of control measures, would be a key learning point for me. This would have ensured plans for mitigation of possible increased adverse effects of the measures for certain populations groups. Building up trust with marginalised groups or those needing extra assistance to access health at the start of the pandemic may have helped in overcoming vaccine hesitancy later, due to their prior involvement.
286. Although stakeholder consultation and involvement with the Wales Covid-19 Vaccination Board began at the outset of the Welsh vaccination programme, earlier commissioning of professional expert advice, to go alongside that we were receiving from those with lived experience and earlier mobilisation of the Vaccine Equity Committee would have enabled improved approaches to reach all members of the population. It was vital that vaccine equity surveillance information was gathered and fed back to Health Boards so that it could be acted upon, so the fact this was commissioned early on in the vaccination programme and delivered

with excellence from Public Health Wales was foundational to monitor improvements or concerns. Advice from many marginalised groups was sought but single sources of advice are rare with all different perspectives needing to be considered, and each vulnerable or seldom-heard group being given an opportunity to contribute.

287. Social Influencers – I believe, we could have made greater use of high profile (apolitical) figures to encourage public trust, as the instances when we did do this were very successful e.g. the late HRH Queen Elizabeth II undertook a Zoom call at the age of 94 years with the Vaccine Programme leads from the four nations (in which I was privileged to participate) to convince others who were hesitant to go ahead with their jab, which I exhibit as **GR/104 – INQ000429189**.
288. Maximising cross sector learning – Military planning tools. The NHS and Civil Service should be trained in multi sector contexts including the use of military planning tools. This is especially useful when planning in unpredictable and rapidly changing environments such as an emergency response to emerging threats where characteristics of the threat are not fully known at outset. These are not restricted to health protection but may include for example major incidents, biological incidents, chemical incidents and infectious disease outbreaks, epidemics and pandemics. Understanding OODA loop models (Observe, Orientate, Decide, Act), multi-level Branch plans, Campaign plans and D-minus plans (where a start date is unknown as in this case 'V-minus' plans for an unknown vaccine launch), proved extremely useful.
289. Cross sector learning - Cultural considerations and training - The culture of the Civil Service varies from that of the NHS in certain aspects which have an impact on emergency response. In NHS training, there is an ethos of 'all hands to the pump' in a crisis, though led by those with necessary training and skills, whereas I observed that civil servants were much more fearful of getting things wrong and that the culture was that of 'staying in lane', not universally but as a general feature. There are points of learning for training purposes from both, with strengths regarding understanding of governance in the civil service useful for NHS colleagues, and lessons for civil servants from NHS partners in being willing to lead and take ownership. In my own joint working with officials, it was difficult initially for some senior civil servants to trust the credentials of an 'outsider' secondee, even if I did have the backing of Seniors. This has training implications for those joining government for specific tasks, on secondment for example. Dame Kate Bingham describes similar cultural differences in her book, 'The Long Shot'.
290. The UK allocation of Covid-19 vaccine should have been according to vaccination need and phase of the programme. The Barnett formula should have been adjusted to account for

differences in devolved nation's population risk. Necessity being the 'mother of invention' however meant innovative ways to use all available vaccines were devised in Wales and we did not run out, because of measures detailed above.

291. On a practical note, emergency response seconded personnel should have forward-looking secondment agreements, where the organisation they are assisting undertakes to reimburse them/their host organisations for later work arising from the pursuit of their duties, following return to their employing organisation (such as assisting with the UK Covid Inquiry for example).
292. Health as a priority during a pandemic - In the latter stages of the pandemic, I was involved in some meetings with UK Government officials in my role to advise the Welsh Government Senior Civil Service on the vaccination aspects of international travel regulations. For the reversal of international travel regulations, it felt to me, that the Department of Health and Social Care perspective became secondary to other UK Cabinet department concerns, and that there was a pressure on UKHSA by other non- Health divisions of UK Government to release restrictions early from some countries for expedience, whereas there was currently low confidence in our understanding of their epidemiological data on which to base decision making.
293. Global Vaccine Equity should also be recognised. The then First Minister of Wales was concerned about the need for global vaccine equity as many low-income countries were not able to access Covid-19 vaccinations until quite late in the pandemic. The virus responsible for Covid-19 did not respect borders and in our global village, partial immunity in any population meant that new variants could emerge, so the global threat needed global strategic planning and resourcing. I worked with a colleague to brief First Minister Mark Drakeford who wrote to Prime Minister Boris Johnson on 14 December 2021. He received the enclosed reply from the Secretary of State for Foreign, Commonwealth and Foreign Affairs, Elizabeth Truss which I exhibit as **GR/105 - INQ000429147**.
294. Arrangements such as those between AstraZeneca and Oxford University allowed greater distribution of much lower cost vaccines to low-income countries than traditional commercial models would and such arrangements should be further developed.
295. I left Welsh Government at the end of May 2022, following which I returned to Public Health Wales, and also served as Honorary Professor in the School of Medicine, Health and Life Science, University of Swansea. I completed a programme of research which I had begun pre-pandemic as Chief Investigator for a Health and Care Research Wales (HCRW) sponsored study into the interpretation needs of Asylum Seekers and Refugees in Primary and Emergency NHS care (Health Experiences of Asylum Seekers and Refugees - HEAR2), which

was given the national HCRW 'Research with impact' award. I remain passionately committed to equity in health care and public services, regardless of gender, age, means, ethnicity, disability, identity, or circumstance.

Statement of Truth

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

Full name: Dr Gillian Richardson

Position or office held: Consultant in Public Health Medicine, Public Health Wales

Signed:

Personal Data

Date: ____16 August 2024____