Witness Name: Jo-Anne Daniels

Statement No: 1 in Module 7

Exhibits: 328

Dated: 3 April 2025

UK COVID-19 INQUIRY

WITNESS STATEMENT OF JO-ANNE DANIELS

I, Jo-Anne Daniels provide this corporate statement in response to a request, under Rule 9 of the Inquiry Rules 2006 (dated 16 August 2024) and issued under the reference M7/WGHSSG/01, addressed to the Welsh Government's Health and Social Services Group, about its role in the Welsh Government's Test, Trace, Protect Covid-19 pandemic response between 1 January 2020 and 28 June 2022.

Preamble

1. I wish to express my sincerest condolences and sympathies to those who lost loved ones and suffered harm as a result of the pandemic.

2. Test, Trace, Protect aimed to reduce transmission of Covid-19, by identifying individuals with the virus and those at risk of having contracted the virus through close contact with an infected person. Following identification appropriate actions/advice could be followed to reduce onward spread. Actions and advice following a positive test included isolation of cases and their contacts. Over time, as new testing technologies emerged, the need for isolation and the associated harms caused were mitigated by testing. Targeting isolation of infectious or high-risk individuals was intended to off-set the need for wider population level restrictions. In Wales Test, Trace, Protect was delivered by public and third sector partners working together on complementary elements to create a collaborative system that sought to support and protect people in Wales.

3. The purpose of this statement is to assist the Inquiry to investigate and analyse Test, Trace, Protect decisions made during the pandemic, the reasons for them and their impact, so that lessons can be learned, and recommendations made for the future.

4. I have been assisted in the drafting of this statement by present and former colleagues in the Welsh Government including Sioned Rees (Temporary Public Health Protection Director), Nia Roberts (Deputy Director, Health Protection), Dr Stephanie Howarth (Chief Statistician) and Dr Rob Orford (former Chief Scientific Officer for Health).

5. This statement is structured as follows:

Part A: Introduction

6. I am currently working with Cardiff Council as part of a collaborative agreement with the Welsh Government and have been since 30 April 2024. Before this date I was the Interim Director General, Education, Social Justice and Welsh Language. I held this position from 1 April 2022.

7. Between January 2020 and June 2022 ("the relevant period") I held the following positions:
    i. Director, Mental Health Vulnerable Groups and NHS Governance. Responsibilities included: advising Ministers on mental health policy and delivery of the 10-year strategy 'Together for Mental Health'; substance misuse policy; oversight of NHS governance; the performance of NHS boards and effective decision-making; and the framework for escalation and intervention. I held this role from September 2019 until September 2020.
    ii. Director, Test, Trace, Protect. Responsibilities included: testing policy and operational delivery in relation to Covid-19; policy and operational delivery relating to contact tracing (including the NHS App) and self-isolation; support for those isolating to maximise adherence; and the Covid pass. I took up this role in April 2020 initially alongside the role referred to above, at the request of Andrew Goodall and held it until 30 April 2024.
    iii. In both these roles I reported to Andrew Goodall, the Director General of the Health and Social Services Group and NHS Chief Executive until November 2021, when Andrew Goodall became the Welsh Government's Permanent Secretary and was succeeded as Director General for the Health and Social Services Group by Judith Paget. Dr Goodall, and subsequently Judith Paget, had overall responsibility for the Test, Trace, Protect response.

8. For completeness, I held the following roles at the Welsh Government pre-pandemic:
    i. I joined the Welsh Government in May 2010 as Deputy Director, Children, Young People and Families Division, working to the Deputy Minister for Children, responsible for policies affecting children and young people including, childcare, Cymorth, Flying Start, Youth Services, children and young people's rights, advice and guidance services, advocacy, play and the UN Convention on the Rights of the Child. In June 2011 I took up the post as Deputy Director, Curriculum Division with responsibility for all aspects of the school curriculum and assessment in Wales.
    ii. Between August 2013 and January 2016, I was Director, Infrastructure, Curriculum, Qualifications and Learner Support with oversight of a wide-ranging reform agenda to improve school standards.
    iii. In January 2016 I became Director, Communities and Tackling Poverty advising Ministers on matters relating to communities, early years, children and family policy, childcare and play, community-based employment programmes, the third sector, violence against women, domestic abuse and sexual violence and equalities and inclusion including human rights, refugees and asylum issues. I left

this post in September 2019, moving to the Health and Social Services Group as Director, Mental Health, Vulnerable Groups and NHS Governance.

9. On 24 April 2020, Andrew Goodall confirmed to the Group's Executive Team that, with the Minister's endorsement, he had asked me to be the Director lead for testing and to co-ordinate activity on behalf of the Welsh Government. This work included what became Test, Trace, Protect. He confirmed that I had full authority to act internally and externally and noted that Public Health Wales and the NHS Executives had been informed and advised that, as the appointed Director, I had his and the Minister's authority to direct and facilitate. A copy of this email is exhibited at **JAD-7/001 - INQ000182404.**

Legislative background and structure of the NHS in Wales

10. Healthcare has been a devolved function since 1999. The function was performed by the National Assembly of Wales until 2006, when it was transferred to the Welsh Ministers. The NHS in Wales is therefore the responsibility of the Welsh Government. The Welsh Ministers set the high-level policy framework and targets for the health service, which are then delivered by local health boards and NHS trusts in Wales.

11. In Wales, there are three principal kinds of NHS bodies as set out in the National Health Service (Wales) Act 2006 ("the 2006 Act"): local health boards, NHS trusts and special health authorities (collectively "the NHS bodies"). The full legislative history of the devolution of health in Wales is outside the scope of this Inquiry and statement but the governance and structures of the NHS in Wales may be traced back to the National Health Service Act 1977. Exhibit **JAD-7/002 - INQ000274845** sets out a detailed description of the legislative framework for the NHS in Wales.

12. Although the term "NHS Wales" is commonly used, there is no legal entity bearing this name, in contrast to "NHS England". NHS Wales is used collectively to refer to local health boards, NHS trusts and special health authorities and those carrying out NHS functions on their behalf, to provide a range of primary, secondary, and specialist tertiary care services and community services including district nurses, health visitors, midwives, community-based speech therapists, physiotherapists and occupational therapists.

13. The Welsh Ministers are responsible under the 2006 Act for the promotion and provision of a comprehensive health service in Wales. In addition, the Welsh Ministers must provide certain services, such as hospital accommodation and services or facilities for diagnosis and treatment of illness. The Welsh Ministers have a broad range of powers that they may

exercise in relation to the NHS bodies in Wales, this includes the power to direct local health boards, NHS trusts, and special health authorities in relation to how they exercise their legal responsibilities under the 2006 Act or to perform legal responsibilities on the behalf of the Welsh Ministers.

14. In Wales, healthcare services are primarily delivered by local health boards who are responsible for planning, securing and delivering all healthcare services for the benefit of their resident population in a specific geographical area. This includes primary, community, acute and mental health services. The Welsh Ministers have established seven local health boards which together cover the whole of Wales; and the Ministers have delegated various functions to each board established, in respect of its own area and particularly in respect of the usual residents in that area. Each local health board is legally responsible for healthcare service in relation to a particular part of Wales. NHS trusts and special health authorities in Wales are also similarly established under the 2006 Act and are directed by the Welsh Ministers to provide specific services on an all-Wales basis.

15. Public Health Wales is the national public health agency in Wales and one of three NHS trusts. NHS trusts provide services on a national basis for the whole of Wales. One of the roles of Public Health Wales is to protect the public from infection and to provide advice to the public, the NHS bodies, and the Welsh Government. In relation to Test, Trace, Protect in Wales, Public Health Wales played a key role, providing advice set out in the 'Public Health Protection Response Plan' dated 5 May 2020, which I exhibit as **JAD-7/003 - INQ000182417**. The *'Public Health Protection Response Plan'* was developed by Public Health Wales to provide expert public health advice to the Welsh Government, local health boards, local authorities, the third sector and the public, to inform the response to the Covid-19 pandemic. The plan set out a detailed operating model for testing, contact tracing and outlined proposals for population surveillance and testing as we moved towards lifting restrictions. Public Health Wales also manages the majority of NHS Wales laboratories and played a key role in the delivery of PCR (polymerase chain reaction) testing. I will detail the role of Public Health Wales further in this statement below.

16. There are two Welsh special health authorities: Health Education and Improvement Wales and Digital Health and Care Wales.
    i. Health Education and Improvement Wales was established in 2018, and its functions relate to the planning, commissioning and delivery of education and training for the Welsh health workforce. This was the first Welsh special health authority established by the Welsh Ministers.

ii. Digital Health and Care Wales was established in 2020 and became operational in 2021. Digital Health and Care Wales has such functions as the Welsh Ministers may direct in connection with the following areas:

- The provision, design, management, development and delivery of digital platforms, systems and services;
- The collection, analysis, use and dissemination of health service data;
- The provision of advice and guidance to the Welsh Ministers about improving digital platforms, systems and services;
- Supporting bodies and persons identified in directions given by the Welsh Ministers to Digital Health and Care Wales in relation to matters relevant to digital platforms, systems and services;
- Any other matter to secure the provision or promotion of services under the 2006 Act.

17. Digital Health and Care Wales and its predecessor the NHS Wales Informatics Services played a key role in delivering Test, Trace, Protect, for example in developing the Client Relationship Management ("CRM") digital system for contact tracing arrangements for Wales and managing the flow of testing data from NHS Wales laboratories and later the flow of data from lighthouse laboratories (new diagnostic facilities which had the capacity to test tens of thousands of patient samples each day for Covid-19 to help ease pressure on NHS laboratories) and lateral flow test results reported from Welsh residents.

18. Under the 2006 Act, NHS bodies have a legal duty to comply with any direction issued by Welsh Ministers. Certain directions may be given by regulations or an instrument in writing such as Welsh Health Circulars ("WHC"). These have previously also been referred to as Ministerial Letters. Welsh Health Circulars are a mandatory mechanism for the Minister to issue guidance or instruction for compliance to NHS bodies on a wide range of issues. The Welsh Government's Health and Social Services Group may also issue information or guidance which is non-mandatory but is expected to be followed unless there is a good reason.

19. All aspects of Test, Trace, Protect entailed devolved responsibilities. Some aspects of Test, Trace, Protect were undertaken by the UK Government, specifically the Department for Health and Social Care, on behalf of Welsh Ministers. These included the National Testing Programme (further details provided in the testing section of the statement), NHS

Covid-19 contact tracing App and the Covid pass. The arrangements between the Department of Health and Social Care and the Welsh Ministers were made under section 83 of the Government of Wales Act 2006 which enabled arrangements to be made between the Welsh Ministers and any relevant authority for:

i. any functions of one of them to be exercised by the other,
ii. any functions of the Welsh Ministers to be exercised by members of staff of the relevant authority,
iii. any functions of the relevant authority to be exercised by members of the staff of the Welsh Assembly Government, or
iv. the provision of administrative, professional or technical services by one of them for the other.

20. Where UK Government provided services on behalf of the Welsh Government Memoranda of Understanding were in place which articulated the funding, governance, oversight and decision-making arrangements. Copies of these Memoranda and the associated service agreements are exhibited at **JAD-7/004 - INQ000182594, JAD-7/005 - INQ000182593** and **JAD-7/006 - INQ000182592.** The Memoranda of Understanding set out the framework for the exercise by the Department of Health and Social Care of the functions of the Welsh Ministers.

21. The National Testing Programme is defined in the Memoranda of Understanding (page 3) as the *'the SARS-CoV-2 testing services established for the United Kingdom by the DHSC'* and then taken over by the UK Health Security Agency and provides that the Welsh Ministers are able to participate in the National Testing Programme, where it is relevant to Wales.

Part B: Decision-making structures

22. Cabinet was the main decision-making body within the Welsh Government throughout the Covid-19 pandemic and it is the collective forum for Ministers to decide significant issues.

23. Test, Trace, Protect was discussed at Cabinet as part of the Welsh Government's response to the pandemic, examples of which can be found in the minutes of Cabinet dated 1 June 2020, exhibited as **JAD-7/007 - INQ000129872**, 17 February 2021 exhibited as **JAD-7/008 - INQ000057770** and 5 July 2021, exhibited as **JAD-7/009 - INQ000129963**. I am advised that all Cabinet papers have already been shared with the public inquiry. Although Cabinet led on collective decisions relating to the Welsh Government pandemic response,

individual Ministers were required to make decisions in their own portfolio responsibilities, thus underpinning good governance and prompt decision-making. Those decisions were set out in Ministerial Advice, the key Ministerial Advice documents relevant to this module are noted below or feature in the master chronology which is exhibited at **JAD-7/010 - INQ000514133**.

Welsh Government structures and responsibilities

24. The main decision-makers in respect of Test, Trace, Protect policies are set out in this section.

25. The First Minister of Wales is the head of the Welsh Government. The First Minister chairs the Cabinet and is primarily responsible for the formulation, development and presentation of Welsh Government policy. Additional responsibilities of the First Minister include promoting and representing Wales in an official capacity, at home and abroad, and responsibility for constitutional affairs as they relate to devolution and the Welsh Government. The First Minister is a Member of the Senedd ("MS") and is nominated by the Senedd before being officially appointed by the Monarch. Members of the Welsh Cabinet and Ministers of the Welsh Government, as well as the Counsel General, are appointed by the First Minister. As head of the Welsh Government, the First Minister is directly accountable to the Senedd for the Welsh Government's actions. The Right Honourable Mark Drakeford MS became the First Minister of Wales on 13 December 2018 and remained in office throughout the relevant pandemic period.

26. The Minister for Health and Social Services is a Cabinet position in the Welsh Government. This position was held by Vaughan Gething MS from 2016 to 12 May 2021 when he was succeeded by Eluned Morgan MS, following the Senedd elections in May 2021 and who remained in that role for the remainder of the relevant pandemic period.

27. Matters in relation to testing and contact tracing sat largely under the remit and responsibility of the Minister for Health and Social Services, who made decisions in relation to Welsh Government's Test, Trace, Protect policy.

28. During the relevant pandemic period, in addition to the usual portfolio of responsibilities, the Minister for Health and Social Services was also responsible for:

    - Preparedness for the NHS and health sector, NHS initial capacity and support to increase capacity and resilience.

- The strategic management of the pandemic in all health care settings, including infection prevention and control, triage, critical care capacity, the discharge of patients, the use of 'do not attempt cardiopulmonary resuscitation' (DNACPR) decisions, the approach to palliative care, workforce testing, changes to inspections, and the impact on staff and staffing levels.
- Shielding and the protection of the clinically vulnerable.
- Taking a central role in discussions around the use of lockdowns and other 'non-pharmaceutical' interventions such as social distancing and the use of face coverings (but these decisions were principally made by the First Minister following discussion and agreement at Cabinet).
- International travel restrictions.
- The procurement and distribution of key equipment and supplies, including personal protective equipment ("PPE") and ventilators.
- National testing programme.
- National vaccination programme.
- The consequences of the pandemic on provision for non-Covid-19 related conditions and needs.
- Oversight of the health data and evidence.

29. Policy matters in relation to support for individuals to comply with isolation requirements were agreed collectively by the Minister for Finance, the Minister for Health and Social Services and the Minister for Housing and Local Government. Julie James MS was the Minister for Housing and Local Government until 13 May 2021 when her role changed to that of Minister for Climate Change. Responsibility for Local Government was subsequently within the portfolio of the Finance and Local Government Minister, held by Rebecca Evans MS. Ministerial responsibility for Local Government encompassed decisions that assisted with the procedural and technical running of local government in light of the impact of the pandemic, such as in relation to the Local Authorities (Coronavirus) (Meetings) (Wales) Regulations 2020, which assisted local authorities in complying with their statutory duties in a manner that also complied with the various Covid-19 regulations put in place. A comprehensive package of support evolved throughout the pandemic to support and encourage self-isolation. The package included financial support through the 'Self-Isolation Support Payment' to compensate loss of earnings and practical support including help with shopping, pets and caring responsibilities. Throughout the different stages of the pandemic, the support package was adapted to respond to ongoing evaluation and feedback from local authorities and third sector organisation delivering

support. As Minister for Finance and Trefnydd, Rebecca Evans MS was involved in key financial aspects of the Test, Trace, Protect response and chaired the Star Chamber which was established on 23 March 2020 to oversee and co-ordinate the Welsh Government's fiscal response to the pandemic.

30. Many Ministers had an interest in Test, Trace, Protect policy and its operational delivery, particularly where it touched upon their portfolios, such as the Minister for Education for policy matters relating to testing in schools.

31. A summary of the ministerial portfolios for the period covered by this Module is set out in exhibits **JAD-7/011 - INQ000066139**, **JAD-7/012 - INQ000066140**, and **JAD-7/013 - INQ000066053.**

32. Special Advisers are appointed by the First Minister to help ministers on matters where the work of the Welsh Government and the work of the political party overlap and where it would be inappropriate for permanent civil servants to become involved. Special Advisers are not decision-makers. Special Advisers add a political dimension to the advice and assistance available to ministers while reinforcing the political impartiality of the permanent Civil Service by distinguishing the source of political advice and support. Throughout the specified period, Clare Jenkins acted as Special Adviser to the Minister for Health and Social Services and the Deputy Minister for Health and Social Services.

Health and Social Services Group

33. The Health and Social Services Group had a unique role within the Welsh Government in that it was responsible for exercising strategic leadership and oversight of the NHS in Wales and was responsible for the robust stewardship of NHS funds. The Health and Social Services Group was also the link between the local authorities' social services directors and the Minister for Health and Social Services and Deputy Minister for Health and Social Services.

34. For completeness of information for the Inquiry, in March 2024 the Group structures within the Welsh Government were changed; the Health and Social Services Group is now known as Health, Social Care and Early Years Group. As this change took place outside the Inquiry's specified period, I shall refer to the Group as the Health and Social Services Group as it was throughout the pandemic.

35. During the relevant pandemic period the Health and Social Services Group had the following overarching responsibilities:
    a. promoting, protecting, and improving the health and well-being of everyone in Wales, and leading efforts to reduce inequalities in health;
    b. making available a comprehensive, safe, effective, and sustainable NHS;
    c. ensuring that high quality social services were available and increasingly joined up with health care and other services; and
    d. ensuring that through Cafcass Cymru, children were put first in family proceedings, their voices were heard, and decisions made about them by courts were in their best interests.

36. During the pandemic the Health and Social Services Group consisted of the following standing directorates:
    a. Cafcass Cymru;
    b. Delivery, Performance and Planning for health and care in Wales;
    c. Finance;
    d. Mental Health, Vulnerable Groups and NHS Governance;
    e. Nursing;
    f. Population Health (including the Chief Medical Officer's Office);
    g. Primary Care and Health Science;
    h. Social Services and Integration;
    i. Technology, Digital and Transformation; and
    j. Workforce and Organisational Development.

37. The Health and Social Services Group's structure expanded in response to the pandemic, to include the addition of the Test, Trace, Protect directorate. I attach a Health and Social Services Group's organogram that sets out the planning and response structure from March 2020 to January 2022. The organogram is attached as exhibits **JAD-7/014 - INQ000083236.**

38. The Health and Social Services Group was led by a Director General, who was also the Chief Executive of the NHS in Wales. At the beginning of the pandemic period, the Director General for the Health and Social Services Group was Dr Andrew Goodall. In November 2021, Andrew Goodall became the Welsh Government's Permanent Secretary and was succeeded as Director General for the Health and Social Services Group by Judith Paget. Dr Goodall, and later Judith Paget, had overall responsibility for the Test, Trace, Protect response.

39. Although the role of Chief Executive NHS Wales is not a statutory role, it is a significant post in the Welsh Government because it brings together the responsibilities of a Director General in the Welsh Government and the leadership and oversight of the NHS in Wales.

40. Upon taking up the role of Director Test, Trace, Protect in April 2020, I was able to assemble a small Test, Trace, Protect team, drawing on colleagues from within the Health and Social Services Group, existing members of staff working for the Chief Scientific Adviser for Health, colleagues leading digital developments, and a small number of additional staff redeployed from elsewhere in the Welsh Government. Resourcing Test, Trace, Protect was a challenge throughout the period. From the outset, and throughout the relevant period, the level of resourcing required was underestimated, the skill set needed (particularly operational delivery experience) was scarce within the Welsh Government. The scale and complexity combined with the need to work at pace meant the work was challenging and at times extremely hectic leading to higher turnover than might have been desirable. The Test, Trace, Protect team was supplemented in August 2020 with colleagues from the NHS Wales Delivery Unit who brought a wealth of operational experience and in depth understanding of systems and processes within the NHS.

41. Exhibit **JAD-7/015 - INQ000513667** provides an overview of the structure of the Test, Trace, Protect team within the Health and Social Services Group in summer 2020. Over time personnel changed and the team expanded to manage additional areas of work such as new testing technologies, but the key strands of work remained in large part as set out here.

42. The principal individuals and roles within the Test, Trace, Protect Directorate relevant to Module 7, Test, Trace, Protect are as below

    Policy and operations Spring 2020- Summer 2020

    - Claire Rowlands, Deputy Director – Testing
    - Richard Sewell, Deputy Director – Contact Tracing
    - Ifan Evans, Director – Technology, Digital and Transformation
    - Nick Batey, Interim Deputy Director – Digital

    Policy and operations Summer 2020- onwards

    - Sioned Rees, Deputy Director – Testing

- Nia Roberts, Deputy Director – Testing (November 2020 – July 2021); contact tracing January 2022 onwards)
- Mike Connolly, Deputy Director – Testing
- Richard Sewell, Deputy Director – Contact Tracing
- Tom Taylor, Deputy Director – Contact Tracing
- Carla Giudice, Deputy Director – Contact Tracing
- Ifan Evans, Director – Technology, Digital and Transformation
- Phillip Bowen, Deputy Director – Digital
- Jeremy Griffiths, NHS Delivery Unit – TTP Chief Operating Officer

43. In addition, my team was able to draw upon professional advice from teams within the wider Health and Social Services Group including:
    - Sir Frank Atherton, Chief Medical Officer for Wales
    - Dr Chris Jones, Deputy Chief Medical Officer for Wales
    - Dr Rob Orford, Chief Scientific Adviser for Health and Chair of the Technical Advisory Group.
    - Fliss Bennee, Co-Chair of the Technical Advisory Group
    - Albert Heaney, Chief Social Care Officer for Wales
    - Dr Marion Lyons, Senior Medical Officer
    - Dr Sarah Jones, Senior Environmental Health Advisor for Covid-19

44. Leadership of the Protect element of Test, Trace, Protect was integrated into activities to support communities and vulnerable citizens. The principal individuals were:
    - Claire Bennett, Director – Communities and Tackling Poverty (Protect)
    - Ruth Meadows, Deputy Director – Communities (Protect)

45. The Welsh Government's Technical Advisory Cell was established in February 2020, and the Technical Advisory Group established in April 2020. Alongside the advice provided by Public Health Wales as the public health agency for Wales, scientific advice, these were sources from which scientific advice flowed into the Health and Social Services Group and Test, Trace, Protect. Both the Technical Advisory Cell and the Technical Advisory Group were led by Dr Rob Orford, Chief Scientific Advisor for Health. The Technical Advisory Group comprised internal (civil servants) and external (non-civil servants) scientific and technical experts who provided independent science advice and guidance to the Welsh Government in response to Covid-19. The Technical Advisory Cell, a temporary structure comprised the core team of Welsh Government civil servants, providing a secretariat, coordination and leadership function for the Technical Advisory Group and its associated

subgroups. I understand that Dr Orford has been asked to provide a detailed statement for the purposes of Module 7, and he will describe the Technical Advisory Cell and Technical Advisory Group in further detail.

Setting up new decision-making bodies and structures in the initial stages

46. On 24 April 2020, the Welsh Government published 'Leading Wales out of the coronavirus pandemic: A framework for recovery', which I have exhibited in **JAD-7/016 - INQ000066064**. The recovery framework was based on three pillars which were:
    a. Measures and evidence (the first pillar): the measures and evidence by which the Welsh Government would judge the capacity to respond to and assess infection levels and transmission rates for coronavirus in Wales.
    b. Principles and underpinning adjustments to restrictions (the second pillar): a series of principles by which the Welsh Government would examine proposed measures to ease the then existing restrictions, grounded in both scientific evidence and wider social and economic impacts.
    c. Public health purpose (the third pillar): a description of how the Welsh Government would enhance its public health surveillance and response system to enable it to closely track the virus as restrictions were eased, and how the system would protect people's health.

47. The third pillar of the framework required a rapid scaling up of testing capacity easily accessible by the public with a rapid turnaround of results alongside the creation of a contact tracing service to advise close contacts of positive cases to isolate in order to break chains of transmission. At the time the framework was published, testing was prioritised for patient care and critical workers and limited capacity meant there was no public access to testing. Contact tracing at the scale necessary was not at that time feasible because the structure needed to be established and staffed. As set out in the 'framework for recovery' an effective test and trace system which slowed transmission was seen as essential to allow easements of non-pharmaceutical interventions. Although there was no fixed timescale for the easing of these interventions as this depended on the measures and evidence as set out in pillars 1 and 2, Ministers indicated that they wanted a test and trace system in place by the start of June 2020.

48. My task was to lead pillar three and establish at pace an effective test and trace service. At the outset it was recognised that support for individuals to adhere to the isolation rules would be a critical component and to this end I worked very closely with colleagues outside

the Health and Social Services Group particularly with colleagues in the Communities and Tackling Poverty Directorate who became part of the programme and its governance.

49. In April 2020, a small team initially known as the 'Protect' team and later the 'Protect and Vulnerable People' team was established within the Communities and Tackling Poverty Directorate to lead on the 'Protect' component of the Welsh Government's Test, Trace, Protect policy. 'Protect and Vulnerable People' then became part of Communities Division in September 2021. The team led on policy development and the delivery of support for individuals required to self-isolate as part of Test, Trace, Protect. The work of the Protect team included the provision of financial support under the Self-Isolation Support Scheme as well as wider support to help people stay at home (all of which is considered in more detail later in this statement).

50. As noted above, my task was to set up the test and trace services at pace and the Test, Trace, Protect Programme was developed rapidly. The important elements of the programme included
    a. identifying and testing people who might have Covid-19;
    b. tracing people who had been in close contact with someone who had tested positive for Covid-19; and
    c. providing advice and guidance to protect the public and supporting people to self-isolate where necessary.

51. The approach taken was to combine national oversight by the Welsh Government and the technical expertise and experience of Public Health Wales, local authorities, health boards, the third sector and NHS Wales Informatics Services (later Digital Health and Care Wales). As described later in this statement, in practice this meant Test, Trace, Protect benefitted from national ownership, direction and guidance, which increased consistency across seven local health boards and 22 local authorities, while maintaining regional and local operational expertise and ownership, rather than being solely a local or national approach. The governance of Test, Trace, Protect reflected this national, regional and local approach, including through the Test, Trace, Protect Oversight group described below. The partnership and joint ownership approach was a significant strength to developing an agile programme that adapted to changes and developments during the pandemic. This also ensured local intelligence informed and shaped accessible support and information.

52. In line with the advice from Public Health Wales in its response plan, exhibited above as **JAD-7/003 - INQ000182417** and reflecting the findings of the review undertaken by the

military planners which I address below, from the outset Test, Trace, Protect was established as a 'Programme' of work with inter-connected projects. The programme governance structure aimed to apply the disciplines of programme management while recognising the agile and fast paced nature of delivering a new function in an environment of considerable uncertainty and with imperfect knowledge. This approach also recognised that no one team within the Welsh Government, nor indeed any single organisation in Wales could deliver the various strands of work and that a partnership between the Welsh Government, the NHS, local government and the third sector was needed to enable effective delivery at scale.

53. On 30 April 2020, I chaired the first meeting of the 'Track and Trace Programme Board' which later became known as the Test, Trace, Protect Oversight Group following the creation of a smaller, separate Programme Board as the governance arrangements evolved and which are referred to below. This meeting included all local authorities in Wales, local health boards, Public Health Wales, and the NHS Wales Informatics Services and was intended to secure support from all partners to a collective approach to delivery of Test, Trace, Protect in line with the Public Health Wales Response Plan. The minute of this meeting is provided in exhibit **JAD-7/017 - INQ000182410** and I attach as exhibit **JAD-7/018 - INQ000514004** a chronology of the Oversight Group meetings from 2020 to 2022.

54. The Oversight Group met, initially weekly and then, latterly, fortnightly throughout the pandemic under the governance structure put in place to develop and deliver Test, Trace, Protect.

55. The initial programme structure incorporated all activities relating to the implementation and monitoring of Test, Trace, Protect. The high-level core programme and project delivery and reporting structure is exhibited as **JAD-7/019 - INQ000513851.** It included a Programme Board chaired by me, an Advisory/Stakeholder Group (the Oversight Group mentioned above), a programme management function and four interdependent delivery projects / task groups that were structured to allow them to interface with delivery partners and to engage with more specific/expert advisory groups such as the Testing Technical Advisory Cell.

56. The purpose of the Programme Board was to ensure the effective governance of Test, Trace, Protect and to advise on the overall strategic direction, acting as a final point of escalation and supporting me as the Senior Responsible Owner in discharging my duties.

The Oversight Group provided an engagement forum for Test, Trace, Protect to update senior stakeholders from across all relevant organisations on strategic direction, significant policy decisions and related programme activity. As a two-way forum it also served as an escalation route for regional/local issues and an opportunity for regions to feedback on policy and programme delivery. The NHS Test, Trace, Protect Chief Operating Officer provided a regular summary of the data relating to testing and contact tracing at the Oversight Group. This data evolved and became more sophisticated over time to include testing turnaround times, laboratory capacity and contact tracing performance. Examples of such updates are exhibited as **JAD-7/020 - INQ000505465, JAD-7/021 - INQ000513664, JAD-7/022 - INQ000513661, JAD-7/023 - INQ000513660, JAD-7/024 - INQ000513665** and **JAD-7/025 - INQ000513666.**

57. Test, Trace, Protect was initially devised of four principal projects: Testing, Contact Tracing, Protect and Digital. Supporting all these projects was a communications strand that worked across the programme. All projects had separate Terms of Reference in place outlining relevant roles, responsibilities and governance structures. All groups involved a partnership approach to developing arrangements and delivery.

58. **The Testing Project** oversaw the implementation of a testing system that was able to deliver testing capacity to meet demand, was accessible across Wales and which operated to agreed protocols and standards. It encompassed PCR testing undertaken through the Public Health Wales laboratory network as well as testing (PCR and new testing technologies) as part of the UK-wide National Testing Programme. This project set out strategy for testing and oversaw the end-to-end functioning of the testing system (other aspects which fell within the purview of the testing project were antibody testing and testing for priority groups including the most vulnerable).

59. **The Contact Tracing Project**, at a Welsh Government level, oversaw and monitored the implementation and continuing performance of mass population contact tracing. The latter was able to map, locate and advise the contacts of persons who had tested positive for Covid-19 in an acceptable time frame. Delivery was by a three-tiered multi-agency partnership involving local authorities and health boards co-ordinated by Public Health Wales, with teams at national, regional and local levels. Digital systems were developed by the NHS Wales Informatics Services.

60. **The Protect Task Group** was established in June 2020. It was jointly chaired by Claire Bennett, Director Communities and Tackling Poverty, and Chris Bradshaw, Chief Executive

of the Rhondda Cynon Taf Council on behalf of the Welsh Local Government Association. Its members included representatives from local authorities, the Wales Council for Voluntary Action, County Voluntary Councils, and local health boards. I exhibit the Terms of Reference as **JAD-7/026 - INQ000281715**; the initial scoping paper that was prepared for the first meeting of the Task Group on 1 June 2020 as **JAD-7/027 - INQ000281716**; and the updated scoping paper of 8 June 2020 **JAD-7/028 - INQ000282274.**

61. **The Digital Project** was established in May 2020, was established in May 2020, was over seen and led by Ifan Evans, with the project group jointly chaired by Christopher Johnson from Public Health Wales and was also attended by local health boards. The task group's remit was to facilitate the digital plans for contact tracing across Wales between the NHS Wales Informatics Service, Public Health Wales, Regional Health Boards and Regional Digital Local Authority Leads.

62. The Test, Trace, Protect programme structure evolved during the pandemic. The testing and contact tracing projects, following the establishment stage, provided a forum to discuss and resolve operational issues with partners. Following the publication of the refreshed Testing Strategy in 2021 the structure, exhibited as **JAD-7/029 - INQ000513961** was further reviewed to include the links with the National Testing programme.

63. As indicated in the Programme structure, decisions were made by Ministers with advice from the Programme Board and Oversight Group. Throughout the period, my team and I attended regular meetings with the First Minister and Minister for Health and Social Services on Test, Trace, Protect policy and performance. In the initial response phase, these meetings were frequent (several times a week, reflecting the pace of events and complexity of some of the decisions being considered). Subsequently, a weekly meeting routine was established which then became fortnightly. At these meetings we shared and discussed performance data, for example testing capacity, testing turnaround times and contact tracing timelines, actions needed to respond to operational challenges and upcoming developments both operational and policy related. An example of the information shared with Ministers at these meetings to aid decision-making is exhibited in **JAD-7/025 - INQ000513666** above. If relevant, other Ministers might attend, for example to discuss testing in schools or elements of the Protect offer. These meetings were established early in the pandemic and continued throughout.

64. Test, Trace, Protect was also represented in the Welsh Government's engagement with social partners through the Shadow Social Partnership Council as well as at four nation

meetings. I set out in more detail the four nations arrangements and decision-making in Part G.

Part C: System Readiness

Test and Trace Infrastructure

65. At the beginning of the pandemic, the NHS in Wales had a network of NHS laboratories – the majority of these were managed by Public Health Wales to deliver pathology testing across the NHS. Cwm Taf Morgannwg and Aneurin Bevan University Health Boards also managed some of the pathology laboratories in their areas. Investment had also been made in the Wales Genomics service, an area of strength and considerable expertise.

66. Local authorities have powers to require, request or take action for the purposes of preventing, protecting against, controlling or providing a public health response to the incidence or spread of infection or contamination which presents, or could present, significant harm to human health. These powers are primarily contained in the Public Health (Control of Disease) Act 1984 ("the 1984 Act"). The 1984 Act, and secondary legislation made under that Act, provide for local authorities to take certain actions to protect public health and in doing so work closely with Public Health Wales.

Data Collection and Sharing

67. The system for collecting data on and sharing information on notifiable diseases as at January 2020 was underpinned by the Health Protection (Notification) (Wales) Regulations 2010. These Regulations place obligations on various persons such as registered medical practitioners and operators of diagnostic laboratories to disclose information regarding notifiable diseases to local authorities or other specified bodies with a health protection role (such as Public Health Wales) for the purpose of preventing, protecting against, controlling or providing a public health response to the incidence or spread of infection or contamination. These Regulations were amended in 2020 to add 'coronavirus' to the list of notifiable diseases and in 2021 to make provision for notification of Covid-19 test results to Public Health Wales for international travel purposes.

Co-ordination between decision-making bodies in Wales

68. Co-ordination in managing communicable disease incidents and outbreaks in Wales is set out in the *'The Communicable Disease Outbreak Control Plan for Wales'* which was published by the Welsh Government and Public Health Wales. It has been in place since 2011 and has been updated subsequently, the most recent update was approved in

December 2023. The original plan is exhibited as **JAD-7/030 - INQ000128967** and the updated version is exhibited as **JAD-7/031 - INQ000514002.** It provides a framework for managing communicable disease outbreaks with public health implications and sets out the roles and responsibilities for partners in Wales. This set out our arrangements to manage incidents and outbreaks, including test and trace arrangements but did not cover the scale of response needed for the pandemic. The Communicable Disease Outbreak Control Plan aligns with the Pan-Wales Response Plan which sets out civil contingencies' arrangements for partners. The existing good working relationships in Wales facilitated the co-ordination of outbreak management in Wales but none of the outbreaks were whole population outbreaks as was experienced in the pandemic.

69. The Chief Medical Officer's Health Protection Advisory Group ("HPAG") was also in place pre-pandemic, established to secure wide integration and effective implementation of health protection policies, maintain an overview of the work of health protection and drive forward the health protection agenda in Wales with partners. The Communicable Disease Outbreak Control Plan for Wales provides that following an outbreak, all lessons learnt should be routinely shared with the Health Protection Advisory Group Infectious / Communicable Disease sub-group to facilitate sharing of lessons across Wales and beyond.

Co-ordination between decision-making bodies across the UK

70. Co-ordination on health protection across the UK was in place through the public health agencies and governments. Key areas would have included surveillance, specialist diagnostic services provided through Public Health England laboratories and genomic technology developments.

71. As part of the 2011 control plan that I have exhibited above, Wales had committed to a four nations approach to planning for influenza pandemics as the threat required a close and integrated response from all governments. The strategy under the initial phase noted diagnosis of cases and contact tracing but did not consider the need and scale of the test and trace arrangements put in place for the pandemic.

72. Before the UK's departure from the European Union, security rules on epidemiological surveillance, monitoring, and the early warning and combating of serious cross border health threats sat within the EU legislative framework. This included rules on preparedness and response planning related to those activities in order to co-ordinate and complement member States' responses to such threats. Its objective was to support cooperation and

co-ordination between member States to improve the prevention and control of severe human disease across the borders of member States and to combat other serious cross border threats to health.

73. EU exit arrangements included the four UK administrations agreeing to work together to establish common approaches, known as Common Frameworks, in policy areas that were previously governed by EU law, and which intersected with areas of devolved competence. Public health protection was identified as an area where there was considerable existing co-ordination between the countries of the UK at both government and public health agency levels to support future system preparedness and decision-making across the UK. The Health Security (EU Exit) Regulations came into force in 2021.

Assessment

74. As the paragraphs above illustrate some of the necessary elements of a Test, Trace, Protect system were in place pre-pandemic. However, it is clear from what I will set out in subsequent sections that there were considerable challenges in Wales and across the UK in scaling up testing and tracing capacity and meeting the timeliness of results necessary for an effective test and trace system. Within Wales it was known and understood early in the pandemic that a new operating model would be required.

75. In developing Test, Trace, Protect, the Welsh Government received advice from Public Health Wales in the form of a 'Public Health Response Plan' which was commissioned by the Chief Medical Officer for Wales. A copy of this plan, dated 5 May 2020, is exhibited **JAD-7/003 - INQ000182417**, above. The scale of the test and trace operation which Public Health Wales assessed as necessary to deliver the aims of pillar 3 of the 'framework for recovery', which I have exhibited at **JAD-7/016 - INQ000066064,** was unprecedented and not within the capacity or capability of Public Health Wales to deliver on its own and required a partnership approach across Wales. The scale of testing in particular, also required a UK-wide programme of work. It was clear that a broader public sector co-ordinated approach was needed. System readiness is a significant theme later in this statement where I detail the steps needed to scale up testing and contact tracing and develop the underpinning digital systems and I offer an initial high-level overview here.

76. During March and April, testing capacity had not expanded as anticipated, an internal review was undertaken (referenced in more detail in Section F) which was further supplemented by a rapid review of our Covid -19 testing capability by a team of military planners on 28 - 29 April 2020.

a. The review, conducted by officials within the Testing Team, focused on the testing of critical workers and the key elements of the testing plan: testing capacity; access to testing; and the testing referral and results process. The review was undertaken by Welsh Government officials working with Public Health Wales, and using evidence provided to the Welsh Government by the Welsh Local Government Association and drawing on feedback and other sources of information. The aim of the internal review was to provide a summary of the position at the time, identify key issues and identify areas that could be improved.

b. An external review was undertaken by military planners to assess the steps needed to operationalise pillar 3 of the 'framework for recovery'. The rapid review report produced by military planners (dated 30 April 2020) is exhibited as **JAD-7/032 - INQ000182412** and concluded that there was an absence of a published, clearly articulated coherent national strategy and supporting plan for Covid-19 testing, founded on solid scientific principles and endorsed by Ministers. It made a number of recommendations including embedding a project/programme management approach. As a consequence, following a Military Aid to Civil Authorities ("MACA") request, for four weeks, I was able to draw upon the assistance of a small team of military planners to support the initiation of Test, Trace, Protect.

77. Contact tracing itself is a well-recognised public health activity used to identify and break chains of transmission to help reduce the spread of infectious diseases as set out in the Communicable Disease Outbreak Control Plan for Wales. In the early stages of the pandemic, Public Health Wales was initially able to undertake contact tracing with established systems and processes working with local authority environmental health officers and local health boards.

78. However, as acknowledged in the military planner's review, existing digital systems, for example the Tarian incident and case management system, which had been used very effectively in the early phase of the pandemic, was not suitable for contact tracing at a population level. Tarian is a digital case management system developed by Public Health Wales to support management of health protection hazards including relatively isolated local outbreaks of infectious diseases. It enables the direct reporting of notifiable pathogens through an automatic feed from the laboratory system as well as manual entry of notifications from clinicians via the health protection team or local authority Environmental Health Officers. Data from Tarian is used to support surveillance activity on

a wide range of communicable diseases. Public Health Wales did not consider that it had the operational expertise to manage contact tracing at the scale that modelling indicated could be needed, for example being able to recruit and on-board hundreds of staff within a very short time period. Although we did consider the possibility of procuring a private sector partner to support this activity, partnership working within the public sector is a much more familiar mode of operation and in keeping with delivery models deployed in Wales more generally. This strength of partnership while perhaps not a typical lens through which 'system readiness' might be assessed, positioned us to respond collectively with speed and purpose.

79. As I have mentioned digital systems to support Test, Trace, Protect were not initially in place. Some were able to be mobilised at pace such as the Client Relationship Management system referred to earlier in this statement. This digital platform was commissioned by the Welsh Government to support contact tracing activity and is specific to the Covid-19 pandemic. Similar to Tarian, it also takes a direct feed from laboratory systems but only for SARS-CoV-2 results, however the Client Relationship Management system provided the scalability needed for the Covid-19 pandemic. Data from that system was used to support surveillance activity for Covid-19. In other cases, digital developments were more challenging, for example developing a booking portal for tests and these constraints were a factor in some of the decisions made to integrate our systems with the National Testing Programme. The additional complicating factor which I will return to, was the interoperability of digital systems between England and Wales which required considerable resources to resolve.

Part D: Chronology and Legislation

80. As set out above, the legislative framework for public health in Wales is based on powers primarily contained in the 1984 Act. Section 45C of that Act provides a broad power for the appropriate Minister (defined as the Welsh Ministers, in relation to Wales) to make regulations to prevent, protect against, control or provide a public health response to the incidence or spread of infection or contamination in England and Wales. The threat can come from outside England and Wales.

81. During the relevant period existing legislation was amended and new legislation made using the powers under the 1984 Act to support the Test, Trace and Protect programme in Wales. A detailed chronology including the legislative changes made by the Welsh

Ministers as part of the development of Test, Trace, Protect is set out in the chronology exhibited as **JAD-7/010 - INQ000514133,** above.

82. The chronology is very detailed, so to assist the Inquiry I have set out in this section some of the important milestones in the development of Test, Trace, Protect and the associated decisions made by the Welsh Ministers that shaped our approach during the pandemic.

83. In the early phase of the pandemic, delay and contain, and during the subsequent lockdown, the priorities for testing were patients, vulnerable groups and front-line staff. Testing capacity was being developed to assist diagnosis and treatment, to safeguard vulnerable people and to enable critical workers to end isolation if their symptoms turned out not to be Covid-19. Contact tracing was undertaken on a limited basis. In this context, on 27 March 2020 Ministerial Advice MA/VG/1136/20 was submitted to the Minister for Health and Social Services on the Welsh National Covid–19 Testing Plan attached as exhibit **JAD-7/033 - INQ000136770.** The plan at this stage was predicated on both antigen and antibody testing (reflecting the hope that past infection would lead to immunity). The need to scale up antigen testing was core to the plan, and it was recognised that testing could help to reduce the harm from Covid-19 and enable the release from behavioural social interventions (BSIs) otherwise known as non-pharmaceutical interventions (NPIs). The '*National Covid-19 Test Approach*' was published on 7 April 2020 and is attached as **JAD-7/034 - INQ000083242.**

84. To chart a path out of lockdown, on 24 April 2020, the Welsh Government published '*Leading Wales out of the coronavirus pandemic: A framework for recovery*'. The recovery framework considered how restrictions could be eased while protecting the public from the virus and balancing the associated harms. It was based on three pillars, the third of which required a rapid scaling up of testing capacity easily accessible by the public with a rapid turnaround of results alongside the creation of a contact tracing service to advise close contacts of positive cases to isolate to break chains of transmission. This Framework and the Public Health Response Plan, produced by Public Health Wales, that detailed the operating model to support Pillar 3 articulated the need for and design of what became known as Test, Trace, Protect. The framework is exhibited as **JAD-7/035 - INQ000349353**.

85. In developing proposals for Test, Trace, Protect, Ministerial Advice MA-VG-1559-20 exhibited as **JAD-7/036 - INQ000144885** and dated 09 May 2020 was submitted to the Minister for Health and Social Services outlining emerging thinking and the principles that

we wanted to underpin the testing and tracing system that became known as Test, Trace, Protect. The principles included: working with social partners to maximise their contribution; adopting a four nations approach wherever possible to provide consistency and clarity for the public to support them in understanding the necessary behaviours that would support testing, tracing and isolating; and support for citizens to help them protect themselves and others. These principles were articulated in our Test, Trace, Protect strategy published in May 2020 exhibited as **JAD-7/037 - INQ000147253**[1] which underpinned Test, Trace, Protect consistently throughout its development and implementation.

86. Testing capacity within Public Health Wales laboratories and through the development of the UK-wide National Testing Programme was increasing during April and May 2020, though there were significant challenges which are referenced later in this statement. Increased laboratory capacity needed to be complemented by increased sampling capacity i.e. test centres or home deliveries and all of this required the development of underpinning digital infrastructure to create an end-to-end system. In May 2020 Ministerial Advice MA/VG/1547/20 exhibited as **JAD-7/038 - INQ000227631** was submitted to the Minister for Health and Social Services seeking agreement for public access to antigen testing in Wales via the UK National Testing Programme. Initially home testing was offered to Welsh residents, with self-service access to book appointments in Welsh Testing Centres added soon after. This was the first time access to testing was offered to the public, a crucial enabling factor for Test, Trace, Protect and it represented a significant increase in the available testing capacity.

87. Subsequently in June 2020 all public testing was integrated with the UK-wide lighthouse laboratory provision. This built more testing capacity within the Welsh system, by introducing two new drive through testing centres and enabling Mass Drive-through Testing Centres and Mobile Testing Units to utilise the UK-wide lighthouse laboratory provision. Advice to ministers was this initiative could help to build more testing capacity, allowing for a greater number of tests to be processed within the Welsh system, and would allow the Welsh Government to develop targeted testing approaches towards NHS services and closed settings such as care homes, as suggested by the evidence as we eased lockdown measures. It was also intended to facilitate improvements in test to result turnaround times given the importance of speed to breaking chains of transmission.

[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 [INQ000182447]*

Ministerial Advice MA-VG-1858-20 dated 08 June 2020 was submitted to the Minister for Health and Social Services exhibited as **JAD-7/039 - INQ000144913.**

88. Also, in June 2020 population-wide contact tracing began. This followed the development of the digital Client Relationship Management System and work by local authorities, health boards and Public Health Wales to assemble and train the teams needed to operationalise contact tracing. Pilots were undertaken in Hywel Dda, Powys, Betsi Cadwallader and Cwm Taf Morgannwg health board areas for two weeks from 18 May 2020 which tested key aspects of contact tracing to inform the design of the system in Wales. The pilots helped us to refine support materials, processes and team structures and informed system design on likely volumes, workforce roles and training requirements, data capture and information flow, scenario planning and high-risk contact requirements. The digital Client Relationship Management System included;
    a. a customer relationship management system to support contact tracing and case management for positive cases and contacts, including having automated processes such as queues, job lists;
    b. multichannel capabilities (SMS functionality, integrated digital telephony); and real time reporting and metrics; and allowed for analysis and downloading where relevant.

89. Our approach to contact tracing was based on a decentralised three tier model that built up from local teams within local authorities who employed the majority of contact tracers and advisers, to regional teams (at health board level), and overseen by a national Public Health Wales co-ordinating team. The national tier provided operating protocols, guidance and training for staff to ensure consistency. The regional tier provided capacity and expertise to respond to local outbreaks and managed more complex tracing cases, such as those involving care homes and hospitals. The local tier, made up of teams from across local authorities, was the workhorse of the operation identifying the close contacts of cases and advising and monitoring self-isolation on a daily basis including taking any follow-up action necessary.

90. In our Test, Trace, Protect strategy exhibited above, we had identified the need for support to help individuals isolate and that this support would draw from communities, third sector organisations and volunteers as well as the work of local authorities and health boards. Following engagement with these partners a core 'Protect' support offer was agreed by Ministers (6 July 2020) under cover of Ministerial Advice MA/VG/2109/20 exhibited as **JAD-7/040 - INQ000136795.** I also exhibit as **JAD-7/041 - INQ000281828,** the joint Welsh

Government/Welsh Local Government Association letter that was issued to Leaders of Welsh local authorities on 12 August 2020 setting out the 'Protect' element of the 'Test, Trace, Protect' strategy and the role that local authorities were asked to play. Ministers agreed that the costs would be met by the Welsh Government via the Local Authority Hardship Fund. The core 'Protect' offer was subsequently developed and extended, most notably through the introduction of self-isolation payments which were agreed by Ministers following the submission of Ministerial Advice in MA-FM-3134-20 exhibited as **JAD-7/042 - INQ000282122**. I also attach the Ministerial Advice's accompanying annexes setting out evidence relating to compliance with self-isolation at **JAD-7/043 - INQ000337156,** estimating the number of people in Wales eligible for support for the self-isolating support scheme at **JAD-7/044 - INQ000337155** and the risks and mitigations of self-isolation payments at **JAD-7/045 - INQ000337157.**

91. As PCR testing capacity expanded within Public Health Wales laboratories and through the lighthouse labs under the UK National Testing Programme and as contact tracing and protect processes bedded in, we were able to consider further ways in which testing could support our response to the Covid-19 pandemic as part of Test, Trace, Protect. Advice was submitted to the First Minister and the Minister for Health and Social Services on 14 July 2020 under cover of Ministerial Advice MA/VG/2299/20, exhibit **JAD-7/046 - INQ000336847** refers, on the release of a revised Covid-19 Testing Strategy. The draft strategy which was published in July is exhibited as **JAD-7/047 - INQ000300110** and which set out four priorities for testing:
    a. Controlling and preventing transmission of the virus by supporting contact tracing;
    b. Protecting NHS services to prevent, protect and deliver testing to support the safety of staff, patients and clients;
    c. Protecting vulnerable groups and managing increased transmission rates to safeguard and control infection in groups, communities or settings with greater risks;
    d. Developing future delivery to utilise health surveillance and new technologies to improve our understanding of the virus and innovate new ways to test.

92. The Strategy was developed with input from Public Health Wales, local health boards, the Testing Sub-group of the Technical Advisory Group and in discussion with relevant Welsh Government policy teams. The strategy covered asymptomatic transmission with the Technical Advisory Cell's Consensus paper on reverse-transcription polymerase chain reaction (RT-PCR) testing released on 10 July 2020 and which is exhibited below, weaved

into the Strategy to highlight the limitations and associated risks of asymptomatic testing, particularly at low prevalence. RT-PCR tests were developed for the detection of SARS-CoV-2 RNA to support the diagnosis of Covid-19. The test is an enzymatic and chemical process by which short strands of ribonucleic acid (RNA) are converted to deoxyribonucleic acid (DNA) and copied in a doubling time reaction (amplification) to concentrations that can be detected and visualised by the human eye.

93. In October 2020, isolation of positive cases and their close contacts became a legal requirement. Until that point Test, Trace, Protect had relied upon the positive engagement and good will of those testing positive and their contacts. The voluntary nature of isolation for cases and their contacts was in contrast to the statutory requirements in place for returning travellers who were required to isolate. The decision was made to introduce a statutory duty to remove this difference in approach. A copy of the Ministerial Advice MA/FM/3404/20 is exhibited as **JAD-7/048 - INQ000145508**, along with accompanying evidence relating to compliance with self-isolation at **JAD-7/049 - INQ000565013**. At the same time as introducing the legal requirement to isolate, financial support was introduced for those required to isolate who were on low incomes or facing financial hardship.

94. In November 2020, the progress made in developing new testing technologies meant that we were able to consider options for their use, in particular how we might use lateral flow devices. Though lateral flow devices were less accurate than PCR testing their speed and convenience meant we could consider how they might assist in reducing transmission. On 2 November 2020, advice was submitted to the Minister for Health and Social Services setting out the potential scenarios where new technologies might be a useful testing method and the considerations that should guide their use, Ministerial Advice MA/VG/3601/20 is attached as exhibit **JAD-7/050 - INQ000144851** along with an annex providing analysis of Covid-19 antibody testing data at **JAD-7/051 - INQ000144852.** Subsequently on 16 November, the Minister for Health and Social Services was asked to agree to an initial allocation of new technology for Wales from the UK Government contracted 240 million lateral flow devices purchased as part of the UK National Testing Programme. In line with the Testing Memoranda of Understanding at the time, the Welsh Government would have received a population 4.7% share, giving a preliminary allocation for Wales of over 1.4 million lateral flow devices. This is set out under cover of Ministerial Advice MA/VG/3887/20 and which is exhibit **JAD-7/052 - INQ000136827**. On 19 November 2020, the Minister for Health and Social Services agreed to the deployment of lateral flow devices to enable a mass testing pilot in Merthyr Tydfil in response to rising case rates under cover of Ministerial Advice MA/VG/3796/20 and which is exhibited at

JAD-7/053 - INQ000235871. This was the first large scale use of new testing technologies in Wales.

95. The rapid expansion in the potential to use new testing technologies led us to develop a revised testing strategy which was published in January 2021. I exhibit the advice to the Minister for Health and Social Services seeking agreement to the publication of a refreshed Covid-19 Testing Strategy for Wales which was sent under cover of Ministerial Advice MA/VG/0274/21 as **JAD-7/054 - INQ000145132.**

96. In early 2021, it was hoped that new testing technologies might enable us to revise our approach to the isolation of contacts; this followed discussion between Chief Medical Officers in December where they had expressed support for daily or serial testing of contacts as an alternative to isolation if it were practicable. We were all very conscious that as time went on adherence to isolation was likely to decline and the harms arising from isolation were well understood. A number of pilots were undertaken, which included daily contact testing to maintain key workers in the workplace if they tested negative. Pilots included the Daily Contact Testing TATA Steel pilot described below and the serial testing pilot for South Wales Police agreed in Ministerial Advice MA-VG-4334-20 as exhibited in **JAD-7/055 - INQ000116678**. We were able to extend PCR testing to close contacts alongside isolation as a means of finding cases more quickly, but it was not possible to introduce daily contact testing at that time, beyond the pilots. However, owing to the success of the vaccine programme in July 2021 the isolation of contacts who were fully vaccinated or under 18 years of age was no longer required.

97. In December 2021, we saw the third peak of the pandemic and it was unclear when case rates would begin to subside. In early December, the Omicron variant was also detected in the UK. Testing capacity was at an all-time high and demand was also exceptional. Modelling indicated that a difficult winter with high levels of respiratory viruses circulating, combined with widening symptom eligibility, was likely to see testing demand exceed lab capacity across the UK, necessitating some difficult choices. It would also place pressure on contact tracing teams. December 2021 turned out to be a challenging period, with rapid decision-making required, not least in response to the Omicron variant. Although Test, Trace, Protect managed through this period, the volume of cases had a significant impact in terms of the numbers of people isolating.

98. Increasing concerns about the harms arising from self-isolation, notably the pressure on public services and the wider economy meant that in December 2021 and January 2022

the self-isolation requirements for individuals with a positive test for Covid-19 changed from 10 days to 7 days subject to 2 negative lateral flow tests and then were further reduced to 5 days subject to 2 negative lateral flow tests.

99. From January to March 2022, reflecting the roll out of vaccination and the epidemiological evidence, planning for the scale down of Test, Trace, Protect was underway. This culminated in advice submitted to the First Minister and Minister for Health and Social Services in March 2022 under cover of MA/EM/0728/22 outlining options for scaling down testing and tracing services to an agreed 'steady state'. In steady state - Test, Trace, Protect would be focused on protecting the most vulnerable, diagnosing for treatment, maintaining surveillance and maintaining capacity to respond to newly emerging threats. Ministers agreed to proceed with option 3 which saw PCR testing cease apart from where there was diagnostic need and reductions in the availability of lateral flow tests. The Ministerial Advice is exhibited as **JAD-7/056 - INQ000177043**, along with supporting annexes to include a paper on Test, Trace, Protect Transition Planning Options as **JAD-7/057 - INQ000565032, JAD-7/058 - INQ000565045** and **JAD-7/059 - INQ000565041.**

Part E: Flow of Scientific Advice

100. Advice to support the development of Test, Trace, Protect was primarily provided by Public Health Wales, the Welsh Government's Technical Advisory Cell and Technical Advisory Group and UK-wide structures that we were part of, for example the Testing Initiatives Evaluation Board which I detail later in this statement. Test, Trace, Protect also developed specific forums for discussion and debate on clinical and scientific evidence.

101. The Welsh Government's Technical Advisory Cell was established in February 2020, and the Technical Advisory Group established in April 2020. These were the principal bodies to which scientific advice from the UK and internationally flowed and the principal source from which advice would be disseminated to policy officials and decision-makers in the Welsh Government.

102. The Technical Advisory Cell and Technical Advisory Group advice to policy-makers in the Health and Social Services Group and in turn to the principal decision-makers, including the Welsh Ministers, was largely consistent with the advice of the UK Government's Scientific Advisory Group for Emergencies. However, their advice reflected the specific Welsh context of the pandemic such as diverging epidemiology compared to England at different points and a different demography. Consequently, the Technical Advisory Cell and

Technical Advisory Group generally advocated for a consistent UK approach, although this was not always possible. For example, as described below in this statement, when capacity constraints affected lighthouse laboratories, a prioritisation list was developed for access to testing and announced on 29 September 2020. This was based on four nations' Chief Medical Officer's assessment, however our approach in Wales differed from that in England.

103. At the early stage of the response to the pandemic, expert forums were established to advise on aspects of testing and provide advice to officials in the Health and Social Services Group:

    a. The Virology and Testing Technical Advisory Cell was established as a sub-group of the Technical Advisory Cell with a specific focus on testing. The Virology and Testing sub-group provided detailed and strategic consideration of the scientific and technical evidence on Covid-19 as it related directly to virology and testing. The first meeting of the subgroup took place on 18 June 2020, a note of which is attached as exhibit **JAD-7/060 - INQ000314324** the group continued to meet throughout the pandemic until summer 2022. I exhibit a chronology of the meetings at **JAD-7/061 - INQ000514007**.
    b. The International Intelligence Technical Advisory Cell was another sub-group of the Technical Advisory Group which evaluated emerging national and international research and evidence, including test and trace measures, to identify lessons which would be applicable to Wales. The first meeting of the subgroup was on 15 September 2020, a note of which is attached as exhibit **JAD-7/062 - INQ000313837** the group continued to meet until it was stood down in September 2022.
    c. The Testing Clinical Advisory Prioritisation Group was established to provide operational clinical advice on testing. The first meeting took place on 11 December 2020, exhibit **JAD-7/063 - INQ000513967** refers. The membership included the Chair of the Virology and Testing Sub-Group of the Technical Advisory Group. Later on, this group expanded to cover patient testing and continued throughout and beyond the relevant pandemic period. I attach as exhibit **JAD-7/064 - INQ000514134** a chronology of these meetings.

104. The Technical Advisory Cell and the Technical Advisory Group produced a number of important papers which informed the approach to Test, Trace, Protect in Wales. I have outlined those papers below but I refer the Inquiry to Dr Rob Orford's Module 7 statement

for more detailed information on the formulation of this advice by the Technical Advisory Cell and Technical Advisory Group.

105. On 19 May 2020, the Technical Advisory Cell provided a paper outlining scenarios for contact tracing demand in Wales, exhibited as **JAD-7/065 - INQ000513810.** This suggested Wales might need resources to trace contacts for 11,100 to 94,700 Covid-19 positive cases per month. This translated to tracing 90,000 to 380,000 contacts, depending on the reproduction number and adherence to social distancing. Estimates were based on tracing contacts following a positive test result as discussed at the Scientific Advisory Group for Emergencies. It was estimated each day of delay in testing and isolation could increase the number of people needing to be traced by up to a factor of eight. This report was used to inform Ministerial Advice MA- VG-1688-20, submitted on 22 May 2020 and exhibited as **JAD-7/066 - INQ000336605** outlining an initial test, trace and isolate policy to become operational from 31 May.

106. On 15 July 2020, the Technical Advisory Cell published a paper describing the core principles for utilisation of RT-PCR tests for detection of SARS-CoV-2, exhibit **JAD-7/067 - INQ000509427** refers. In this period, the Technical Advisory Group also published (on 17 July 2020) a paper on the use of tests to detect antibodies to SARS-CoV-2 antigens to help policy-makers develop effective antibody testing approaches and a Technical Advisory Group consensus statement on post-mortem testing, exhibit **JAD-7/068 - INQ000066453** refers.

107. Epidemic models commissioned by the Technical Advisory Cell and the Technical Advisory Group during the pandemic also provided sources of advice for Test, Trace, Protect. The Technical Advisory Group Policy Modelling Subgroup commissioned policy modelling to be carried out by Swansea University from May 2020 and was led by Professor Mike Gravenor, who was also a SPI-M-O member, who produced epidemiological models estimating infections and direct Covid-19-related harms until the end of March 2022. Modelling was used to inform different decisions such as population protections, testing and countermeasure deployment such as vaccination. The principal reports prepared by the modelling subgroup in relation to the Test, Trace, Protect are noted below.

108. The Technical Advisory Group published a report titled "*Modelling the Current Welsh TTP (Test, Trace, Protect) System"* on 24 March 2021, exhibit **JAD-7/069 - INQ000066339** refers. The modelling was undertaken to investigate the efficiency of the Test, Trace, Protect system in Wales. Data from the Welsh Test, Trace, Protect system was used to

estimate an approximate effect on the reproduction number, R. The modelling determined that the largest effect was due to the rapid isolation of the index case.

109. The Technical Advisory Group updated its advice from March 2021 and published a further report on the "Modelling of the Impact of Test, Trace and Protect on Covid-19 transmission in Wales" on 24 August 2021, exhibit **JAD-7/070 - INQ000066338** refers. The updated "Coronavirus control plan for Wales" was published in July 2021. It set out what Alert Level 0 would look like for Wales when it entered it on 7 August 2021. Vaccinations had helped to weaken the link between confirmed Covid-19 cases and hospitalisations and /or deaths. However, an increase in Covid-19 cases at that time still remained a concern, and efforts still needed to be taken to reduce chains of transmission. Test, Trace, Protect needed to adapt to respond to the pandemic over the coming months to remain proportionate to the risks from Covid-19 and the wider harms.

110. The updated report focused on the potential impact of changing the requirements for contacts to self-isolate to include the removal of the requirement for people who were fully vaccinated to self-isolate if they were a close contact of someone who had tested positive, along with consideration of those under age 18. The report recognised that removing one or both restrictions of contacts aged under 18 and fully vaccinated might be one way to do this but the analysis suggested it would lead to an increase in the R value but the most vulnerable in society, i.e. those who were not vaccinated would still need to self- isolate and would be protected. However, there were further harms that needed to be considered, and a balance needed to be struck.

111. Advice from the Technical Advisory Cell and Technical Advisory Group encompassed a range of disciplines, such as health economics and behavioural science. In October 2020, the Technical Advisory Group produced a report on behavioural insights to inform contact tracing with a particular focus on young people, which I exhibit as **JAD-7/071 - INQ000232363**[2] and in January 2021, a further report on using behavioural insights to inform policy and practice which encompassed testing and isolation which is exhibited at **JAD-7/072 - INQ000066341.**

112. Public Health Wales was the main source of epidemiological and public health advice to policy-makers in the Health and Social Services Group. For example, its response plan,

[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 [INQ000066116]*

previously exhibited, set out in great detail the evidence for test and trace which shaped its recommendations for the operational model that we should deploy in Wales. Public Health Wales provided on-going epidemiological advice throughout the pandemic at various meetings including the Chief Medical Officer's Health Protection Advisory Group, the Test, Trace, Protect Programme Board and Oversight Group and from October 2020 through several advice notes requested by the Welsh Government. These included epidemiological summaries and advice on pharmaceutical and non-pharmaceutical interventions including testing, contact tracing and isolation. These would have been considered in the formulation of advice to ministers, examples of which are referred to throughout this statement.

113. In addition, Knowledge and Analytical Services, the Welsh Government's in-house data and statistical analysis directorate, also collated a library of information relevant to the pandemic together with undertaking, either directly, with or through others, research, and statistical analysis. Knowledge and Analytical Services was essential in providing assurance data on Test, Trace, Protect which was used publicly in briefings from the Welsh Ministers, such as four nations comparison data.

114. The four nations approach to the National Testing Programme also meant that the Health and Social Services Group had access to evidence, research, evaluations and perspectives from the wider academic, scientific and clinical community. This enhanced the range of sources of advice to support policy and decision-making alongside the structures for Wales. Evaluation studies and assessments of new testing technology were a significant component of the UK testing programme. Access to this advice mainly came via the various Boards and Groups that Test, Trace, Protect colleagues attended, details of which have been set out in Part G.

115. Evaluations were also an important source of advice especially with the development and introduction of new testing technology assessments. These were usually led at a UK level under the Covid-19 Testing Initiatives Evaluation Board. This Board oversaw evaluations of testing initiatives including evidence for use of lateral flow devices, asymptomatic testing, technology innovations to improve testing, different applications of testing and workplace and geographical testing pilots/programmes. In Wales, the mass testing pilot in Merthyr in November 2020 was evaluated and provided learning for future use of lateral flow devices. An assessment of the mass testing pilot was published and concluded it was a cost-effective measure with public health benefits, and which is exhibited at JAD-7/073 - INQ000239580

116. These sources of scientific advice and evidence were used to inform the advice presented or collated by Test, Trace, Protect officials to ministers in Cabinet and via the Ministerial Advice process either directly or as part of the 21 day review process. Ministers would be provided with data from Knowledge and Analytical Services and the Technical Advisory Cell directly in addition to Ministerial Advice from policy officials. The First Minister and Minister for Health and Social Care also met Test, Trace, Protect policy leads to discuss emerging and developing evidence on a regular basis.

Part F: Testing

What testing for Covid-19 was carried out in Wales before March 2020

117. In Wales, as mentioned earlier in the statement, Public Health Wales managed the majority of the local diagnostic services through 13 laboratories and additionally delivered specialist and reference laboratory services for the whole of Wales. The laboratories in the Royal Glamorgan, Withybush, and Royal Gwent hospitals provided more limited microbiology testing. During the early/contain phase of the pandemic, laboratory and testing capacity for Covid-19 was not in place in Wales and up to 7 February 2020 testing for Welsh residents had been undertaken in Public Health England laboratories, including for returning travellers. The Chief Medical Officer set out in a press release on 13 February 2020, exhibited as **JAD-7/074 - INQ000048724,** that following weeks of preparation, the virology laboratory at University Hospital of Wales had commenced testing for Covid-19 on 7 February 2020.

118. As far as I am aware, no steps were taken by the Health and Social Services Group in this early phase of the pandemic to consider or implement a strategy consistent with furthering "heard immunity". As noted in Mark Drakeford's Module 2B statement [INQ000371209] at paragraph 130, "[d]iscussion of herd immunity could be found in newspapers and in scientific community consideration. It was never a practical proposition in Wales and never proposed as such to the Welsh Cabinet". I am not aware of any discussion or conversation during the subsequent and remaining period of the pandemic relating to herd immunity involving myself or anyone else from the Test, Trace, Protect team.

119. Although demand for testing was low in the contain phase, it was recognised that plans were needed to increase laboratory capacity and sampling arrangements within the NHS for people to be swabbed and tests sent to laboratories for analysis. On 10 February 2020, the Chief Medical Officer wrote to health board Chief Executives, exhibited as **JAD-7/075 - INQ000298964,** setting out that local health boards needed to develop community

assessment and testing plans and have a Coronavirus Testing Unit separate from Emergency Departments to avoid the potential risk of infecting others. That requirement established the roles and responsibilities of local health boards to undertake sampling of those with symptoms and Public Health Wales for processing samples and providing test results. These plans were to be in place as soon as practicably possible, but no later than 14 February 2020.

120. On 18 February 2020, the Minister for Health and Social Services published a Written Statement, exhibited as **JAD-7/076 - INQ000320728** that confirmed to the Senedd that testing for Covid-19 was being undertaken within a central laboratory in South Wales. Testing was taking place in the community, helping to prevent those with symptoms attending GP surgeries or hospital Accident and Emergency departments to reduce the risk of transmission.

121. Further work was undertaken during February to develop testing capacity within the NHS Wales laboratory system and from 7 March 2020 testing started for front line staff, as well as inpatients. Public Health Wales, since the first test was processed in a Welsh laboratory on 7 February, had increased capacity to 800 tests per day. As of 27 February 2020, 236 individuals in Wales had been tested – all of whom had tested negative.

122. On 28 February 2020, the Novel Coronavirus update circulated internally, exhibited as **JAD-7/077 - INQ000409957** noted that there had been one confirmed case in Wales on that day. As of 9.00 am on 28 February, a total of 8,986 UK tests had concluded, of which 8,967 had been confirmed negative and a total of 19 confirmed as positive. All cases in the UK, including the Welsh resident, were at that time managed in high consequence infectious diseases (HCID) units in England.

123. The second confirmed case in Wales was noted on 5 March 2020. As of Friday 6 March 2020, 634 people in Wales had been tested for Covid-19 and a total of 20,338 UK tests concluded, of which 20,175 had been confirmed negative and the total number for the UK stood at 163, which included 11 in Scotland, two cases in Wales, and three in Northern Ireland.

<u>The decision to end community testing in March 2020</u>

124. A decision was taken by the UK Government to end community testing in England on 13 March 2020. As confirmed in the fifteenth meeting of the Scientific Advisory Group for Emergencies on that day, it was thought that this would increase the pace of testing (and

delivery of results) for intensive care units, hospital admissions, targeted contact tracing for suspected clusters of cases and healthcare workers. This included faster confirmation of negative results. A copy of the minutes of this meeting is exhibited in **JAD-7/078 - INQ000509415.**

125. A Technical Advisory Cell brief was prepared on 15 March 2020 and is exhibited as **JAD-7/079 - INQ000300179**. The paper suggested that the benefits of a rapid increase in Covid-19 testing in Wales could include:
    a. A better understanding of the epidemic and provide greater intelligence for policy shifts e.g. lifting or imposing measures;
    b. To be able to provide meaningful information to those who were self-isolating which would support greater compliance, as observed in other countries (e.g. Hong-Kong); and
    c. It would help, in future outbreaks, in identifying individuals who might not be at risk (e.g. for workforce purposes).

126. During March 2020, we were entering the 'delay' phase of the Coronavirus Action Plan. As a result, Public Health Wales's advice for the public changed and people who thought they had symptoms of Covid-19 no longer needed to contact NHS 111, instead the public were advised to stay home and only contact NHS 111 if their symptoms worsened.

127. The First Minister, in his statement to the Senedd on the 17 March 2020, noted this change in advice for those with symptoms and that the focus had shifted away from community testing: a copy of the statement is exhibited in **JAD-7/080 - INQ000271921**. With rising cases and hospitalisation, the four governments agreed on a simple set of headline messages - 'Stay Home, Protect the NHS, Save Lives'. The move into the 'delay' phase required prioritising testing where there was greatest need including cases admitted to hospital, in line with national guidance, and based on symptoms and severity. This change was made to give greater capacity to testing in hospital settings, where the most vulnerable patients would be cared for. This change in policy necessitated an increase in testing for key workers and their family members to reduce workforce absence and help sustain vital services for the public. There was a continued need in this context to increase testing capacity and there was a potential need for prioritisation in the interim. The Chief Medical Officer for Wales issued a public health alert on 16 March 2020 (exhibit **JAD-7/081 - INQ000252513** refers) which set out revised criteria for testing including the need to test health care workers who were symptomatic and where their absence from the workplace

could be detrimental to the safe running of the service. This alert also established priorities for testing during periods of significant demand.

128. On 16 March 2020, Public Health Wales confirmed 34 new cases had tested positive for Covid-19 in Wales, which brought the total number of confirmed cases to 94, a copy of this is exhibited in **JAD-7/082 - INQ000509416**.

Roll out of testing – laboratories and sampling sites

129. On 21 March 2020, the Minister for Health and Social Services issued a Written Statement exhibited at **JAD-7/083 - INQ000509418**. He reported that testing capacity had continued to increase and Public Health Wales had capacity for over 800 tests per day. Based on a briefing provided by Public Health Wales, exhibited as **JAD-7/084 - INQ000513800**, it was expected that from 1 April 2020 this would increase by a further 5,000 tests per day (total – 6,000 daily) and from 7 April 2020, by a further 2,000 tests per day (total – 8,000 daily) and by end of April, Public Health Wales aimed to have capacity to undertake up to 9,000 tests per day in Wales.

130. The projections set out in the statement of 21 March 2020 reflected work that had been undertaken by Public Health Wales to increase testing capacity in the NHS in Wales laboratories. A Technical Advisory Cell update for the Chief Medical Officer on 16 March 2020 exhibited at **JAD-7/085 - INQ000383912** noted expectations that UK-wide capacity would increase significantly, and that Public Health Wales expected capacity in its laboratories to expand to 5000 tests per day by week commencing 6 April 2020.

131. Expectations on testing capacity at this time included volumes that were dependent upon negotiations taking place between Public Health Wales and Roche Diagnostic Ltd 123 ("Roche"). Public Health Wales led on the discussions with Roche. An agreement did not subsequently materialise which the Welsh Government understands was attributed to a miscommunication of Wales' position by the UK Government which was also in negotiation with Roche at the time. Roche subsequently entered an agreement with the UK Government to supply tests for all four nations and Wales was allocated a share of these – around 900 per day at that time. This was significantly less than had been anticipated from the expected Public Health Wales deal. I exhibit an email from Tracey Cooper, Chief Executive, Public Health Wales dated 22 March 2020 setting out the Roche position as **JAD-7/086 - INQ000309905.**

132. Public Health Wales testing capacity came under further scrutiny following the Senedd's Health, Social Care, and Sport Committee session on 7 May 2020. Tracy Cooper, Chief Executive of Public Health Wales, gave evidence to the committee stating she was not aware of a 'target' to reach 9,000 PCR tests by the end of April: the transcript of the committee is attached as exhibit **JAD-7/087 - INQ000514136** (relevant pages are 12-13). Ms Cooper subsequently wrote to the committee attached as exhibit **JAD-7/088 - INQ000514135** in which she explained that "the 9,000 relates to the 5,000 domestic testing capacity that was our primary focus for the end of April and the additional 4,000 was a figure based on assumptions at the UK level and was not associated with our 5,000 capacity planned for the end of April."

133. On 27 March 2020, Ministerial Advice MA/VG/1136/20, exhibited earlier as JAD-7/033 - INQ000136770, was submitted to the Minister for Health and Social Services which sought agreement to the Welsh National Covid-19 Test Plan and its associated costs. I exhibit the testing plan at **JAD-7/089 - INQ000349273.** The plan set out proposals for six work-streams and the lead for each. For example, Public Health Wales was to lead on scaling testing for Covid-19 infection through PCR testing, with the priorities being to test patients, vulnerable groups and front-line staff. A high-level public-facing version of the plan was published in April 2020.

134. The intention was that a Welsh National Covid-19 Test Plan - Task and Finish Group led by the Welsh Government working closely with NHS partners and with the UK Work Stream leads would support delivery. Membership included Public Health Wales, health boards, the NHS Wales Shared Service Partnership, NHS Wales Informatics Services, the Life Sciences Hub, Health Technology Wales, Genomics Partnership Wales and academic partners. Due to developments that I outline later in this section some of the work planned to be undertaken through these Task and Finish Groups was overtaken by the testing review, the establishment of Test, Trace, Protect and the four nations approach agreed under the National Testing Programme. Public Health Wales led a workstream to develop PCR testing in NHS Wales laboratories and continued to work to source additional capacity.

135. On 28 March 2020, the Minister for Health and Social Services issued a press release exhibited at **JAD-7/090 - INQ000513651.** This set out revised expectations for testing capacity in line with the reduction from Roche as a result of the UK Government agreement. Testing capacity was expected to increase to 1,100 tests a day from the beginning of April and by mid-April the expectation was that capacity would increase to

enable 5,000 antigen tests a day to be undertaken. These tests were intended for people admitted to hospitals with suspected coronavirus, for frontline NHS staff and people who were classed as extremely vulnerable. The press release also noted the potential for a further 4,000 tests a day as part of a four-nations deal for the UK involving Thermo Fisher Scientific, Amazon, Boots, Royal Mail and Randox. This followed discussions between officials as evidenced by an email exchange between the Department for Health and Social Care and devolved governments setting out the details of the agreement to provide a UK-wide testing service at **JAD-7/091 - INQ000509420.** These discussions and the Minister's statement reflect the initiation of the National Testing Programme.

136. The announcement also reported on a new antibody blood test which would be tested in the UK. It was hoped that recent infection with Covid-19 as indicated by the antibody test would confer immunity and help critical workers – especially frontline NHS and social care staff – return to work. Subsequently, as understanding of immunity developed, the role of antibody testing was re-evaluated and scaled back.

Evolution of testing capacity April – August 2020

137. There were a number of challenges in developing the NHS Wales laboratory processing, delivery and distribution routes at the time. These included the high global demand for the supply of materials and the recruitment of workforce with the required skills. During April 2020 approaches were also made by academia and other partners with proposals and projects to increase testing capacity in Wales. One of these came from Cardiff School of Biosciences to establish a Cardiff University Covid-19 testing pipeline.

138. At a UK level developments were progressing to scale up capacity under the National Testing Programme that involved swabs collected at Regional Testing Sites, or through home testing kits (where the test was sent via post) and a network of high-throughput laboratories referred to as lighthouse laboratories.

139. During March 2020, as articulated in the testing plan submitted to Ministers on 27 March and subsequently set out in the Minister's statement of 28 March exhibited as **JAD-7/090 - INQ000513651** above, the Welsh Government had been invited and agreed to be part of a UK-wide testing programme. During early April, Public Health Wales was in parallel developing proposals for home testing kits which included discussions with potential providers of test kits and logistics organisations as well as making plans to develop its laboratory capacity to meet the demand for testing which was primarily intended for clinical use and for key workers.

140. On 2 April 2020, it was announced that a UK Government-operated drive-through test sampling site was opening at Cardiff City Stadium as part of the UK Testing Programme through arrangements with Deloitte. The opening of this test site had not been communicated before the announcement by the UK Government to Public Health Wales or the Welsh Government. As a result of this, rapid joint working with Public Health Wales and other key partners was required to get the site operational and set up for opening on 7 April.

141. The network of high-throughput lighthouse laboratories under the National Testing Programme was inaugurated in April 2020. Initially, lighthouse laboratories were established at Milton Keynes, Alderley Park and Glasgow. These were sometimes referred to as Pillar 2 labs under the UK Government 5 pillar plan to rapidly scale up testing. The aim of Pillar 2 was to deliver increased commercial swab testing for critical key workers in the NHS across the UK, before expanding to key workers in other sectors. As capacity increased, their household contacts were also tested to allow a return to work where individuals were asymptomatic, or were household contacts of symptomatic individuals and it could be shown they were highly unlikely to have Covid-19.

142. Access to capacity developed at a UK level provided additional resilience and options for future testing plans for Wales. The capacity provided for Wales under the National Testing Programme included lighthouse laboratories, sampling sites (Regional Testing Sites, Mobile Testing Units and home testing kits) and on-line and telephone booking systems. The sampling sites under the National Testing Programme worked alongside the Community Testing Units delivered by the local health boards in Wales that sent samples to NHS Wales laboratories. Arrangements put in place between the UK Government and the Welsh Government were later formalised in a Memoranda of Understanding. Funding for the National Testing Programme was centrally managed by the UK Government with Wales receiving the value of services based on a population share. More detail on the Memoranda of Understanding is set out below.

143. Following the Ministerial Advice MA/VG/1136/20 (dated 27 March 2020) and exhibited as **JAD-7/033 - INQ000136770**, further advice was submitted to the Minister for Health and Social Services on 1 May 2020 under cover of MA/VG/1270/20, exhibited as **JAD-7/092 - INQ000338235** to agree updated funding estimates of up to £57million associated with the delivery of the Wales National Covid-19 Testing Plan. The Minister was notified that Public Health Wales had identified an opportunity to significantly increase antigen testing

capability by increasing its laboratory space to house new testing platforms. The purchase of kit meant more people could be tested, there was less reliance on services offered in England and there would be greater capability for testing whilst entering the recovery phase. The increased capacity within the workstream led by Public Health Wales resulted in an additional £12.8m cost for retaining the level of testing capacity to the end of July 2020.

144. Concerns that testing capacity was not increasing as planned and in line with the target set out in the press statement of 28 March 2020, meant that on 15 April 2020, the Minister for Health and Social Services commissioned a review of the testing regime to identify improvements that could be made. This is also referenced earlier in this statement as the 'internal review' and was published on 18 April 2020 and is exhibited as **JAD-7/093 - INQ000182403**. The review described delays and supply chain issues and confirmed that Wales would not reach the stated target of 5000 tests a day by the third week of April 2020. It included a commitment to provide weekly updates setting out expected and actual increases in capacity. The review noted that some tests were reliant on UK contract arrangements, but it was clear that Wales was receiving a fair share of the UK arrangements.

145. The review set out actions to improve progress, including a supply chain analysis undertaken by Public Health Wales working with suppliers to secure greater confidence about delivery dates, co-ordination with UK partners around shipping of equipment and liaison with the military to support transport planning. The Welsh Government had committed further funding as outlined above to bring in equipment and reagents to increase testing capacity.

146. The review also noted the importance of building sampling capacity around Wales to support access for key workers with the gradual move away from the delay phase. In Gwent, testing of key workers was via the Rodney Parade (Stadium) Mass Testing Unit and Community Testing Units. In North and West Wales, key workers were tested via Community Testing Units with new infrastructure planned for community mass testing. In the South Wales area, key workers were tested through Cardiff City Stadium, the Rodney Parade (Stadium) Mass Testing Unit and Community Testing Units.

147. A critical worker policy was published on 19 April 2020, which prioritised testing for critical workers, based on evidence and best use of testing capacity available at that time. I exhibit the policy as **JAD-7/094 - INQ000182402.** This set out 8 categories that covered

approximately 483,000 critical workers; this included 168,500 healthcare workers and 9,900 police and prison staff. The 8 categories were:

a. health and social care workers;
b. public safety (emergency workers) and national security workers;
c. local and national government workers;
d. education and childcare workers;
e. food and other necessary goods;
f. transport workers;
g. utilities, communication and financial services workers; and
h. key public service workers.

148. On 24 April 2020, the Wales *'Framework for recovery'*, as exhibited earlier in my statement as **JAD-7/016 - INQ000066064**, was published. This set out commitments for what became Test, Trace, Protect under Pillar 3 (Public Health response) of the recovery framework. It included commitments on enhancing surveillance, case identification and contact management, learning from international experience and engagement with communities. The Chief Medical Officer for Wales commissioned Public Health Wales to provide advice on how Pillar 3 could be delivered including the necessary increase in testing capacity to undertake population testing.

149. At the end of April 2020, as detailed further in the section headed Care Home Testing, below, a new policy for care home testing was introduced for testing individuals 48 hours before their planned discharge from hospital, and to test care home residents and those in the community before a planned transfer or admission to a new care home.

150. Earlier in this statement I referred to the first meeting of the Track and Trace Programme Board on 30 April 2020 and the work that followed to set up Test, Trace, Protect in Wales. This work included establishing the testing project to oversee a rapid expansion in access to testing for the general population. At the start of May (7 May 2020) NHS Wales laboratories had a capacity for 2,550 and reached 5,000 by 13 May 2020. From 24 April 2020 the first sample from a Welsh resident was processed in a lighthouse laboratory. To coincide with the increase in laboratory capacity additional sampling facilities made it easier to get a test and to target testing on outbreak hot spots. This included eight new mobile testing units being available from 3 May 2020 focused on supporting access to testing in care homes and in cases where an outbreak occurred and where there was a need to test all residents in care homes and repeat testing the following week.

151. Despite this, take-up of tests in the Welsh testing centres and units was much lower than the available capacity. On 7 May 2020, 933 tests were taken compared to a laboratory capacity of 2,550. At that point the Public Health Wales booking portal was not fully functional which meant key workers did not have a single consistent route to book a test and the forecast for the portal going live seemed ambitious given the difficulties experienced to that point.

152. England already offered a dedicated web portal for key workers to request home based tests or to book tests directly at testing centres with available capacity. Although the service was also used by Scotland and Northern Ireland as four nation functionality had been developed, it was not used in Wales as the digital systems did not exist at the outset to enable the results from the laboratories to integrate with the Welsh LIMS (Laboratory Information Management System). From 18 May 2020, the UK government planned to extend the web portal to symptomatic members of the general public (in England, Scotland and Northern Ireland) and it would be complemented by a dedicated phone service, 119. The Department for Health and Social Care and NHSX confirmed the services could be made available for use in Wales, thereby delivering a 'whole of UK' service for key workers and members of the public, with the costs met centrally by the UK government.

153. A significant barrier to using the UK network of lighthouse laboratories had been the reporting of results back to Wales and whether these results could be integrated into the Welsh Laboratory Information Management System ("LIMS") and clinical record. With this barrier seemingly overcome, there were no obstacles to integration with the National Testing Programme.

154. On 11 May 2020, the Minister for Health and Social services agreed, via Ministerial Advice MA/VG/1547/20, exhibited earlier as **JAD-7/038 - INQ000227631**.

    i. for key workers to immediately access the UK Critical Care portal and the underlying home testing infrastructure which would be processed by testing laboratories in England, with test results reported electronically back to Wales on an hourly basis and integrated directly into the Welsh Laboratory Information Management System and clinical record system and,

    ii. for members of the general public to use the 'UK-wide public booking service from its launch on 18 May 2020. This was initially restricted to home testing for Welsh residents until Welsh testing centres were able to provide live appointment information digitally to the UK portal.

155. Including Wales in the 'whole of UK' service, aligning the offer with that in the rest of the UK, simplified public communications and messaging stemming the significant confusion the difference in approach the separate infrastructure had caused to date.

156. The Test, Trace, Protect strategy, exhibited earlier as **JAD-7/037 - INQ000147253** was published on 15 May 2020 by the Minister for Health and Social Services. Mass testing and technology were at the heart of the strategy to help Wales move to the next stage of the response to the virus. The plan included: increased testing of critical workers to enable them to return to work; a new system of home testing for the public if they had coronavirus symptoms and a new app to track symptoms in the general population and contact others who had symptoms or who had tested positive. Testing capacity at that time stood at more than 5,000 tests a day. There were six drive-through testing centres, eight mobile units and a number of community testing centres throughout Wales.

157. On 18 May 2020, further to Ministerial Advice MA/VG/1547/20, exhibited previously as **JAD-7/038 - INQ000227631** the Minister for Health and Social Services announced that Wales was joining the new UK-wide system for ordering home testing kits. Home test kits for the public and critical workers could be accessed via this portal and booking slots at drive through centres would be accessible via this same portal in the coming weeks. As noted below, care home residents and staff were already able to access tests on the UK Government portal under the National Testing Programme arrangements. A copy of the press release is attached as exhibit **JAD-7/095 - INQ000516443.**

158. On 27 May 2020, a Written Statement on Test, Trace, Protect noted that the scale of testing capacity needed in Wales and indeed across the UK was unprecedented. At this time testing capacity had further increased with laboratory capacity of over 9,000 tests a day, and expectations to have capacity for 10,000 tests a day in the near future. The Written Statement is exhibited as **JAD-7/096 - INQ000376510.**

159. Ministerial Advice MA/VG/1701/20, exhibited as **JAD-7/097 - INQ000144899** and supporting annex, namely Public Health Wales' business proposal exhibited as **JAD-7/098 - INQ000056275**[3], was submitted to the Minister for Health and Social Services on 29 May 2020. The Minister agreed to Public Health Wales setting up new laboratory space in Imperial Park 5 to expand the antigen testing capacity within the NHS Wales laboratory

[3] *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 [INQ000565042]*

system; revenue funding of up to £0.833 million for running costs; and capital funding of up to £5million for equipment and design/construction works was approved.

160. On 8 June 2020, further advice under cover of Ministerial Advice MA/VG/1858/20, exhibited earlier as **JAD-7/039 - INQ000144913**, was submitted to the Minister for Health and Social Services. The advice set out that two new mass drive-through testing sampling centres would come online in Deeside and Abergavenny with tests to be processed using lighthouse laboratories under the National Testing Programme. The Minister agreed to the opportunity to switch four other sites that had been facilitated through Deloitte (Carmarthen, Cardiff, Llandudno and Abercynon) to the UK laboratory provision over the following two-week period. This built testing sampling capacity within the Welsh system alongside the Mobile Testing Units to support tracing and develop targeted testing approaches towards NHS services and closed settings. It was also noted that the decision from the UK Government on establishing a new lighthouse laboratory in Wales was expected the following week. I exhibit a map showing Covid-19 testing centres in Wales created in May 2020 at **JAD-7/099 - INQ000513817**.

Care Home Testing

161. As noted above the Welsh National Covid-19 Test Plan was published on 27 March 2020, exhibited at **JAD-7/089 - INQ000349273**. This confirmed that one of the six workstreams was scaling testing for patients, vulnerable groups and front-line staff. The lead for that work-stream was Public Health Wales. The fourth work-stream was point of care testing to control future outbreaks in, amongst other settings, care homes.

162. Officials in the Health and Social Services Group were at the time working with Public Health Wales on guidance for the care sector which was published on the 8 April 2020 and is exhibited as **JAD-7/100 - INQ000283271**. Consistent with the UK Government guidance at that time, Public Health Wales guidance stated that "Negative tests are not required before transfers / admissions into the residential setting".

163. In light of evidence from the Technical Advisory Cell dated 14 April 2020 and changes in requirements set out by the UK Government Department for Health and Social Care on the 15 April 2020, a Ministerial update issued to the Minister for Health and Social Services and the Deputy Minister for Health and Social Services on 17 April 2020, confirmed changes in policy and stated that officials were working with Public Health Wales to produce a testing delivery model for care home residents and staff, which would be completed over that

weekend and available by 20 April, a copy of this update is exhibited as **JAD-7/101 - INQ000336423**.

164. On 22 April 2020, the Chief Medical Officer and the Chief Social Care Officer for Wales, Albert Heaney, wrote to care homes confirming the new policy on testing and reflecting the changes within 'COVID-19 Hospital Discharge Service Requirements (Wales) and Guidance for stepdown of infection control precautions and discharging COVID-19 patients'. These changes evolved in response to advice from Public Health Wales and concerns relating to the vulnerability to the virus of older people in care homes. I exhibit his letter as **JAD-7/102 - INQ000336444** and the 'COVID-19 Hospital Discharge Service Requirements (Wales)' as **JAD-7/103 - INQ000081080.** The guidance itself was published by Public Health Wales and is not held by the Welsh Government. A letter was also sent to local health boards and trusts to confirm the change in policy and to signal to health boards and trust that they needed to ensure that there were systems in place both to test individuals 48 hours before their planned discharge from hospital, and to test care home residents and those in the community before a planned transfer or admission to a new care home. A copy of this letter is exhibited as **JAD-7/104 - INQ000227087.**

165. On 30 April 2020, Ministerial Advice MA/VG/1461/20, exhibit **JAD-7/105 - INQ000353847** refers, was submitted to the Minister for Health and Social Services to agree a package of options for care home testing to include targeted testing at care homes with outbreaks and larger care homes. This Ministerial Advice was followed by a press release issued on 2 May 2020 by the Minister for Health and Social Services in which he confirmed that the Welsh Government testing policy was based on scientific evidence and we were testing people with symptoms in care homes at that time. The press release is exhibited as **JAD-7/106 - INQ000182440**.

166. As noted above, our testing capacity improved with additional sampling facilities which made it easier to get a test and to target testing on outbreak hot spots. In respect of care homes this included eight new mobile testing units being available from 3 May 2020 which focused on supporting access to testing in care homes and in cases where an outbreak occurred and where there was a need to test all residents in care homes and repeat testing the following week.

167. On 16 May 2020, the Minister for Health and Social Services announced that all care home residents and staff were able to access tests on the UK Government portal under the National Testing Programme arrangements, a copy of the Written Statement is exhibited as

JAD-7/107 - INQ000182446. This announcement followed new advice from the Scientific Advisory Group for Emergencies on how testing should be deployed in care homes to help reduce transmission into and within care homes including offering testing to all (asymptomatic as well as symptomatic) care home staff and residents in care homes that reported an incident or outbreak. The new approach built on and expanded the existing approach in place, I exhibit the relevant Ministerial Advice, MA/VG/1619/20, dated 14 May 2020 as **JAD-7/108 - INQ000136783** and the UK Scientific Advisory Group for Emergencies advice paper titled "Care Home Analysis" and referenced in the Ministerial Advice as **JAD-7/109 - INQ000217624**[4], Albert Heaney and I both cleared this Ministerial Advice, reflecting that although it was concerned with testing, testing was one component of the package of measures to help protect care homes.

168. The Technical Advisory Group also published a "Consensus Statement on Care Homes" dated 15 May 2020, which I exhibit as **JAD-7/110 - INQ000066455**, which recognised that there was strong evidence to support testing of all residents and staff in care homes if there was a new outbreak of Covid-19 and testing in care homes where Covid-19 had not been reported to understand the prevalence of asymptomatic and presymptomatic cases.

169. During June 2020 there were changes to the testing arrangements for care homes with weekly asymptomatic testing of all staff in care homes across Wales introduced whether symptomatic or asymptomatic, to monitor the ongoing transmission of Covid-19 from 15 June; this was based on the Scientific Advisory Group for Emergencies' advice. This originally was for a period of four weeks, 15 June to 12 July 2020, with care homes with positive results undertaking repeat testing as appropriate. These were self-administered swabs acquired either through the Care Home Portal or directly from the health board.

170. In July 2020, data from results of testing staff and residents, since the introduction of weekly testing, showed evidence of low rates of infection and transmission of Covid-19. The weekly testing was extended to August. Lower prevalence rates into August and evidence from the testing results supported a reduction in the frequency of testing asymptomatic staff in care homes to every two weeks, with the exception of weekly testing of staff in care homes in the Betsi Cadwaladr University Health Board area (reflecting the higher prevalence showing in the data at the time for North Wales).

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[4] *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 [INQ000500180]*

171. The revised testing strategy for Wales published on 15 July 2020 and exhibited above **JAD-7/047 - INQ000300110**, confirmed that the testing infrastructure at the time included Home Testing Kits – including access to a dedicated portal for care homes (National Testing Programme).

Antibody Testing

172. From June 2020 to November 2020 the Welsh Government also carried out antibody testing of key groups in health, social care and education in order to understand how the virus affected different groups through investigation of the sero-prevalence to inform policies on testing, protection and prevention. Most of this work was concluded in Autumn 2020 but we continued to offer antibody testing to the domiciliary care sector as these individuals had been harder to reach, this is set out in Ministerial Advice MA/VG/0726/21 submitted on 22 March 2021, exhibited as **JAD-7/111 - INQ000235864** and supporting annexes which include the number of antibody test carried out by local health boards between June and November 2020 and via the Thriva home testing route between 7 December 2020 and 14 February 2021 as **JAD-7/112 - INQ000565024** and **JAD-7/113 - INQ000565025**. Domiciliary care staff were invited to take part in antibody testing via the home testing route on 6 December 2020. The purpose was to examine sero-prevalence in order to examine the need for mass antigen Covid-19 testing in this group, this is set out in Ministerial Advice MA/VG/3601/20 as exhibited at **JAD-7/050 - INQ000144851** above. The Minister for Health and Social Services subsequently agreed to cease antibody testing for domiciliary care workers in April 2021. Local health boards continued to carry out antibody testing for diagnostic purposes. Information on antibody testing was published regularly as part of the Welsh Government's Coronavirus Testing Release. I exhibit the testing release from 13 April 2022 at **JAD-7/114 - INQ000516446.**

The Newport lighthouse laboratory

173. On 1 July 2020, Ministerial Advice, exhibited at **JAD-7/115 - INQ000235921,** set out developing plans from the UK Department for Health and Social Care to locate a lighthouse laboratory in South East Wales – in Imperial Park 5, Newport, and the implications for previously agreed plans to set up a new Public Health Wales laboratory space at that same location. The lab was expected to be up and running by the end of August and would mainly service South Wales and Southwest England. It would be operational for 12-18 months, after which it could be inherited by Wales to form part of Wales' national laboratory infrastructure for the future. It was expected that the laboratory would have initial capacity for at least 20,000 tests per day with potential to increase further. This was a key component in achieving the testing capacity that was assessed as needed for Wales.

174. By 6 October 2020, the lighthouse laboratory in Newport, also known as the IP5 lab, was operational and expected to step up to full capacity over the coming weeks. The Newport lab was operated by Perkin Elmer and became an important part of our testing infrastructure alongside our NHS Wales testing facilities. A new Public Health Wales laboratory, supported by the Welsh Government was established next to the lighthouse laboratory in Newport, from December, to ensure the UK Government and NHS Wales testing facilities worked effectively together. Arrangements were also agreed for the positive samples processed at the Newport lighthouse laboratory to be collected and transferred to the NHS in Wales for genomic sequencing.

Testing Strategy July 2020

175. The revised testing strategy for Wales published on 15 July 2020 and exhibited as **JAD-7/047 - INQ000300110** above, aimed to ensure testing capacity was used to protect the vulnerable, better understand the disease at an individual and population level and continue to build and strengthen our response (e.g. contact tracing) and analytical functions (e.g. surveillance). It set out approaches to testing patients, for emergency and elective admission, inpatients, outpatients, discharge, and staff across health and social care within community, primary and secondary settings. The strategy also outlined the ability and need to be agile and flexible to respond to any changing circumstances, such as the emergence of flu, or a worst-case scenario as we moved towards the autumn and winter period. The testing infrastructure available at that time was:
    a. 8 Mass Testing Centres – Newport, Ebbw Vale, Cardiff, Abercynon, Swansea, Carmarthen, Llandudno and Deeside (National Testing Programme).
    b. 19 Community Testing Units in a variety of settings (NHS Wales sampling sites).
    c. 18 Mobile Testing Units across Wales with some deployed across local health boards and others deployed for rapid response.
    d. Home Testing Kits – including access to a dedicated portal for care homes (National Testing Programme).

176. The July 2020 testing strategy also set out plans for education settings to open from September 2020 onwards. Each education setting would be provided with a supply of home testing kits and in the event of an outbreak, a Mobile Testing Unit would be sent to test a class, year group or entire setting as necessary.

177. The strategy was based on the Technical Advisory Cell's Consensus paper entitled '*Core principles for* utilisation *of RT-PCR tests for detection of SARS-CoV-2*', released on 15 July 2020 and which is attached as exhibit **JAD-7/116 - INQ000066281** and informed by the work of the Scientific Advisory Group for Emergencies and its subgroups, along with the seven principles set out by the Royal College of Pathologists.

Efficacy of PCR Tests

178. The consensus statement from the Technical Advisory Group dated 15 July 2020, entitled 'Core principles for utilisation of RT-PCR tests for detection of SARS-CoV-2', (exhibited above) discussed the core principles for the use of PCR tests for the detection of SARS-CoV-2 virus, including sensitivity and specificity and their contribution, in conjunction with infection prevalence, to predictive value. It also provided background information on the test platforms used in Wales.

179. PCR tests were developed for the detection of SARS-CoV-2 Ribonucleic Acid (RNA) to support the diagnosis of Covid-19 in symptomatic individuals. Ribonucleic Acid (abbreviated RNA) is a nucleic acid present in all living cells that has structural similarities to DNA. These were the primary tests used across the UK at the beginning of the pandemic. The Technical Advisory Cell paper identified that performance of the existing PCR test was at its best when its use was targeted, for example, when used to support diagnosis in symptomatic individuals.

180. The tests could also be used for screening in asymptomatic individuals or for testing for infectivity in recently infected individuals. Evidence suggested screening asymptomatic individuals was likely to generate a high rate of false positive tests when the prevalence of infection was low, which could cause issues such as significant unnecessary postponement of surgery when utilised in pre-surgical screening, or significant unnecessary exclusion from work when used in critical worker screening. Further, evidence was emerging that testing for infectivity might be refined by the level of test positivity and the presence of an antibody response.

181. The recommendations of the Technical Advisory Cell and Technical Advisory Group at this stage were for the utility of PCR testing to be considered in the wider context of other testing that was taking place, including the Test, Trace, Protect programme. Any use of such testing in asymptomatic individuals was advised to be, wherever possible, on the basis of

effective targeting, such as following tracing that had indicated a high probability of exposure and thus likely infection.

182. At various points referenced throughout this statement the efficacy and/or accuracy of PCR tests was considered, and advice sought from Public Health Wales, particularly when their use was considered in testing asymptomatic individuals. For example, consideration was given to the asymptomatic testing of school staff in July 2020 as pupils returned to school, however advice at the time indicated that the low prevalence of the virus would result in a high number of false positives potentially leading to greater harms. PCR efficacy and/or accuracy informed our testing strategies, and the use of testing articulated therein.

Evolution of testing capability: August 2020 – March 2021

183. In August 2020, the Welsh Government published the coronavirus control plan, setting out how people and organisations across Wales should work together to manage the risks of coronavirus as we headed into autumn and winter. I exhibit the announcement as **JAD-7/117 - INQ000350544** and the Control Plan as **JAD-7/118 - INQ000349794.** The Control Plan retained the pillar of work to enhance our public health surveillance and response system to enable us to closely track the virus, building on a strong local presence, through:

    a. improved monitoring;
    b. effective case identification and contact tracing;
    c. learning from international experience; and
    d. engaging with the public.

184. To meet the objectives of Test, Trace, Protect and break the chains of transmission, 'Turn Around Time' was a key area of focus and monitoring. Turn Around Time related to the time from sample taken to test result authorised/issued. Reducing Turn Around Time enabled contact tracing teams to start work earlier so that contacts could be given appropriate advice to isolate and be tested. Turn Around Time was an important element of the performance information provided to the First Minister and Minister for Health and Social Services at our weekly meetings. Data and reports improved over time for NHS Wales laboratories and from the National Testing Programme/UK Health Security Agency. This data was also published as part of the testing data for coronavirus (Covid-19) statistics measure.

185. An important role of the NHS Wales Delivery Unit (which joined the Test, Trace, Protect team in July 2020 and became known as the NHS Test, Trace, Protect team) was monitoring performance and advising on corrective action including improvements to Turn

Around Time. The Scientific Advisory Group for Emergencies advised that testing needed to be turned around in 24 hours for effective contact tracing and Public Health Wales labs were not in line with that requirement. One of the features of the testing system in Wales was the division of responsibilities between health boards and Public Health Wales, as referenced above. The roles and responsibilities of local health boards and Public Health Wales had been established early in the pandemic, with local health boards required to undertake sampling of those with symptoms and Public Health Wales having responsibility for processing samples and providing test results. Consequently, to develop an end-to-end system that was as efficient as possible the NHS Wales Test, Trace, Protect team undertook to co-ordinate activities including those of the NHS Wales Shared Services Partnership who provided courier services. As part of their role, in July 2020, the NHS Test, Trace, Protect team was asked to conduct a review, and working with Public Health Wales, proposals were set out to enhance testing capacity and improve the timeliness of results.

186. Based on this work on 6 August 2020, I submitted advice to the Minister for Health and Social Services. I exhibit this Ministerial Advice at **JAD-7/119 - INQ000235940.** The Minister agreed to

    i. provide funding to support Public Health Wales's proposal to increase local provision of rapid testing to support patient care and patient flow through secondary care;
    ii. deliver 24/7 testing through the high-throughput platforms in Cardiff, Swansea and Rhyl to give an in-lab Turn Around Time of less than 12 hours; and
    iii. delivery of local access to rapid norovirus and difficile molecular testing, plus local blood culture incubation to improve patient management and release staff time to support Covid-19 testing.

187. Under the UK Testing Programme, the Turn Around Time was reported by different testing routes - Regional Test Sites, Mobile Testing Units, Satellite Test Centres (e.g. tests sent to care homes that had a particular need) and home test kits. This data was included in the *Deloitte Tableau* dashboard for all tests booked through the UK portal (non-NHS Wales labs) and held by the UK Department for Health and Social Care and later the UK Health Security Agency. This dashboard included information on booking slots, capacity, kits registered (sample collected), results (% returned, median times). I exhibit examples of the dashboards as **JAD-7/120 - INQ000566327** and **JAD-7/121 - INQ000566334.**

<u>Lighthouse Laboratory Teething Problems</u>

188. Mark Drakeford said in paragraph 132 of his M2B statement [**INQ000371209**] that "*There were undoubtedly problems with the lighthouse laboratories. Those problems arose because of the difficulties inherent in trying to establish industrial scale testing capabilities from scratch. There were teething problems and demand was exceeding capacity.*" I agree and will expand on this point further. The scale of the sampling, laboratory and digital infrastructure needed to deliver population testing was significant. Given the scale of the task, it is perhaps not surprising that teething problems arose.

189. I have made reference on a number of occasions to the challenges with scaling up capacity and achieving the desired turnaround times in Public Health Wales laboratories. I believe it is correct to say that there were inherent difficulties in delivering the scale and capacity needed. The very nature of the rapid growth in prevalence of the virus and exponential growth, made responding to surges particularly challenging. There was much that we did not know about the virus in the early months, the role of asymptomatic transmission for example and the development of new variants that were more transmissible which made modelling the demand for testing very difficult.

190. During August 2020, capacity constraints affecting the lighthouse laboratories arose which adversely impacted Wales. A number of areas in Wales were experiencing a sharp increase in case rates and we had deployed Mobile Testing Units to enhance sampling capacity in those areas. Without notification these Mobile Testing Units were recalled by the UK Government due to capacity constraints in the lighthouse laboratories. The areas affected were not within easy reach of Regional Testing Sites or other alternative sampling venues. Although the challenges of capacity were well understood by us all, the lack of communication and failure to adequately engage with us over how constraints might be managed was extremely disappointing. The UK Secretary of State subsequently apologised that we had not been sighted on operational plans.

191. In light of these capacity constraints and rising infection rates amongst the public it was necessary for Wales to establish a prioritisation list for access to testing. Based on an assessment of prioritisation by the four nations' Chief Medical Officers, on 23 August 2020, officials proposed a priority list of six cohorts for Wales.
    a. **Priority one to support NHS clinical care.** Hospital patients, including all admissions, so that clinical judgements could be made to ensure the best care for these individuals.
    b. **Priority two to protect those in care homes.** We know that people living in care homes were particularly vulnerable to Covid-19. Based on the Scientific

Advisory Group for Emergencies and Technical Advisory Group advice, our testing programme was as follows:

i. Staff, with or without symptoms, fortnightly (or weekly where prevalence was assessed as requiring weekly);
ii. all new admissions;
iii. whole care homes in the event of an outbreak

c. **Priority three to test NHS staff, including GPs and pharmacists where possible.** Protecting the NHS was at the heart of our Covid-19 response and was a clear priority in our Testing Strategy, which set out testing of NHS staff with symptoms as a priority, and then asymptomatically in outbreaks and in areas of higher prevalence.
d. **Priority four - targeted testing to support management of outbreaks and surveillance studies.** This included targeted testing to manage outbreaks in high-risk settings such as closed residential settings or higher-risk workplaces, where the risks of the virus spreading and chances of finding more positive cases was high. Surveillance studies included the population-wide Office for National Statistics study, essential trials for new potential vaccines, and studies of particular at-risk populations.
e. **Priority five to prioritise testing for school staff with symptoms where was it needed to keep schools and settings open.** We continued to improve the testing system to ensure staff could get priority access when they had symptoms. Those who tested negative could return to work, ensuring our schools and settings could remain open.
f. **Priority six testing all symptomatic individuals irrespective of local prevalence**.

192. Priority six differed from the UK Government's list in which the general public was split into two parts: *Priority six -testing the general public where they have symptoms in high positivity areas and - Priority seven testing the general public where they have symptoms, regardless of where they live*. Officials recommended that Wales should not differentiate in this way because of the risk of missing evidence of emerging risk which would lead to more areas becoming a concern which, in turn, could eventually increase the testing needs under priority 4 as part of incidents and outbreaks. The prioritisation was announced on 29 September 2020 which I exhibit as **JAD-7/122 - INQ000395828**.

193. The Minister for Health and Social Services also wrote to the Secretary of State for Health and Social Care, Matt Hancock, on 1 September 2020 to set out concerns on the capacity under the UK Testing Programme. I exhibit this letter at **JAD-7/123 - INQ000509426.** Overall capacity of the lighthouse laboratories, the deterioration in turnaround times and the increased number of void results in the Alderley Park lighthouse laboratory impacted Wales and caused particular difficulties in care homes. Mobile Testing Units had been removed from the booking portal on 19 August without any consultation or warning to local health boards or the Welsh Government which left large areas of Wales without any testing facilities. Further incidents with Mobile Testing Units saw them leave areas without completing existing bookings. These decisions were not undertaken in consultation with the Welsh Government or communicated to local health boards.

194. During September 2020 the issues grew with increasing demand on test bookings that were overwhelming the sampling sites and lighthouse laboratory network across the UK. The Minister for Health and Social Services wrote again to Matt Hancock on 14 September 2020 jointly with Jeane Freeman, Cabinet Secretary for Health and Sport in the Scottish Government to raise concerns about testing pressures experienced in Wales and Scotland, I exhibit this letter as **JAD-7/124 - INQ000513830**. The Secretary of State for Health and Social Care responded on 5 November 2020 (exhibited as **JAD-7/125 - INQ000509433**) to confirm that officials were working together to ensure devolved governments received the correct population share of testing and to apologise for being unsighted on the decision of 21 August 2020 to constrain the physical channels across the UK to prevent overloading of laboratories.

195. There was also a further issue regarding delays to some 16,000 lighthouse laboratory test results between 25 September 2020 and 2 October 2020. Public Health England confirmed that these results did not relate to Welsh residents and therefore did not impact Wales either in terms of positive case number reporting or contact tracing. On 3 October 2020, we received 243 results (positive and negative) that took four days to reach us following laboratory processing. This was not believed to be connected to the wider problem, but it underlined the need to constantly track the position and to take rapid action to resolve issues whenever necessary with the UK Department of Health and Social Care and later the UK Health Security Agency.

196. During early summer 2021, further problems emerged at lighthouse laboratories. This was discussed at a Four Nations Health Ministers meeting and resulted in letters from the Scottish Government Cabinet Secretary for Health and social care and the Welsh

Government's Minister for Health and Social Services being sent to the Secretary of State. I exhibit the letter sent on 19 July 2021 at **JAD-7/126 - INQ000243340**[5].

197. The Ministers' letter notes the importance of rapid turnaround of tests for the effectiveness of contact tracing and the recent impact on the turnaround times for Wales with regards to testing at home and testing in community and in workforces (known as "organisational" channels) which were raising significant concerns. A major reason for this deterioration related to the Newport lighthouse laboratory receiving additional samples transferred from other laboratories leading to delays for the Welsh samples and a backlog to clear. The letter asked for a collaborative approach to avoid breaching the operational capacity of the laboratories and nation allocations. The Secretary of State responded on 2 August 2021, exhibited at **JAD-7/127 - INQ000513932** noting the pressure on the laboratories' systems and the need for actions to mitigate including additional laboratory capacity and referencing the opening of the Rosalind Franklin laboratory. In his response, the Secretary of State acknowledged that the proposed expansion of the symptoms definition (agreed by the Chief Medical Officer) would likely to increase demand pressure further. It referred to the issues at Newport being resolved and asked officials to share latest demand forecasts and how they interacted with the additional capacity that was coming on board.

Preparations for the second wave

198. Increases in cases and outbreaks in some parts of Wales started to materialise in early September 2020 and further local restrictions followed, with Wales-wide measures being introduced on 22 September 2020. During September and October 2020, the National Testing Programme started to significantly ramp up work on the development of new testing technologies alongside increasing sampling and lighthouse laboratory capacity in anticipation of a further wave of infections. I noted earlier that the Newport lighthouse laboratory was operational from early October 2020. On PCR testing, the plan during September to December 2020 was to increase capacity between 200,000 and 800,000 a day across the UK. This included expanding the lighthouse laboratory with a further six laboratories and a mega-laboratory, the Rosalind Franklin Laboratory at Leamington Spa, the last laboratory to join the network in June 2021.

Roll-out of Local Testing Sites

[5] *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 [INQ000513931]*

199. Further development of sampling sites to support access to PCR testing also happened during autumn 2020. On 8 October 2020, the Minister for Health and Social Services and the Minister for Education confirmed that more walk-through Local Testing Sites under the National Testing Programme arrangements would open during October near universities in Swansea, Cardiff, Bangor and Aberystwyth. The first Local Testing Sites opened in September in Pontypridd near the University of South Wales.

Surge laboratory capacity

200. In addition, at times when demand rapidly grew to levels indicated to be greater than the capacity available from the lighthouse laboratory network, including winter 2020, short term PCR capacity was procured from private 'surge providers' to supplement the core capacity available. This was in part a response to the issues experienced during August and September that had required prioritisation of tests. The surge laboratories were managed within the lighthouse laboratory operational framework, which was distinct from the private to market framework used for laboratories and test providers for travel testing. Quality concerns with one of the 'surge providers' was a concern for Wales and further detail on this is provided below.

New Testing Technologies

Operation Moonshot

201. On 9 September 2020, the UK Government announced plans for Operation Moonshot for England to "utilise the full range of testing approaches and technologies to help reduce the R rate, keep the economy open and enable a return to normal life." The aim was to undertake mass testing at a significant scale (10 million a day) by Spring 2021 using new technologies and a digital passport. This involved multiple workstreams that included validation teams across a number of technologies.

202. The UK Government engaged with devolved governments during October 2020 and shared information about the new technology being considered to support Operation Moonshot including Loop-mediated isothermal amplification (LAMP), point of care PCR testing, machine reported lateral flow tests and lateral flow devices. Operation Moonshot was subsumed into the Test and Trace Programme on 22 October 2020 and the new technology was made available for each nation under the arrangements in place. As noted earlier in my statement these arrangements were formalised in Memoranda of Understanding that included an opt-out for new technology not required within our testing plans for Wales.

203. We recognised that new testing technology could provide us with an opportunity to engage differently with the population to increase the overall benefits of testing, including helping us save lives by identifying more positive cases more swiftly, isolate contacts faster and protect the most vulnerable. They also potentially offered an opportunity to save livelihoods by re-thinking wider restrictions on normal life and enabling more economic activity by giving us another means of creating Covid-19 secure environments.

204. The testing strategy published in July 2020 had also noted the UK Government's plans for Operation Moonshot and we were considering and assessing innovative testing technologies with the potential to increase testing capability and turnaround times. New technologies were likely to be needed to provide new use cases and to overcome supply constraints such as swabs and reagents.

205. We classified the new technology developments under three principal themes which were set out in a statement by the Minister for Health and Social Services on 5 November 2020, exhibit **JAD-7/128 - INQ000516435** refers. Those themes were;

    a. Lab based technology/ LAMP;
    b. Point of Care; and
    c. Lateral Flow Devices ("LFDs")

206. Laboratory-based technology involved increasing laboratory capacity and utilising LAMP, a technology that amplified RNA and allowed detection of the virus, usually more swiftly and more portably than PCR, albeit not quite as accurately (specificity 99.3% vs 99.7%). The two LAMP devices (Optigene and LamPORE) were used for pilots in England involving mass testing of the general population and enhanced testing of asymptomatic NHS employees in the Northwest. LAMPore combined LAMP with nanopore analyses and could provide higher throughput in a lab and also be fitted in a mobile lab. The GRIDion throughput was estimated to be up to 20,000 a day with robotics. The UK Government had indicated it would be procuring 40 of the machines under the National Testing Programme which would include allocation to devolved governments. Advice to the Minister for Health and Social Services noted that placing the LAMP devices within our existing labs required careful consideration as they would require separate rooms to the PCR technology with implications for logistics and workforce. Under the National Testing Programme plans were also being considered for placing LAMP devices on the back of a lorry and it was felt this approach might have more potential to support outbreaks and mass testing in Wales. In the end, we did not progress with the laboratory LAMP devices in our approach for Wales due

to the issues of logistics although we did at the later stages of the pandemic utilise mobile LAMP devices.

207. Development of a fully staffed and operational semi-permanent laboratory within a container that could process up to 10,000 tests per day was also being developed and validated under the UK Testing Programme. Wales had been allocated one for the first phase roll-out to be located at the Deeside Regional Testing Site. This technology encountered difficulties during the validation process and did not become operational.

208. Point of Care ("POC") devices were also undergoing validation under the National Testing Programme, and under the Test, Trace, Protect programme we were validating Lumira DX devices within emergency departments in some NHS hospitals. Point of Care devices utilised technology in a small (shoe box size) machine that could be processed quickly and close to the patient. The Lumira DX could process results in 12 minutes with a throughput of 30 per day. Validation in Welsh NHS hospitals commenced on 7 October 2020. Other Point of Care devices were also going through validation under the National Testing Programme, and it was recognised at the time there could be opportunities to pilot these devices to support our testing priorities. Point of Care devices were a component of our testing plans especially in hospital points of entry such as Accident and Emergency departments.

209. At the outset of Operation Moonshot, Wales and the other devolved nations were relatively unsighted on the financial commitments being made by the UK Government. Procurement was undertaken at a large scale and most decisions were unilaterally taken by the UK Government without reference to devolved government officials or Ministers. Wales was receiving a population-based allocation of devices/tests relating to procurements that had already taken place. My team outlined this in advice submitted to the Minister for Health and Social Services on 25 March 2021, exhibited as **JAD-7/129 - INQ000116621.** However, as noted in this advice, progress had been made since the initiation of Operation Moonshot and Welsh Government officials now had a seat on the NHS Test and Trace Investment Board which was involved in the procurement of new testing technologies. The advice asked for delegated authority for officials to agree business cases presented to the NHS Test and Trace Investment Board up to a value for Wales of £7m. It was clear that the scale of investment in Test and Trace was very significant and that new testing technologies would play a major part in making testing a regular and routine part of life, and as an integral part of the easing of restrictions. Moving decision-making from Operation Moonshot to the NHS Test and Trace Investment Board, with devolved governments included, had

significant implications for Wales and enabled better visibility on the pipeline of investments being made and provided the opportunity to opt out of certain procurements before the deal was 'done'.

Efficacy and Accuracy of Lateral Flow Device Tests

210. The Technical Advisory Cell shared evidence on the efficiency of testing as early as July 2020: see, for example, the published paper 'Core principles for utilisation of RT-PCR tests for detection of SARS-CoV-2' as exhibited earlier as **JAD-7/116 - INQ000066281**.

211. Lateral flow device's sensitivity was lower than that of PCR tests, varying from 64% to 96%. There was scepticism on the benefits of using lateral flow devices and concerns about their sensitivity including false positives that could vary depending on prevalence. Although less accurate than PCR tests, they offered point of care results in less than an hour, whereas at the time over half of PCR tests took more than 48 hours from sample to result. This provided the opportunity to run mass testing and surveillance on at-risk groups with swift results. The National Testing Programme during early autumn 2020 was evaluating 5,000 lateral flow devices tests against PCR tests in field trials to determine the rates of false positives and false negatives under real world conditions at different levels of prevalence. If real-world specificity was 99% or higher, lateral flow devices could take the place of PCR tests in agreed cases under specific clinically agreed conditions. For the roll out of the pilots, the use of lateral flow devices was not clinically recommended without confirmatory PCR testing for any positive lateral flow device test results. It was recognised that the need for a confirmatory test would potentially place further demand pressures on the PCR testing regime.

212. Successful validation of lateral flow tests could also open opportunities for testing close contacts of those infected through serial testing, also known as daily contact testing. This could mean that, instead of requiring close contacts to self-isolate, we could serially test close contacts, requiring them to self-isolate only when they became infectious, curtailing self-isolation and allowing workers to continue to attend their place of work, pupils and students to attend school, and events to proceed with reduced requirements on social distancing.

213. On 8 November 2020, Public Health England, Porton Down and Oxford University published a preliminary report on the evaluation of the Innova Lateral Flow Viral Antigen detection devices for mass community testing. This confirmed that extensive pre-clinical and clinical evaluation of lateral flow devices had been completed both in the laboratory

and in the field and that they had shown acceptable viral antigen detection with high specificity, sufficient sensitivity and low kit failure rates.

214. Although this analysis had established that many of the lateral flow devices had not performed to the requisite levels to proceed to community field service evaluations, the Innova SARS-CoV-2 Antigen rapid qualitative test had performed well with a low failure rate, high specificity 99.6% and high viral antigen detection. Work remained ongoing to understand batch to batch variations, acceptance of the tests by the general public and the effect of operator / training effects on performance characteristics. However, it was identified as a potential means to increase testing on a significant scale by enabling distributed, community-based use, separate from the overburdened national and NHS testing laboratories.

215. For Wales, the lateral flow device pilots in November 2020 provided an opportunity for us to learn more about their potential use and to consider how they could support our testing priorities. The Higher Education Institutes pilot was agreed by the Minister for Health and Social Services and Minister for Education on 4 November 2020, under cover of Ministerial Advice MA/VG/3703/20, **JAD-7/130 - INQ000361634** refers. Whole borough testing in Merthyr Tydfil, South Wales was agreed on 19 November 2020, under Ministerial Advice MA/VG/3796/20 as exhibited at **JAD-7/053 - INQ000235871** above.

Merthyr Tydfil pilot

216. The aims of the Merthyr Tydfil pilot which commenced on 21 November 2020 were to assess whether or not large-scale testing at a community level could yield a significant and sustained reduction in community transmission. Large scale community testing sought to make testing accessible to an agreed population and incentivise uptake, identify index cases and prevent further transmission through contact-tracing and other measures and identify those who were needlessly self-isolating, empowering them to return to their usual activities. A further pilot was run in the lower Cynon Valley area and commenced on 5 December 2020.

217. The Merthyr Tydfil pilot was planned in the context of rising cases of coronavirus as we entered the autumn/winter season. The national Wales firebreak was announced by the First Minister on 19 October 2020: it started at 6pm on Friday 23 October 2020, ended on Monday 9 November 2020 and applied to everyone living in Wales. It replaced the local restrictions which were in force in some parts of the country at that time.

218. The Merthyr Tydfil Mass Testing pilot followed the firebreak and came with the introduction of a new set of national rules. The pilot was developed by the Cwm Taf Morgannwg University Health Board, Merthyr Tydfil County Borough Council and the National Testing Programme with support from the military. It provided an opportunity to evaluate public views, the performance of the test and use of confirmatory PCR tests and the supporting system, including the digital reporting of results. It followed a similar pilot that had been undertaken in Liverpool and, with the confirmatory PCR tests, allowed us to test for false positives. The plans also included wastewater testing to assess prevalence which provided learning, especially on the challenges of sampling in relation to the topography of the area and an older sewerage system. We saw the benefits of wastewater surveillance as part of a wider suite of tools, especially for early detection of an increase in cases/ variant changes.

219. As referenced in Part E, an assessment of the mass testing pilot was published and is exhibited in para 112 (exhibit 63). The report found that whole area testing with lateral flow devices in Merthyr Tydfil and the lower Cynon Valley was estimated to have prevented 353 cases of Covid-19, 24 hospitalisations, five Intensive Care Unit admissions and 14 deaths. The report acknowledged the findings of a similar mass testing pilot undertaken in Liverpool and concerns about the sensitivity of lateral flow devices and controversy as to the cost-effectiveness of mass testing. In the context of high prevalence, the report concluded that it was a cost-effective measure with significant public health benefits.

Wastewater surveillance

220. The Welsh Government had agreed that a consortium led by Bangor University (together with Cardiff University, Public Health Wales and Dŵr Cymru-Welsh Water) should lead on developing a wastewater surveillance project for Wales. Monitoring commenced from July 2020 and the establishment of the Wales Environmental Wastewater Analysis & Surveillance for Health ("WEWASH") Pilot Initiative Project followed by September 2020. This project undertook regular monitoring commencing at 19 of the major wastewater treatment sites across Wales, thereafter, increasing to 20 key sites across Wales (10 in the North, 10 in the South) with 2-3 samples per week per site, capturing close to 70% of the Welsh population by December 2020.

221. The pilot demonstrated that wastewater sampling for Covid-19 was possible and changes in community prevalence could be detected earlier. On that basis, in late-December 2020, the Minister for Health and Social Services was asked to agree further funding to extend the programme into 2021, exhibit **JAD-7/131 - INQ000235942** refers.

222. In May 2021, the Welsh Government committed to the expansion and refinement of the wastewater programme in Wales, which involved formally establishing an operational programme, expanding the number of treatment sites from 19 to 50 (covering nearly 85% of the population), and increasing the frequency and enhancement of the sampling methodology by utilising 24-hour composite sampling across all sites. I understand that the Chief Scientific Adviser for Health has been asked to provide a statement in this module and will address the wastewater programme.

Lateral flow testing schemes

223. On 23 November 2020, ministers announced that new rapid-testing technologies would be used to pilot a programme of Covid-19 screening for visitors to a small number of care homes across Wales from 30 November 2020, exhibited as **JAD-7/132 - INQ000498718**. Advice to ministers on lateral flow device pilots was sent under cover of Ministerial Advice MA/VG/3938/20 dated 20 November 2020 and exhibited as **JAD-7/133 - INQ000144929** and which was again cleared by myself and Albert Heaney. The advice referenced new advice from Public Health Wales and the Testing and Clinical Prioritisation Group, which was established to provide a wider focus with clinical experts inputting and providing advice for decision-making on the future testing strategy, priorities, user cases and roll out of new testing technology. The Ministerial Advice proposed participation in pilots, to pave the way for a wider roll-out to more Welsh care homes from the week commencing 14 December 2020.

224. The lateral flow devices testing schemes were further expanded in early December 2020. On 4 December 2020, the Minister for Health and Social Services announced the introduction of a programme of twice-weekly asymptomatic testing of patient-facing health workers in hospitals and primary care and community care settings, and others who had contact with people in those settings, exhibit **JAD-7/134 - INQ000420995**[6] refers. This testing programme included testing staff delivering domiciliary care services and professionals visiting care homes and other social care settings. Its incremental roll-out began on 14 December 2020, initially by testing those working in health and social care services with a higher risk of Covid-19 transmission, before introducing testing in lower risk settings from the week of 11 January 2021.

[6] *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 [INQ000469061]*

225. New year plans for students returning from the winter break were also announced on 7 December 2020 which included use of lateral flow tests for students returning to their university accommodation. On 14 December 2020 a further announcement was made on lateral flow testing in schools and colleges coming into effect from January 2021, although this did not progress as planned due to the lockdown.

226. The Welsh Government and Tata Steel were also at this time approached by the UK Department of Health and Social Care to ascertain interest in rolling out a pilot associated with mass testing in private industries using lateral flow devices. Tata Steel was keen to proceed quickly with the pilot and commenced the scheme on 6 December 2020. As part of the private industry pilot, Tata Steel had been considering serial testing. The pilot involved contacts of Covid-19 cases entering a daily testing programme to enable them to continue normal activities, rather than self-isolate. The four Chief Medical Officers had considered evidence from the Scientific Advisory Group for Emergencies that serial testing of contacts could be as effective as isolation and recommended a pilot be undertaken to evaluate whether daily tests worked operationally. The private industry pilot was recommended to the Minister for Health and Social Care on 04 December 2020 under cover of Ministerial Advice MA/VG/3946/20. The advice is exhibited at **JAD-7/135 - INQ000235872**. The Chief Medical Officers had recommended a pilot of Daily Contact Testing to test practical feasibility which, if proven, might mean daily testing could be an alternative to self-isolation.

227. In addition to the pilot in Tata Steel, we also developed a pilot for daily testing in schools in Merthyr and Rhondda Cynon Taf to help provide additional learning on the risk and benefits of the approach. We gained knowledge of the operational aspects of the process across schools and private business settings and its impact on Test, Trace, Protect. The learning included the challenges of undertaking daily testing in schools due to the disruption of setting up testing sites, time to process students and report results and concerns on clinical oversight. The knowledge gained helped further inform and develop the design of future testing processes and improve our understanding of a range of behavioural factors.

228. To support the pilots and any future daily testing proposals Ministers agreed on 8 December 2020 in Ministerial Advice MA/VG/4233/20, exhibited as **JAD-7/136 - INQ000116604**, to amend the Health Protection (Coronavirus Restrictions) (No. 4) (Wales) Regulations 2020 ("the No. 4 Regulations") to support asymptomatic serial testing of close contacts using lateral flow tests in agreed screening pilots.

229. Under the National Testing Programme, the UK Health Security Agency procured over £2.7 billion lateral flow devices for the UK over the period of the pandemic which included £111.6 million allocated to Wales. Wales, under the Memoranda of Understanding, chose to opt out of two procurements of lateral flow devices. Ministerial Advice MA/EM/3394 attached as exhibit **JAD-7/137 - INQ000235883** and Ministerial Advice MA/EM/2553/21 as **JAD-7/138 - INQ000116768** refer, amounting to 16.3 million lateral flow tests for which we received a funding transfer equivalent to the value of the tests.

230. On 25 November 2020, the Technical Advisory Group updated the consensus statement exhibited as **JAD-7/139 - INQ000227902,** on recommended testing criteria for the discharge of asymptomatic patients to care homes and changes were made identifying that positives at the upper limit of detection (High Ct values) were suitable for discharge due to the very low risk they represented in terms of onwards infectivity.

231. As concerns grew on increasing levels of cases, the Minister for Health and Social Services announced on 18 December 2020 an expansion in the range and reach of our national testing infrastructure including the establishment of 27 additional local testing sites, the statement is exhibited as **JAD-7/140 - INQ000513975**. The local testing sites provided walk through testing sites and increased access to PCR tests for our most disadvantaged and underrepresented communities. The expansion involved 15 walk-through local test sites situated in key areas across Wales which opened before Christmas and 12 more opened in 2021. We also introduced a further nine Mobile Testing Units, in addition to the 19 units already operational, to ensure that each local health board had one mobile unit that could be operated in each local authority area. This announcement came a day before the rules were tightened and restrictions reintroduced.

232. On 22 December 2020, Ministerial Advice MA/VG/4402/20, was sent to the Minister for Health and Social Services to provide an update on the progress in rolling out testing in social care services as well as providing an overview of social care testing and infection prevention controls in line with the Welsh Government's control plan and four alert levels. The Ministerial Advice which I put forward with Albert Heaney advised that the two week care home pilot, referenced under Ministerial Advice MA/VG/3938/20 (see above) took place in ten care homes across Wales and having received positive feedback, full roll out of testing for visitors was underway, with test kits being delivered to every care home in Wales between 12 and 18 December 2020. Exhibit **JAD-7/141 - INQ000136834** refers.

233. On 23 December 2020, the Medicines and Healthcare products Regulatory Agency issued an authorisation to the Department of Health and Social Care to allow the use of the NHS Test and Trace Covid-19 Self-Test kit to detect infection in asymptomatic individuals. This authorisation paved the way for further expansion of lateral flow testing across sectors and reduced the need to establish Asymptomatic Testing Sites, although raised a concern on the reporting of results on the web portal.

234. Ministerial Advice MA/VG/0114/21 dated January 2021 was issued to a number of Ministers, including the Minister for Health and Social Care, and addressed enhanced Covid-19 testing in care homes, an update on the current asymptomatic testing programme in care homes in Wales and sought agreement to further enhance the testing programme by introducing additional lateral flow testing for care home staff. It also sought approval to develop a funding package to support the cost of additional testing in care homes and approval to join a Department for Health and Social Care pilot to introduce saliva testing for care home residents. I exhibit the advice as **JAD-7/142 - INQ000145045** and supporting documents as **JAD-7/143 - INQ000350215, JAD-7/144 - INQ000310491** and **JAD-7/145 - INQ000541428.**

Testing plan - January 2021

235. The Wales testing plan was refreshed in January 2021, to outline how new testing technology would work alongside existing testing infrastructure to support priorities. It provided details on our use of world class genomics capability to enhance testing capability to support diagnostics, enable better management of outbreaks, to detect new variants and enhance surveillance of the spread of the virus in our communities across our country. The refreshed plan continued to focus on supporting people receiving care and/ or being admitted to hospitals. It also set out the five priorities:

    a. test to diagnose - to support NHS clinical care: diagnosing those who were infected so that clinical judgments could be made to ensure the best care.
    b. test to safeguard – to protect our NHS and social care services and individuals who were our most vulnerable.
    c. test to find - to target outbreaks and enhance community surveillance in order to prevent the spread of the disease amongst the population.
    d. test to maintain - to support the education system and the health and well-being of our children and young people and to enable them to realise their potential and to identify contacts of positive cases to prevent them from potentially spreading the infection if they were to become infected and infectious, and to maintain key services.

e. test to enable - to promote economic, social, cultural and environmental wellbeing and recovery.

236. The plan shared the importance of having a seamless link between testing and tracing and noted the Welsh Government was working on digital solutions to ensure it was as easy as possible to record the result of any test so that contact tracing could begin as early as possible, and any contacts of positive cases could be identified and asked to self-isolate. This version was published 28 January 2021, exhibited in **JAD-7/146 - INQ000227387**.

237. A community testing framework was also published, which built on the pilot schemes in Merthyr Tydfil and Lower Cynon to test asymptomatic people to halt the spread of the virus. I exhibit the framework as **JAD-7/147 - INQ000513997.**

238. During February 2021, in line with the refreshed testing strategy, further uses of lateral flow testing were introduced alongside PCR testing. These included, under the Test to Safeguard theme, the introduction of a programme of regular, twice weekly, asymptomatic testing of care home staff in Wales using lateral flow devices in addition to the weekly PCR test that was being undertaken. Daily contact testing in schools and colleges was paused while we learned more about the new variants and how they impacted transmission. Instead, twice weekly testing using lateral flow devices was agreed as the approach for schools.

239. The First Minister announced the lockdown in place was to continue for a further three weeks with a phased return for schools from the 22 February 2021. In support of the return to schools we extended the offer of regular, twice weekly, lateral flow tests at home to all those of upper secondary age. This started by offering tests to years 11 to 13, and to all further education college students and those on work-based apprenticeships.

Surge testing

240. During February 2021, in response to the South African variant, the UK government had developed proposals for surge testing utilising PCR and lateral flow devices. Take up of testing by asymptomatic individuals was promoted in an area where the South African variant had been detected, and tests were distributed through a range of distribution channels including Mobile Testing Units, Community Hubs and door to door delivery.

241. In Wales, we had capacity and capability for surge testing which was set out through our community testing framework referenced above in exhibit **JAD-7/147 - INQ000513997**. On 22 March 2021 the community testing programme was extended to the end of September 2021 to help manage outbreaks and target areas that saw a rapid increase in cases. Asymptomatic testing had been taking place in Bridgend, Merthyr Tydfil and Rhondda Cynon Taf since the beginning of March 2021. In Anglesey, in response to an outbreak in Holyhead, community testing involving door to door delivery of lateral flow devices, Mobile Testing Units and lateral flow device pick up points at community facilities was deployed.

242. Surge testing, or community testing, was not widely used in Wales, and not as extensively as in England. It is fair to say that there was scepticism among some Directors of Public Health in Wales and in Public Health Wales that widespread asymptomatic testing was an effective means of reducing case rates but could be deployed to good effect in more selective circumstances. This scepticism was primarily based on the efficacy of lateral flow devices in low prevalence and the behavioural response of the population and how this would influence the take up of asymptomatic testing.

Issues – Immensa Laboratory Serious Untoward Incident ("SUI")

243. On 24 February 2021, following discussion at the Test, Trace, Protect Programme Board I raised a concern with NHS Test and Trace about positivity rates at the Immensa Wolverhampton laboratory. Concerns had previously been raised by Public Health Wales about a range of laboratory processes (including quality control of output) at the Immensa laboratory, which might have been leading to inaccurate results. Public Health Wales had observed unusually high positivity rates in results from asymptomatic care home staff in North Wales whose tests went to the Immensa laboratory. The Immensa laboratory had been contracted to support testing under the National Testing Programme arrangements. On 10 March 2021 we chased NHS Test and Trace for a response to the concerns raised and they acknowledged receipt the following day. NHS Test and Trace responded on the 17 and 25 March 2021 noting "Based on the data reviewed, Immensa has followed their diagnostic standard operating procedure and the results are in accordance with the Instructions for Use (IFU) of the PerkinElmer® SARS-CoV-2 Real-time RT-PCR 3501-0010 assay". The contract with Immensa laboratory at that time was to support surge testing over the winter and ended in early April. Public Health Wales remained concerned and followed up with a more detailed report on its concerns on 21 April 2021.

244. The UK Health Security Agency (which became operational after 1 April 2021) placed a further contract with Immensa laboratory in August 2021. This second contract was the

result of a mini-tender for surge testing capacity from approved laboratory providers under a Framework agreement. The concerns raised by Public Health Wales about positivity rates at the Wolverhampton laboratory were not part of the discussions at the evaluation of the mini-tender. Immensa laboratory commenced testing PCR samples under the Second Contract at its Wolverhampton laboratory on 2 September 2021. The Second Contract was suspended on 12 October 2021 following the identification of incorrect reporting of PCR test results for an estimated 43,000 people.

245. I was very concerned about the impact of the incorrect reporting on Welsh residents as Welsh tests had been diverted to the Immensa laboratory at that time due to high demand and to alleviate pressure on the Newport lighthouse laboratory where the majority of Welsh samples were processed. In early October 2021, analysts in the Welsh Government had noticed that in some parts of Wales, the relationship between case rates and positivity rates was showing an unusual pattern with positivity rates falling more rapidly than would be expected. Analysts tried to investigate by looking at cases by locality and age group but did not have access to data by laboratory. There was also activity on social media of people reporting that they had been positive on lateral flow devices, but their PCR test had been negative. Without the data from the laboratory the initial focus centred on lateral flow device accuracy.

246. Following the confirmation of the incident from the UK Health Security Agency, Public Health Wales carried out analysis estimating that the incident led to around 6,600 incorrectly assigned negative cases in Wales during the affected period (2 September to 12 October 2021). I also asked the Technical Advisory Group to undertake an analysis of the impact of the false positives related to the incident. It concluded in a published report exhibited as **JAD-7/148 - INQ000227972** 'the true number of missed cases due to the Immensa laboratory issue may never be known'. Swansea University modelling analysis suggested that the epidemic growth rate following the Immensa laboratory incident was not significantly associated with the incorrectly assigned cases. It concluded overall, it was likely that there was a modest impact, albeit with variation between areas in Wales, which is unlikely to have changed the underlying patterns of transmission.'

247. The issue was investigated by the UK Health Security Agency as a Serious Untoward Incident, and I exhibit the report of the investigation findings as **JAD-7/149 - INQ000513671.** The Serious Untoward Incident investigation led to the UK Health Security Agency making improvements within its commercial function, testing systems and

processes, and supply of information from the UK Health Security Agency to the Welsh Government on reporting incidents.

Patient testing framework

248. The Welsh Government's '*Framework for Covid-19 testing for hospital patients in Wales*' was published in March 2021, exhibited in **JAD-7/150 - INQ000227308**. The Framework outlined the approach to prevent spread within hospitals, to reduce the risk to some particularly vulnerable cohorts of patients requiring treatment and to enable the safe discharge to home or community care. It was intended that the outlined proposals would also be relevant to community hospitals, mental health facilities and independent hospitals (including hospices). The framework set out five purposes of testing;
    a. to diagnose,
    b. to prevent Covid-19 from entering hospitals undetected,
    c. to prevent its spread within hospitals,
    d. to reduce risks to particularly vulnerable cohorts of patients requiring treatment, and to enable the safe discharge of patients to their home or to community care.
    e. By enabling those patients admitted to hospital who were infected with Covid-19 to be rapidly identified, clinical judgements could be made to ensure the best care for them.

249. On 22 March 2021, in Ministerial Advice MA/VG/0726/21, exhibited earlier at **JAD-7/111 - INQ000235864**, the Minister for Health and Social Services agreed to the conclusion of antibody testing of domiciliary care staff and to close the sero-prevalence study of priority groups in health, social care and education which had been announced in June 2020. In line with the revised Testing Strategy and 'Test to Safeguard' priority, domiciliary care workers were then included in the cohort of staff offered regular weekly testing. The Testing and Clinical Prioritisation Board and Test, Trace, Protect Programme Board both agreed with the recommendation to now conclude the programme as the initial purpose had been met.

250. On 29 March 2021, the Social Care Testing and Infection Control Group agreed consideration of testing arrangements in care homes should be linked to the First Minister's 21-day review cycle from then and for the meeting to move to a three weekly schedule to coincide with the 21-day review cycle. I exhibit a copy of the meeting note at **JAD-7/151 - INQ000513972**.

251. On 6 April 2021, the funding package for care homes was extended to support the additional cost burden of testing in care homes for a further 13 weeks until the end of June 2021 and to proportionately extend the financial support package to the wider social care sector for the period April – June 2021. I exhibit Ministerial Advice MA/VG/1548/21 submitted on 1 April 2021, which agreed this package at **JAD-7/152 - INQ000145126**.

Easing of restrictions and the testing approach (April – November 2021)

252. As restrictions eased, we announced that people who were close contacts of someone who had tested positive for coronavirus and had been asked to isolate by contact tracers would be offered a coronavirus test. The Minister also announced an extra £50 million to allow health boards to extend contact tracing over the summer.

253. With the public health situation improving the easing of restrictions was brought forward, and aligned with this, access to lateral flow tests were rolled out across Wales. Lateral flow tests could be collected from testing sites from 16 April 2021, and it was recommended that tests were taken twice a week, and results recorded on the UK Government website.

254. Public Health Wales and the Testing Clinical and Prioritisation group provided advice on lateral flow devices. This included reviewing the impact of testing a population of 10,000 with different infection prevalence, with the expectation lower prevalence levels would result in a higher level of false positives.

255. On 11 May 2021, further expansion of lateral flow testing was announced, with unpaid carers accessing home testing kits either by ordering online or collecting from a convenient location. The announcement also noted work on pilot test events (three events across motorsport, triathlon and outdoor theatre) to support the development of processes and guidance for the safe return of large scale public events. This included a testing protocol and risk assessment tailored for each event. Further pilot events were identified to progress the revised Coronavirus Control Plan (March 2021) which allowed for the scheduling of limited outdoor test events to be held and evaluated as Wales moved into Alert Level 3. The schedule of events included working with religious groups to support the Eid event at Cardiff Castle (13 May 2021) with a capacity of 500 attendees. I exhibit the paper on the learning from the pilot events including concerns on digital inclusion and the additional support needed for testing that was discussed at the Testing Clinical and Prioritisation Group at **JAD-7/153 - INQ000530897.**

256. On 17 May 2021, Public Health Wales updated *'Standard Operating Protocols for care homes, adult and children' exhibited* as **JAD-7/154 - INQ000513923** and **JAD-7/155 - INQ000513924**. The main change was the introduction of an individual review of all asymptomatic positive results before whole home testing in place of automatic retesting.

257. We sent a briefing to the Minister for Health and Social Services on 3 June 2021, exhibited as **JAD-7/156 - INQ000513670**, to offer Pharmacy Collect in Wales as an additional channel for accessing self-test lateral flow test kits. In Wales, it was to be offered in collaboration with Community Pharmacy Wales. This followed learning from a scheme introduced in England and was also planned for Scotland and Northern Ireland. We had, under our community testing programme, worked with local authorities and other partners to provide access to lateral flow tests through community collection points such as libraries. Lateral flow tests were also available for collection at Regional Testing Sites and Local Testing Sites. Pharmacies provided improved accessibility across our communities as the majority of the population lived within a 20-minute walk of a pharmacy and there was a high level of trust in community pharmacies.

Sector testing

258. Development and delivery of the lateral flow test programmes across the different sectors required number of organisations to work together both through the National Testing Programme with regard to supply and logistics, validation and standard operating procedures and with Welsh bodies and structures. I exhibit as **JAD-7/157 - INQ000513663** a briefing we prepared for the Shadow Social Partnership Council on 3 June 2021 on workplace testing in Wales that also summarised other programmes and lessons learnt from the roll-out to date. The lessons included the need to raise further awareness, the challenges in the scale up of delivery of supplies across different settings, clear communications on setting up the different test performance and purposes, changing policy position of the UK Government on its user cases and changes to systems utilised for Wales, testing fatigue in the context of vaccination and the need to continually assess and evolve uses in light of prevalence levels, variants of concern and new technology.

259. On 1 July 2021, a Written Statement entitled *"Learning more about the use of rapid COVID-19 testing using lateral flow devices*", exhibited as **JAD-7/158 - INQ000513929**, shared details on the use of lateral flow devices to support Test, Trace, Protect in Wales. It reported regular twice weekly lateral flow device testing had been offered to health and social care workers, education staff, students and workers in the public and private sector. People who could not work from home, un-paid carers and volunteers had also had access to lateral

flow self-test kits from April. Weekly surveillance reports on lateral flow device tests for Welsh residents were published by Public Health Wales. The statement reported since 1 January 2021 2.7 million lateral flow device tests had been registered in Wales, resulting in 2,400 positive results reported with an overall positivity rate of 0.13%. 315 positive episodes were registered during 14 to 20 June 2021 with a positivity rate of 0.27%. The percentage of positive episodes had increased over the previous two weeks in line with the increase in prevalence shown for symptomatic PCR testing over the same period. It was, however, recognised that further work was needed to engage with the public on the importance of reporting test results on the government portal and need for us to gain a better understanding of public perception and experience of regular testing. In Wales, a specific communications campaign went live to encourage people to report lateral flow test results in parallel with the launch of Pharmacy Collect. The Welsh Government also worked closely with the UK Government to replicate these messages across both Welsh and English language communication channels. I provide examples of these as **JAD-7/159 - INQ000566339** and **JAD-7/160 - INQ000566338.**

260. Updated guidance for hospital visiting in Wales came into force on 5 July 2021. The revised guidance included the option for health boards and NHS trusts to use lateral flow devices or point-of-care testing to support hospital visiting. Various point of care devices were used in the NHS in Wales – these included the Lumira DX devices procured under the Test, Trace, Protect arrangements and Roche and Abbot ID devices supplied under the National Testing Programme. This included making testing available for parents of children in hospital, pregnant women and their identified support partner and/or essential support assistants in maternity services.

261. On 29 September 2021, I issued Ministerial Advice MA/EM/3318/21 to the Minister for Health and Social Services on the approach to Test, Trace, Protect over autumn/winter. I noted in the briefing across 20 – 26 September 2021 over 190 thousand tests were processed across all PCR channels for Welsh residents. This was the highest testing demand we had seen to date. As we entered the 2021 autumn/winter period with other respiratory viruses in circulation such as flu and respiratory syncytial virus (RSV) we were likely to see a sustained demand for Test, Trace, Protect services due to symptom overlap. The approach I set out for testing was to retain our testing purposes and testing capacity, both Public Health Wales and lighthouse laboratories, and that we were likely to have to make some difficult decisions on priorities as to the modality of testing, with the possibility of switching from PCR to lateral flow devices in some cases. The advice is attached as **JAD-7/161 - INQ000235841.**

262. I exhibit the Ministerial Advice issued to ministers on 29 September 2021 as **JAD-7/162 - INQ000116698** and supporting annex as **JAD-7/163 - INQ000539105** which set out the proposed Testing Plan for autumn and winter 2021. The Plan supported the overall purpose of Test, Trace, Protect - to minimise harm from an overwhelmed NHS and social care system. It also maintained testing capacity and infrastructure to enable the continuation of test to diagnose, test to safeguard, test to find and test to maintain and to extended access to lateral flow tests via community pharmacy collecting, Direct channels, and to workplaces to 31 December 2021. The advice noted that Public Health Wales had proposed our testing for autumn/winter should be restricted to testing to diagnose (patient testing) and testing to safeguard and we should introduce multiplex PCR testing that would also test for other respiratory viruses alongside Covid-19. As I noted above, my advice was to retain our testing purposes and capacity and this aligned with the approach in the other nations.

263. On 4 October 2021, the Social Care Testing and Infection Prevention & Control group agreed the approach to testing in children's residential care homes should be aligned to the testing policy for schools in Wales (twice weekly asymptomatic lateral flow device testing) and that advice should be drafted to this effect, I exhibit a copy of the minutes at **JAD-7/164 - INQ000513938**. The group also agreed:

    a. No change to the asymptomatic testing of care home staff
    b. Outbreak management - whole home testing of residents to cease, with symptomatic testing of residents only
    c. Declaration and management of outbreaks of Covid-19 within care homes to align with existing communicable diseases and infection control guidance
    d. Blanket "Red" home status and all associated "rules" to be dropped
    e. Nuanced and risk-assessed approach to testing to be taken before discharge from hospital and admissions to a care home reflecting the risk of both acquisition and onward transmission of Covid-19 infection.

264. The Minister for Education and Welsh Language amended advice to students in secondary schools and colleges who were under 18 and had a household member who had tested positive for Covid-19. From 11 October 2021, it was recommended that in addition to PCR tests on Day two and Day eight, students should undertake daily lateral flow testing every day for seven days. Following revised clinical advice, we no longer recommended that children under 5 years of age without symptoms take Covid-19 tests. It was also announced that vaccinated staff working in special educational provision who were identified as a

contact, household or otherwise, would, subject to a risk assessment, be required to receive a negative PCR test before attending work and then undertake daily lateral flow tests.

265. On 11 October 2021, the Minister for Health and Social Care agreed to permit the asymptomatic 'on-site' Covid-19 testing for staff and visitors, before entry to social care settings, to be undertaken at home before arriving at the social care setting and noted that the intention to continue existing asymptomatic testing arrangements (weekly PCR testing and twice weekly lateral flow tests) in care homes throughout the winter. She also endorsed a surveillance study of the impact of these changes undertaken by Public Health Wales.

266. The First Minister announced that Wales would remain at Alert Level 0 but with some strengthened measures. These included changes to the self-isolation guidance from 29 October 2021 - adults who were fully vaccinated and children and young people aged 5-17 would be asked to self-isolate until they had received a negative PCR test if someone in their household had symptoms or tested positive for Covid-19. People who were not vaccinated would still have to self-isolate for 10 days following contact with someone who had tested positive. From 15 November 2021, use of the NHS Covid pass was extended to cinemas, theatres and concert halls.

November 2021 – February 2022: Omicron wave

267. As we entered the winter period in 2021, testing capacity across PCR, lateral flow tests and points of care had been significantly increased and restrictions at the start of November 2021 were continuing to be reduced.

268. On 25 November 2021, the UK Health Security Agency designated B.1.1.529 as a variant under investigation. It was designated a variant of concern on 27 November 2021 when two cases were identified in the UK.

269. On 3 December 2021, a case of the Omicron variant was confirmed in Wales. The case, in the Cardiff and Vale University Health Board's area, was linked to international travel. On 9 December 2021, in response to the threat posed by the Omicron variant the Minister for Health and Social Services announced plans to increase testing capacity for identifying the Omicron variant in Wales. Use of lateral flow tests was advised as part of the protective measures to reduce transmission with vaccination being an important part of the defence.

270. On 10 December 2021, in the latest review of the coronavirus restrictions regulations, the First Minister described the new Omicron variant as a worrying development, saying "we

must be prepared for cases to rise quickly and sharply". Although Wales remained at Alert Level 0, the Welsh Government advised people to take a lateral flow test before going out, visiting friends and family or travelling, and to wear face coverings in all public places, including in cinemas and theatres, pubs and restaurants, except when eating or drinking.

271. On 13 December 2021, the Minister for Health and Social Services wrote to the Secretary of State for Health to raise her concerns on the need to ensure we had the capacity and capability under the programme to respond to the Omicron threat with the increased demand for both PCR and lateral flow device testing. The letter is attached as exhibit **JAD-7/165 - INQ000513941**. The letter focused on concerns related to contracts under the National Testing Programme ending on 31 March 2022 and the uncertainty and risk this was creating with the potential loss of key staff during a critical time and the current pressures that had resulted in closing the lateral flow device Direct channel at times to manage demand. In raising the concerns, she noted the excellent work and collaboration across all four nations to deliver the capacity and solutions to develop our testing capacity and capability.

272. The guidance for '*Keeping Wales Safe at Christmas*' advised people to get vaccinated, use lateral flow tests before going out, and to space out social events. Public messages about meeting outdoors, social distancing, masks, and handwashing were reiterated.

273. The advice on lateral flow tests started to place pressure on the supply and distribution of lateral flow tests across the UK and also on PCR tests due to the need for confirmatory PCR tests on a positive lateral flow test. This pressure further increased with changes to the self-isolation guidance on 23 December 2021 that fully vaccinated adults, children aged 5-18 and vaccine clinical trial participants identified as a close contact of a positive case of Covid-19 would not need to isolate. Instead, they were advised to take lateral flow tests for seven days as a precautionary measure. Advice for children under five, and for unvaccinated contacts remained the same.

274. By December 2021, PCR capacity for Wales was around 35,000 a day (8,000 within the NHS in Wales labs and 27,000 from the UK Testing Programme allocation). Modelling indicated Covid-19 cases would exceed levels previously seen and test bookings remained high and exceeded 28,000 on 29 December. Capacity was impacted by staff sickness absences at the laboratories and on 30 December 2021, a cap of 20,000 tests was placed on test site bookings. In order to manage PCR testing and maintain turnaround times, whilst working on the principle that anyone who needed a test would be able to access one, it

was agreed through Ministerial Advice MA/EM/4536/21, exhibited at **JAD-7/166 - INQ000235901** to:

i. Replace the need for Day two and Day eight PCR tests for unvaccinated contacts of positive cases with lateral flow tests during the period of isolation.
ii. Agree to constrain booking to our Barnett allocation share of lab capacity available on a daily basis when required to protect the system and turnaround times.
iii. Cease advising a PCR follow-up test within 24 hours of a positive lateral flow test.
iv. Agree to prioritisation of PCR testing if demand continued to grow and outstrip capacity and for officials to further develop thinking with other nations so that it could be introduced at pace when needed.
v. Note the further procurement of lateral flow devices by the UK Health Security Agency and the intention for Wales to opt in to safeguard supply and the further work to increase delivery channel capacity.

275. During this time demand for lateral flow tests was higher than at any point and the UK Health Security Agency undertook further procurement to ensure supply across the UK. We provided mutual aid with Welsh allocated lateral flow devices to support the other nations.

276. On 30 December 2021, there were further changes to the self-isolation guidance with the Minister for Health and Social Care announcing that, based on advice from the UK Health Security Agency, the 10-day isolation period would be reduced to seven days. This applied from 31 December 2021. People with a positive test result were advised to self-isolate for seven days and take a lateral flow test on day six and another test 24 hours later.

277. On 5 January 2022, further changes to PCR testing were announced with the aim of reducing pressure in the system and increasing access for those with symptoms. Unvaccinated contacts of positive cases were advised to take a lateral flow test on days two and eight instead of a PCR test while self-isolating, and symptomatic people who had a positive lateral flow test would no longer be advised to have a follow-up PCR test to confirm the result, unless they were in a clinically vulnerable group.

278. Further changes to the isolation period and testing were introduced from 28 January 2022. People who tested positive for Covid-19 were able to leave self-isolation after five full days subject to two negative lateral flow tests. The Minister for Health and Social Services said "*A shorter self-isolation period will support public services and businesses by*

reducing pressures on the workforce through Covid-related staff absences". Financial support through the Self-Isolation Support Scheme reverted to the original payment rate of £500 in recognition of the shorter isolation period. This was announced three days before Wales completed the move to Alert Level 0 (more information on the Self-Isolation Support Scheme is detailed later in the statement).

279. On 21 February 2022, the UK Government published its plan for living with Covid-19 and from the start of April 2022 the UK Government ended free symptomatic and asymptomatic testing for the general public. It made this decision on a unilateral basis in relation to the National Testing Programme and this impacted future testing plans and options for Wales including funding implications.

Continued relaxation of restrictions (March to June 2022)

280. The Wales *'Long Term Plan for Living with Covid-19 for the transition from pandemic to endemic'* was published on 4 March 2022 as exhibited in **JAD-7/167 - INQ000066072.** The plan set out how Wales's response to coronavirus would change under two core planning scenarios – 'Covid Stable' and 'Covid Urgent'. Covid Stable was expected to be the most likely scenario.

281. Plans for testing in Wales were announced by the Minister for Health and Social Care in a statement on 8 March 2022, this was agreed in Ministerial Advice MA-EM-0728-22 as exhibited above at **JAD-7/056 - INQ000177043.** This followed negotiation with the National Testing Programme on the costs for Wales as the funding arrangements changed following the end of testing in England. The plan for Wales was to move gradually in a phased way from PCR testing with lateral flow testing being available to order online for people with symptoms.

282. The transition plan for testing beyond June 2022 was set out on 24 June 2022 and is exhibited at **JAD-7/168 - INQ000513966.** This included extending Covid-19 lateral flow device testing throughout July 2022, specifically the following testing would continue to be in place:

    a. Lateral flow device and PCR testing for those eligible for Covid-19 treatments.
    b. PCR testing for Covid-19 and other respiratory viruses for symptomatic care home residents and prisoners.
    c. PCR and lateral flow device testing under the patient testing framework and when clinically advised including pre-operative hospital patients and care home residents returning from inpatient hospital stays.

d. Lateral flow device testing for symptomatic health and social care staff.
e. Twice weekly lateral flow device tests for asymptomatic testing for health and social care staff.
f. Those visiting people in care homes were to continue to test using tests provided by the care home they were visiting.

Supply of tests

283. The NHS Wales Shared Services Partnership led on the procurement of Lumira point of care devices and antibody tests agreed under the first testing plan and before arrangements were made under the National Testing Programme. It also led on procurement and supply of PCR testing devices, tests and consumables for NHS Wales laboratories.

284. Under the National Testing Programme, the devolved governments' allocations were provided as a population share and determined in accordance with Barnett allocations from 1 April 2021 onwards. This was intended to permit easier reconciliation relating to consequential funding and to align with the vaccination programme. Contracts and supplies under the National Testing Programme were managed by the UK Department for Health and Social Care and thereafter by the UK Health Security Agency on behalf of all four nations.

285. Details on when PCR and lateral flow device tests were available and rolled out in Wales is set out in the narrative above over the relevant period. Issues affecting PCR test supplies were particularly acute at the start of the pandemic and lateral flow tests were also impacted by global demand and supply chain challenges during the period. For example, at the start of the roll out of testing in schools, distribution of tests to schools was delayed in some instances and involved a number of meetings with the National Testing Programme to resolve. The availability of tests to schools was often facilitated by the organisation channel, where the organisation itself would order the test. Such organisations included schools and care homes. I attach relevant advice to ministers as exhibits **JAD-7/169 - INQ000116612** (MA/VG/4245/20, 4 December 2020) and **JAD-7/170 - INQ000350207** (MA/VG/0424/21, 28 January 2021). Management of testing at home (namely public access to tests to be undertaken at home and in the case of PCR tests, then returned by post to the laboratory) also had to be controlled at times especially during the peak of the Omicron wave where

there was significant pressure on the supply and distribution of lateral flow devices. We provided mutual aid to the other nations twice during the period to ensure they had adequate supplies of lateral flow devices as deliveries to the UK were awaited.

286. The Memoranda of Understanding, as exhibited as (Exhibits 4, 5 and 6), covered the contract arrangements on behalf of ministers for the devolved governments, meeting legal and statutory requirements, which included:
    a. Negotiating appropriate terms and conditions for the contracts;
    b. Overseeing and performance managing supplies under and in accordance with the contracts, including:
    c. Managing changes to the contracts in accordance with any change processes therein;
    d. Managing any necessary termination or extension rights in accordance with the contract;
    e. Managing any costs, indemnities and liabilities in accordance with the contracts;
    f. Reporting in a timely manner to the Welsh Ministers on any issues arising from the suppliers' performance of the contracts, or from changes to the contracts, which would have a material effect on the services provided; and
    g. Where contract performance issues were raised by Welsh Ministers, ensuring that those issues were promptly raised with and addressed by the Suppliers.

287. As noted earlier, the Memoranda of Understanding also set out how Welsh Ministers were able to participate in important decision-making forums of the National Testing Programme, including the UK Health Security Agency Investment Board, where it was relevant to Wales. Business cases were discussed at the Board and we had the option to op-out of procurements over £25 million.

288. An example of a decision to opt out of a UK Government procurement was in October 2021 when Wales chose to opt out of the procurement of lateral flow devices. The Department for Health and Social Care presented the case for purchase of 198 million devices to the Investment Board, which implied an allocation of around 9.4m devices for Wales. The decision was taken to opt out of this purchase as existing supplies were adequate to meet Wales's needs and to receive the relevant financial consequential based upon the costs of procurement incurred by the UK Government. The advice to the Minister for Health and Social Services is exhibited above at **JAD-7/137 - INQ000235883** and **JAD-7/138 - INQ000116768**.

Roll-out of testing and test-sites – Regional and Community testing sites

289. I note above the roll out and evolution of testing and test sites in Wales during the pandemic. This included community testing sites for sampling for NHS Wales laboratories and sites for taking samples for the lighthouse laboratories under the National Testing Programme. Initially the focus was on supporting people to be tested at home – with health board testing teams visiting people at their home to take samples.

290. Community Testing sites were established by local health boards working with NHS Wales laboratories to support testing of patients and key workers. Development of Regional Testing Sites, Local Testing Sites and the Mobile Testing Units were made under the National Testing Programme and involved working with private sector contractors, health boards, local authorities and Local Resilience Forums. Local Testing Sites were also initially set up near universities and colleges and involved working with higher education institutions. These sites were adopted close to universities and colleges in order to seek to reduce the risk of transmission from students travelling home from universities or colleges at the end of term. The regional Test, Trace, Protect teams liaised with Local Resilience Forums in the early part of the response specifically on issues such as critical worker testing. The work of the Local Resilience Forums was fed back at strategic level via groups that the Director General for Local Government and Covid Co-ordination convened.

291. Establishing the first Regional Testing Sites in Wales, near Cardiff City Stadium, as described in para 140 above encountered some issues due to cooperation and engagement processes not being in place between the National Testing Programme and relevant partners in Wales at the start. These processes developed and evolved during the pandemic. The NHS Delivery Unit, which became part of Test, Trace, Protect in August 2020, enabled greater oversight to support engagement amongst organisations involved in identifying and developing sites across Wales.

292. The Community Testing Sites were mostly located near hospitals to support patient and health care staff testing. Regional Testing Sites needed significant space and were strategically located across Wales near more populous areas. Local Testing Sites were established to increase access for the more disadvantaged and underrepresented communities. Fifteen walk-through Local Testing Sites were opened before Christmas 2020, with 12 more over the following months as plans were finalised with local health boards and local authorities. Location of sites were identified with partners and support

from the NHS Delivery Unit and teams in the National Testing Programme, including contractors.

293. Nine further Mobile Testing Units (in addition to the 19 already operational) were also introduced to ensure each local health board had one mobile unit that could be operated in each local authority area. Working in partnership, community outreach was developed across Wales to target areas of higher deprivation, within more rural or isolated communities and with protected characteristic groups. The governance arrangements for the National Testing Programme meant that the Welsh Government agreed the location of testing sites and had information on the operational performance of these sites, for example their utilisation and throughput.

Reporting of test results

Statutory reporting requirements

294. The reporting of Covid-19 test results – PCR and lateral flow device tests taken on site – formed part of the established mechanisms under the Health Protection (Notification) (Wales) Regulations 2010 ("Notification Regulations"). The Notification Regulations placed obligations on various persons to disclose information to specified third parties for the purpose of preventing, protecting against, controlling or providing a public health response to the incidence or spread of infection or contamination. The Regulations obliged registered medical practitioners to notify the proper officer of the relevant local authority if a patient they were attending was believed to have a disease listed in Schedule 1 to the Regulations or was otherwise infected or contaminated in a way that might have caused significant harm to others. It also placed obligations on the operators of diagnostic laboratories to notify the proper officer of the relevant local authority if they identified a causative agent listed in Schedule 2 to the Regulations, or evidence of such an agent, in a human sample. The Notification Regulations also placed duties on local authorities, when receiving notifications under these Regulations to provide that information to Public Health Wales.

295. The Notification Regulations were amended in March 2020 by the Health Protection (Notification) (Wales) (Amendment) Regulations 2020/232 which added "Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)" to Schedule 2. All positive PCR tests and lateral flow device tests taken on site would be reported via the arrangements under these Regulations. Proper officers could and did access negative results from the labs if they needed them – but these were not routinely reported to them (reporting of which was not required by the Notification Regulations).

Covid-19 reporting of test results

296. In Wales the Public Health Wales systems received all results (positive and negative). This included data from UK lighthouse labs.

297. A flowchart setting out how samples collected at Mass Testing Centres (including via Mobile Testing Units) were processed in the NHS and non-NHS laboratories in Wales is exhibited as **JAD-7/171 - INQ000509467.**

298. Public Health Wales published a daily surveillance dashboard including data on authorised tests, testing episodes, positive cases, incidence and deaths due to Covid-19. The Public Health Wales daily surveillance dashboard provided the following information:

Number of authorised tests per day, as originally reported by Public Health Wales

299. The number of authorised tests per day represented the number of newly authorised test results available in the 24 hours to 13:00 each day. The date that those tests were physically carried out might not have been the date that the results were authorised or made available for surveillance purposes.

300. This data was presented as a snapshot of results authorised over the previous 24 hours and aimed to give a rapid surveillance picture in the most timely manner. It gave an indication of the volume of tests authorised within a 24-hour period, however, it could include individuals who might have been tested more than once during a six-week testing episode.

Individuals tested with authorised test result by test date

301. This data presented the number of individuals tested (testing episodes) with authorised results. The number of testing episodes and positive cases was reported by the specimen date, which was the date the sample was taken from the patient.

302. This data was used for surveillance purposes and was suitable to compare over time. Individuals could be tested more than once for Covid-19 for numerous reasons. A testing episode was a six-week period starting from the date of the first sample taken from the patient. Individuals who were tested multiple times during a six-week period were only counted once during that period. If any of the test results for the individual were positive, then that was the result which was presented. If an individual tested positive more than once during the six-week period, then they were still recorded as only one new case. Any tests which occurred more than six weeks after the initial test would trigger a new testing

episode. Local health board level information was also provided to show the different disease trajectories in Wales. This information was based on area of residence and would not necessarily reflect the local health board the patient had been treated in. The age and sex distribution of total testing episodes and total positive cases was also provided for the latest date available.

303. The Welsh Government brought together a weekly summary of this information, this included:

    a. the number of authorised tests per day, as originally reported by Public Health Wales
    b. the number of authorised tests per day, retrospective series - which was a more up-to-date and complete measure to use when comparing daily figures rather than the headline figure presented on the Public Health Wales Surveillance Dashboard. The data included tests that may not have been initially reported in the rapid headline figure following further reconciliation and quality assurance. The number of authorised tests per day represented the number of newly authorised test results available on the calendar date of authorisation. The date that these tests were physically carried out may not be the date that the results were authorised or made available for surveillance purposes.
    c. individuals tested with authorised test result by test date.

304. In addition, detail on the number of tests on critical workers and the location where the test sample was collected and turnaround times of tests was included. An example of the testing data for Covid-19 up to 25 April 2021 is exhibited as **JAD-7/172 - INQ000514001**.

The epidemiological nature of Covid-19 impact on Testing Strategies

305. Public Health Wales was the main source of epidemiological and public health advice to policy-makers in the Health and Social Services Group. For example, its response plan, previously exhibited, set out in great detail the evidence for test and trace which shaped its recommendations for the operational model that they advised should be deployed in Wales. Public Health Wales provided on-going epidemiological advice throughout the pandemic at various meetings including the Chief Medical Officer's Health Protection Advisory Group, the Test, Trace, Protect Programme Board and Oversight Group and from October 2020 through several advice notes requested by the Welsh Government. These included epidemiological summaries and advice on pharmaceutical and non-pharmaceutical interventions including testing, contact tracing and isolation. These were considered in the formulation of advice to ministers. By way of example, I exhibit Public Health Wales' Advice

Note 29: '*Hospital Testing for SARS-CoV-2*' at **JAD-7/173 - INQ000068180**[7] and its covering email which confirms the advice was provided in the epidemiological context at the time at **JAD-7/174 - INQ000396490.**

Testing for Variants

306. As with other countries, the appearance of variants of concern significantly impacted infection patterns in Wales. The Alpha variant, in late 2020, led to a surge in cases and heightened pressure on contact tracing systems due to its high transmissibility. This was followed by the Delta variant, which drove the largest wave in mid-2021. Finally, from November 2021 onwards the Omicron variant, and its subvariants BA.4 and BA.5, emerged, eventually becoming the predominant Covid-19 strain around the world. Each variant challenged the system to adapt to handle these increased case volumes and the different epidemiological characteristics of the virus. During intervals of lower transmission, Test, Trace, Protect efforts contributed to preventing widespread outbreaks and in areas with robust local response teams, infection rates were better contained.

307. Pathogen Genomics (to understand and monitor outbreaks through virus variants) was led by the Pathogen Genomics Unit, and Human Genomics (to understand susceptibility to Covid-19) was led by the Wales Gene Park.

308. Sequencing of SARS-CoV-2 in Wales started in March 2020, through the Public Health Wales Pathogen Genomics Unit (PenGU) in collaboration with other UK Public Health Bodies. This process identified circulating lineages in Wales via a horizon scanning process, which were then assigned as variants under investigation or concern based on a risk assessment process. The Test, Trace, Protect team worked closely with Public Health Wales and the Pathogen Genomic Unit to increase the positive test samples available for genomic sequencing, this included samples being shared from the Newport lighthouse laboratory with the unit so that more positive cases were sequenced thus enhancing our genomics information on the spread of variants in Wales. By June 2020[8] it was reported that Wales had sequenced over 6,000 SARS-CoV-2 genomes, representing more than a third of all Covid-19 cases in Wales. This placed Wales third in the world for Covid-19 genomes sequenced, behind only the United States of America and England.

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[7] *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 [INQ000396491]*

[8] Wales Plays a Key Role in UK-Wide SARS Cov-2 Sequencing and A genomic giant: Public Health Wales' genomic sequencing and sharing efforts put Wales in top three worldwide as part of COVID-19 response - Public Health Wales

309. A UK technical advisory group, the Covid-19 Genomics UK Consortium (COG-UK), monitored genomic surveillance data on SARS-CoV-2 variants across the UK and elsewhere in the world. Emerging SARS-CoV-2 variants were risk assessed and those with potentially concerning mutations were placed on a 'watch list' which was reviewed and agreed by the New and Emerging Respiratory Virus Threats Advisory Group. These variants were then studied with weekly reviews of emerging data published by UK Health Security Agency.

Equalities and infection patterns

310. The pattern of Covid-19 infection in Wales followed a similar trajectory to other parts of the UK, with distinct waves reflecting different stages of the pandemic. The initial wave in early 2020 was marked by rapid spread and high hospitalisation, with subsequent peaks observed following the emergence of new variants and during winter periods. These waves influenced the demand for Test, Trace, Protect as cases surged rapidly.

311. The emergence of variations in infection patterns and peaks across different regions and demographics in Wales led to the introduction of Local Health Protection Areas from September 2020. The main purpose of these measures was to limit the spread of infection from areas of high prevalence to areas of lower prevalence in Wales.

312. Urban areas and densely populated regions often saw higher case numbers, and demographic groups such as younger populations had higher case rates during specific periods, such as when schools and universities reopened.

313. The disproportionate impact Covid-19 was having on some people, including Black, Asian and Minority Ethnic and disabled people was published in an analysis by the Office for National Statistics, which covered deaths in hospitals and in the community between 2 March and 15 May 2020. It found Black males had the highest mortality rate from the disease. The Office for National Statistics also published research looking at death rates for religious groups, concluding that Muslims had the highest death rate of any religious group. In October 2020, the Welsh Government funded the appointment of dedicated Black and Minority Ethnic public health outreach workers in each health board, I exhibit Ministerial Advice, MA/VG/3314/20 as exhibit **JAD-7/175 - INQ000145029.** The community outreach workers were focused on providing support aimed at breaking down barriers preventing Ethnic Minority groups from taking Covid-19 tests, supporting people to self-isolate when

necessary, encouraging vaccine uptake and facilitating a two-way communication between organisations and communities. The outreach workers in each health board also supported engagement work for refugees, asylum seeker and migrant groups. This aimed to maximise outreach for Test, Trace, Protect and widen engagement on all matters related to prevention of further Covid-19 related deaths. This was based on learning from international models for mobilising community outreach like the Barefoot Workers in India.

Equalities and testing

314. As noted earlier, Test, Trace, Protect was established to safeguard communities by providing rapid and easy access to testing and reducing the spread of Covid-19, interrupting the chain of transmission through contacting and isolating Covid-19 cases and contacts.

315. For testing this required us to work with others such as local authorities, health boards and third sector organisations to maximise the accessibility of testing across Wales, particularly for at risk, vulnerable and lesser-heard groups. At the start of the pandemic, and during the time we were increasing testing capacity from March 2020 to June 2020, testing teams in health boards would support at home those not able to visit Community Testing Sites and later the Regional Testing Sites and Mobile Testing Units. I noted above that during the contain phase NHS testing teams had supported over 90% of people to be tested in their own home, making it as convenient as possible for people while also protecting ambulance and hospital resources for those who needed it most. These teams continued to provide this home service during the pandemic for the more vulnerable and those unable to visit testing sites or use home testing kits as was agreed, in May 2020, in Ministerial Advice MA-VG-1547-20 exhibited earlier as **JAD-7/038 - INQ000227631**.

316. In the development and implementation of testing sites Test, Trace, Protect had input from a wide-range of experts; within and across the Welsh Government, Public Health Wales, local authorities, local health boards, charities and the third-sector, education unions, universities, schools and colleges and businesses.

317. Regional Testing Sites were situated in more populous areas with Mobile Testing Units available to support the more rural areas. Local walk-through test sites were established to improve test accessibility from autumn 2020. This helped in areas where individuals were less likely to have access to a car. This further enabled us to support wider access across

Wales. Alongside the physical sites we had access to the home testing kits and as previously mentioned, maintained assisted testing through the local health boards' testing teams.

318. With the development of new technology and following the learning from Merthyr and Lower Cynon pilot we developed the Community Testing Programme on a risk based targeted approach. The aim was to assess areas that had higher positivity rates, lower uptake of testing, industries/activity that had higher exposure risks or did not allow people to work from home and periods and places of temporal increases of incidences. This risk-based assessment to targeting testing and activity enabled more focused plans and support.

319. Groups to benefit under the Community Testing Programme included deprived communities and hard to reach groups with high prevalence of Covid-19; people working in sectors where person to person contact was more likely and, communities experiencing increases in incidence. The Community Testing Programme provided opportunities to work with local authorities and the third sector on innovative approaches but take up under the programme was not consistent across Wales.

320. The Community Testing Programme recognised some people had difficulty attending a testing centre either because they were shielding due to health conditions or because of mobility issues. Local authorities were asked to consider how best to serve these individuals. In the pilots in Merthyr and Lower Cynon people on the shielding list were contacted and offered home testing. Additional arrangements were made to offer home testing to other vulnerable people not on the shielding list and to people with mobility impairments.

321. Expansion of testing capacity through lateral flow testing also provided new opportunities to support the most vulnerable members of society. Our asymptomatic test programmes enabled us to actively find asymptomatic cases, increase safeguards for high-risk settings and maintain critical services. Further developments, including the launch of Pharmacy Collect, also provided more opportunities to expand the reach for people to access lateral flow tests. As noted earlier, pharmacies provided improved accessibility across our communities as the majority of the population lived within a 20-minute walk of a pharmacy and there was a high level of trust in community pharmacies.

322. The 'Keep Wales Safe' umbrella message (as detailed further below) was supported by clear calls to action from getting a test as soon as individuals displayed symptoms, reporting

any contacts since they had been displaying symptoms, to following advice about self-isolating. The campaign was supported by a range of easy to understand content, explanatory tools and information for the public. Six fundamental pieces of information were translated into 28 different languages together with workplace posters in 28 languages. It also included supporting toolkits for organisations such as the local authorities and health boards to support their delivery of campaign messaging at a local level, for example to support those working with vulnerable groups including Gypsies, Roma & Travellers and people experiencing homelessness. Communications content and guidance was adjusted to use more simplified language and include visuals where possible. Easy to read versions of the policy and materials were produced, available in multiple languages.

323. An equality impact assessment was continually reviewed as Test, Trace, Protect developed and evolved. It considered the impacts by protected characteristics and the steps taken to address impacts, including that all people, irrespective of age, should have access to the National Testing Programme. I recognise there were at times delays in providing materials to provide advice and support for some groups. When we were made aware of concerns, we acted on these including the importance of using both subtitles and British Sign Language to ensure equal access for D/deaf people for using lateral flow tests. I exhibit as an example the summary Integrated Impact Assessment dated June 2020 as **JAD-7/176 - INQ000182588**.

324. We also became aware of the challenges for people with visual impairments to undertake self-testing at home, so arrangements were made to ensure there was support available in each health board area for those who required assisted testing at home. Individuals who were eligible for testing and unable to do a test at home themselves could call 119, and explain they needed an assisted Covid-19 test at home. The relevant local health board would then arrange a date and time to assist with the test.

325. Impact assessments were also considered as part of the advice for ministers on key testing developments. The Testing Clinical and Prioritisation Board also discussed testing for vulnerable groups. This included advice in autumn 2021 to stop asymptomatic testing for children under five, primarily the Day two and eight PCR offer for close contacts, and not routinely recommending the symptomatic testing of those under five in the community though not prohibiting access. This prevented children under five undergoing an invasive procedure of limited clinical benefit. Outside clinically driven requirements, knowing if a child under five years old presenting with Covid-19-like symptoms had Covid-19 or another respiratory illness had little effect on the public health response to Covid-19 given that the

vaccination uptake in Wales (at 91% coverage for the first dose and 85% for the second dose) provided a strong defence against serious illness in adults and it was rare for children to experience serious illness.

326. I noted earlier some of the challenges to ensure access in rural areas and reduce travel distances. Home tests were available, although it was recognised that some people might have poor digital access to arrange these online, as well as difficulties in accessing postal services or arranging couriers to collect and return the samples.

327. Under the UK National Testing Programme, reviews also included the NHS Test and Trace lateral flow device pilot lessons learned capture for under-represented groups of February 2021 and the UK Department for Health and Social Care asymptomatic testing evaluation of June 2021. The findings were shared and discussed at the Testing Clinical and Prioritisation Board in June 2021.

Part G: Test, Trace, Protect

328. I have outlined the chronology of the establishment, development and roll out of Test, Trace, Protect in Wales in Part B of this statement, along with details of the Test, Trace, Protect Programme Board and Oversight Group. In this section I will outline the cooperation with wider structures within Wales and within four nations structures.

329. I and my team were members of the Health Protection Advisory Group where we would provide updates on any Test, Trace, Protect developments. The Health Protection Advisory Group was a strategic group chaired by the Chief Medical Officer for Wales which had been established for a number of years to bring together public health officers to secure integration and effective implementation of health protection policies, maintain an overview of the work of health protection and drive forward the health protection agenda in Wales. The Health Protection Advisory Group was not solely concerned with Covid-19.

330. The Outbreak and Incident subgroup of the Health Protection Advisory Group ("HPAG OSG") was specific to Covid-19 and considered recommendations and advice to ministers where action or decisions were needed to respond to outbreaks and incidents based on a range of evidence which was brought together through the Covid Intelligence Cell and Covid Intelligence Group. The Outbreak and Incident subgroup was chaired by Reg Kilpatrick, Director General for Covid-19 Crisis Co-ordination and Director of Local Government Directorate. I understand that Reg Kilpatrick has provided details of this group

in his Module 2B Local Government Directorate statement [**INQ000274156**]. On occasions, I deputised and chaired when he was not available.

331. I also attended Ex-Covid meetings to provide an overview of progress in establishing Test, Trace, Protect and subsequently its performance and to seek support for additional resources, I exhibit the notes of a meeting on 5 October 2021 as an example of an update I would provide as **JAD-7/177 - INQ000311968**.

Four Nations meetings

332. Four nations meetings were frequent across the pandemic given the size and complexity of Test, Trace, Protect and the wider Covid-19 response. Consequently, there were a number of groups and boards which met on a regular basis attended by the Welsh Government's Test, Trace, Protect team. This included interaction at strategic and operational levels with arrangements evolving over the pandemic. Frequency of key meetings also increased and decreased in line with policy and operational developments and testing technology developments, including the set-up of specific task and finish groups as and when necessary. I have exhibited a diagram setting out the various meetings at **JAD-7/178 - INQ000513668**.

Ministerial

333. At a ministerial level, Test, Trace, Protect was discussed as part of a broader agenda during weekly four nations ministerial calls, attended by the Minister for Health and Social Services with the Secretary of State for Health and Social Care and ministers from other devolved governments.

Strategic

334. At a strategic level, I attended the UK Government / Devolved Administrations Test and Trace Board on behalf of the Welsh Government, which subsequently became part of the governance architecture within the UK Health Security Agency chaired initially by Baroness Harding and then by Jenny Harries.

335. This board was established to secure senior, permanent four nations governance to enable strategic oversight of UK-wide opportunities and issues across testing, contact tracing and isolation. A copy of the Test and Trace Board's Terms of Reference is exhibited at **JAD-7/179 - INQ000182526.**

336. This board was supported by the UK Government Devolved Administrations Steering Group that was established to support:

a. the effectiveness of the monthly UKG-Devolved Administration Board by providing direction on the priority agenda items for discussion, to highlight the key risks and issues and to action and oversee the progress of Board actions;
b. supporting the actions and briefing for the Health Minister's Forum relating to the national testing programme, contact-tracing and self-isolation; and
c. where relevant, enabling official level discussion and assessment of complex, cross-cutting and unresolved four nations issues to ensure resolution or decision-making through the appropriate channels for the benefit of the four nations.

Operational

337. A number of meetings and groups were established to support four nations working especially under the National Testing Programme. As noted previously these evolved over time and also included various task and finish groups established for finite periods of time. I have set out below some of the key groups across testing, contact tracing, isolation and digital.

Testing

338. The National Testing Programme supported delivery of testing across the four nations and comprised significant interaction and meetings on a four-nations and bi-lateral level. The development of new technologies from September 2020 further increased four-nation interaction across different technologies, sectors, procurement and evaluation.

339. In support of the work and developments across testing, the following key meetings were established;

a. Devolved Administrations, Crown Dependencies and Overseas Territories (DACDOT) Strategic Testing Group;
b. Testing Operations Group and Testing Strategy Group;
c. Investment Board;
d. Testing Evaluation board;
e. Devolved Administration Bi-Weekly Procurement Pipeline meeting; and
f. The NHS Test and Trace and Medicines and Healthcare products Regulatory Agency Oversight and Steering Group

340. The Devolved Administrations, Crown Dependencies and Overseas Territories ("DACDOT") Strategic Testing Group was set up to ensure a co-ordinated approach to the National Testing Programme. The Deputy Director for Testing attended these meetings. I have exhibited the Terms of Reference for the group as **JAD-7/180 - INQ000203655**[9] and an example of minutes of a meeting on 17 September 2020 as **JAD-7/181 - INQ000391549.**[10]

341. The Deputy Directors for Testing attended the Devolved Administrations Weekly Testing Operations group and Devolved Administrations Weekly Testing Policy Group meetings that provided an opportunity for the UK Test and Trace team to update on developments and for the devolved governments to update and raise any issues. The Devolved Administration Testing Policy Group from January 2021 also included testing strategy as well as testing policy. I exhibit the minutes from the meeting of 25 January 2021 as **JAD-7/182 - INQ000513996.** During 2022, the groups were merged to become the Devolved Administration Strategy, Policy and Operations meeting. I attach a meeting note from 25 May 2022 by way of example at **JAD-7/183 - INQ000513998**.

342. From March 2021, under the UK Testing Programme, Wales became members of the UKHSA Investment Board. The Terms of Reference for the Investment Board are exhibited at **JAD-7/184 - INQ000477041.** This gave the Welsh Government the option to opt in or out of significant procurements (over £25m) of new testing technologies developed as part of the National Testing Programme. This arrangement was formalised and agreed under a Memoranda of Understanding between Welsh Government Ministers and the Secretary of State for Health and Social Care on 29 April 2021, as exhibited earlier in **JAD-7/004 - INQ000182594**. Under the Memoranda of Understanding testing allocation was determined in line with Barnett allocations (as determined by the Barnett Formula). I initially attended these meetings, and subsequently the Deputy Directors for Testing attended. Representatives from the devolved governments had no veto rights but could advise on business cases from their government's perspectives and decide on their government's participation.

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[9] *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 [INQ000509436]*

[10] *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 [INQ000509429]*

343. I attended the Testing Initiatives Evaluation Board, which was chaired by Dr Susan Hopkins and provided an expert review of scientific, clinical and operational findings and conclusions from evaluation activities across the programme and considered the impact on public policy. It provided insights for new evaluations, monitored current and upcoming pilots, scrutinised methodologies and conclusions, ensured quality assurance, and approved evaluation products for publication. This group, for example, oversaw the daily contact testing pilot, undertaken by the UK Government, which informed our policy in Wales. I exhibit the Terms of Reference for the board as **JAD-7/185 - INQ000513902.**

344. The Devolved Administration Bi-Weekly Procurement Pipeline meeting took place to discuss the procurement planning and timelines for new testing technology including lateral flow devices. I exhibit an example of minutes of a meeting on 7 June 2021 as **JAD-7/186 - INQ000513928.**

345. The NHS Test and Trace and Medicines and Healthcare products Regulatory Agency Oversight and Steering Group was brought together with representatives of the four nations working in collaboration with the Medicines and Healthcare products Regulatory Agency. The Terms of Reference for the group are exhibited as **JAD-7/187 - INQ000509444** and an example of an agenda for a meeting on 3 February 2021 is exhibited as **JAD-7/188 - INQ000509448**. The Group's specific overarching objectives were to:
    a. bring new SARS-COV-2 tests (and collection kits) safely to the market;
    b. support deployment / further use case development;
    c. ensure effective post market surveillance where NHS Test and Trace/ NHS England and Improvement was working in partnership with the Medicines and Healthcare products Regulatory Agency and;
    d. ensure effective post market surveillance where the Department for Health and Social Care was a legal manufacturer.

346. As different policies and new technologies were stood-up or in response to emerging pressures and/or needs, four nations structures also developed. Newly established groups became part of the existing Test & Trace four nations governance arrangements, which fed into the wider UK Government / Devolved Administrations Board through the respective parts of 'Test & Trace'.

347. Specific four nations meetings were established to discuss and/or drive forward different elements of the testing projects in each country. For example, the Private Sector Testing Devolved Administration Working group was set up by the UK Health Security Agency to

co-ordinate private sector testing as it started to increase, and to support international travel arrangements. It also supported the Private Sector Testing Delivery Board and Steering Groups that were established for the Private Sector Testing workstreams and attended by senior Welsh Government representatives. Other examples include four Nations Prison Testing, Assisted Test Kits Working Group and New Technologies Working Group.

348. Other informal meetings, such as the Testing sitrep and the Community Testing Programme weekly update, both established by the UK Department for Health and Social Care, occurred to facilitate information sharing and learning from other countries.

Contact tracing

349. There were fewer formal groups and boards where contact tracing was discussed, given its devolved nature, however there was an informal Contact Tracing Four Nations Forum that typically allowed policy officials to share developments, gaining an insight into learning elsewhere. The informal Contact Tracing Four Nations Forum was also attended by the Protect and Vulnerable people team on an ad-hoc basis, when the agenda items were relevant to them.

350. The co-ordination of approaches to contact tracing and isolation became more important as proposals for daily contact testing were taking shape and a Devolved Administration Working Group was initiated to provide scrutiny, guidance and professional direction to the delivery of the daily contact testing for the devolved governments, with the purpose of ensuring that delivery priorities remained on track and visible to key stakeholders, it also provided an opportunity to discuss any conflicts. I exhibit the Terms of Reference for the group as **JAD-7/189 - INQ000509454** and an example of minutes of 16 March 2021 as **JAD-7/190 - INQ000509469.**

Protect

351. There were informal, official-level four nations meetings established to share learning and developments on the self-isolation payments strand and these are outlined later in this statement.

Digital

352. There were four nations meetings specific to the development and operation of the NHS Covid-19 App. Colleagues from the Welsh Government's Health and Social Services Digital and Technology team would attend.

353. A contact tracing app interoperability group met to discuss and agree actions on critical interoperability issues between Wales, England, Scotland, Northern Ireland, Jersey and Gibraltar. Its purpose was to establish a governance forum and to provide oversight and guidance, ensuring continuity of service in respect of the Interoperability Agreement signed by all parties. The different contact tracing apps were governed and operated differently across the nations. The interoperability group supported the exchange of policy information and app development updates so that all nations understood changes in each others countries to provide clarity and support continuity of service to users, for example, users who crossed borders or travelled internationally. Arrangements for the group varied in frequency throughout the pandemic. I exhibit for information a draft version of the Terms of Reference for the group as **JAD-7/191 - INQ000513873** (the Inquiry should note, the Department for Health and Social Care held secretariat responsibility for the group for a full record of meetings). Examples of issues that would have been discussed of relevance to the Welsh Government would have related to the NHS Covid-19 App were;

    a. the NHS Covid-19 App not being available in the Welsh language at the outset, but a fully bilingual version was available by November 2020.
    b. The NHS Covid-19 App for England and Wales was the same app for both nations. Scotland, Northern Ireland, Jersey and Gibraltar had different apps with different functionality. There were many different instances where we wanted the apps to exchange anonymised information in the form of token codes to enable more accurate functionality. For example, if a person living in Scotland visited family in Wales and tested positive for coronavirus, they would be asked to enter their positive test result in the Scottish app on their phone. We wanted developers to allow contact tracing to be enabled on the local app in Wales (NHS Covid-19 App) in addition to the Scottish app on the user's handset. In some instances, we were able to share anonymised information; in other examples, the apps were developed very differently, and this exchange of information was not possible.

354. The Interoperability Security working group's purpose was to provide overall accountability and leadership for the effective management of security (information security, cyber security and counter fraud) relating to the Interoperability & Federation service. I attach a copy of the draft Terms of Reference as **JAD-7/192 - INQ000513906.** The group discussed security threat issues presented by NHS Digital and aimed to mitigate these across the four nations. The Inquiry should note, the UK Department for Health and Social Care held secretariat responsibility for the group for a full record of meetings.

355. Test, Trace, Protect colleagues attended meetings and subsequent working groups on an ad-hoc basis as policy developed, to ensure the NHS Covid-19 App also accurately reflected the policy in Wales.

Part H: Tracing

356. In the 'contain' stage of the Covid-19 pandemic contact tracing was undertaken by Public Health Wales. Contact tracing is a well-known and well-established means of investigating disease outbreaks, providing information which in turn allows appropriate public health action to be taken to prevent or contain transmission. In April 2020, following the publication of the Welsh Government's '*Framework for Recovery*' and in response to a request from the Chief Medical Officer, Public Health Wales produced its "*Public Health Response Plan*" which is exhibited as **JAD-7/003 - INQ000182417** above. The plan set out very detailed proposals to operationalise contact tracing at scale.

357. The Response Plan detailed the proposed operating model which envisaged teams operating at local, regional and national level, the plan articulated the respective roles and responsibilities of agencies working at each tier and the nature of the multi-disciplinary teams needed to co-ordinate any public health actions in response to the outcomes or findings of case management/contact tracing. The plan also estimated the potential volume of contact tracing activity that might need to be undertaken and the digital systems that would need to be developed to support implementation and delivery.

358. Subsequently, as already referenced, I chaired a meeting on 30 April 2020 at which agreement in principle was secured from partners to work together to deliver the approach detailed in the Response Plan, specifically the public sector partnership arrangements that would enable contact tracing to be developed at scale and pace.

359. Over the next five to six weeks, work was undertaken to operationalise the plan. At the same time, we were closely engaged with developments in the other four nations and were very aware that differences in approach had the potential to confuse the public. It is also fair to say that we wished to keep our options open, such that if we could not operationalise contact tracing as envisaged within the optimal timeframe we might be able to utilise an alternative system as fallback.

360. Ministerial Advice, MA-VG-1559-20, was submitted to Ministers on 9 May 2020, exhibited earlier as **JAD-7/036 - INQ000144885.** It set out the principles we were using to guide us in developing our approach to contact tracing. These principles included:

    a. adopting a four nations approach as far as possible to avoid public confusion;
    b. drawing on support from our social partners;
    c. adopting a digital first approach;
    d. and seeking to secure value for money while protecting people's health.

361. The advice (MA-VG-1559-20) also highlighted areas of uncertainty, at this time the most significant aspect of contact tracing which continued to be debated amongst the clinical and scientific community was whether contact tracing should be conducted on symptoms or test result. Public Health Wales in its response plan had proposed that contact tracing should be undertaken when an individual had symptoms of Covid-19, however, there were concerns that this would not be practicable.

362. Further advice on this issue was submitted to Ministers on 22 May 2020 which outlined the updated position of the Scientific Advisory Group for Emergencies who discussed the issue of contact tracing on onset of symptoms. A copy of this advice is provided in exhibit **JAD-7/193 - INQ000144897**. The Scientific Advisory Group for Emergencies recognised that tracing on symptoms would lead to huge numbers, which would clog the system and be unmanageable. They agreed instead that a sensible approach would be to isolate index cases on symptoms and isolate contacts if the index case tested positive.

363. The Technical Advisory Cell was asked to provide analysis based on the updated Scientific Advisory Group for Emergencies advice and this indicated that contact tracing in Wales might require resources to trace contacts for approximately 11,100 to 94,700 Covid-19 positive cases per month. On an average of 8.1 contacts per index case this would be approximately 283,300 contacts per month who would require tracing. As this number increased as adherence with social distancing measures decreased or as people were allowed to increase their contacts then, assuming 15 contacts, that would equate to 413,000 contacts per month.

364. Ministers were advised that people with symptoms would be required to isolate immediately, and their household contacts should also be quarantined from the point when the case reported symptoms. Contact tracing would be initiated following a positive test result or after 48 hours if test results had not been received, subject to data being available to enable this. We would then consider a move to tracing on symptoms if/when evidence,

resources and experience supported it. The UK and devolved governments took a similar approach and adopted contact tracing on a positive test result.

365. The advice that was provided to Ministers needed to strike a balance between the scientific/clinical advice at the time, operational deliverability of options under consideration and any wider policy considerations. Scientific and clinical evidence to inform our analysis of options and recommendations came from the Scientific Advisory Group for Emergencies, the Technical Advisory Cell, Public Health Wales and discussions by the four Chief Medical Officers. The wider considerations that we also weighed up in our advice included, but were not limited to, risks/benefits of divergence from UK-wide approaches, particularly where this might affect public adherence, and considerations relating to equalities and the impacts on those who were more vulnerable. Although we always sought to follow the clinical/scientific advice, the wider consideration of harms was also an important part of the decision-making framework.

366. Contact tracing pilots were undertaken in Hywel Dda, Powys, Betsi Cadwallader and Cwm Taf Morgannwg health board areas for two weeks from 18 May 2020. The aims of the pilots were to test key aspects of manual tracing to inform the design of the contact tracing system in Wales. The pilots were able to test all the support material, processes and team structures in an actual, real-life contact tracing situation and informed system design on likely volumes, workforce roles and training requirements, data capture and information flow, scenario planning and high-risk contact requirements.

367. Learning from the four pilots suggested that most people would engage positively with the contact tracing service and that the all-Wales contact tracing team had all the training and guidance that it needed and the approach was consistent across all regions. The outputs of the pilots helped inform workforce scale in local areas, which varied based on local geography and an urban / rural predominance. In the second week of the pilots, we also tested our new all-Wales contact tracing software system that would allow us to carry out tracing on a scale that had never been done before.

368. Population-wide contract tracing began on Monday 1 June 2020, based on a decentralised three tier model that built up from local teams within local authorities, to regional teams (at health board level), and overseen by a national Public Health Wales co-ordinating team. This was necessary to achieve the volume of contact follow-up required and maintain a focus on the situation both regionally and nationally.

369. The national tier, run by Public Health Wales, provided "Once for Wales" operating protocols, guidance and training for staff. A "Once for Wales" approach provided a national approach to operations, such as how contact tracers discussed and collected information from positive cases and contacts, which minimised variation and supported consistency across the seven local health boards and 22 local authorities in Wales. The regional tier, based on local health board footprints, responded to local outbreaks and managed more complex tracing cases, such as those involving care homes and hospitals. The local tier, made up of teams from across local authorities, was the workhorse of the operation. Their function was to contact individuals who had tested positive, identify their close contacts, trace and advise contacts to self-isolate and then monitor their condition on a daily basis including taking any follow-up action necessary. At the time, this was a 7 day per week, 12 hours a day operation.

370. Where the index case worked in – or had attended or visited – a health or social care setting or a special educational needs setting, the case was automatically escalated to the regional level response of the contact tracing service with specialist health protection support available from Public Health Wales at the regional tier. If an index case worked in a prison, the case was automatically escalated to the national level response as Public Health Wales managed any outbreak/cases/clusters in prisons on an all-Wales basis.

371. The vast majority of the contact tracer and adviser workforce was employed by local authorities, many of whom were redeployed from other roles and may otherwise have been furloughed. Contact tracers investigated new cases to identify close contacts and sources of infection. Contact advisers traced close contacts to inform them that they might have been exposed to the virus and advised them accordingly. There were a wide range of critical Test, Trace, Protect roles including clinical leads, Environmental Health Officers, public health protection professionals, team managers and IT support staff.

372. Our approach enabled us to quickly bring together a Wales-wide workforce of over 800 contact tracing staff in early June and to have in place regional plans that enabled us to rapidly scale up the workforce when necessary. At the peak in January 2021, almost 2,500 people worked in contact tracing across Wales. The numbers naturally fluctuated throughout the pandemic and flexed to the system's needs. It was the responsibility of local authorities to employ contact tracing teams at the scale necessary to respond to demand and achieve performance benchmarks in terms of timeliness; the Welsh Government provided them with data to assist in their workforce planning as illustrated elsewhere in this statement.

373. Our approach was to build and grow our local contact tracing capacity as we believed a national plan would only work if we made full use of the existing local knowledge, skills and expertise that had been built up over many years within our local authorities and health boards. Deployment of contact tracers needed to be flexible, including being able to move resources between areas for more intense contact tracing when needed. Whilst the practice and fundamentals of contact tracing remained, the service continued to develop and improve over time, for example at times of need, the workforce adapted to providing mutual aid to other local authorities and regions.

374. A workforce modelling tool was developed and shared with local authorities and health boards, to assist them in shaping and developing their local teams. We kept workforce requirements under review, based on modelling and available data, and where necessary took action, for example by making additional funding available. An example of the work produced by the tool is exhibited as **JAD-7/194 - INQ000513820** and a letter issued to chief executives of local health boards and local authorities is exhibited as **JAD-7/195 - INQ000513981.**

375. One of the significant benefits of the structure of the workforce was that we could flex to support other areas of work depending on where there was need. For example, by June 2021 numbers of contact tracing staff had reduced somewhat from the peak (2,500), to around 1,600. However, around 200 of them were managing arriving travellers (100 in the Arriving Traveller Team plus 100 across the regions), 40 were delivering the Welsh Vaccination Certificate Service and up to 100 were supporting other Covid-19 related work programmes such as local business engagement, testing centre support and vaccination bookings. There were challenges to this model, for example when the Delta variant was emerging, it was feared new case numbers may go significantly higher than the available contact tracing capacity. Ministerial Advice MA/EM/2158/21 and exhibited as **JAD-7/196 - INQ000116713** was submitted to Ministers about a Contact Tracing Operational Framework, which would allow for prioritisation of contact tracing capacity.

376. By September 2021, contact tracing demand was overwhelming regional contact tracing teams, The Minister therefore agreed an all-Wales approach which targeted and prioritised index cases of health and social care workers, incident management responses to clusters, arriving travellers and children.

377. Contact tracing and the digital system continually evolved in response to the latest clinical and scientific advice, evidence and data. For example, there was increasing evidence that pre-symptomatic and asymptomatic transmission was occurring and there was a need to support the identification of clusters of infections and places where such clusters occurred. As a result, a four week backwards contact tracing pilot was undertaken in two health board areas in summer 2020, which informed the introduction of backwards contact tracing in autumn 2020. It was introduced as an additional tool for containment, looking back in time (initially 7 days, revised to 14 days) to try and identify the source of infection, which included both exposure locations and people. Backwards contact tracing also involved advising contacts to undertake a test. Automatic texting of cases and contacts was introduced in December 2021, e-forms were rolled out for use across the contact tracing system following learning from the two regional pilots referred to above. This meant that all index cases could be sent the form to complete as soon as they entered the contact tracing Client Relationship Management ("CRM") system.

378. Within Wales, the Contact Tracing Task group, initially established as a project team to lead the introduction of contact tracing in June 2020 continued and developed as a forum for Welsh Government officials to meet weekly with staff leading contact tracing at each of the tiers. This was an important vehicle to get feedback on proposed policy developments, to hear concerns and to be able to resolve or escalate matters quickly.

Equalities

379. In response to the disproportionate impact on Black Asian and Minority Ethnic people, the First Minister set up a Black Asian and Minority Ethnic Covid-19 Advisory group. The Socio-Economic subgroup, under the leadership of Professor Ogbonna published its report in June 2020. Among many other recommendations, the report highlighted the need to tackle health inequalities among Black Asian and Minority Ethnic people including in preventing further Covid-19 related deaths.

380. In acknowledgement of the barriers to accessing services experienced by those from Black, Asian and Minority Ethnic backgrounds, I commissioned work to review what more we could do within Test, Trace, Protect to engage people in Black, Asian and Minority communities. The report produced, which I exhibit as **JAD-7/197 - INQ000513832** was shared with Oversight Group members. Subsequently on 9 October 2020, advice was submitted to Ministers, exhibited earlier as **JAD-7/175 - INQ000145029**, for funding to support Black Asian and Minority Ethnic outreach workers in each health board area. Using community outreach workers enabled conversations about engaging with contact tracing and self-

isolation but also facilitated conversations about the myths and false information about Covid- 19 and more broadly, about preventative actions. The Community Outreach workers were able to build a quick rapport with those at risk, because they spoke their language and had good communication skills. They also had good, existing relationships with local intermediaries such as the local priest, Imam, youth worker or third sector organisations, which they could mobilise, signpost to and involve as needed.

381. A suite of assets in 28 different languages and in different accessible formats was developed to communicate Test, Trace, Protect to Black, Asian and Minority Ethnic people and vulnerable groups in Wales. These were available in printed and digital formats hosted on gov.wales/coronavirus and distributed through local community groups. A community outreach toolkit was developed to present the important Test, Trace, Protect information and to encourage community leaders, third sector organisations and others to understand the key messages and circulate within their communities. The materials and process for disseminating messages were developed with advice from Black, Asian and Minority Ethnic officials and with input following engagement with a range of stakeholders, including the Welsh Government Disability Equality Forum, the Welsh Government Accessible Communications Group, the Welsh Government Wales Race Forum, the Welsh Government Wales Faith Communities Forum and the Welsh Government Violence Against Women, Domestic and Sexual Violence Strategic Group.

382. The outreach workers in each health board also supported engagement work for refugee, asylum seeker and migrant people and a protocol was put together to support Test, Trace, Protect in vulnerable groups, including Gypsies, Roma and Travellers. People who were link/support workers working with the Gypsy, Roma and Traveller communities received training, with an informal approach, focused on describing contact tracing generally and what the ask might be if tracers are unable to engage individuals from these demographic groups.

383. Contact tracer guidance and scripts were continuously being improved with feedback from the public and behavioural insights. They were made more proactive about supporting vulnerable groups and signposting where appropriate. For example, the initial process relied on individuals indicating they may need help to self-isolate. That was reversed in February 2021 so that contact tracers specifically asked whether the person was aware of the financial support available, explicit prompts which included mental health, caring responsibilities and getting essential items, and were able to signpost to local support services from annexed local information which supplemented the scripts. Script and action

cards were developed by Public Health Wales for specific settings and situations to supplement the standard contact tracing scripts and operating procedures. For example, some outbreaks uncovered that houses of multiple occupation and other types of temporary accommodation could often be used to accommodate workers who were sharing bedrooms, facilities and transport. Some were also found to be 'hot-bunking', where beds were being shared when working opposite shifts. As a result, an action card specific to houses of multiple occupation and other types of temporary accommodation was produced by Public Health Wales to assist contact tracers when they dealt with similar circumstances within cases.

384. Action cards developed also included those specifically for communicating with an individual who had sensory learning difficulties, vulnerable individuals and safeguarding. Parts of these processes would be dependent on the individual but would generally ascertain whether the person understood why they were being called and, if not, the contract tracer would ask to speak to the person who they normally allowed to deal with their sensitive and / or health issues, what their preferred communication method was and would be flagged for follow-up by the clinical leads. Safeguarding processes were embedded within the contact tracing process whereby any safeguarding cases or contacts were escalated to the regional, more experienced teams to deal with sensitively.

Cross-border considerations and four nations working

385. The porous border between Wales and England meant that we needed to consider how contact tracing would work cross-border. It was agreed with the UK Government that if the person who tested positive resided in Wales that the Welsh contact tracing service would undertake the tracing regardless of where the contacts resided, and vice versa for English residents who tested positive. The Client Relationship Management system in Wales identified cases and contacts who resided outside of Wales and placed them in a separate digital queue to other contacts, for sharing with Public Health England.

386. The process of sharing this data and information between England and Wales occurred daily between Public Health Wales and Public Health England, electronically via a secure system and was underpinned by a data-sharing agreement between both organisations. This was based on well-established processes for this type of information sharing between UK public health agencies, which were also followed during the containment phase.

387. The Contact Tracing Four Nations Forum, which was an officials' group, was established by the UK Government in early 2021. Its primary purpose was to share policy and

operational practice in relation to contact tracing and self-isolation. The Contact Tracing Forum met on a fortnightly basis and also addressed the provision of support for self-isolation (i.e. the Protect aspect). The Contact Tracing Forum was regularly attended by Welsh Government officials as and when the agenda included items that were relevant to the team and to Wales.

388. In addition to the Contact Tracing Forum, there were other ad hoc meetings convened by the UK Government at official level to discuss contact tracing and self-isolation, and Welsh Government officials would attend those ad hoc meetings as and when required.

Digital system

389. In May 2020, in England, a private sector partner was commissioned to deliver the digital system to underpin contact tracing and active consideration was given to the potential for this being an England and Wales service. However, we had significant reservations about the cost and the willingness or ability of the UK Government to flex the contract specification to accommodate Wales' specific requirements. In advice to Ministers on 18 May 2020 MA/VG/1573/20 and exhibited as **JAD-7/198 - INQ000144886**, we set out some of the considerations and options in developing a digital system to support contact tracing. A digital system needed to support contact tracing and case management for asymptomatic, symptomatic, and confirmed cases, allowing for analysis and downloading where relevant (including real time reporting and metrics), be intuitive for new contact handlers and staff in local authorities and health boards and be flexible to adapt to new requirements as they were identified. It was also important that the digital system be integrated with local public health teams and Public Health Wales.

390. We therefore decided to build our own all-Wales digital contact tracing and case management 'Client Relationship Management' system to support our arrangements in Wales, which became operational on 8 June 2020 following a period of integration, testing, user 'onboarding' and training. The platform had a number of features, including integrated telephony, web-form, links to demographics and links to results.

391. We developed our own 'front end' contact tracing website, with initial deployment on an 'invite only' basis, reflecting the general principle for contact tracing that all contacts should receive an initial phone call before they were offered automated web, text or email engagement.

392. We identified a number of benefits to deploying our own Client Relationship Management system: it was able to be configured to meet our specific requirements in Wales, including technical integration with Welsh systems and data feeds, as well as being appropriate for our Welsh delivery model led by local authorities and health boards. There were some operational teething issues experienced around the use of the Client Relationship Management system, which were explored and resolved. For example, we became aware of some concerns about the delivery of the in-built Solgari telephony in experiencing call lag, robotic voice and calls dropping out midway through conversations with citizens. We were also made aware of a potential issue with the flow of Covid-19 test results to the system. Investigations took place to understand the performance issues and to look at alternative options to support delivery. Digital Health and Care Wales and its predecessor NHS Wales Informatics Services raised concerns with the operational delivery body and these issues were subsequently resolved.

393. The all-Wales approach minimised variation between areas and supported consistency of approach, in terms of how data was collected and linked to other relevant parts of the system. Our approach also preserved our ability to have an independent policy approach on contact tracing in Wales and meant we were able to consider adaptations or extensions to the platform's functionality as necessary, applying learning from our experiences of implementing contact tracing across Wales.

394. There was a cautious start during the first week of the operation, relying on local IT systems and the service was delivered locally by staff often with little or no prior experience of contact tracing. However, over the course of the first week teams sought to develop their confidence and adjust to the task, 627 positive cases were referred to the contact tracing teams resulting in some 651 contacts being identified for follow-up, of which 619 (95%) were successfully contacted and advised accordingly.

Reporting and monitoring

395. The Client Relationship Management system included an integrated Power BI tool which is a data visualisation and reporting tool that allowed real-time data on all aspects of contract tracing performance to be easily extracted and displayed in a variety of dashboards.

396. Detailed reports showing, for example, performance against published targets were presented on a weekly basis to the Test, Trace, Protect Oversight Group and Programme Board and shared with Ministers to help inform decisions and to monitor performance

across the regions. Examples of the report are exhibited as **JAD-7/199 - INQ000513858** and **JAD-7/200 - INQ000566315.**

397. In addition, and to help provide full transparency, the Welsh Government published a highly detailed contact tracing performance report on a weekly basis throughout the pandemic. An example of the report is exhibited as **JAD-7/201 - INQ000514000.**

398. In the first year following introduction, local contact tracing teams across Wales investigated more than 170,000 positive cases and identified and contacted nearly 360,000 close contacts – reaching 99.7% of positive cases eligible for follow up and almost 95% of close contacts eligible for follow up.

Data

399. The NHS Wales Test, Trace, Protect service handled data for Test, Trace, Protect in the same way as other health data in Wales, with all data sent by the NHS Wales Informatics Services to SAIL (the databank used to assist the Government and NHS in tackling the pandemic).

400. An overarching Wales Accord on the Sharing of Personal Information (WASPI) agreement was made in respect of the introduction of the mass contact tracing arrangements in Wales. The agreement supported the sharing of personal information across the public sector in Wales. For contact tracing there was a template using Wales Accord on the Sharing of Personal Information guidance, which was developed by Public Health Wales, the NHS Wales Informatics Services and digital/tracing leads from all local authorities and health boards. The approach for contact tracing using the Wales Accord on the Sharing of Personal Information framework was that every partner organisation was a 'joint data controller.'

401. There were also Data Protection Impact Assessments of the Contact Tracing process and the Digital Contact Tracing System which were developed by Public Health Wales and the NHS Wales Informatics Services respectively. The Welsh Government was not a data controller for the purpose of these arrangements as it did not handle personal information (although the Welsh Government was a data controller for a de-identified data set received for analytical purposes).

402. These arrangements were kept under review in consultation with all partners and through engagement with the Information Commissioner's Office.

Funding

403. Funding for Test, Trace, Protect was kept under review throughout the pandemic. Funding for Trace and Protect was allocated from the Welsh Government's budget. An initial £45m was allocated for the contact tracing workforce for 2020-21, which was subsequently increased in preparation for the winter peak to just over £60m in December 2020, under cover of Ministerial Advice MA/VG/3779/20 and which is exhibited as **JAD-7/202 - INQ000235934** which was allocated to health boards and local authorities over the 20/21 financial year to support contact tracing at scale. In response to unprecedented volumes of positive cases and contacts, innovative new measures were introduced at pace to keep on top of demand. This included a national roll-out of an electronic form for individuals to record their close contact details to aid contact tracing activity.

404. The Minister for Health and Social Services later agreed an additional £32m to the Covid-19 contact tracing budget to ensure the service was available to the end of 2021-22 under cover of Ministerial Advice MA/EM/1701/21, which is exhibited as **JAD-7/203 - INQ000513956**, which brought the total 2021-22 Test, Trace, Protect contact tracing budget to £92m and as outlined in Ministerial Advice MA/EM/4359/21, which is exhibited as **JAD-7/204 - INQ000176853.**

405. The Minister for Health and Social Services agreed in early October 2021 to extend the funding for local contact tracing teams to June 2022. £23m was allocated in October 2021 to cover 100% of the first quarter 2022-23 cost of extending contact tracer and adviser employment contracts to the end of June 2022. This was to help address concerns being raised by health boards and local authorities regarding the short-term nature of employment contracts which made it challenging to retain or recruit new contact tracers, as well as having a very negative impact on staff morale.

406. The Minister for Health and Social Services then agreed a full year budget of £36m for the tracing workforce and digital system for 2022-23 in March 2022, as referenced in Ministerial MA-EM-4359-21 exhibited above. This followed work done as part of transition planning and recommendations from a Task and Finish Group which considered the future workforce required to deliver a new tracing service. The key recommendations were that the workforce would need to be around 15% of the pre-transition workforce and that the digital system should be retained.

407. The contact tracing budget also supported a national team based in Cardiff local authority which provided surge support to the regions and the Arriving Travellers Team which monitored and supported arriving international travellers, local helpline services that allowed the public to engage directly with Test, Trace, Protect and the Welsh Vaccination Certification Service which provided the public with access to paper based Covid-19 passes. It also covered the costs of the national digital contact tracing platform.

Evaluation of contact tracing

408. An Internal Audit review was undertaken in Autumn 2020 as was a review by Audit Wales which was published in March 2021 entitled *'Test, Trace, Protect in Wales: An Overview of Progress to Date'*. The Audit Wales report is exhibited as **JAD-7/205 - INQ000066525**. In its report, Audit Wales stated, "the Test, Trace, Protect programme has successfully brought together different parts of the Welsh public sector, and other agencies, to rapidly build a system of testing and contact tracing largely from scratch and on an unprecedented scale."

409. As previously mentioned in Part E, the Technical Advisory Group published two reports modelling the impact of the Test, Trace, Protect system to investigate its efficiency on slowing the rate of transmission in Wales. Both of these reports indicated that the Test, Trace, Protect programme had significantly reduced the effective reproduction number. Further detail on the findings of these reports is covered in part O of this statement.

410. Research on public experiences of the Test, Trace, Protect service in Wales in December 2020 and January 2021, commissioned by the Senedd Cymru, revealed mixed satisfaction levels among participants. Although 48% were satisfied with Test, Trace, Protect, 36% were dissatisfied, and there was significant variability in the time taken to contact individuals and the frequency of follow-up. Adherence to self-isolation was high, with 80% fully isolating, but challenges included physical and mental health issues, lack of access to essentials, and financial difficulties. 75% of respondents did not have their mental health checked by Test, Trace, Protect contact tracers, and many were unaware of financial support schemes. Recommendations included improving consistency in communication, providing financial and mental health support, and ensuring systematic identification of those needing additional help to adhere to self-isolation.

411. As set out in the witness statement of Tracey Burke on behalf of the Communities and Tackling Poverty Directorate (published by the Inquiry as INQ000273937), in March 2021, two pilot "enhanced" Protect offers were run in the Cwm Taf Morgannwg University Health Board area and in the Betsi Cadwaladr Health Board area, during which additional support for the provision of food, mental health services, and assistance with digital skills were made available for those needing to self-isolate. Following these pilots, an enhanced Protect offer was introduced. I exhibit the advanced offer and Ministerial Advice MA/RE/2245/01 as **JAD-7/206 - INQ000282280** and **JAD-7/207 - INQ000282071**.

412. A four nations Chief Medical Officers technical report published in December 2022 emphasised the importance of rapid contact tracing, effective communication, and integrating new technologies to manage large-scale public health responses while highlighting the operational and technical challenges. Lessons learned included the use of combined digital and telephone approaches, the potential of automated contact tracing apps, and the need for robust infrastructure between national and local teams to operate at scale and the importance of support packages for those self-isolating. The report is exhibited as **JAD-7/208 - INQ000203933.**

413. The findings of a survey of the contact tracing workforce to align practices with behavioural science-informed training, assess the effectiveness of conversation scripts and evaluate staff responses was presented to the Test, Trace, Protect Programme Oversight Group on 29 April 2021: exhibit **JAD-7/209 - INQ000513984** refers. Findings highlighted tensions between the need for speed and quality in contact tracing, the balance between following scripts and using personal judgment, and the emotional challenges of initial contact calls. Public Health Wales suggested seven recommendations to improve the contact tracing service, focusing on scripts, training, and broader support measures. These recommendations led to developments such as a 'train the trainer' program and refined SMS processes.

Performance of Tracing Services

414. I have been assisted by colleagues in Knowledge and Analytical Services in this section of my statement. The Welsh Government does not hold some of the information in relation to testing figures and where applicable I have suggested who may be contacted to obtain it.

415. Data covering some, but not all, of this request are publicly available[11]. Exhibit **JAD-7/210 - INQ000516441** is a spreadsheet containing relevant information to assist the Inquiry. In all cases data are classed as 'Management information', not official statistics. The spreadsheet contains information on;

    a. Number of PCR tests completed
    b. Percentage of positive tests
    c. Key worker status
    d. Percentage of cases traced
    e. Percentage of contacts traced
    f. Time to trace
    g. Mean number of contacts traced
    h. Trends in contact tracing

416. For the number of PCR tests completed, total figures and figures split by NHS Wales labs and non-NHS Wales labs, and by testing route (tests via an organisation, community testing, home tests, community and mass testing, asymptomatic screening of key workers and 'other') have been provided. Data is available from week beginning 3 February 2020 until the week beginning 28 February 2022. The nature of lateral flow device tests means we cannot know how many were taken, only the number of test kits distributed. More data may be available from Public Health Wales.

417. In relation to the percentage of those tested who were positive, figures are provided for PCR tests only. Data is available from the week beginning 3 February 2020 until the week beginning 28 February 2022. Data for lateral flow device tests may be available from Public Health Wales.

418. The percentage of those tested who did not report their result is not available from the Welsh Government but Public Health Wales may have relevant information.

419. With regards to the percentage of those who tested positive, were contacted and within what time frame; figures provided are based on those contacted within 24 and 48 hours of referral to the contact tracing system. Percentages are provided for all positive cases and

[11] Testing data for coronavirus (COVID-19) (https://statswales.gov.wales/Catalogue/Health-and-Social-Care/coronavirus-covid-19/testing-data-for-coronavirus-covid-19) and Contact tracing for coronavirus (COVID-19) (https://statswales.gov.wales/Catalogue/Health-and-Social-Care/coronavirus-covid-19/contact-tracing-for-coronavirus-covid-19)

separately for just those successfully reached. Data is available from week ending 5 September 2020 until the week beginning 28 February 2022.

420. The percentage of those tested who provided contacts to be traced is not available from the Welsh Government, Digital Health and Care Wales may have relevant information.

421. Data on the percentage of those contacts who were traced is available from week ending 5 September 2020. Percentage of contacts traced is derived based on the weekly number of contacts traced as a proportion the weekly number of eligible contacts.

422. In the context of the time lapse between identification and contacts being contacted by a tracer; figures provided are based on those contacted within 24 and 48 hours of referral to the contact tracing system, and separately, based on the time positive cases that identified them were referred to the contact tracing system. Percentages are provided for all close contacts and separately for just those successfully reached.

423. The mean number of contacts traced overall is derived from the number of close contacts traced divided by the number of positive cases – i.e. the average number of contacts traced per positive case. Figures are provided weekly and for the full reference period (i.e. "overall", as requested).

424. Demographic breakdowns are generally not available, however, figures for the percentage testing positive are provided by key worker status and setting (care home, domiciliary care, education, emergency, healthcare, hostel or supported living, prison). Digital Health and Care Wales may have further relevant information.

425. The number of PCR tests undertaken increased gradually in the early months of the pandemic before escalating rapidly in September 2020 and again at the end of the year, with a peak of 127,000 per week in mid-December 2020. Testing numbers fell in the first half of 2021 and peaked again in September (195,000 per week) and December (208,000) following sharp increases. Testing volumes generally reflected trends in the prevalence of Covid-19 in the general population. Community testing was the most common source (38% of all tests undertaken), with most of the rest coming from the organisational portal (e.g. care homes, 22% of all tests), hospitals (14%) and home tests (10%).

426. The proportion of tests undertaken that were positive for Covid-19 varied significantly over the course of the pandemic. In April 2020, the proportion of positive tests peaked at 39%,

reflecting that large scale community testing was not yet available and tests were prioritised for clinical use and key workers. As testing capacity increased, positivity fell to 1% in the summer of 2020 before rising to around 15% in December, corresponding with the winter wave of infections. 2021 saw a similar trend, with a fall to 1% by April and a peak of 38% in December.

427. In the first six months of the pandemic a significant proportion of tests undertaken (50-70%) were for key workers and care home residents. As community testing capacity increased, the proportion of testing for non-key workers and residents rose, accounting for 69% of all tests from September 2020 to February 2022. In April 2020, PCR positivity rates reached 35-40% for both key workers and residents and non-key workers and residents, before falling rapidly. Subsequent infection waves saw positivity peak at 6% for key workers and residents in December 2020 and 9% in December 2021. For non-key workers and residents positivity reached 23% in December 2020 and 43% in December 2021. Positivity rates were higher for non-key workers and residents because testing was primarily for symptomatic individuals, whereas key workers and residents were tested routinely regardless of symptoms.

428. The proportion of positive cases successfully traced ranged from 78% to 99%. The highest tracing rates corresponded to times when caseloads were low (i.e. fewer positive tests) and falls in tracing rates typically corresponded to higher caseloads. The proportion of cases reached within 48 hours was typically over 90% during low prevalence periods, but there were lows in December 2020 (45%), September 2021 (47%) and December 2021 (54%). The proportion reached within 24 hours followed a similar trend but with lower rates.

429. The proportion of close contacts traced ranged from 74% (September 2021) to over 95% (March to June 2021). Higher tracing rates generally corresponded to periods when caseloads were low (fewer positive tests). The proportion of contacts reached within 48 hours peaked at 98% in May 2021 and fell to a low of 59% in September 2021. The proportion reached within 24 hours followed a similar trend but with lower rates.

430. The average (mean) number of close contacts traced per positive case varied significantly over the course of the pandemic. The highest figure, 4.4 contacts traced per positive case, was seen in May 2021, and the lowest was in January 2022 (0.6). Higher rates typically corresponded with lower caseloads (i.e. when there were fewer positive cases and eligible contacts), and lower rates typically corresponded with higher caseloads.

App technology

431. Alongside the core functions of Test, Trace, Protect, the programme team provided advice on the options for, and use of, digital contact tracing.

432. The UK Government provided a number of digital services that were used on an England and Wales basis. These included the test booking portal, the NHS Covid-19 App and the Covid Pass.

433. The NHS Covid-19 App operated across England and Wales and was in use from 24 September 2020 until 27 April 2023. Development work on an NHS Covid-19 App, undertaken by NHSX, began in March 2020 and an initial version was trialled in the Isle of Wight in May. Technical difficulties with the use of Bluetooth technology and subsequently, privacy stipulations on the use of contact tracing apps by Apple and Google meant NHSX had to switch to a de-centralised model. This re-set meant the app was launched in late September. The NHS Covid-19 App was designed to alert mobile phone users if they had potentially been exposed to an infected individual. It also had functionality to support 'check-in' at venues using the QR code scanner, symptom checker, integrated test booking, keeping track of self-isolation countdowns and access to relevant advice, including those at country-level such as alert levels and country-specific regulatory rules. The NHS Covid-19 App was also supported by a strong marketing and communications campaign across England, which would inevitably have had a 'spillover' effect into Wales.

434. Where the UK Government provided services on behalf of the Welsh Government, Memoranda of Understanding were in place which articulated the funding, governance, oversight and decision-making arrangements, as exhibited in paragraph 20 above.

435. Alternative providers were considered however the decision to use the NHS Covid-19 App was agreed by the Minister for Health and Social Services on 7 August 2020, exhibited as **JAD-7/211 - INQ000144920,** and included the following key considerations:

    a. Functionality: the NHS Covid App had considerable extra functionality compared to the other products, including a focus on influencing user behaviours through alerts and other contextual information.
    b. Communications: having two available apps had the potential to confuse the public, and would involve potentially significant additional spend on promoting a 'Wales only' app alongside an 'UK-wide' app. There was also a risk of the two

apps not being able to communicate / interoperate with each other which could fragment proximity tracking in Wales.

c. Timetable: Most of the functionality in the NHS Covid App was already live in the development version and large-scale trials were beginning in August, whereas the other options would take longer to deliver.

d. Resources: There was a relatively low resource requirement for the NHS Covid App compared to a Wales only deployment, including commercial contract management, translation management, and the development and delivery of a Wales-only communications campaign. There would have also been a continuing requirement to update and maintain a Wales-only app, which would mean significant additional costs.

436. An update was provided to the Minister for Health and Social Services by email on 26 August, agreed on 3 September 2020 and exhibited as **JAD-7/212 - INQ000368328**, that outlined the proposed timetable for launch as Thursday 3 September. It set out that:

a. There was daily dialogue with the Department for Health and Social Care communications team, but they had not shared examples of the marketing/promotion material, which was being escalated to Simon Thompson, the Senior Responsible Officer for the app. It was essential that communication relating to the app respected the difference between "NHS Test and Trace" in England and "NHS Wales Test Trace Protect" in Wales. It was the Welsh Government's position that this needed equal treatment because it was UK Government developing and promoting an app for use in England and in Wales, not England extending their app to Wales.

b. The Welsh Government agreed proposed text for the Section 83 Agreement (allowing the UK Government to deliver health services in Wales) and a Memorandum of Understanding.

c. The app had been translated into Welsh.

d. There was an agreed approach to Wales specific text and links in the App which included using the NHS Wales logo and "test trace protect" on the App user screen. This functionality used the postcode prefix to deliver Wales or England content (and to exclude Scotland and N/Ireland).

e. Integration / Data Sharing – NHS Wales Informatics Service (subsequently known as Digital Health and Care Wales) had been working with the Department for Health and Social Care on integrating test results into the App and this had highlighted some additional work needed on data sharing between

lighthouse labs, Deloitte, and the NHS Wales Informatics Service (as data controller for NHS Wales).

437. Alert levels and advice for people in Wales were reflected in the Covid-19 App from December 2020 and engagement at official-level continued throughout the pandemic to update the advice and policy positions for those accessing the App. Given the requirement for country-specific and localised information, the information portrayed in the App aligned to country-specific policy and therefore sometimes differed between England and Wales, depending on the living address postcode the user applied within the App.

438. Data in relation to the NHS Test and Trace App in Wales is available from 5 May 2021 until 28 February 2022 and is exhibited as **JAD-7/213 - INQ000513672.** The inquiry should note, App users were required to manually enter their postcode district area at the point of download. The App did not use GPS to indicate the location of users.

439. Demographic data was received by the Welsh Government from the central tracing system. This data formed part of the analytical data set that the analytical department used to produce official statistics.

440. The Welsh Government does not hold a full set of data for those who downloaded the NHS Covid-19 App, how many used it and for how long. However, data is provided in **JAD-7/213 - INQ000513672** on the number of Android users who opened the NHS Covid-19 App in Wales and England; and Apple users who used the NHS Covid-19 App for at least 2 seconds in Wales and England. The Inquiry should note that this data was only captured and available from 9 October 2021 onwards, so data is provided from 09 October 2021.

441. The Welsh Government also holds data relevant to;
    a. Downloads and deleted data – Wales & England combined (this cannot be broken down by country)
    b. NHS Covid-19 App engagement – Wales & England combined (this cannot be broken down by country)
    c. Notifications – Wales only data
    d. Isolations – Wales only data
    e. Check-ins – Wales only data
    f. Contact tracing usage by local authority – Wales
    g. Users who opened NHS Covid-19 App
    h. Users who used the NHS Covid-19 App for more than two seconds.

442. The NHS Covid-19 App was a supplementary contact tracing tool intended to support Test, Trace, Protect policies and therefore no targets were set. The role of Welsh Government policy teams was to ensure that the App reflected Welsh Test, Trace, Protect policies accurately and in a timely fashion.

443. The NHS Covid-19 App went through a number of refinements throughout the pandemic. This included letting people know if they had been near someone who had coronavirus symptoms (anonymously), gave advice on coronavirus that was relevant to the symptoms and the area which a person had entered into the NHS Covid-19 App, allowed people to check symptoms, linked to a website to book a test and provided a self-isolation countdown timer if required.

444. A full Data Privacy Impact Assessment and Privacy Notice for the Covid-19 App were published by the UK Government which covered its operation in both England and Wales. The Welsh Government does not hold the final published versions of these documents

445. The England and Wales NHS Covid-19 App was designed to use as little personal data and information as possible. All the data that could directly identify users was held on their phone, not stored centrally, and not shared anywhere else. Any data that was provided from the phone would always be anonymised or aggregated, to prevent anyone from identifying users.

446. When a user downloaded the App to their phone, the App generated a code that identified the App's existence on their device. This code changed every day so that it could not be associated with the person or their phone. From this code, the App produced another randomly generated code every 15 minutes. This code was collected by the App installed on other users' phones when people came into close contact with them and was held there for 14 days. There was no way for another user to tell that a code collected from a particular person's phone related to them or their phone.

447. If a person received a positive Covid-19 test result and were an App user, the App would ask for their permission to share their daily code with other App users. If the user agreed, their daily code would be uploaded to a central system. The central system would then send their code to every App user's phone and each user's App checked for any matches. Where there were matches, those users would get an alert that they had been in contact

with someone who tested positive, and instructions on what to do. The central system did not know who someone had been in contact with and it did not record any matches.

448. Initially, the differing Apps that were operated by NearForm in Northern Ireland, Scotland, Jersey and Gibraltar were not interoperable. However, on 5 November 2020, the NHS Covid-19 App for contact tracing became compatible with similar apps in Scotland, Northern Ireland, Jersey and Gibraltar. This interoperability meant that a user of any of the apps would be notified if they had been a 'close contact' of someone who had tested positive for coronavirus and was using any of the Protect Scotland, StopCovid NI, Jersey COVID alert, Beat COVID Gibraltar or Wales and England's NHS COVID-19 apps.

Part I: Test Trace, Protect decision-making and policies

449. Part B and Part D of this statement include a high-level chronology of the key decisions that were made by the Health and Social Services Group in respect of Test, Trace and Protect. Throughout this statement I have detailed how policy and guidance was developed, implemented and changed, and the advice that informed those decisions.

Part J: Isolating

450. On 31 January 2020, the Chief Medical Officer advised all travellers who developed flu-like symptoms however mild, (a fever, a cough, or difficulty breathing) within 14 days of returning from mainland China, to self-isolate at home immediately and call the NHS. Travellers from Wuhan were advised to self-isolate for 14 days, even if they did not have symptoms, due to the increased risk from that area. This message was reiterated by the Minister for Health and Social Services on 4 February, and again by the Chief Medical Officer in statements on 7, 13, and 21 February 2020.

451. Advice on the self-isolation period for those with symptoms or a positive test result and the list of symptoms which indicated the need for isolation and to seek a test was provided by the Chief Medical Officer for Wales based on discussions/decisions by all four Chief Medical Officers. The time periods for self-isolation varied in line with clinical advice as understanding of transmission risks improved and testing and vaccinations were rolled-out.

452. When the UK moved into the delay-phase of the Coronavirus Action Plan, on Monday 12 March 2020, new advice was issued where if people developed a high temperature and continuous cough, they were advised to self-isolate for seven days. If a person was in a household where someone developed a high temperature or a new continuous cough, then the whole household was advised to stay at home for 14 days. Isolation of contacts of positive cases for 14 days was based on advice from Chief Medical Officers and was adopted across the UK and set out by the Prime Minister on 16 March 2020.

453. On 30 July 2020, the four Chief Medical Officers issued a statement, exhibited as **JAD-7/214 - INQ000048748**, confirming that they had considered how best to target interventions to reduce risk to the general population and considered that at that point in the pandemic, with widespread and rapid testing available and taking into account the relaxation of other measures, it was now the correct balance of risk to extend the self-isolation period from 7 to 10 days for those in the community who had symptoms or a positive test result. The self-isolation guidance was updated to reflect this advice.

454. In October 2020, my team and I became involved in advice to Ministers on whether self-isolation should be a legal requirement in Wales as up until that point it had been guidance for those testing positive and their contacts. Advice on this matter, to which we contributed, was submitted to Ministers by the 21-day review team by way of Ministerial Advice MA/FM/3404/20 (as exhibited in **JAD-7/048 - INQ000145508**).

455. Following agreement by the Welsh Ministers to the proposed regulations, the legal duty to self-isolate (after a positive test or at the request of a contact tracer from Test, Trace, Protect) was introduced in Wales on 9 November 2020 as part of the post 'fire-break' rules as set out in Part 4 of the Health Protection (Coronavirus Restrictions) (No. 4) (Wales) Regulations 2020, which carried with it specific penalties, including the issuance of a fixed penalty notice.

456. Concerns about adherence to self-isolation and the impact of this on the contacts of those testing positive were discussed by the four Chief Medical Officers in December 2020 following papers taken to Scientific Advisory Group for Emergency meetings on 12 November (*"What are the potential behavioural effects of reducing the duration of quarantine for contacts?"* exhibited as **JAD-7/215 - INQ000396142**) and 20 November, (*"Effect of reducing isolation/quarantine period and potential trade-offs with the probability of case self-report and isolation/quarantine uptake"* exhibited as **JAD-7/216 - INQ000396140)**. As set out in Sir Frank Atherton's Module 2B statement, (published by the

Inquiry as INQ000391115) the Welsh Government does not hold notes of the four Chief Medical Officer meetings. The options under consideration were reducing the isolation period for contacts from 14 to 10 days or removing the requirement to self-isolate subject to daily testing using lateral flow devices. The UK Chief Medical Officers agreed a change to the isolation period for contacts to 10 days. The change to the isolation period introduced came into force on 9 December 2020. In announcing these changes, the Minister for Health and Social Care said that "In the published impact assessment for the self-isolation duty, we recognised the requirement to self-isolate for 14 days was likely to have a negative impact in a wide range of circumstances and on protected groups. Safely reducing the self-isolation period to 10 days will reduce these relative harms. This change reduces the length of time children and young people spend away from face to face learning, reduces the impact on those with caring responsibilities (disproportionately women) and helps to relieve the disruption for businesses and our vital public services", exhibit **JAD-7/217 - INQ000513974** refers.

457. On 14 July 2021, Cabinet agreed to exempt contacts of positive cases who were fully vaccinated adults from the requirement to self-isolate and asked for further advice on exempting under 18s from isolation requirements. Ministerial Advice MA/EM/2504/21 exhibited as **JAD-7/218 - INQ000103982** was submitted to the Minister for Health and Social Services recommending that contacts of a positive case who were fully vaccinated and those under 18 years of age should not be required to isolate but should be advised to take a PCR test on days two and eight. This advice recognised the balance of harms shifting following the success of the vaccination programme. I also exhibit annexes to the Ministerial Advice setting out emerging evidence on vaccine efficacy at **JAD-7/219 - INQ000275786** and measuring the harms arising from restrictions to children and young people in Wales at **JAD-7/220 - INQ000275787,** along with the paper on the harms from Covid-19 restrictions on children and young people in Wales for Cabinet at **JAD-7/221 - INQ000271721.** A further discussion took place in Cabinet on 29 July 2021 where it was agreed to bring in these changes from 7 August 2021, I exhibit the minutes form Cabinet as **JAD-7/222 - INQ000022545**. At this time those who had tested positive were still required to isolate for 10 days.

458. On 30 July 2021, the First Minister announced that all adults who had been fully vaccinated would no longer have to self-isolate if they were identified as close contacts of someone with coronavirus. The changes to the NHS Wales Test, Trace, Protect service for fully vaccinated adults came into effect from 7 August. The amendment was set out in the Health

Protection (Coronavirus Restrictions) (No. 5) (Wales) (Amendment) (No. 15) Regulations 2021.

459. On 5 August 2021, the Minister for Finance and Local Government announced that to ensure unvaccinated adults were fully supported to self-isolate that with immediate effect an enhanced Protect offer to support people financially and with practical help to stay at home was made. The Minister explained that "We know from the latest Public Health Wales vaccine update data that those who are not fully vaccinated are more likely to be from groups who have been hardest hit by the pandemic. They tend to be on lower incomes, from Black Asian Minority Ethnic and other ethnic groups, less likely to be able to work from home and as a result will struggle financially with the impact of income loss." To ensure that those on lower incomes did not suffer as a result of self-isolation, the isolation payment increased from £500 to £750. Exhibit **JAD-7/223 - INQ000513976** refers.

460. On 28 October 2021, advice was submitted to Ministers relating to a review of the Coronavirus Regulations. A copy of this advice is exhibited in **JAD-7/224 - INQ000176896**. This advice referred to Cabinet meetings held on 25 and 28 October, where Ministers reviewed advice from the Chief Medical Officer and the Technical Advisory Cell, attached as exhibit **JAD-7/225 - INQ000387827**, and discussed re-introducing the requirement for contacts to self-isolate, exhibited as **JAD-7/226 - INQ000057940**. In summary the advice set out that transmission occurs wherever people gather in large numbers, indoors, without effective barriers to transmission, in the form of either pharmaceutical interventions such as vaccination, or non-pharmaceutical interventions, such as personal behaviour changes or physical and social distancing. The advice also noted that reduction in transmission can be achieved by:

    a. Reducing the number of contacts each person has (behaviour, communication and regulation);
    b. Reducing the number of infectious people from an environment (testing symptomatic individuals and by screening asymptomatic individuals;_
    c. Reducing the number of unvaccinated people from being in a closed environment (correctly using Covid passes and improving vaccination uptake);
    d. Increasing environmental and personal protective behaviours (specific examples included face covering, hand washing, distance, ventilation); and
    e. Increasing the proportion of the population that has full vaccine protection (ensuring a full course for all immunocompromised people and a thorough third dose policy)

461. Ministers agreed that guidance should be amended in relation to household contacts to advise that vaccinated adults and 5-17 year old household contacts should self-isolate pending a negative PCR test result. There was no requirement to take a day eight test. All other non-household fully vaccinated adults or 5-17 year olds identified as close contacts would continue to be exempt from self-isolation but advised to take a day two and day eight PCR test. The position requiring unvaccinated household or close contacts to self-isolate for ten days remained unchanged. The First Minister's Written Statement in respect of this development can be found at exhibit **JAD-7/227 - INQ000023302**.

462. In response to the Omicron variant, urgent Ministerial Advice MA/FM/4143/21 was submitted to ministers on 29 November 2021. A copy of this advice is exhibited in **JAD-7/228 - INQ000235900**. This advice set out that following the confirmation of Omicron cases in the UK, ministers should consider reviewing the position on self-isolation for domestic close contacts to break chains of transmission. We understood the UK Government intended to requireall close contacts of Omicron cases to isolate, regardless of age or vaccination status. Our recommendation included mirroring the UK Government's position and also offered a more risk averse option of signalling that, given the uncertainty about transmission of Omicron, we would consider the reintroduction of self-isolation pending a negative PCR test for all contacts of any positive case as a precautionary measure. The First Minister agreed with the recommendation to introduce a legal requirement for all probable and confirmed contacts of Omicron cases to self-isolate, regardless of their vaccination status or age; and he also agreed to signal that the existing advice may need to be extended for all contacts to self-isolate until they received a negative PCR result at the next three week review. These changes came into force on the 3 December 2021. The legal distinction between close contacts of known or suspected Omicron cases and close contacts of all other positive cases was removed from the 22 December 2021. This meant that all close contacts, regardless of the variant of coronavirus concerned, were once again not required to self-isolate if they were children, fully vaccinated adults or part of a clinical trial or testing scheme.

463. On 22 December 2021, the Test, Trace, Protect team provided Ministerial Advice MA/EM/4507/21 to the Minister for Health and Social Services on reducing the self-isolation period for those who tested positive for Covid-19. A copy of this advice is exhibited in **JAD-7/229 - INQ000116747**. This was based on advice from the four Chief Medical Officers,

exhibited as **JAD-7/230 - INQ000074558**[12], in light of the anticipated prevalence of infections with the Omicron variant and the impact on key services/balance of harms. The option in principle agreed by the Chief Medical Officers in the context of very high prevalence proposed that isolation of positive cases should be reduced to seven days for all individuals who received a negative test result using a lateral flow device taken on day six and day seven. The UK Government intended to adopt this alternative with effect from 22 December 2021 and the Minister was asked to consider whether to adopt the same approach and if so when. The decision was taken to remain at 10 days but make plans to operationalise the changes as soon as possible. The reduction in the self-isolation period to seven from 10 days came into effect on 31 December 2021. The timing of this change reflected operational considerations and also allowed us to see any immediate effects arising from the changes being made in England and to adapt our plans if needed. The Minister issued a statement in support of her decision on 23 December 2021, which is exhibited as **JAD-7/231 - INQ000513978.**

464. The 10-day isolation period was reduced to 7 days on 31 December 2021, the Minister for Health and Social Care issued a statement on 30 December 2021 setting out this position and confirmed that she had made this decision following advice from the UK Health Security Agency and the Public Health Advice, Guidance and Expertise (PHAGE) group which had been presented to the four Chief Medical Officers regarding the duration of self-isolation for Covid-19 cases and the potential to reduce this period with support from repeat testing with lateral flow devices. Exhibit **JAD-7/232 - INQ000513979** refers.

465. On 5 January 2022, the Minister for Health and Social Care issued a statement confirming some immediate changes to the PCR testing system, to include that people who were un-vaccinated contacts of positive cases and were self-isolating for 10 days should take a lateral flow test on day two and day eight instead of a PCR test. This would help to increase PCR testing capacity. Exhibit **JAD-7/233 - INQ000513949** refers.

466. On 20 January 2022, subsequent Ministerial Advice MA/EM/0130/22 was provided to the Minister for Health and Social Care to reduce further the self-isolation period for cases from seven days to five days (subject to negative tests on days five and six and not having a high temperature). This position had already been adopted in England and Scotland. This advice was agreed and the change came into force on the 28 January 2022. The advice is

[12] *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 [INQ000565029]*

exhibited as **JAD-7/234 - INQ000116748** along with the accompanying Public Health Wales full analysis and advice as **JAD-7/235 - INQ000396474** and the Minister's statement is attached as exhibit **JAD-7/236 - INQ000513955.**

467. The UK Government removed all legal restrictions to self-isolate from 24 February 2022. Advice was provided to the Minister for Health and Social Services on the future of the National Testing Programme and in parallel advice on the relaxation of the legal duty to self-isolate. The legal requirement to self-isolate if an individual tested positive for coronavirus or was a close contact of persons who tested positive for coronavirus expired on 28 March 2022. Although the legally enforced duty to self-isolate was not replaced, self-isolation continued to be recommended in the Welsh Government's guidance beyond that date. The guidance had been in force since 19 March 2020, entitled '*Guidance for people with symptoms of a respiratory infection, including COVID-19*' exhibited as **JAD-7/237 - INQ000312445**. This was last updated on the 27 April 2023.

468. Guidance on self-isolation periods was issued via updates to the "*Stay at home: guidance for households with possible coronavirus*" which was first published on 19 March 2020, albeit that the title of the guidance underwent various changes throughout the relevant period. I have set out below a table showing the legislative changes; the guidance has been incorporated into the master chronology which is exhibited as **JAD-7/010 - INQ000514133**.

Legislative change	**Legislation coming into force**
Self-isolation requirements for positive cases and their close contacts introduced in regulations as set out in The Health Protection (Coronavirus Restrictions) (No. 4) (Wales) Regulations 2020.	**09 November 2020**
Self-Isolation period for positive cases changes from 14 days to 10 days as set out in the Health Protection (Coronavirus, International Travel and Restrictions) (Amendment) (No. 3) (Wales) Regulations 2020 and The Health Protection (Coronavirus Restrictions) (No. 5) (Wales) Regulations 2020	**09 December 2020 and 19 December 2020**
From 7 August 2021, adults who had been fully-vaccinated no longer required to self-isolate if they were identified as close contacts of someone with coronavirus.	**07 August 2021**

Children and young people under 18 are also exempted from the need to self-isolate if they were identified as close contacts of a positive case. As set out in the Health Protection (Coronavirus Restrictions) (No. 5) (Wales) (Amendment) (No. 15) Regulations 2021.	
Amendment to isolation Regulation, permitting movement away from place where an individual was living to prevent harm to a person in the house where they were living. The Health Protection (Coronavirus Restrictions) (No. 5) (Wales) (Amendment) (No. 18) Regulations 2021 refer.	**09 October 2021**
Adults who were fully vaccinated and children and young people aged 5-17 would be asked to self-isolate until receipt of a negative PCR test if they were a household contact of someone who tested positive for Covid-19.	**29 October 2021**
Household contacts of a person testing positive for Covid-19 with the Omicron variant required to isolate for 10 days. The Health Protection (Coronavirus Restrictions) (No. 5) (Wales) (Amendment) (No. 21) Regulations 2021 refer.	**02 December 2021**
The distinction between the Omicron variant and all other positive cases was removed and the requirement to self- isolate fell away providing they were a child, an adult that had completed a course of doses of an authorised vaccine at least 14 days before contact with a close contact, was participating in a clinical trial in the UK or was participating in a testing scheme. The Health Protection (Coronavirus Restrictions) (No. 5) (Wales) (Amendment) (No. 24) Regulations 2021	**22 December 2021**
Self-isolation for those testing positive for Covid- 19 reduced from 10 days to 7 days. The Health Protection (Coronavirus Restrictions) (No. 5) (Wales) (Amendment) (No. 26) Regulations 2021	**31 December 2022**

Unvaccinated contacts of positive cases should take a lateral flow test on days two and eight instead of a PCR test while self-isolating.	**05 January 2022**
Self isolation period reduced to five days subject to two negative lateral flow tests. Financial support reverts to £500 in recognition of the shorter isolation period. The Health Protection (Coronavirus Restrictions) (No. 5) (Wales) (Amendment) (No. 3) Regulations 2022 (legislation.gov.uk)	**28 January 2022**
The outstanding legislative requirements to isolate cease as of 28 March 2022. The Health Protection (Coronavirus Restrictions) (No. 5) (Wales) (Amendment) (No. 5) Regulations 2022 (legislation.gov.uk)	**17 February 2022**

Compliance

469. As noted earlier in the statement, the work of the Protect team included the provision of financial support under the Self-Isolation Support Scheme as well as wider support to help people stay at home. The full range of support to individuals and communities throughout the pandemic is described in more detail in the statement of Tracey Burke on behalf of the Communities and Tackling Poverty directorate, available to the Inquiry at **[INQ000273937]**. This included for example, assistance with supermarket shopping, pharmacy collections, and dog-walking.

470. The focus of Protect was the support needed to enable people to self-isolate when required as a result of having contracted Covid-19 or being in contact with someone who was infected. This was always time-limited, focused support arising from the implications of being required to self-isolate – the time period for self-isolation varied in line with clinical advice and legal requirements as understanding of transmission risks improved and testing was rolled out.

471. In June 2020, the Protect Task Group was established. The purpose of the Protect Task Group was to enable a high degree of compliance with self-isolation as part of the Test, Trace, Protect programme by identifying the support which might be required by some people to enable them to successfully self-isolate, and to consider how this support was to be provided. The Protect Task Group met regularly throughout the specified period. I exhibit, by way of example, minutes of meetings of the Protect Task Group on 8 June 2020

(**JAD-7/238 - INQ000281738**); 27 July 2020 (**JAD-7/239 - INQ000281815**); 1 September 2020 (**JAD-7/240 - INQ000281836)**; and 12 October 2020 (**JAD-7/241 - INQ000281889**).

472. In early June 2020, the Task Group carried out a mapping exercise that identified what support was at that time already available at a local level, and from which sources. I exhibit a copy of that document as **JAD-7/242 - INQ000281722**.

473. In the early stages of its work, the Protect Task Group provided important insight into practical issues on the ground with implementing contact tracing measures. For example, following localised outbreaks at meat plants in South Wales and in Anglesey in June 2020, information was received via the Protect Task Group (specifically, from local authority public protection staff, as well as representatives of Betsi Cadwaladr University Health Board) about potential barriers to compliance with the requirement to self-isolate which were likely exacerbating the situation. These included the fact that the site employed a significant number of migrant workers, which resulted in language difficulties when communicating the importance of isolation, concerns amongst the workers about sharing data due to risks to their immigration status, and the nature of the housing in which many of the workers were living, which posed significant challenges to isolation. This feedback was extremely important in highlighting matters that the Welsh Government needed to address in order to ensure that Test, Trace, Protect was able to function effectively, and in particular the nature of the support that the Protect team needed to consider. As an example, I exhibit as **JAD-7/243 - INQ000282271**, the minutes of the Test, Trace, Protect Task Group 22 June 2020 where this issue was discussed.

474. On 12 August 2020, the Minister for Housing and Local Government and the Minister for Health and Social Services issued a letter to the Leaders of all local authorities, exhibited earlier as **JAD-7/041 - INQ000281828** explaining a Task Group had been established and outlined some the support on offer to enable people to self-isolate, which included isolate, which included

    a. Help understanding advice
    b. Picking up shopping
    c. Provision of food
    d. Picking up prescriptions
    e. Keeping in touch call / befriending.

475. Once expectations in relation to Protect support had been communicated and the self-isolation payment was in place the Task Group was replaced with the Protect Leads

Group. The Welsh Government convened and chaired the Group which involved Protect leads from all 22 local authorities and all the County Voluntary Councils, as well as the Welsh Local Government Association and Wales Council for Voluntary Action. The Group met monthly and provided a forum to identify emerging issues, share good practice and approaches to particular challenges and identify gaps in support. The group also provided feedback on proposed changes to the Self-Isolation Payment Scheme and was the mechanism by which proposals for the behavioural insight pilots were identified.

476. Advice from the Technical Advisory Cell was used to inform communications, engagement and delivery of Test, Trace, Protect and to ensure that we differentiated our approach where appropriate. In October 2020 a note titled '*behavioural insights for contact tracing systems and young people*', drafted by the Behavioural Insights subgroup of the Technical Advisory Group, was submitted to the Minister for Health and Social Services and subsequently published, I exhibited this document at **JAD-7/071 - INQ000232363**. The advice note emphasised the importance of public behaviours in the success of contact tracing in reducing Covid-19 transmission. It listed issues that would facilitate adherence to contact tracing systems including a feeling of collective responsibility, personal benefit, protecting family, providing support for isolation barriers, co-producing contact tracing systems, and ensuring the system was seen as efficient and reliable. Barriers to engagement included concerns about future plans, privacy, mistrust of government and technology, stress from App notifications, digital poverty, technical difficulties, loss of control, perceived unavailability of testing, and fear of stigmatisation. The note recommended encouraging advance planning for self-isolation, highlighting the difference between self-isolation and social isolation, supporting self-isolation through employers and community groups, providing positive feedback on adherence, considering compensation for financial losses, and emphasising available support and the collective responsibility of self-isolation.

477. Recommendations for young people specifically included designing communications and interventions based on their understanding, using established behaviour change models, co-producing and testing key messages, ensuring outputs were age-appropriate and from trusted sources, providing simple behavioural instructions in contextually relevant ways, and avoiding identifying specific groups as responsible for transmission to minimise tension and improve adherence.

478. On 29 June 2020, Ministerial Advice MA/VG/2109/20, exhibited earlier as **JAD-7/040 - INQ000136795**, was submitted to the Minister for Housing and Local Government and the Minister for Health and Social Services seeking agreement to the core support required to

enable people to self-isolate successfully and to agree the costs would be met by the Welsh Government via the Local Authority Hardship Fund. This established the core of the 'Protect' offer which was subsequently developed and extended, most notably through the introduction of self-isolation payments which were agreed in October 2020 by Ministers following the submission of advice on 19 October 2020 in Ministerial Advice MA-FM-3134-20 exhibited at **JAD-7/042 - INQ000282122**.

479. Owing to the nature of self-isolation, it was challenging to gather robust quantifiable data on adherence in order to determine trends in self-isolation with any degree of rigour or confidence. We did review evidence as it emerged for example the Technical Advisory Group summarised some evidence on willingness to self-isolate in October 2020 which indicated that willingness to self-isolate was very high in the UK compared to some European comparators. A short paper that summarises this evidence is exhibited as **JAD-7/244 - INQ000227538.** As set out in para 446 above the four Chief Medical Officers also considered evidence on adherence to self-isolation.

480. Adherence to self-isolation was investigated as part of the Adherence Confidence Text Survey and the Contact Adherence Self-Isolation Behavioural Insights Study. These were text message and telephone surveys conducted in November 2020 to January 2021, and September to October 2022, respectively, with individuals who had been notified of the need to self-isolate or who had completed a period of self-isolation. I exhibit a report published by Public Health Wales which considers the key findings of those surveys as **JAD-7/245 - INQ000281992.** The report provided insight into the factors which supported individuals to self-isolate and the challenges to adherence, which mainly reflected underlying inequalities in population health and society; and the difference between groups. The report provided considerations for future action to support adherence to self-isolation amongst contacts of Covid-19 in Wales, and minimise the harms of self-isolation on specific population groups. This included reinforcing national communications 'Keep Wales Safe', and developing and targeting support for those experiencing challenges while self-isolating, such as providing targeted mental wellbeing and social support, increasing financial support and access to food and medications for those with precarious incomes and direct contacts to exercise at home and dog walking services.

481. Funding was also made available to undertake a research project to explore interventions aimed at promoting effective behaviour, such as adherence to social distancing, self-isolation rules, and vaccine uptake. This project included rapid experimentation aimed at identifying and sharing best practice amongst local authorities and local health boards to

help drive positive behaviours to reduce community transmission. I exhibit the relevant Ministerial Advice dated 16 December 2020 as **JAD-7/246 - INQ000116772** and the final report, published in the spring of 2022, as **JAD-7/247 - INQ000282038.**

482. Local authorities in Wales had enforcement teams who sought to respond when concerns were raised about potential non-adherence to self-isolation and if necessary fixed penalty notices as required by the regulations were issued. Through the Protect Leads Group, as set out above, common themes were identified, such as financial hardship, which were felt to impact on the likelihood of a person adhering to self-isolation. In January 2021 we collated case studies of the actions undertaken by local teams to support people isolating as well as steps taken where self-isolation regulations were not being complied with. I exhibit this as **JAD-7/248 - INQ000514137.**

Self-isolation support scheme

483. In October 2020, a decision was taken by the Minister for Housing and Local Government, the Minister for Finance and Trefyndd, and the First Minister to establish a Self-Isolation Support Scheme for Wales. The purpose of the Self-Isolation Support Scheme was to ease the financial barriers faced by people on low incomes when needing to self-isolate.

484. I previously exhibited the Ministerial Advice that relates to the establishment of the Self-Isolation Support Scheme in Wales, dated October 2020. The Self-Isolation Support Scheme was developed and managed by the Protect team within the Communities and Tackling Poverty directorate.

485. Under the Self-Isolation Support Scheme, a payment of £500 was payable to any individuals who had been told to self-isolate by Test, Trace, Protect and who were in receipt of Universal Credit or other specified benefits and would be unable to work from home. Individuals who were not on benefits but who were otherwise at risk of financial hardship, as assessed on a discretionary basis by the relevant local authority, were also entitled to the payment. Self-Isolation Support Scheme payments could be made to employed or self-employed people, and local authorities were responsible for administering the scheme, which was intended to increase compliance with the requirement to self-isolate and thereby reduce transmission rates.

486. Knowledge and Analytical Services undertook modelling to inform the development and costing of the Self-Isolation Support Scheme in order to provide estimates of the numbers of individuals likely to be eligible in Wales, which enabled officials to forecast the likely costs

of the scheme. I exhibit the paper that was produced by Knowledge and Analytical Services dated 4 September 2020 as **JAD-7/249 - INQ000282069.**

487. The Self-Isolation Support Scheme went live in Wales on 16 November 2020, with an initial allocation of £32 million in funding which came from the Covid-19 Reserve and which was managed through the Local Government Hardship Fund.

488. The Self-Isolation Support Scheme swiftly evolved to include additional groups who were likely to be adversely financially impacted by the requirement to self-isolate. From 14 December 2020, parents and carers of those who were required to self-isolate were also entitled to the £500 payment, and I exhibit the relevant Ministerial Advice for that decision as **JAD-7/250 - INQ000282102.**

489. In January 2021, the decision was taken to extend the scheme to individuals who had been advised to self-isolate by the NHS Covid-19 App, and I exhibit the relevant Ministerial Advice for that decision, dated 27 January 2021, as **JAD-7/251 - INQ000145341** (please note an error on the date of the advice, date should be January 2021 and not January 2020, exhibit **JAD-7/252 - INQ000368825** evidences submissions and Ministerial approval date). Before this, only individuals who had been told that they needed to self-isolate under Test, Trace, Protect were eligible for the £500 payment, because it was not possible to verify that users of the App had been advised to self-isolate. A technical solution was eventually developed that allowed the verification of App users to be carried out. The financial cost of this change to the eligibility criteria for the Self-Isolation Support Scheme was met out of the initial allocation of £32 million.

490. In July 2021, a decision was taken to extend the operation of the Self-Isolation Support Scheme until the end of March 2022. I exhibit the relevant Ministerial Advice for that decision, dated June 2021, as **JAD-7/253 - INQ000144849.** An additional £4 million was provided from the Covid-19 Reserve to the Local Government Hardship Fund in order to meet the financial cost of the extension of the Self-Isolation Support Scheme to March 2022. The Fund is addressed in more detail in the statement of Reg Kilpatrick on behalf of the Local Government Directorate served in Module 2B and has been allocated the following reference [INQ000292585]. In summary the Fund was in place to give special financial assistance to local authorities that would otherwise be faced with an undue financial burden of providing relief to prevent suffering or severe inconvenience, in their area or among its inhabitants.

491. In October 2021, the payment made under the Self-Isolation Support Scheme was increased from £500 to £750. I attach the Ministerial Advice relating to that decision, which is dated 29 July 2021, as **JAD-7/254 - INQ000136886.** By this time, the numbers of people being told to self-isolate were decreasing, and it was anticipated that, by August 2021, only a small proportion of the adult population would be unvaccinated. The unvaccinated group tended to be in lower income groups and less likely to benefit from the option to work from home, meaning that self-isolation for that group would continue to be more challenging and more likely to lead to social and economic hardship. The increase in the payment amount was intended to encourage people to continue to engage with testing (both symptomatic and asymptomatic), to engage with the contact tracing process, and to help people adhere to the self-isolation regulations. The additional cost of the increased payment was met through repurposed funding from the Local Government Hardship Fund.

492. In January 2022, the payment amount under the Self-Isolation Support Scheme was returned to its original sum of £500, which was in line with the amount then offered under the equivalent schemes in the rest of the UK. I exhibit the relevant Ministerial Advice for that decision, dated January 2022, as **JAD-7/255 - INQ000145583.** This decision was based on feedback received from local authorities, via the internal Self-Isolation Support Scheme Steering Group (detailed below), that their experience was that most individuals who were claiming support under the scheme were in fact losing between £200 to £300 when needing to self-isolate. It was also based on feedback received from Beaufort Research, which had been commissioned by the Welsh Government and Public Health Wales to undertake quantitative and qualitative research on people's experience of self-isolation. I exhibit a copy of Beaufort Research's report, which was published on 23 March 2022, as **JAD-7/256 - INQ000282130.**

493. At the same time (January 2022), it was also decided that the Self-Isolation Support Scheme would be extended to 30 June 2022. This was because it was intended that contact tracing would also continue until at least that date. Given that the Local Government Hardship Fund, through which the Self-Isolation Support Scheme was funded, was due to be discontinued on 31 March 2022, the extension of the Self-Isolation Support Scheme beyond this date was funded directly from the Local Government Major Expenditure Group which was allocated an additional £12.35 million for this purpose.

494. Within the Welsh Government, an internal Steering Group 'Self-isolation Payments Meeting' was set up in September 2020 and met at least weekly until January 2021. The group was attended by officials from the Communities and Tackling Poverty directorate, as

well as representatives from the Welsh Local Government Association and the NHS Wales Informatics Services from time to time. I exhibit, by way of example, minutes of meetings of the internal Steering Group as **JAD-7/257 - INQ000282132**. In addition to providing regular updates, and offering a platform to discuss operational issues, the group provided feedback on guidance for local authorities on the administration of the scheme, which was published in November 2020, exhibited as **JAD-7/258 - INQ000281916**. More detail on this group is provided in the statement provided by Tracey Burke on behalf of the Communities and Tackling Poverty Directorate paragraphs 200 – 216 [**INQ000273937**].

495. In addition, Communities and Tackling Poverty Directorate officials also attended an external Group, involving the Welsh Government, Welsh Local Government Association, representatives for Local Authority Revenue and Benefits Teams, and the Department for Work and Pensions.

496. The effectiveness of the Self-Isolation Support Scheme was reviewed as part of the Adherence Confidence Text Survey and the Contact Adherence Self-Isolation Behavioural Insights Study as referenced previously in para 470. A lessons learned exercise in relation to identification of duplication of payments under the Self Isolation Support Scheme and the Statutory Sick Pay Enhanced Scheme was undertaken to identify the lessons learnt when developing and implementing a process to identify duplicate payments made across different local authority areas and the lessons learnt showed us that we need to be more knowledgeable and aware of the latest procedures for the sharing data. A copy of the report is exhibited as **JAD-7/259 - INQ000083281**.

Support

497. Most people were able to manage self-isolation as a result of Test, Trace, Protect without additional support or with help from friends and family. However, some people needed help with shopping, access to emergency food, collecting medicine and other support and advice. Rather than creating new forms of support specifically for Test, Trace, Protect, support arrangements worked by making use of a wide range of existing services and expertise across Wales. This support was, in the main, provided locally and co-ordinated by local authorities working closely with other agencies, in particular, the third sector, building on the services they provided to shielded and non-shielded vulnerable people during lockdown. Referrals were integrated into the Test, Trace, Protect service.

498. The Protect element of Test, Trace, Protect was crucial to ensuring that negative impacts of the programme were mitigated by ensuring that people asked to self-isolate were

enabled to do so and offered advice and support appropriate to their personal circumstances and needs. In particular, the Protect strand of Test, Trace, Protect focused on supporting the most vulnerable members of society and groups who might have already been disadvantaged (whether as a result of Covid-19 or more generally).

499. Local authorities also utilised their existing relationships with Community Voluntary Councils and other local organisations to provide a wide range of support to communities in various ways, such as:

    a. Discretionary Assistance Fund
    b. Winter Fuel Support Scheme
    c. Food Banks
    d. Funding Temporary Accommodation
    e. Shopping
    f. Medicines
    g. Friend in Need (Age Cymru)
    h. Dog Walking

500. There were also Local Authority Community Support Hubs (formerly known as Covid Support Hubs) which during the pandemic offered a range of services. These included distribution of lateral flow tests, emergency food to help people self-isolate and access to food initiatives to combat food poverty, immediate and longer-term support with fuel bills, mental health support, financial advice and digital training. Transition funding for 2022/23 was provided for these hubs.

501. The Self Isolation Support Scheme ended on 30 June 2022.

Part K: Other Decision-Making Relating to Test, Trace, Protect

Testing at the border

502. I have been assisted in the drafting of this section by colleagues as policy on testing at the border was not within my areas of responsibility. Test, Trace, Protect did assist with operational aspects of policy delivery. A high-level chronology of the legislation and key decisions taken by the Health and Social Services Group including to testing at Wales' border is exhibited earlier as **JAD-7/010 - INQ000514133**.

503. Decisions on testing at the border were closely linked to decisions taken in relation to international travel rules as set out in the Health Protection (Coronavirus, International

Travel) Regulations 2020. These Regulations when initially brought into force on 8 June 2020 required individuals arriving in Wales from outside the common travel area to isolate for 14 days. The Regulations at that time did not make any provision for testing before departure to or on arrival in Wales.

504. The science and advice informing decisions on border controls came from the UK Government and was regularly discussed on a four nations basis by the four Chief Medical Officers, officials from all four nations and at ministerial level in Covid-O meetings. The Joint Biosecurity Centre provided a weekly summary on the international case rates which would inform decisions around which countries posed an increased risk from travellers coming into the UK. This was a separate workstream to Test, Trace, Protect.

505. During the summer of 2020 there were concerns about imported cases into Wales. The Covid-19 Intelligence Cell was designed to act as a single, authoritative source of situational awareness for Covid-19, the cell included colleagues from across the Welsh Government and Public Health Wales. On the 18 August 2020 the cell discussed a growing number of examples of imported cases of Covid-19 from England and overseas, as noted in the summary from the Chief Scientific Adviser for Health in exhibit **JAD-7/262 - INQ000385455.** The Covid-19 Intelligence Cell recommended exploration of a more aggressive testing regime and greater integration of returning traveller quarantine with the Test, Trace, Protect programme.

506. As noted in the Test, Trace, Protect Programme Oversight Group minutes on 3 September 2020, exhibited as **JAD-7/261 - INQ000505403,** Public Health Wales was monitoring imported cases and raised concerns regarding travellers returning from Zante, Greece. At that time Zante was not on the list of high-risk countries produced by the UK Government. Following agreement by the Minister for Health and Social Services, testing arrangements were put in place for passengers returning from Zante on the 1 September 2020. Passengers who were not under any requirement to isolate on arrival, were offered PCR testing on the basis of individuals consenting/volunteering to be tested and as part of the testing programme in Wales provided by Public Health Wales.

507. The Technical Advisory Group considered the issue of travellers to Wales on 4 September 2020, as exhibited in the meeting note **JAD-7/262 - INQ000313274** noting that there was poor compliance with contact tracing advice in the Rhondda Cynon Taf local authority area with a number of positive cases being reported as returning from Zante, Greece. Additionally, it was noted that cases were also being reported in relation to travellers from Ibiza, Bulgaria and Germany. The Technical Advisory Group discussed recommending that

people from quarantined countries self-isolate for 14 days with a statutory duty to be tested on day one and day eight. It was noted that further work would be needed to scope the proposals but there were no dissenting voices around undertaking this further work.

508. The Technical Advisory Group published a '*Consensus Statement on Testing Travellers Returning to Wales from Areas of High Prevalence'* on 11 September 2020, as exhibited in **JAD-7/263 - INQ000376530.**

509. Advice was provided to the Minister for Health and Social Services on 2 October 2020, as exhibited in **JAD-7/264 - INQ000235926** recommending that Wales develop and run a pilot of sampling on site at Cardiff Airport. It was recommended the most effective way of sampling and testing should be explored before the provision of further advice on a more permanent testing infrastructure at the airport. The options included:

    a. Testing at the point of entry (for example by utilising a Mobile Testing Unit or static indoor sampling centre)
    b. Provision of home testing kits (PCR tests) at the point of entry
    c. Testing on return to home address with relevant local health boards being asked to arrange tests

510. The Minister agreed the recommendations noting that the Test, Trace, Protect Programme Board would establish a working group to include representatives from the Welsh Government, the NHS Wales Delivery Unit, Cardiff Airport, Public Health Wales, Cardiff and Vale University Health Board and the Department of Health and Social Care to work through the operational challenges listed above and scope a pilot of testing at the airport.

511. The Test, Trace, Protect Programme Board decided lighthouse laboratories should be the route adopted for the pilot due to the potential for a local test site to be set up, to avoid using Public Health Wales laboratory capacity and to avoid using Cardiff and Vale University Health Board resources. The Minister for Health and Social Services agreed with this approach. A Returning Travellers Working Group was established and the first meeting took place on 12 October 2020, the agenda and background is exhibited in **JAD-7/265 - INQ000513846.** This group included representatives from Cardiff Airport, Public Health Wales, Cardiff and Vale University Health Board, the Welsh Government Testing and Aviation Policy team, and the Department of Health and Social Care. The meeting on 12 October 2020 reflected the emerging policy developments which included consideration of the potential for new testing technology/devices. The group noted that there were a number of new testing technologies that were in development which might provide a quicker, more

streamlined, solution in the future and consideration of their usage for onsite airport testing should be considered as and when new technology became available.

512. Additionally, a cross UK Government Global Travel Taskforce was also set up which was attended by representatives from Public Health Wales, as noted in exhibit **JAD-7/266 - INQ000513847**. The role of the taskforce was to consider how a testing regime for international arrivals could be implemented to boost safe travel to and from the UK, what steps government could take to facilitate business and tourist travel on a bilateral and global basis, through innovative testing models and other non-testing means and more broadly, what steps government could take to increase consumer confidence and reduce the barriers to a safe and sustainable recovery of international travel.

513. The testing pilot at Cardiff Airport was subsequently put on hold pending the outcome of the Global Travel Taskforce work. In November 2020 that work finished and England confirmed it would be adopting the private test and release approach in airports in England (see below), however a decision by the Welsh Government had not been made yet for Wales. By this time the new testing technology offered as part of the UK National Testing Programme suggested that lateral flow devices may have potential. Within the Health and Social Services Group, the Testing team approached the Public Health team to confirm that it would like to continue with a separate pilot of lateral flow testing at the airport with the aim of establishing a Standard Operating Procedure for a franchised approach to testing as an outbreak control measure i.e. testing that could be staffed by the airport (or another) and stood up or stood down as public health needs dictated. This was set out in the email exhibited as **JAD-7/267 - INQ000513859.** Learning from the pilot would be used to inform any future Ministerial Advice to move to a more permanent control measure and Cardiff and Vale University Health Board and Public Health Wales would be involved in informing that advice. The pilot was planned to commence in January 2021.

514. As noted above, in November 2020 the UK Government announced 'Test to Release' which was an initiative designed to reduce the amount of time travellers needed to quarantine when they arrived at UK Airports, by undertaking a Covid-19 (PCR) test and would be introduced from 15 December 2020. Officials commissioned advice from the Technical Advisory Cell on its position on Test to Release. A request for the UK Government to share its analysis on Test to Release was also made. This information was shared by the Department of Transport on 26 November 2020 with Public Health Wales who provided this to the Technical Advisory Cell, as exhibited in **JAD-7/268 - INQ000513860.**

515. Advice was submitted to the Minister for Health and Social Services and Minister for Finance and Trefnydd on 15 January 2021, exhibited as **JAD-7/269 - INQ000235888,** on the introduction of pre-departure testing for international travel. The Chief Medical Officer's advice was included and noted that from a public health perspective that pre-departure testing had the potential to reduce the proportion of people travelling and entering the UK while infectious and reduce the risk of infection transmission during transit. However, the Chief Medical Officer also cautioned that a negative test result 48-72 hours before travel might not necessarily be representative of infection status at the time of travel and so would not be definitive. He emphasised that the pre-departure testing regime had to complement the existing travel restrictions regime (including travel corridor processes in place at that time) to add value, as quarantine/isolation was the key health protection measure. The additional layer of protection provided for by testing had more value while UK prevalence was low and might have limited impact with the epidemiology at that time. The Chief Medical Officer also advocated for a joined up four nations approach on a testing regime in order to ensure maximum efficacy.

516. The Health Protection (Coronavirus, International Travel, Pre-Departure Testing and Operator Liability) (Wales) (Amendment) Regulations 2021 (S.I. 2021/48), created from 18 January 2021 a requirement for any person aged 11 years or over to possess on arrival in Wales from outside the common travel area a valid notification of a negative result from a qualifying test. The Regulations set out that a qualifying test for those purposes was a PCR test or a test undertaken using a device which the manufacturer stated had a sensitivity of at least 80%, and a specificity of at least 97%, and a limit of detection of less than or equal to 100,000 SARS-CoV-2 copies per millilitre. Breach of the pre-departure test requirement was a criminal offence, in the same way it was when one breached the isolation requirements and the obligations to provide passenger information under the International Travel Regulations. The offence of contravening the pre-departure test requirement had a defence attached to it, and a non-exhaustive list of reasonable excuses that could be raised. These included for example, persons who were medically unfit to take a test, disabled people, persons who departed from a country where no such tests were available to the public.

517. From that point forward the requirement for border testing applied to anyone arriving into Wales from outside the common travel area. A key difference in Wales to the rest of the UK was that all travellers had to pre-book an appropriate post-arrival test package to be carried out by a "public test provider", namely the NHS. These tests had to be purchased through the Covid Travel Management scheme (CTM), which was the UK-wide booking agent for

NHS tests. Officials raised concerns regarding the private testing regime in England, which had over 400 private companies on the booking portal offering pre-departure tests, which centred on:

a. Transparency of the published list of approved/accredited providers.
b. Effective monitoring and removal of underperforming providers
c. Timely and complete data flow of test and sequencing results to devolved governments.

518. There were occasions where additional agreements about the use of private laboratories were made. I exhibit Ministerial Advice at **JAD-7/270 - INQ000145136** where, in response to visitors attending the 'Professional Golfers' Association "PGA" European Gold Tour', the Minister for Health and Social Services agreed to amend the International Travel Regulations to include the provision for specified events to use private testing arrangements for international arrivals. As noted above, tests in Wales needed to be carried out by a 'public test provider' namely the NHS. Public Health Wales had assessed the plans outlined by the PGA Tour and were content that the proposal was robust. The PGA Tour used a company on an approved list which had appropriate standards of tests and arrangements for genomic sequencing of any positive results which would be reported directly to Public Health Wales.

519. Officials worked with the Department of Health and Social Services to obtain assurance around these key concerns, submitting advice to the Minister for Health and Social Services on 2 September 2021 recommending private test providers be introduced to the Welsh testing regime for international travel. A copy of this advice is exhibited as **JAD-7/271 - INQ000104034**. Initially the Minister for Health and Social Services agreed to the recommendations however the First Minister intervened requesting that the decision be put on hold until a discussion could be held, as exhibited in **JAD-7/272 - INQ000513933.** Following discussion the First Minister was content to proceed provided that there was clear communication that the Welsh Government advised people did not travel at this time. A Written Statement was issued by the Minister for Health and Social Services on 12 September confirming that in light of the Competition and Markets Authority review of the market for PCR travel tests, commissioned by the UK Government and the intention to bring in new legislative standards for private test providers from 21 September, to ensure test results and genome sequencing were processed and reported quickly and within a comparable time period to NHS tests, subject to financial penalties, the Welsh Government was content to change its position on private sector test providers from 21 September 2021. A copy of this Written Statement is exhibited as **JAD-7/273 - INQ000513977.**

520. This testing regime remained in place until 18 March 2021 when the remaining testing requirements for unvaccinated arrivals was removed thereby eliminating the last remaining part of UK SARS-Cov-2 border surveillance. Advice to the Minister for Health and Social Services recommending this course of action was submitted by the Covid-19 Legislation team with myself and a number of officials in the Health and Social Services Group copied to the advice, a copy of this advice is exhibited as **JAD-7/274 - INQ000116688.**

Testing in Schools

521. I set out below the high-level chronology of steps taken by the Health and Social Services Group on development and implementation of testing policies in schools.

522. The first meeting of the Technical Advisory Group's Children and Education subgroup was held on 11 May 2020. It produced a paper describing the latest understanding of Covid-19 with respect to children and education, summarising findings from the Scientific Advisory Group for Emergencies, the Scottish Government, the Welsh Government and action taken in other European countries. The paper which I exhibit as **JAD-7/275 - INQ000048838** informed discussion in Wales relating to the safe return to education as outlined in Ministerial Advice MA-FM-1937-20 dated 18 June 2020, exhibited as **JAD-7/276 - INQ000227453** and informed briefings to teaching unions. I also exhibit **JAD-7/277 - INQ000564997**, the Deputy Chief Medical Officer's advice on the 21-day review and **JAD-7/278 - INQ000048843** an assessment of specific restrictions and measures in education which were annexed to the Ministerial Advice.

523. On 19 June 2020, the Technical Advisory Group's Children and Education Sub-group met and discussed testing in schools. It noted that asymptomatic testing had been ruled out by Ministers because the evidence in support was weak. The sub-group identified that separate consideration needed to be given to testing in universities. I exhibit the note of this meeting as **JAD-7/279 - INQ000314280**.

524. On 26 June 2020, advice was issued to the Minister for Health and Social Services, in relation to a testing package for schools **JAD-7/280 - INQ000144965.** A full briefing, including advice from the Technical Advisory Cell (dated 16 June 2020) was included, exhibited as **JAD-7/281 - INQ000513960.** The Technical Advisory Cell advice suggested there would be very limited benefit in adopting blanket testing of teachers and support staff in schools in Wales. With such a high number of false positives, there could be harm arising

from unnecessarily isolating cases and their contacts as a result of the broader Test, Trace, Protect system, although a smaller number of results might have given false reassurance.

525. On 26 June 2020, the Minister for Health and Social Services made an announcement setting out the action the Welsh Government would take to ensure the safety of children and school staff. I exhibit the Written Statement as **JAD-7/282 - INQ000299393**. The announcement addressed the rapid deployment of antigen testing and antibody testing as follows;

    a. *"The rapid deployment of testing will be made available to support outbreaks by the NHS Wales TTP Programme and Local Health Boards will facilitate PCR antigen testing for everybody in the school/setting 'bubbles' (small, consistent group of no more than 8) that are effected by the outbreak and everyone in the school/setting if it has been established that the setting has not followed Welsh Government guidelines for schools and/or Infection Prevention and Control measures.....*

    b. *The Welsh Government is also undertaking a programme of Antibody testing being rolled out to at least 10% of schools staff who have worked in hub schools during the pandemic. We expect over 9000 to be tested. This will assist in understanding the seroprevalence of the virus in this cohort."*

526. The Welsh Government wrote to all local health boards and Directors of Education to ensure plans were communicated clearly.

527. Following Ministerial agreement, the Welsh Government's Director for Education and I issued a joint letter (also dated 26 June 2020) to local health boards and the Directors of Education in local authorities outlining the next steps, exhibited **JAD-7/283 - INQ000253671.** The Minister announced the testing approach for schools on 3 July. Exhibited as **JAD-7/284 - INQ000300048.**

528. On 8 July 2020, advice was issued to the Minister for Health and Social Services on home testing kits in school, I exhibit this advice as **JAD-7/285 - INQ000136797**. The UK Government had notified us of its intention to provide schools across England with a set (approx. 10 per school) of home testing kits that would be provided by the school to symptomatic pupils before asking them to return home to self-isolate and had extended this in-principal programme of testing to the devolved governments. It was agreed that these recommendations would be included in the announcement made by the Minister for Education.

529. The decision on home testing kits was announced by the Minister for Education on 9 July 2020 as evidenced in exhibit **JAD-7/286 - INQ000097777**[13] and was also included in the testing strategy published in July. Each education setting would be provided with a supply of home testing kits and in the event of an outbreak, a Mobile Testing Unit would be sent to test a class, year group or entire setting as necessary.

530. With the development of new technology and lateral flow device test pilots in autumn 2020 initial plans were developed in relation to asymptomatic testing in schools following the pilots undertaken in schools as part of the Merthyr Mass Testing pilot. On 14 December 2020, the Minister for Health and Social Services and the Minister for Education, following discussions with Public Health Wales and the Children and Schools Technical Advisory Cell, announced plans to introduce a serial testing programme in schools and further education settings from January 2021.

531. From January 2021, schools and further education settings were to be offered the ability to perform serial testing (using lateral flow tests) of close contacts to replace the need to self-isolate for those within that setting. This meant pupils and staff identified as close contacts would be asked to either self-isolate as normal or to take a lateral flow device test at the start of the school day for the duration of the self-isolation period. Those who tested negative could continue with their normal activities; those who tested positive were to self-isolate and book a confirmatory test. Each setting was offered support, equipment and training, and my team engaged with the sector on the specific logistical requirements.

532. Following the announcement in December 2020, the context changed with the emergence of new variants and a rise in community infections resulting in a number of changes around childcare and education provision. This involved reviewing the testing offer outlined in December. Following discussions with Public Health Wales and the Children and Schools Technical Advisory Cell subgroup, the decision was taken to pause the daily contact testing in schools and colleges whilst we learned more about the new variants and how they might impact on transmission. It was recognised daily contact testing might provide an opportunity to reduce the impact of Covid-19 on in-person learning. The offer was changed to regular, twice weekly, lateral flow tests to all staff in all registered childcare settings including Flying Start settings, schools and further education settings on return. The approach was also

[13] *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 [INQ000299447]*

adapted on listening to feedback from the sector on the challenges of managing testing onsite and tests were to be collected by staff and used at home in order to regularly and quickly identify positive asymptomatic cases so they could be asked to self-isolate before coming into the school or setting. Along with social distancing and other measures put in place by schools and settings this would reduce the likelihood of adults unwittingly spreading the virus to others in the setting.

533. The asymptomatic testing offer for childcare and education was phased out and stopped by 8 April 2022 to coincide with the end of the school term. This decision followed the detailed work undertaken by the Test, Trace, Protect team and the Testing Clinical Advisory advice from the Prioritisation Groups.

534. In developing and implementing testing policy in schools there was a high level of collaboration and engagement. This included scientific and clinical advice from the Children and Schools Technical Advisory Cell subgroup and the Testing Clinical Advisory and Prioritisation Group. Officials met the Shadow Social Partnership Forum, trade unions, Directors of Education and headteachers to discuss testing arrangements and also hosted webinars to explain the plans and process; how to guides were also shared widely.

Part L: Public Communications

535. I understand that Toby Mason, Head of Strategic Communications has provided a statement to the Inquiry for Module2B, which has been published as [INQ000340123], outlining the role and importance of communications throughout the pandemic. I agree with his explanation in paragraph 12 of his statement where he explains "*The complexity of the Regulations in force meant that the people of Wales needed clear, understandable information and advice at all times, which would in turn lead to better understanding and compliance with the rules designed to limit the spread of the virus. Communications advice and guidance was* provided *as frequently as possible to inform policy and decision-making by both Ministers and officials. This included advice on audiences, channels, the timing and handling of announcements, and stakeholder management*".

536. Communication colleagues and Ministers took a decision that communications within specific pandemic related programmes, such as Test, Trace, Protect would be undertaken using the overarching "Diogelu Cymru - Keep Wales Safe" brand in order to build on the trust and recognition of that campaign which was developed by the Welsh Government in May 2020 as a distinctively Welsh brand to communicate the regulations in Wales. It also

provided a single high-level 'look and feel' for the broad sweep of Welsh Government interventions during the pandemic. "Diogelu Cymru - Keep Wales Safe" was used for communicating desired behaviours to the public, including testing/self-isolation and vaccinations.

537. Significant programmes such as Test, Trace, Protect had bespoke communications plans and budgets, taking into account specific audiences and appropriate channels.

538. I exhibit for reference the Keep Wales Safe communication plan timeline as **JAD-7/287 - INQ000513958**, the timeline identifies specific Test, Trace, Protect campaigns launched during:

- August 2020 - Protective Behaviours 'Know the symptoms, Take the test, Protect yourself and others'
- September 2020 – Test, Trace, Protect ('Coronavirus levels are changing, Rule of 6, Reminder of protective behaviours, Protect yourself and others')
- February 2021 – Test, Trace, Protect ('Coronavirus is spreading in Wales, know the symptoms, self-isolate, test")
- May 2021 – Test, Trace, Protect ('Get tested if you've got symptoms, even if you've had the vaccine')
- June 2021 – Test, Trace, Protect ('Get tested *and* self-isolate if you've got symptoms, even if you've had the vaccine')
- July - Self-isolation Support (£500 payment)
- August 2021 – Self-isolation Support (£750 payment) and a sperate burst for Lateral Flow Reporting Reminder
- January 2022 - Chief Medical Officer film (Omicron variant present - encouraging the public to get their booster vaccine) and a separate Lateral Flow Reporting Reminder (as per previous burst)
- May 2022 - Test, Trace, Protect ("Covid testing in Wales has changed" – changes to LFT availability, the end of PCR testing, recommendation to self-isolate for 5 days if testing positive)

539. The Health and Social Services Group's communication team developed a Test, Trace, Protect communication plan when the Test, Trace Protect strategy was launched, as well as specific handling plans at appropriate times, for example, when asymptomatic testing started. Their aim was to develop an engaging and reassuring public-facing information campaign to issue clear messaging on the Welsh Government's Test, Trace, Protect strategy. I exhibit the plan as of 28 May 2020 as exhibit **JAD-7/288 - INQ000505396.**

540. A 'Protect' element of the communications plan was developed in June 2020 exhibited as **JAD-7/289 - INQ000513826**. This plan described how the test and trace communications were going to specifically target more vulnerable groups or communities that might need additional support. This could be due to language / literacy levels, lack of internet access, or disability for example. The approach taken was to adapt the existing test and trace communication assets to make them available in printed and digital formats, distribute them through other organisations such as charities, and those with direct contact with Black, Asian and Minority Ethnic communities. This was alongside ongoing community and media engagement across test and trace with Black, Asian and Minority Ethnic people.

541. I exhibit as **JAD-7/290 - INQ000198618** a Test, Trace, Protect communication plan presentation updated for March 2021. The plan contained general updates on communication activities and messages used, provided insight into priorities including a focus on self-isolation and support available, and the vaccine programme. This presentation was used as a means of keeping relevant internal Test, Trace, Protect colleagues and others updated.

542. The overall Test, Trace, Protect campaign objectives are listed below, these remained relevant throughout all campaign phases, however, content for specific messages and audiences may have varied between phases.

    a. Reassuring the public with clear messages that the Welsh Government was trying to keep citizens safe, well and to get the economy moving, basing our approach on the best available scientific evidence, surveillance and international learning.
    b. Encouraging and empowering citizens to contribute to protecting themselves and others, encouraging positive behaviours to make it easy for people to play their part and protect the more vulnerable.
    c. Building engagement with partners and stakeholders to clearly communicate roles and responsibilities to support us to disseminate the messages and enable business continuity across the economy.

543. As part of the broader Keep Wales Safe campaign, the Test, Trace, Protect elements that ran from August 2020 to May 2022 had two main parts:

    a. Remind and inform – the role of communications here was to raise mass awareness and understanding of the test, trace and isolation messages. Channels were selected that had the maximum reach such as television, radio,

digital, outdoor (bus stops, bus sides for example) advertising across Wales, press and media; and

b. Reinforce relevant behaviours – the role for communications here was to specifically target groups who had been more adversely impacted by Covid-19 either due to mortality rates, financial reasons, or mental health, and as a result were less likely to follow the rules. Channels used here were more engagement focused so for example using social media influencers, working with partners who had more direct contact with these groups, and special publications / websites.

544. The campaign approach was 'always on' to promote testing and isolation messages and behaviours – this meant that there was always some form of proactive communications coming from the Welsh Government and partners such as local authorities. They would be using their combined external and internal channels such as website updates, social media, newsletters, and written communication where appropriate such as direct mail to homes. Every possible channel was used to reach all audiences, for example, television, radio, out of home (bus stops, sides of buses), press, digital, and social media.

545. These were supported by a more targeted approach to reinforce Test, Trace, Protect messages amongst specific groups. Specific audiences that were identified as being adversely impacted by Covid-19 were young adults and lower socio-economic groups. Alongside the national communications targeting everyone in Wales, specific Test, Trace, Protect campaigns (as listed above) advertising methods and locations focused on these audiences. For example, digital and out of home advertising based on locations such as gyms and retail centres; use of social media influencers on TikTok; and partnerships with organisations such as the Football Association for Wales.

546. A specialist agency, Multicultural Marketing Consultancy was subcontracted to support the work targeting Black, Asian and Minority Ethnic communities to deliver a multimedia procured campaign. I attach as exhibit **JAD-7/291 - INQ000513803** the Covid-19 Testing - Draft Brief as of April 2020.

547. Test, Trace, Protect communication materials were produced in a variety of formats and languages to encourage compliance. Examples included British Sign Language, audio, large print, easy read as well as 38 minority languages. I exhibit examples of the English version as **JAD-7/292 - INQ000513867**, the Albanian version as **JAD-7/293 - INQ000513868,** the Cantonese version as **JAD-7/294 - INQ000513869,** the Polish version

as **JAD-7/295 - INQ000513870** and the Vietnamese version as **JAD-7/296 - INQ000513871**.

548. The language used across the campaign and on all the communication materials was checked for accessibility and readability. For example, any Test, Trace, Protect guidance that was updated on the Welsh Government's website pages (gov.wales) was checked for short, clear and concise content.

549. Campaign adverts and communication materials used on channels such as social media were created in a range of formats to reach as wide an audience as possible, for example, a video showing how to use the lateral flow tests. Other formats included images, diagrams, explainer films, posters, and leaflets. This was alongside the adverts being used on television, radio, out of home (bus stops, sides of buses), press, digital, and social media.

550. This resulted in a vast range of activity being undertaken throughout the pandemic, through face-to-face engagement, media, trusted voices and organisations. By way of an example, in December 2020, a pilot multilingual street team was established for face-to-face engagement in Cardiff between 18 to 21 December 2020. Multicultural teams of six people visited community touchpoints in Cardiff, such as places of worship, barbers, local shops and community centres, chatting to people about measures to protect against the virus, including testing and isolating, face masks and the vaccine, and providing flyers and posters in multiple languages for display in the locations visited.

551. In his statement [INQ000340123] Toby Mason explains in paragraph 70 that in '*2020 the Ipsos Mori survey was used to gain insight into public awareness, attitudes and behaviours. A Wales specific boost to the questions was organised by colleagues in Knowledge and Analytical* Services *who shared relevant insights and information on a regular basis'.* A full schedule of surveys, focus groups and social listening reports that were carried out in 2020 is listed in exhibit **JAD-7/297 - INQ000350770.** I understand that all reports have been shared with the Inquiry.

552. The Welsh Government started using social listening activity in early 2020. The reports looked at key conversation topics online, sentiment and emotional response to campaign messaging. Examples of the social listening reports can be found in exhibits **JAD-7/298 - INQ000282290, JAD-7/299 - INQ000338878**, **JAD-7/300 - INQ000338898** and **JAD-7/301 - INQ000338899**.

553. All Test, Trace, Protect communication updates, messages and materials were shared with regional and local partners such as local authorities and health boards. The aim was to ensure a consistent message was being given from all organisations to help reduce any misinformation or incorrect advice/guidance. Regional and local teams were also able to adapt the messages or materials to add more localised messages where appropriate – for example where their local test centres were located.

554. Where there were areas of a higher prevalence of Covid-19 communications were increased and targeted activity was undertaken in that geographical area. Evidence provided at the regular Test, Trace, Protect Oversight Group meetings informed where we would need to increase activity in a particular area – for example to encourage more asymptomatic testing to prevent people unknowingly spreading the virus.

555. Polling played an important role in our approach, and a series of fortnightly tracker polls from Ipsos-MORI were commissioned by Knowledge and Analytical Services to follow trends in public sentiment which were shared widely across the organisation. These showed a consistently strong level of awareness of the regulations in place and the percentage responding, that the Welsh Government was doing a good or very good job in managing the pandemic.

556. The reach of the 'Diogelu Cymru - Keep Wales Safe' campaign, that Test, Trace, Protect formed part of, was significant – for example between April and September 2021, it reached the following percentages of the Welsh population:

    a. All adults: 99.73%
    b. Black, Asian and Minority Ethnic groups: 97.17%
    c. C2DE (code used for lower socio-economic groups): 93.45%
    d. Young adults – 16-30 year olds: 98.44%

557. As part of the overall 'Diogelu Cymru - Keep Wales Safe' campaign, regular questions were placed into a YouGov quantitative research survey (which included at least 1,000 adults in Wales) to check on levels of campaign awareness, knowledge and compliance on a number of areas including test, trace and isolation behaviours. As an example, the results from a survey between 12 – 16 August 2021 showed that 55% of people claimed to understand test and trace procedures 'quite well' or 'very well'. This was highest amongst 50-64 year olds. Information such as this was used to monitor the impact of the communication and inform decisions about whether we needed to target certain groups. I exhibit this report as **JAD-7/302 - INQ000513969**. This is one example of the regular insight

we would have received from the contracted Multicultural Marketing Consultancy that informed our targeting and approach in real time.

558. The main challenges around communicating testing and self-isolation messages were due to policy divergences between Wales and the other nations of the UK, particularly England. This was partly mitigated when the standalone 'Diogelu Cymru - Keep Wales Safe' campaign was launched. However, because many people in Wales consumed London-based media which tended to focus on English rules and regulations it caused confusion with the public. I understand the witness statement of Dr Andrew Goodall on behalf of the Welsh Government in Module 2B, details some of the general challenges in paragraphs 465- 471 **[INQ000327735]**, that included;

    a. The significant proportion of people in Wales consuming London-based UK media, whose focus remained primarily on regulations made for England by the UK Government, was an additional challenge.
    b. The issue of UK Government ministers (and communications material) announcing changes to regulations in England without making clear that they did not apply in the other nations of the UK, was raised on a regular basis at both ministerial and official level throughout the pandemic.

559. There were occasions where UK Government ministers (and communication materials) announced changes in testing and isolation regulations without making it clear that they did not apply to Wales. This was raised regularly at both ministerial and official level throughout the pandemic. However, it remained a challenge when the public and media were confused about whether testing and isolation changes related to England only, or the whole of the UK.

560. Test, Trace, Protect programme wide evaluations and lessons learnt are discussed later in this statement. Evaluations and effectiveness of communication and engagement formed part of these reviews rather than standalone exercises.

Part M: Modelling

561. In respect of Part M and N of this statement, I have been assisted in the drafting of these sections by Dr Stephanie Howarth, Chief Statistician, and by colleagues in the Technical Advisory Cell and Knowledge and Analytical Services who are specialists in the field of modelling and data, which is outside my field of expertise.

562. The Technical Advisory Cell produced analytical models across an array of policy questions for different purposes. In most cases, members of the Technical Advisory Cell would work closely with policy-makers to understand the data and to interpret results. I understand that Dr Rob Orford, the Welsh Government's Chief Scientific Adviser for Health (during the relevant period) provided a detailed statement **[INQ000356177]** in Module 2B covering policy modelling and the modelling methods adopted, as have other Technical Advisory Cell members, notably Mr Craiger Solomons **[INQ000291490]** and Dr Brendan Collins **[INQ000371584]**. I also understand that Dr Orford will be providing a statement in this module also and will address the scientific response in more detail. These statements will be better able to describe the choice of modelling method and the relationship with SAGE and SPI-M-O. I understand that Dr Orford confirms in his M2B statement that "Over the course of the pandemic members of TAC did have access to SPI-M-O and SPI-B and were aware and sighted on papers that were in development and discussion in those subgroups", that "SPI-M-O were happy for us to present Swansea University outputs at SPI-M-O" and that the chair of "SPI-M-O (Professor Graham Medley) also regularly attended TAG".

563. Modelling was important in informing the development of Test, Trace, Protect. As has already been set out, models were used to estimate the volume of anticipated activity: the demand for testing; likely positive cases; the average number of contacts per case which of course changed depending on the restrictions in place at any point in time; and the implications of this for staffing of contract tracing teams. The data and modelling was drawn from the Reasonable Worst Case Scenario and other evidence that informed the wider response to containing Covid-19.

564. A number of factors made estimating the take up of testing and the need for contact tracing staff challenging at times. In the early part of the pandemic, we had some data on the prevalence of symptoms as recorded by the Zoe App, but we did not know how willing the public would be and how they would respond to the advice to get a test. Later, the spread of other seasonal respiratory viruses with very similar symptoms also made test volumes difficult to estimate. Estimates of testing demand were developed by the UK Health Security Agency and its predecessor body as part of the National Testing Programme.

Tracing Workforce Model

565. The model used to inform staffing requirements for contact tracing was based on projections of prevalence which were inevitably subject to the uncertainties that come with models and the nature of the assumptions made.

566. Version 1 of the Tracing workforce model was an in-house model developed to estimate the workforce required under different scenarios, for example varying the value of Rt which would influence case rates or assumptions relating to the likely number of contacts per case. I exhibit the model as **JAD-7/303 - INQ000227459**. The work was quality assured and signed off by both the Technical Advisory Group and me, as the Senior Responsible Officer. A summary paper was shared with the Technical Advisory Group on 12 May 2020 exhibited as **JAD-7/304 - INQ000227535**. The underlying assumptions came from the Scientific Advisory Group for Emergencies meetings.

567. The model used operational research principles to estimate workforce requirements for the tracing system, using information that was being made available at a national level, such as the likely number of PCR tests taken, number of positive PCR tests, and an estimate of Rt to estimate the number of tracers and managers required to carry out tracing, so as the number of positive tests increased, the appropriate number of tracing staff could be identified for deployment or recruitment.

568. Once testing was expanded to better reflect demand across Wales, we used the Reasonable Worst-Case scenarios developed as part of the wider Welsh Government modelling work inform planning for the testing and tracing system. The results of the modelling were included in the advice provided to ministers.

Self-isolation policy

569. Public Health Wales provided data, epidemiological advice and peer review of Test, Trace, Protect analytical models and products. It was also a user of these products. In addition, Public Health Wales also provided modelling to support iterations of the Test, Trace, Protect strategy and policy, drawing from UK Health Security Agency data. In January 2022, Public Health Wales was commissioned to provide an advice note to the Chief Medical Officer outlining the impact of a reduction in the self-isolation period from seven days to five days on the number of infectious individuals released to society. This recommended that sequential testing with lateral flow devices from day five could support earlier release, stating under this framework a five-day isolation period would have nearly the same protective effect as a 10-day period.

Effectiveness of Test, Trace, Protect

570. The Rùm Model, published on 11 February 2021 and which I understand is available to the Inquiry as [**INQ000223552**], modelled the transmission reduction due to test, trace and isolate interventions in England. In Wales we undertook our own modelling work on the

impact of our specific Test, Trace, Protect interventions. Although the Rùm Model did not directly inform our approach, we remained interested in work done in other nations, for example the Canna Model which assessed the impact on NHS Test and Trace and included a comparison of different models and their broad conclusions.

571. In March 2021 the Technical Advisory Group, published a report on the impact of Test, Trace, Protect, '*Modelling the current Welsh Test, Trace, Protect system*'. Subsequently this analysis was updated and a further report produced in July 2021 *'Modelling the Impact of Test, Trace and Protect (TTP) on COVID-19 transmissions in Wales'*, exhibited as **JAD-7/305 - INQ000513965.**

572. These papers considered the impact of the Test, Trace, Protect system in reducing the effective reproduction number. They indicated that Test, Trace, Protect reduced *Rt* from 1.7 to 1.3 during November 2020, despite high case rates putting pressure on the system. They estimated that in the spring, with much faster testing and contact tracing, Test, Trace, Protect reduced *Rt* from 1.3 to 0.8. Subsequent modelling indicated that in July 2021 Test, Trace, Protect had reduced Rt from 2.2 to 1.4, demonstrating the efficacy of the service when prevalence was low.

573. This work was presented to the Scientific Advisory Group for Emergencies and published on the Welsh Government's website on 24 March 2021.

574. The modelling indicated that the largest effect was due to the rapid isolation of the index case, due largely to the small observed delay between symptoms, and reporting into Test, Trace, Protect. The effect of subsequent contact tracing was shown to be relatively small, nevertheless, contact tracing remained a significant component in most of the scenarios modelled, especially at high ascertainment of index cases and under the assumed high ascertainment of contacts, and short tracing delays. These findings were in line with those of the Rùm Model.

575. The model helped to inform our approach in a number of ways, some of which were highlighted in an unpublished Technical Advisory Group discussion paper which I exhibit as **JAD-7/306 - INQ000227539**. For example, the paper highlighted the importance of our communications stressing the need for individuals to isolate on symptoms, it re-enforced the approach set out in our testing strategy of 'test to find' and the potential impact of changing the contact tracing model and the introduction of backward contact tracing.

Part N: Data

576. Data relied upon to develop Test, Trace, Protect, for example, modelling on expected case rates which informed potential demand for testing and resourcing of contact tracing teams has been referenced previously in this statement and so I will focus primarily on the data generated by Test, Trace, Protect and how this was used and informed decision-making.

Test, Trace, Protect Data

577. As noted above, Knowledge and Analytical Services is the Welsh Government's in-house data and statistical analysis department, it also collated a library of information relevant to the pandemic together with undertaking, either directly or with or through others, research, and statistical analysis. Knowledge and Analytical Services was essential in providing assurance data on Test, Trace, Protect which was used publicly in briefings from Welsh ministers.

578. Data generated by Test, Trace, Protect was collated and presented by Knowledge and Analytical Services to policy-makers and ministers in a number of ways, including regular statistical releases, the Covid-19 Data Monitor and the weekly Test, Trace, Protect Dashboard. The weekly Test, Trace, Protect Dashboard was discussed at the Programme Board and shared with the Oversight Group. It also formed the basis of the weekly meetings with ministers which later became fortnightly and which I have referenced above in Part B, explaining decision-making processes.

579. A range of statistical releases are available: Test, Trace, Protect (contact tracing for coronavirus (COVID-19)) and Testing data for coronavirus (COVID-19). To assist the Inquiry examples have been provided as **JAD-7/307 - INQ000513964** (Test, Trace, Protect (contact tracing for coronavirus (COVID-19)): up to 10 July 2021) and **JAD-7/308 - INQ000513849** (Test, Trace, Protect (contact tracing for coronavirus (COVID-19)): up to 24 October 2020) and **JAD-7/309 - INQ000513962** (Test, Trace, Protect (contact tracing for coronavirus (COVID-19)): up to 22 August 2020).

580. The Covid-19 Data Monitor was a regular compendium of data and charts produced by Knowledge and Analytical Services. The first data monitor was produced and circulated on 3 April 2020, following a discussion at the Covid-19 Preparedness Bird Table about the need for a single document of key information and graphs. The frequency of the Data Monitor changed over the course of the pandemic. It was produced twice a week until 8 June 2020, when it then moved to a weekly update. During the summer of 2020 when

Covid-19 case rates were relatively low, the monitor was updated fortnightly, before returning to weekly updates from 28 September 2020. The monitor was shared widely within the Welsh Government (including with ministers) to enable monitoring of trends across a range of topics during the pandemic.

581. The Data Monitor was expanded over time to include more metrics related to testing (including turnaround times) and contact tracing. Paragraphs 46 to 49 of the Witness Statement provided by Glyn Jones, on behalf of Knowledge and Analytical Services dated 8 December 2023 [INQ000274147] outlines the Data Monitor themes, content and background in more detail.

582. The Test, Trace, Protect Weekly Dashboard provided by Knowledge and Analytical Services provided testing data (between 15 June 2020 and 9 February 2021) and presented summary information on Public Health Wales' testing data. I exhibit, by means of examples **JAD-7/310 - INQ000566311** and **JAD-7/311 - INQ000566317**. The Dashboard included information on:

    a. positive cases by local authority and local health board
    b. new cases
    c. the number of tests authorised by date
    d. timeliness of results - by test location (NHS labs and non-NHS labs)
    e. number of tests and timeliness of results of community and mass tests by test centre (for NHS Wales labs)
    f. timeliness of in-person tests by local health boards.

Information flows for decision-making

583. Data was collected and presented on the Covid-19 operational dashboard. The purpose of which was an automated and accurate data dashboard system to enable accelerated decision-making based on a single, at-a-glance view of aggregated and non-personally identifiable data across the Welsh public service. Access was provided to around 400 people, including the police, fire and rescue services, local authorities (both within Wales and those neighbouring Wales), local health boards, the Joint Biosecurity Centre and UK Health Security Agency. I exhibit, as means of an example **JAD-7/312 - INQ000300261.**

584. Quality assurance of data flows was managed closely. There were weekly discussions with data providers across the NHS Wales Informatics Services, later Digital Health and Care Wales, and Public Health Wales. These data were then considered at SPI-M, a sub-group of the Scientific Advisory Group for Emergencies, following its analysis of the data where

models would allow Welsh data. The all-Wales Modelling Forum would also regularly consider these data at a local authority or health board area and feedback on any quality issues.

585. Alongside the quantitative data provided by Test, Trace, Protect, the Covid Intelligence Group provided a forum for local intelligence from local and regional tracing managers to be discussed. This provided a more nuanced understanding of any patterns that were being identified locally or large and connected outbreaks. This intelligence then fed into how we understood what the data was showing at a local level, as part of our assessments (such as input into the 21-day review or the COVID Situation Report).

586. The Covid Intelligence Cell, which was informed by the Covid Intelligence Group, oversaw the publication of the COVID-19 Wales situational report, ensuring language was accurate across multiple policy areas. Once established, this report brought together the regular surveillance information that ministers would need to inform the 21-day review. The COVID-19 situational report was published on the Welsh Government's website on a weekly basis to keep the public informed and reached one of the largest audiences we have seen for a regular analytical product. Examples of these reports are exhibited as **JAD-7/313 - INQ000312002** and **JAD-7/314 - INQ000057805**. A full suite of the reports published is available online: COVID-19 situational reports | GOV.WALES

587. Test, Trace, Protect data was included amongst the indicators that might indicate action was needed to increase or relax restrictions. A full list of indicators can be found in Annex A of the Coronavirus Control Plan exhibited as **JAD-7/315 - INQ000066070** (Coronavirus Control Plan: Alert Level Zero).

Covid-19 infection survey

588. The Covid-19 Infection Survey run by the Office for National Statistics and Oxford University provided an effective estimate, however, was limited in statistical power (or potential accuracy) due to the initial sample size of the survey for Wales. Over time and when the sample size was increased estimates became more accurate and the indicator was used to inform movement out of national restrictions. The indicators were first used on 11 February 2021. The data related to 2-3 weeks previous initially, so could not be used to assess entrance into national restrictions. Data also fed into the Scientific Pandemic Infections group on Modelling (SPI-M) consensus estimate by the end of the time period highlighted.

589. We regularly monitored other data sources that could be used, including Zoe data as part of our approach. The Zoe data did provide some helpful insights. However, as the data was not randomly sampled, the data contained a large amount of noise limited by its sampling methodology, and it was difficult to identify changes using the data. We sought additional advice on the usage of Zoe data from SPI-M co-chair, Professor Dame Angela McLean, who advised that it was not of sufficient quality to use as part of official surveillance indicators.

Data Sharing

590. There were some issues with data access (as discussed by the then Chief Statistician in his Module 2B statement [**INQ000274147**]) which meant that it was not possible for Knowledge and Analytical Services analysts to easily carry out some pieces of analysis or access detailed, individual level data.

591. It was challenging to develop the timely appropriate flows of data in the right format to support the analytical work of Knowledge and Analytical Services. This led to significant manual work across the system, such as being unable to access a regular feed of raw data on testing and therefore Public Health Wales providing an extract to the Welsh Government on a regular basis to enable Knowledge and Analytical Services to produce the official statistics and dashboard outputs.

592. In his statement [**INQ000274147**] the Chief Statistician also referred to the technical and security barriers in Knowledge and Analytics Services obtaining the data directly through Digital Health and Care Wales digital platforms. Paragraph 88 of his statement explains some issues that we had in obtaining data from Digital Health and Care Wales due to Welsh Government security constraints.

> *"Within Welsh Government, there were security constraints in place to protect the internal IT infrastructure which led to barriers in sharing data. Welsh Government did not enable cross-organisational sharing of information via Microsoft tenancies, which meant access to dashboards or large datasets from DHCW had to be done either through workarounds such as manual emailing of files, or a virtual desktop approach which limited ability to download data. This became a particular issue for access to real-time data on contact tracing from the DHCW Client Relationship Management for Test Trace Protect. As well as leading to duplicate storage of data it meant analyst time was spent on*

manual effort to retrieve, store and re-analyse data within Welsh Government systems rather than allowing direct access to the raw data or dashboards".

Data Limitations

593. Data on PCR tests undertaken and test results were provided weekly by Digital Health and Care Wales, however, demographic breakdowns were not available, with the exception of key worker status and setting. Some contact tracing data was available by local authority and local health board, but not by any other demographic characteristics. I felt that the data available to the Test, Trace, Protect team was reliable, accurate and timely. It would though, have been helpful to have had more data relating to demographics and socio-economic characteristics, this could have helped us better understand take up of testing by different ethnicities which would in turn have allowed us to better target our efforts and outreach activities. An understanding of take up was generated by our local teams using more qualitative information but a consistent data set could have been helpful.

594. As the testing facilities developed during the first few months of the pandemic there were short term challenges in developing a consistent overall picture of testing as the balance of testing between Welsh laboratories and the UK lighthouse labs changed, with the latter not initially included in Public Health Wales public reporting and for a while being included separately. Close working between Knowledge and Analytical Services and Public Health Wales led to this issue being resolved in July 2020.

595. Differences in the reporting of data between Wales and England did create issues at some points which we had to be mindful of and which also affected the perception and understanding of the effectiveness of Test, Trace, Protect in Wales compared to equivalents in the other three nations. For example, there were differences in measurement which we had to be mindful of as test turnaround time generated by the lighthouse labs was based upon 24 hours, whereas results from Public Health Wales were based on 1 day. This meant in some cases results reported as within 1 day would have exceeded 24 hours. In the first few months, contact tracing performance data across the four nations was not published in a consistent manner. This led the Minister for Health and Social Services to ask the Chief Statistician in Wales to work with his counterparts in the other three nations to bring about more consistency/comparability in the data published. During the summer of 2020, Welsh Government statisticians worked with colleagues from other UK countries to consider the feasibility of a joint publication which either provided comparable data or at least explained what could and could not be compared. I cannot find any evidence that a joint publication

was ultimately produced, which suggests it was not possible to overcome differences in coverage and methodology for contact tracing data across the UK.

596. The introduction of lateral flow tests meant not all test results were reported and this changed the nature of the test data. In January 2022, there was no longer a requirement to undertake a follow-up PCR test after a positive lateral flow test. This had a significant impact on Public Health Wales' case rate data as this data source was based on PCR tests alone. Public Health Wales estimated this would reduce the number of reported cases by 10 percent. During this period, it became important to use a range of data sources to monitor the pandemic in Wales. The Office for National Statistics' Covid-19 infection survey, for example, was not affected by changes in testing policy or behaviour. The Chief Statistician published a blog post communicating this issue on 11 January 2022, which I exhibit at **JAD-7/316 - INQ000271843**.

597. Given the importance of timelines to the effectiveness of Test, Trace, Protect we would have liked to be able to measure the end-to-end process. However, it was not possible to link individual level data to understand the timeline of symptom onset, time taken to access a test, test result and then contact tracing timelines. This might have enabled us to consider operational responses, for example whether or not it would have been desirable to prioritise contact tracing for those who had waited longer for their test results to arrive or delayed booking a test after symptom onset.

598. Contact tracing was based on stopping onward infection, as has been outlined above it was 'forward' rather than 'backward' although we did undertake some backward contact tracing when conditions allowed. Contact tracing had not been designed to establish the source of a person's infection. As restrictions were lifted policy-makers and ministers wanted more data on settings and venues with higher rates of transmission and Test, Trace, Protect was not able to provide rigorous and robust data on this. This was not a data issue per se, but a function of its intended purpose.

Part O: Monitoring, evaluation and development

Systems

599. As I have already set out, with regards to systems for monitoring, evaluation and development of Test, Trace, Protect, the Test, Trace, Protect Programme Board and the Oversight Group provided the main mechanisms by which we considered operational

performance, implementation of agreed expansion plans and how we could make Test, Trace, Protect as effective as possible.

600. The focus of the Programme Board and Oversight Group changed over time as Test, Trace, Protect evolved, but performance and impact was always a central theme and agenda item. Previous exhibits, for example, (performance dashboards) illustrate the data on operational performance that we were able to consider at each weekly meeting. Operational performance in the case of PCR testing was primarily measured by the time elapsed between sample taken and test result issued. Contact tracing performance was measured by the percentage of cases and their contacts the contact tracing service was able to make contact with and the time taken for these steps to be undertaken successfully. We were not able to monitor adherence to isolation in real time, however we did have feedback from local health protection teams. Our performance measures were shaped by the range of scientific studies that had shown the importance of speed. Dating back to May 2020, for example, the Scientific Advisory Group for Emergencies had published research which indicated that to be effective a test and trace system would need to make contact with 80% of the contacts of a positive case and should ideally do so within 48 hours of the identification of an index case. I exhibit the minutes of the Scientific Advisory Group for Emergencies meeting of 1 May 2020 at **JAD-7/317 - INQ000440094**.[14]

601. Monitoring the performance of Test, Trace, Protect was the core role of the NHS Delivery Unit team that worked with us from July 2020. In response to the data the Delivery Unit team would engage with the relevant organisation, such as a local authority or local health board to support them in seeking resolution to any operational challenges they were facing to improve performance.

602. In addition to quantitative information on performance we also had qualitative feedback from our project groups, for example on the challenges people faced self-isolating. This feedback allowed us to consider changes to the Protect offer and was particularly useful in helping us refine our communications to enhance their impact.

603. We maintained a Risks, Actions, Issues and Decisions log ("RAID log"), examples of which are exhibited at **JAD-7/318 - INQ000514003** and **JAD-7/319 - INQ000514046** (2022-2023). The risks contained in these documents reflected our assessment at the various

[14] *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 [INQ000513805]*

points in time of the events that might affect and undermine the impact of Test, Trace, Protect. These risks included Variants of Concern which might evade current testing approaches or demonstrated increased transmissibility which might render Test, Trace, Protect less effective due to the speed of transmission versus the speed with which it was operationally feasible to undertake testing and tracing.

Targets

604. In section F, I have detailed the targets that were set for testing capacity early in the pandemic. A target of achieving 5000 tests a week by the third week of April 2020 was set initially and although this target was not met because of challenges outside our control, the Minister for Health and Social Services committed to publish weekly updates setting out expected and actual increase in testing capacity, so that there was transparency of the testing undertaken in Wales.

605. The laboratory capacity for 5,000 tests a week was achieved by May 2020 and was confirmed in the Test, Trace, Protect strategy published on 13 May 2020 and exhibited above. The strategy then highlighted that the testing laboratory capacity would continue to increase, potentially to as many as 10,000 tests a day.

606. Between May 2020 and March 2022, testing capacity in Wales increased significantly and in the "*Testing data for coronavirus (Covid-19): up to 13 March 2022*" data published on 16 March 2022, exhibit **JAD-7/320 - INQ000514045** refers, the statistics confirmed were;

    a. Antigen lab capacity in NHS Wales laboratories was 15,167 up to 13 March 2022 and which did not include capacity at UK laboratories, where some Welsh residents' samples were processed.
    b. As at 9am on 13 March 2022, there had been 8.52 million antigen tests authorised for Welsh residents.
    c. The highest number of weekly antigen tests authorised through NHS Wales and non-NHS Wales laboratories occurred in the week beginning 27 December 2021 when 207,540 tests were authorised.

607. The expansion and evolution of the testing regimes was set out strategically in the Testing and Test, Trace, Protect strategies published by the Welsh Government and which I have addressed above.

608. No targets, as such, were set for other aspects of Test, Trace, Protect, however our performance measures indicated the importance of test results being issued within 24 hours of the sample being taken and contact tracing subsequently taking place with 24 and 48 hours.

Evaluation and International models

609. The Response Plan produced by Public Health Wales exhibited previously as **JAD-7/003 - INQ000182417,** set out the international evidence at the time of writing. It also articulated the various networks and fora that Public Health Wales was involved in through which international evidence and experience of responding to the pandemic including test and trace systems could be shared.

610. Examples of international learning, applied in the Public Health Wales Response Plan which shaped the approach to Test, Trace, Protect in Wales included the need to recruit a large cohort of non-specialist staff to undertake contact tracing (learning from South Korea and Germany); and to develop a decentralised model to deliver contact tracing (learning from the Republic of Ireland and Germany). The Welsh Government does not hold information relating to any international learning that was considered and ruled out in the development of Public Health Wales' Response Plan. Public Health Wales may be approached to provide this information.

611. Public Health Wales, the Technical Advisory Group and Technical Advisory Cell continued to provide learning from international experience throughout the pandemic. The Technical Advisory Cell provided regular updates on international approaches and learning, an example is exhibited at **JAD-7/321 - INQ000514043**.

612. Alongside the work of the Programme Board and Oversight Group we sought advice and modelling from the Technical Advisory Group and Technical Advisory Cell. I have referred above to the modelling work which informed our estimates of the contact tracing workforce required.

613. This modelling highlighted the importance of case finding i.e. identifying and isolating positive cases quickly and that relative to contact tracing (which was also shown to be effective) rapid isolation of the index case was particularly impactful. This modelling was used in a number of ways to inform the development of Test, Trace, Protect, for example it underpinned our approach to 'test to find' which was an important strand of our testing

strategy. The modelling also directly informed decisions that Cabinet made in July 2021 on the isolation of contacts who were under 18 or fully vaccinated.

614. Other evaluations, to which we responded and where we took measures to act on their findings included an independent review of Test, Trace, Protect in Wales which was undertaken by Audit Wales in March 2021, a copy of which is exhibited above as **JAD-7/205 - INQ000066525.**

615. A further example was an evaluation undertaken by the Welsh Government of whole area testing published on 22 March 2021 and a report outlining findings from our pilot events in July 2021. A copy of the published report is provided in exhibit **JAD-7/322 - INQ000182590.** An evaluation of the pilot found that identifying cases of Covid-19 in asymptomatic people through mass lateral flow testing saved lives and prevented hundreds of cases of the virus at a time when rates were extremely high in these areas. The evaluation also found that:

    a. The pilot caused an immediate reduction in the level of Covid-19 in the areas;
    b. When taking into account the onward transmission of infection in the community expected from people who would not have known they had Covid-19, more than a tenth of cases that would have otherwise occurred were prevented. This represents a 6-12% reduction in pressure on the NHS;
    c. The estimated net monetary benefit of the testing pilot was £5.8 million, which means a benefit: cost ratio of around 11 for the £516,000 the pilot cost, or a return on investment of around £10.30 per £1 spent.

616. Pilots undertaken to inform our understanding of and approach to re-starting large scale public events emphasised the need for a thorough risk assessment for each event taking into account the specific circumstances. Particularly in relation to testing, many believed that pre-event and/or on-site PCR or lateral flow device testing would be crucial to ensuring events could re-start and/or continue but pre-event PCR testing could not be required as a condition of entry. On-site testing required a significant level of resources and logistics and the test to enable put increased pressure on laboratory capacity, particularly as transmission rates increased and resources were diverted from symptomatic testing. It outlined that event organisers would need to factor in the cost/ benefit of any testing regimes into their commercial plans which would create inequality in access to events.

PART P: Lessons Learned - Facing a Future Pandemic

Reviews and Response

617. I exhibit as **JAD-7/323 - INQ000514008** a chronological list of the internal and external reviews undertaken in respect of Test, Trace, Protect in Wales.

618. The work of the Welsh Government and Test, Trace, Protect was at all times subject to external scrutiny as part of normal democratic accountability mechanisms. For example, the Senedd Health, Social Care and Sports Committee published a report in July 2020 on the impact of the Covid-19 outbreak on health and social care in Wales, in which Test, Trace and Protect was considered. A copy of the report is attached as exhibit **JAD-7/324 - INQ000349686.** Along with the Welsh Government's response exhibit as **JAD-7/325 - INQ000066488** under cover of which the then Minister for Health and Social Care highlighted the committee's recommendations that had been accepted. This included ensuring local access to testing to anyone who needed it in Wales and that the Welsh Government would ensure an ongoing campaign of clear and consistent messaging of when to seek a Covid-19 test.

619. Test, Trace, Protect represented a very significant investment of public funds and reflecting this the review undertaken by Audit Wales, which was published in March 2021, exhibited above as **JAD-7/205 - INQ000066525**, recognised that Test, Trace, Protect in Wales was developed largely from scratch and at an unprecedented scale and pace. It highlighted the strong and effective partnerships that underpinned delivery, the strength that came from blending national oversight, technical expertise and local and regional ownership of delivery and that it would likely remain an important tool throughout the pandemic. The report also recognised the significant challenges faced in keeping up with demand at peak times and the difficulty of assessing adherence to self-isolation.

620. Andrew Goodall, as Director General Health and Social Services / NHS Wales Chief Executive wrote to the Auditor General in response to the report on 4 June 2021. The response is exhibited as **JAD-7/326 - INQ000513911** and sets out how we were at the time seeking to address the challenges and opportunities that Audit Wales had identified. Significant investment had been made to enhance testing capacity and improve resilience and timeliness of results within the Welsh laboratory system while the increasing use of lateral flow devices helped to identify asymptomatic individuals who were thought to make up one out of every three cases. New testing technologies also supported clinicians in hospital settings to diagnose patients and, as part of a package of measures, to reduce

nosocomial transmission. We had deployed a number of approaches to respond to the peaks in demand and the pressure this created on contact tracing teams, such as establishing a surge team, but we recognised the workforce challenges associated with upticks in prevalence. Public engagement was recognised as key to the success of Test, Trace, Protect and work with the public to enlist their support particularly amongst some more disadvantaged communities and to this end the financial support offered was important and had good take-up.

621. Following the Covid-19 pandemic, the Welsh Government commissioned an independent review to assess the strengths of the current Welsh Health Protection System (the System) against an established benchmark of a high performing system. The aim of the review was to provide reasonable and actionable recommendations on the ways in which the System could be further strengthened to meet or exceed the established benchmark. The Health Protection System in Wales review was published in February 2023 with an action plan to progress the recommendations. It noted there was a need to maintain core capacity in order to enable national and local preparedness to manage future threats and risks, especially in the immediate phase of an emergency. This would require human resources, expanded systems and stronger countermeasures.

622. Implementation of the recommendations from the Health Protection System in Wales review is an ongoing process as we continue to learn lessons from the Covid-19 pandemic and develop a sustainable post-pandemic system. A progress update on implementation the recommendations in the Health Protection System in Wales review was produced and published in April 2024. I exhibit a copy of the report at **JAD-7/327 - INQ000177516** and progress report at **JAD-7/328 - INQ000495980.**

Opportunities and legacy

623. One of the successes and legacies of the programme was the blending of national oversight, technical expertise and local and regional ownership of the programme. Coupled with this was the ability to use local intelligence and knowledge to inform a more co-ordinated response to local circumstances and context. Examples have been given previously in this statement such as the response to outbreaks affecting local areas and workplaces. Anecdotally, we heard from teams that the use of local contact tracers encouraged greater trust and increased the willingness of people to provide information on their close contacts. We were also able to use bilingual / multilingual contract tracers to improve communication.

624. The development and use of the Customer Relationship Management system by all contract tracers, which was linked to the Welsh laboratory information system and updated every 30 minutes with positive cases, was a helpful tool in the pandemic response. Not always without challenges, with some unreliability with the telephony system, but these challenges were worked though as part of the lessons learnt and shared as part of the evolution of the Test, Trace, Protect programme.

625. Many of the systems and processes established by Test, Trace, Protect were subsequently used by the Welsh Government and partners in responding to the war in Ukraine following the decision by the Welsh Government to act as a 'Super Sponsor' for those fleeing the conflict and coming to the UK. The Ukraine response built on the partnership model developed through Test, Trace, Protect. The Protect Strategic Oversight group which consisted of representatives from the Welsh Local Government Association and the Welsh Council for Voluntary Action was re-purposed to provide a forum for co-ordinating action to assist in the re-settlement of people arriving from the Ukraine. On a practical level Test, Trace, Protect contact centre teams were re-deployed to become the Nation of Sanctuary - Ukraine Contact Centre as they had the necessary equipment and skills in place. Lessons learnt on data sharing were also employed to establish a data sharing service for the Ukraine response built largely on the experience of the Test, Trace, Protect Contact Tracing platform.

626. In March 2022, the Welsh Government published its '*Covid-19 Transition Plan – Together for a Safer Future*', exhibited above at **JAD-7/167 - INQ000066072**), this was Wales's long-term plan to transition from pandemic to endemic. Test, Trace, Protect played a vital role in reducing transmission throughout the pandemic. We mobilised an unprecedented infrastructure of testing sites and laboratories alongside alternative technologies including lateral flow tests. The plan set out the objectives of Test, Trace, Protect going forward which included;

    a. Protecting the vulnerable from severe disease by enabling access to treatments; and safeguarding against the risk of infection;
    b. Maintaining capacity to respond to localised outbreaks and in high-risk settings;
    c. Retaining effective surveillance systems to identify any deterioration in the situation such as from harmful variants and mutations of concern; and
    d. Preparing for the possible resurgence of the virus.

627. The plan committed to continue to enable the rapid innovation, and transformative and collaborative responses seen during the first two years of the pandemic.

Workforce

628. The review noted the importance of retaining workforce capacity and skills across the health protection system. Test, Trace, Protect had also required a skill set and a way of working that up to the pandemic had not been commonplace in the Welsh Government. Developing these skills and embedding them will be important in responding not just to any future pandemic but to emergent issues more generally.

629. Following the pandemic, funding has been provided in the core funding of health boards and Public Health Wales to maintain a health protection resource at both national and regional levels. This supports a more agile and sustainable model of all-hazard health protection recognising that a future pandemic could result from one of the five routes of transmission. I understand pandemic preparedness planning across the four nations is centred on the following routes of transmission:

    a. respiratory (including droplets and aerosol spread), such as influenza or Covid-19;
    b. oral (via contaminated food, water, or the environment), such as cholera;
    c. blood/sexual, such as HIV;
    d. contact or touch, such as Ebola and mpox; and
    e. vector (including via insects, such as mosquitoes, fleas, ticks), such as malaria.

630. Planning for future preparedness needs to consider the standing capability and scaling up of test, trace and isolate required across the five routes of transmission.

631. There continues to be a strong partnership working approach between health protection and environmental health (public protection) services in local authorities. In many areas of Wales, the regional integrated health protection function is comprised of staff from both the health board and the local authority. Core Principles have been developed to guide the regional health protection function including the need for teams to have preparedness plans to scale up in the event of a future threat and respond to routine disease control.

Systems

632. I also understand that the Welsh Government has continued to support Covid-19 testing under the patient testing framework and standing capability of the NHS Wales laboratory system and pathogen genomics. This utilises the multiplex test to diagnose for a number

of other respiratory viruses alongside Covid-19 that we introduced under Test, Trace, Protect as part of our plans for winter 2021/2022. This provides a stronger base to scale up for pandemic preparedness alongside winter respiratory plans and managing increases of Covid-19 cases that continue to impact the health and care system.

633. Alongside development and standing capability of the NHS Wales laboratory system, a UK-wide approach to testing brought enormous benefits including greater resilience and agility, accelerating the adoption of new testing technologies, economies of scale in procurement and digital developments. Future pandemic preparedness plans will require collaboration on testing across the four nations and test arrangements in future exercises.

634. In the context of Test, Trace, Protect, different digital systems across the UK created barriers, delays and additional work and often made no sense to the public. Future digital developments and planning need to consider interoperability and data sharing arrangements across the four nations to support test and trace arrangements in any future response to a health emergency. On a Wales level I understand work is on-going to develop future planning for a health protection incident management system that can also scale up when facing a future pandemic.

Public Engagement

635. As I have mentioned earlier in my statement, engagement with the public and communities is vital to the success of test, trace and isolate. Understanding and adapting support for different needs and characteristics is critical in planning and assessing effectiveness of different approaches to influencing individual and group behaviours with particular emphasis on means and modes of influence beyond the narrow parameters of 'normal'. There is a particular opportunity to consider how people, especially the groups more at risk, can be supported and encouraged to engage with test, trace and isolate arrangements in future.

Part Q: Further information

636. Test, Trace, Protect was developed and established at pace, it involved many organisations coming together, working across institutional boundaries with energy, focus and a sense of common purpose. I hope that I expressed my gratitude and appreciation at the time and I would like to take this opportunity to put on record my profound and enduring admiration for colleagues who frequently went over and above to help and support the public and who also provided support and care to one another in challenging times. I want to recognise

the enormous efforts made and the achievements of teams in local authorities, health boards, the wider NHS and partner organisations, such as those in the third sector, to support and protect people in Wales.

637. The scale of Test, Trace, Protect in numbers is significant: 8 million PCR tests; over 830,000 positive cases reached; over 1 million contacts reached; and 73,100 payments made to those isolating. Behind these 'cases' and 'contacts' are individual stories and circumstances that Test, Trace, Protect staff engaged with showing care and compassion. Time and again we heard of individuals and teams who had gone the extra mile and their stories reflect how embedded Test, Trace, Protect was in supporting communities: welfare calls and check ins that meant so much to those isolating alone and feeling vulnerable; co-ordination with other services to respond to health or safeguarding concerns; providing a safe space for people to share their worries. I am intensely proud of these achievements and my deepest and most heartfelt thanks go to colleagues across Wales who supported Test, Trace, Protect during the pandemic.

Statement of Truth

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

Signed Personal Data

Jo-Anne Daniels

Dated 3 April 2025