Witness Name: Mary Morgan
Statement No.: 1
Exhibits: MM/001 – MM/001-MM/925
Dated: 27 February 2025

UK COVID-19 INQUIRY

MODULE 7

WITNESS STATEMENT OF MARY MORGAN

I, Mary Morgan, Chief Executive of NHS National Services Scotland, will say as follows: -

1. I have previously provided witness statements to Module 1 MM/001/INQ000180843, Module 2A MM/002/INQ000226464 and MM/003/INQ000309005, Module 3 MM/004/INQ000475249 and Module 4 MM/005/INQ000474373. This statement is provided in response to a request from Module 7 of the UK COVID-19 Public Inquiry. I have had considerable assistance in preparing this corporate statement from colleagues in NHS NSS in particular Martin Morrison, Programme Director of the National Contact Centre/Operations Director Test and Protect; Janis Heaney, Associate Director, COVID-19 Testing; Ruth Campbell Associate Director, COVID-19 Response; Dr David Stirling Director of Healthcare Science; Steven Flockhart, Director of Digital and Security and Chief Information Officer; Gordon Beattie, Director of National Procurement, and Professor Marc Turner Director of Scottish National Blood Transfusion Service. If specific further detail is required in these areas, I will require further assistance from subject matter specialists within NHS NSS in order to respond.

NHS SCOTLAND (NHSS) AND NHS NATIONAL SERVICES SCOTLAND (NHS NSS)

2. Health and social care in Scotland is a devolved matter to the Scottish Parliament and the Scottish Government oversees activities of the NHS in Scotland. The Scottish Government sets national outcomes and priorities for health and social care, approves plans with each territorial NHS Scotland Health Board and national NHS Scotland Health Board, and manages performance of all NHS Scotland Health Boards. NHS Scotland consists of 14 territorial Health Boards which are responsible for the protection and the improvement of their population's health and for the delivery of frontline healthcare services. The 14 territorial Health Boards also meet in three regions. In addition to NHS National Services Scotland, there are seven other health organisations (Healthcare Improvement Scotland [HIS], National Education Scotland [NES], Scottish Ambulance Service [SAS], NHS24, The State Hospital, Golden Jubilee National

Hospital, and Public Health Scotland [PHS]) who support the territorial Health Boards by providing a range of specialist and national services. An illustrative diagram of the NHS in Scotland is included as APPENDIX A.

3. NHS National Services Scotland (NHS NSS) is a Non-Departmental Public Body (NDPB), accountable to Scottish Ministers. NHS NSS was established as the Common Services Agency in 1974 under The National Health Service (Functions of the Common Services Agency) (Scotland) Order 1974, with a mandate to provide national strategic support services and expert advice to Scotland's health sector whilst maximising health impacts and cost savings. Headquartered in Gyle Square, Edinburgh, NHS NSS has approximately 3,650 staff based at locations in Edinburgh, Glasgow, Larkhall, Aberdeen, Inverness and Dundee and Livingston.

4. Prior to 1 April 2020, NHS NSS was organised into 6 strategic business units (SBUs):

- Procurement, Commissioning and Facilities (PCF)
- Public Health and Intelligence (PHI)
- Central Legal Office (CLO)
- Digital and Security (DaS)
- Scottish National Blood Transfusion Service (SNBTS)
- Practitioner and Counter Fraud Services (PCFS)

5. These SBUs were supported by NHS NSS internal departments for Finance; Strategy, Performance and Service Transformation (SPST) and Human Resources (HR). From 1 April 2020, the majority of Public Health and Intelligence (PHI) was absorbed by PHS. All information on the background, agreed structure and development of SBUs is detailed in the QuEST Implementation Formal Consultation Document MM/006/INQ000108649. Directors for each SBU reported directly into the Chief Executive of NHS NSS.

6. The Chief Executive is the Accountable Officer for NHS NSS. The role of Accountable Officer is to ensure that NHS NSS secures continuous improvement in performance whilst maintaining appropriate balance between quality and cost. As Accountable

Officer, I am responsible for safeguarding the public funds and assets assigned to NHS NSS. I am also responsible for maintaining an adequate and effective system of internal control that supports compliance with NHS NSS policies and promotes achievement of the organisation's aims and objectives, including those set by Scottish Ministers.

7. For governance, the Scottish Ministers are ultimately accountable to the Scottish Parliament for the activities of NHS NSS and its use of resources.

8. The NHS NSS Board, including the Chair, consists of executives and non-executives appointed by the Scottish Ministers in line with the Code of Practice for Ministerial Public Appointments in Scotland. The role of the NHS NSS Board is to provide leadership, direction, support and guidance to ensure NHS NSS delivers and is committed to delivering its functions effectively and efficiently and in accordance with the aims, policies and priorities of the Scottish Ministers. The NHS NSS Board operates as a single system of governance and risk management arrangements with clear lines of accountability with an agreed Scheme of Delegation, Standing Financial Instructions and Standing Orders. Information on how governance and accountability of NHS NSS developed over the time range that Module 7 is looking at can be found in the NHS NSS Annual Reports and Accounts MM/007/INQ000108618, MM/008/INQ000108740, MM/009/INQ000108620.

9. Over the relevant time period of the NHS NSS Annual Reports and Accounts cited in this statement from 2020-2022, key developments in governance and accountability are summarised briefly in the following paragraphs.

10. In June 2020, NHS NSS Board members were asked to consider the dissolution of the NHS NSS Information Governance Committee to better align with reporting requirements. After a review of the work of this Committee it became clear most of the reporting requirements was duplicate information that was already/or could be incorporated into reporting going to other governance committees. In order to streamline the reporting requirements, the NHS NSS Board agreed that:

- The Audit and Risk Committee remit would be amended to include the Senior Information Risk Officer role and would consider and scrutinise NHS NSS' compliance with relevant legislation duties under Common Law and performance against national standards with regards to information governance. This duty covers the following components of information governance: Data Protection; Information and Cyber Security; Freedom of

Information and Records Management.

- The Clinical Governance and Quality Improvement Committee remit would be amended to include Caldicott Guardianship and Confidentiality.

11. During the timeframe of NHS NSS Annual Reports and Accounts cited, there have been two Chief Executives, Colin Sinclair and Mary Morgan (outlined in APPENDIX B). The NHS NSS Board is supported by several sub-committees and receive and scrutinise minutes from the sub-committees:

- Audit and Risk Committee: Assists the Board in delivering its responsibilities by providing assurance that an appropriate system of internal control has been implemented and is operating effectively.

- Finance Procurement and Performance Committee: Keeps the financial position of NHS NSS under review and ensures arrangements are in place to secure economy, efficiency and effectiveness in the use of all resources, and that they work effectively.

- Clinical Governance and Quality Improvement Committee: Scrutinises all parts of our operation to ensure clinical governance mechanisms are in place and effective throughout our services.

- Staff Governance Committee: Supports and maintains an NHS NSS culture where delivery of the highest possible standard of staff management is understood to be the responsibility of every employee. This is built through partnership and collaboration within the direction provided by the NHS Scotland Staff Governance Standard MM/011/INQ000149077.

- Remuneration and Succession Planning Committee: Ensures the application and implementation of fair and equitable pay systems on behalf of the Board as determined by the Scottish Government.

SERVICES PROVIDED TO NHS BY NHS NSS

12. Details of services provided by NHS NSS are publicly available MM/010/INQ000149076. Broadly, NHS NSS provided the following services to the NHS in Scotland during the relevant period:

- NHS Scotland Assure
- National Specialist Services and Screening Division
- National Procurement
- Digital and Security
- Blood, tissue and cells
- Primary care support
- Patient exemptions
- Fraud prevention
- Legal
- Programme management

CHANGES TO THESE SERVICES DURING THE RELEVANT PERIOD

13. At the initial stage of the pandemic, NHS NSS responded to a request from the Scottish Government to identify which of its services could potentially be ramped up or stood down to support the pandemic response. This was an internal discussion with the Directors and Chief Executive within NHS NSS at this time. On 11 March 2020, John Connaghan CBE, Chief Performance Officer NHS Scotland and Director of Delivery and Resilience requested a list of prioritised services from all Health Boards MM/012/INQ000291600 and on 16 March 2020 NHS NSS Chief Executive Colin Sinclair responded MM/013/INQ000137450, detailing services which were deemed essential and those services which could be scaled down to provide a reduced business as usual service.

14. Six NHS NSS services were determined to be essential at that stage, and would be the focus of our effort in response to the COVID-19 position:

- National Procurement: Ensuring critical supplies were available and distributed into NHS Scotland

- SNBTS: Ensuring Scotland continued to have a safe supply of blood, tissues and cells

- Digital and Security (DaS): Ensuring key information technology systems were available and operational

- Health Protection Scotland (HPS) and Information Services Division (ISD): Ensuring their successful transfer into PHS and continuing to provide support so they remained effective in dealing with the crisis

- Antimicrobial Resistance and Healthcare Associated Infection (ARHAI) Scotland: Remained with NHS NSS as explained later in the response and were essential in the response to the pandemic

- National Specialist Services and Screening Directorate (NSD): Managing and maintaining national screening services and the commissioning of new national clinical services, and

- Corporate: Ensuring HR, financial, resilience and communications support was available to NHS NSS and others.

15. The following seven services were identified as having the potential for scale down (reduce or stop), however some elements of these were deemed as essential:

- Practitioner Services: Activities such as patient registration, medical record transfers, payment verification and scanning could be put on hold

- Counter Fraud Services: Suspend all counter fraud support, such as deterrence and investigation, until further notice

- Scottish Health Service Centre: Reduction in demand for events management support and use of the venue, situated at Western General Hospital, for training and meetings

- Programme Management Services (PgMS): All non-essential programmes were put on hold and were asked to divert programme and project management staff into Scottish Government to support COVID-19 programmes

- Customer Experience: Research, insight and service development activity

could be stopped

- Central Legal Office (CLO): Reduced activity in areas such as debt recovery and commercial property

- Clinical Directorate: Specialist clinical expertise had already been refocused in support of COVID-19 or was being redeployed within Scottish Government, for example, the NHS NSS Director of Nursing had other roles in infection prevention and control (IPC); the NHS NSS Director of Dentistry was involved in the effort to procure and supply PPE; the NHS NSS Medical Director and Director of Healthcare Science had a role in the early clinical governance review of UK testing pathways as they applied to Scotland.

These services did continue to operate but were focused to support pandemic efforts.

16. A summary of how such decisions were reached through the NHS NSS Resilience Management Team (RMT) are outlined in the subsequent paragraphs.

Public Health Scotland

17. The roles, functions and responsibilities of ISD and the majority of HPS were transferred on 1 April 2020 from NHS NSS to PHS. The majority of institutional memory (staff) and information relating to HPS now sits with PHS.

18. HPS planned and delivered effective specialist national services which coordinated and supported activities aimed at protecting the people of Scotland from infectious and environmental harms.

19. Some functions of HPS were surveillance and monitoring of hazards and exposures affecting people and the impact they had on their health; coordination of national health protection programmes; expert advice and horizon scanning; effective preparation and response to outbreaks and incidents.

20. ISD provided health information, health intelligence, statistical information, analysis and advice that supported NHS Scotland in progressing quality improvement in health and care, facilitates planning and decision making.

21. Originally the whole of HPS was to transfer to PHS on that date. However, ARHAI Scotland's (then part of HPS) move was paused. This was because, in the summer of 2019, the Scottish Government directed NHS NSS to develop a proposed Centre of Excellence for the Built Environment. Given its expertise in healthcare associated infections and IPC, ARHAI Scotland was seen as a valuable contributor to the development of the proposed Centre of Excellence. In April 2024, following an independent review, the CNO write to the Chief Executives of NHS NSS and PHS advising them that ARHAI Scotland would remain within NSS as part of NHS Scotland Assure.

22. As part of an agreed Service Level Agreement (SLA), the Clinical Directorate provided Scottish Government Divisions, such as the Chief Medical Office and the Chief Nursing Office, specialist advice on matters relating to health protection, public health, and IPC. Any of these services that fell within the remit of HPS, except ARHAI Scotland, were transferred to PHS in April 2020.

NHS Scotland Assure

23. The Centre of Excellence was established in response to issues and incidents, identified in the built environment of the new hospitals. The 2019/2020 Programme for Government MM/014/INQ000411175 stated:

"To ensure patient safety we will create a new national body to strengthen infection prevention and control, including in the built environment. The body will have oversight for the design, construction and maintenance of major infrastructure developments within the NHS and also play a crucial policy and guidance role regarding incidents and outbreaks across health and social care."

24. The Centre of Excellence was renamed NHS Scotland Assure on 1 April 2021. However, due to further pressures regarding the NHS NSS COVID-19 response, the launch was delayed to 1 June 2021. This was communicated to Health Boards formally through a Scottish Government letter, DL(2021)14 MM/105/INQ000411176, confirming that a phased approach to implementing the service would be undertaken.

25. NHS Scotland Assure includes the structures that provide ARHAI Scotland services, the Health Facilities Scotland (HFS) services and new structures to support the delivery of the 'new' or 'enhanced' NHS Scotland Assure.

26. ARHAI Scotland functions:

- Surveillance and monitoring of infections and antimicrobial resistance to assess impact on health
- Clinical assurance to reduce risk in the built healthcare environment
- Co-ordination of national IPC and antimicrobial programmes
- Expert IPC/Antimicrobial Resistance (AMR) advice and horizon scanning
- Effective preparation and response to Healthcare Associated Infection (HAI) outbreaks and incidents
- Supporting the ongoing development of a confident, knowledgeable and competent IPC workforce in collaboration with NHS Education for Scotland
- Enabling good professional practice
- Research and innovation to provide evidence for action
- Develop and maintain national evidence-based IPC guidance for Scotland.

Key Decision Making in NSS

27. The key decision-making roles within NHS NSS are those of the Chief Executive and the Directors. NHS NSS Directors are responsible for day-to-day operational matters and the Executive Management Team (EMT), made up of the Chief Executive and Directors, meet formally each month to discuss operational matters.

28. The Chief Executive has overall responsibility for the discharge of responsibilities and is chair of the RMT, which is stood up as a strategic oversight group in the event of a major or catastrophic incident impacting on NHS NSS services or where NHS NSS has a role in the wider health and social care remit. This group is made up of members of our EMT.

29. The RMT sought to understand how NHS NSS could support the COVID-19 response, provide a response to support our stakeholder partners, deal with internal staff issues and ensure continuity of service provision. This included requests from the Scottish Government to support the pandemic response, as outlined in paragraph 13.

30. In responding to the pandemic, NHS NSS mobilised its RMT which, as described above, is the NHS NSS strategic response to assess and deal with a major incident MM/016/INQ000108643.

31. An update of post-holders in key decision-making roles within NHS NSS during the relevant time period is provided as APPENDIX B.

OVERVIEW OF TEST AND PROTECT IN SCOTLAND

32. At the start of the pandemic the Scottish Government collaborated with multiple bodies, including NHS NSS, to establish national programmes of work to deliver Scotland's response to the pandemic. Under emergency measures the Scottish Government was responsible for making key decisions. NHS NSS provided subject matter expertise from the services operated by NHS NSS.

33. In May 2020 Scottish Government commissioned a portfolio to support the management and delivery of a national testing service, to establish a national Contact Tracing service, and associated isolation and support services. This programme was known as Test and Protect, originally named Test, Trace, Isolate, Support (TTIS) and was delivered through joint workforces drawn from Scottish Government Health and Social Care Division, NHS NSS, PHS, representatives from within Health Boards and with input from NHS Education for Scotland (NES) on technical deliveries. In many cases, Test and Protect colleagues worked closely with UK Department of Health and Social Care (DHSC) colleagues and their delivery partners. There were a number of DHSC colleagues aligned specifically to support devolved nations and provide escalation routes and information on developments in the National Testing Programme. Regular meetings with devolved nations would occur to discuss testing approaches and policies, and how the Testing Programme could be operationalised.

34. Test and Protect was one of the four strategic pillars in the effort to suppress COVID-19:

i. Levels/Restrictions: The need for consistency and simplicity

ii. Test and Protect: Breaking chains of transmission

iii. Vaccine: Promoting uptake in parallel with protective behaviours

iv. FACTS: A vital tactical and supporting role.

35. The three programmes within the Test and Protect portfolio are outlined below:

- Testing: the purpose of the Testing Programme was to increase capacity and access to testing, both in sampling and laboratory, quickly and safely, to meet growing demand across Scotland

- Contact Tracing: a National Contact Tracing Centre was stood up in June 2020 to enable effective tracing of close contacts once a positive case was identified

- Isolate and Support: to co-ordinate provision of support services via local authorities to remove any barriers to isolation compliance.

Figure 1: The strategic governance structure of Test and Protect through the mobilisation and operation phases

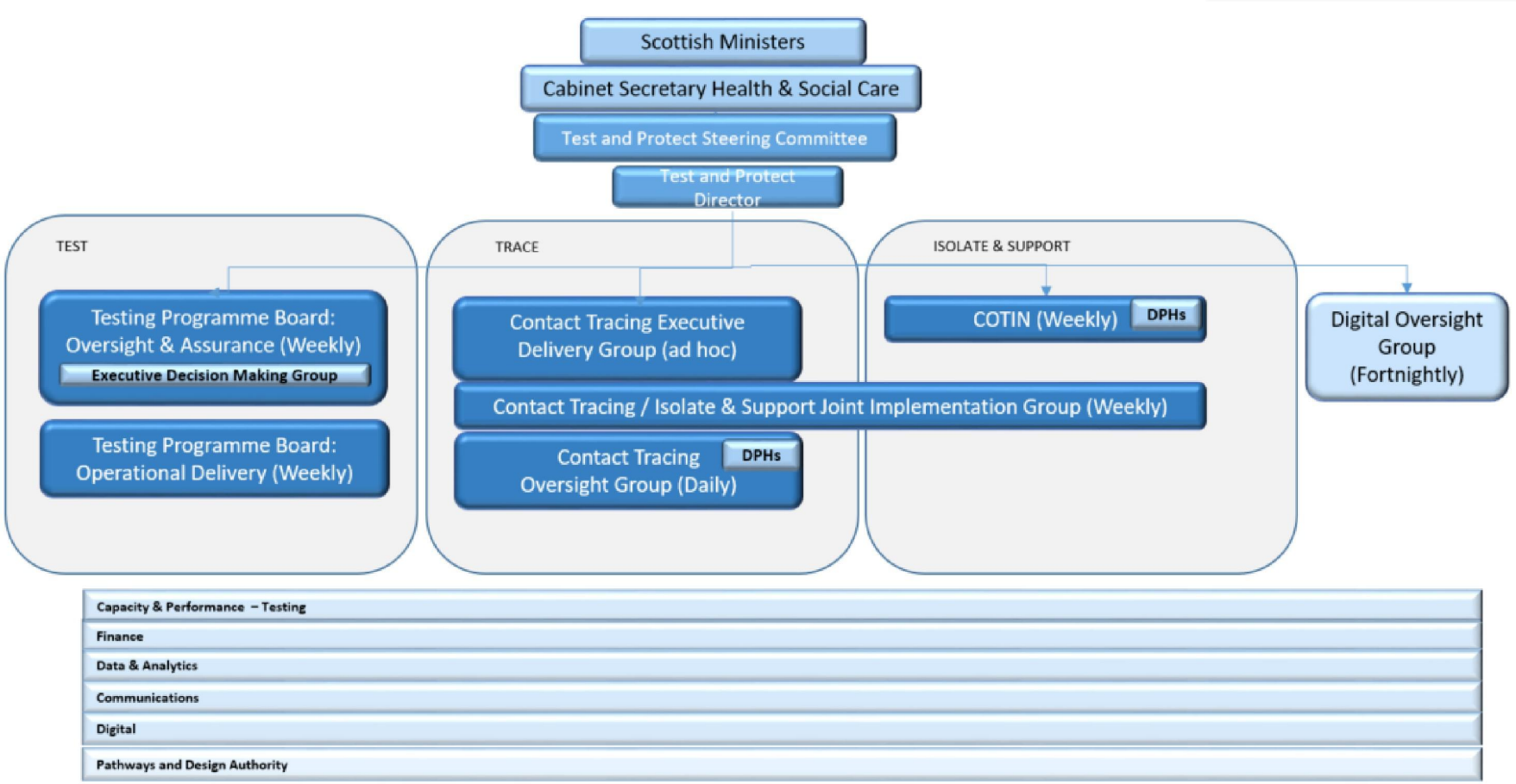
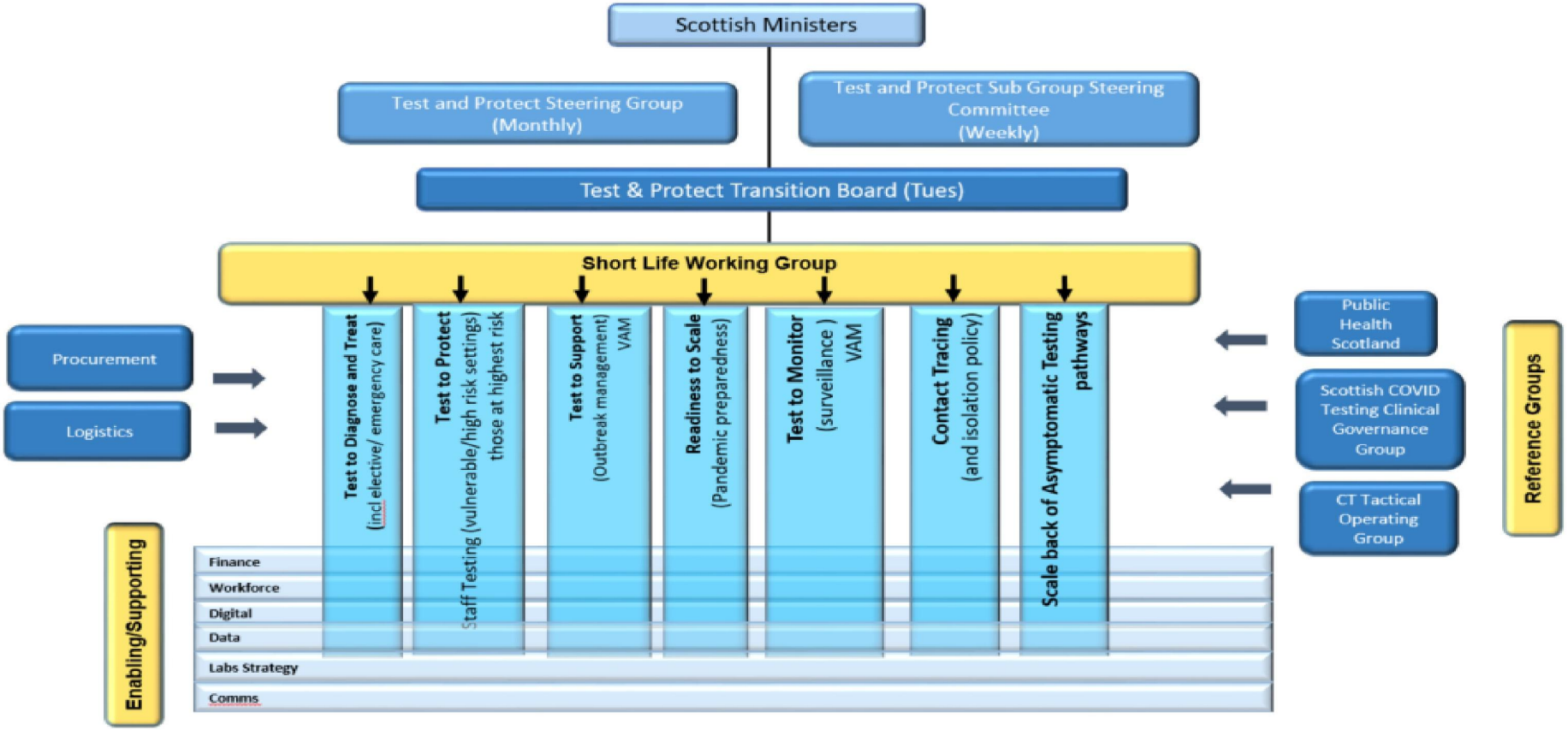


Figure 2: From March 2022, the programme governance was refreshed to align with the Scottish Government's Transition Plan.



36. The Testing Programme was jointly chaired by NHS NSS and the Scottish Government. The Contact Tracing Programme was commissioned by PHS and was jointly delivered by NHS NSS and PHS. Senior leaders from NHS NSS were members of the Test and Protect Programme Boards. PgMS were commissioned by the Scottish Government or PHS on behalf of the programme to provide programme management and secretariat to a number of governance and operational groups. The NHS NSS senior leaders who attended the Test and Protect Programme Board are highlighted in 'Key Individuals' in paragraph 81.

OPERATIONAL DELIVERY OF THE UK NATIONAL TESTING PROGRAMME IN SCOTLAND

37. The Test and Protect Programme was the day-to-day operational interface between the UK National Testing Programme and how that was deployed in Scotland. The Scottish Government retained responsibility for liaison at a policy level and PHS was responsible for matters relating to public health and intelligence.

38. The UK National Testing Programme provided access to population scale community testing via Polymerase Chain Reaction (PCR) and Lateral Flow Device (LFD) technologies, and the Test and Protect Programme co-ordinated the local deployment of many aspects of the UK National Testing Programme in Scotland. Day to day decisions about, for example, the deployment of Mobile Testing Units (MTU), managed in Scotland by SAS, were the responsibility of the NHS NSS COVID-19 Testing team.

39. The Test and Protect Programme also delivered aspects of COVID-19 testing outside the UK National Testing Programme including:

- Pathways for PCR testing of staff in health and care, care home residents and prisons
- Commissioning, deployment and operation of three Regional Testing Hub laboratories built specifically in response to the COVID-19 pandemic
- Development of local test sites throughout Scotland
- Distribution of LFDs to numerous use cases in Scotland (including specifically for education where in the rest of the UK this was done via the UK National Testing Programme)

- The procurement and deployment of Point of Care Testing (PoCT) devices and consumables to unscheduled care settings

- The procurement of consumables and equipment to support PHS in the development of Whole Genomic Sequencing for COVID-19 in Scotland.

40. Most of the UK National Testing Programme PCR testing for Scotland was processed by the UK Lighthouse Laboratories, for example, the UK Lighthouse laboratories would process community based testing reaching around 55,000 samples per day compared to the accumulative across Health Board laboratories of approximately 15,000-20,000. The Test and Protect Programme took an additional engagement role in terms of monitoring and reporting on performance at that laboratory into Test and Protect governance and the National Incident Management Team (NIMT).

41. A dashboard was provided by the DHSC, which enabled NHS NSS to monitor the performance of the UK Lighthouse laboratories. This was reported weekly to the Programme Board and Scottish Government. The overall performance of PCR testing for both NHS Scotland laboratories and Scottish samples within the UK Lighthouse Laboratory network was reported in the SitRep section of a report issued by the National Contact Centre on a daily basis for much of the pandemic. This provided context to contact tracing of the overall effective timelines from samples which tested positive to contact tracing starting and completing.

42. The report was issued to a wide group of stakeholders including Scottish Government, Health Boards and PHS. An additional 'Contact Tracing On A Page' report was issued at the same frequency to Scottish Government which reported additional performance data on contact tracing and the turnaround performance of NHS Scotland and UK Lighthouse Laboratories for PCR positive Scottish samples. Sample reports for 1 December 2021 are included.

43. Reports covering Test and Protect performance were aligned to National Incident Management Team meeting frequencies, including performance analysis of the turnaround of PCR positive samples in both NHS Scotland and UK Lighthouse Laboratories. A sample report from 30 December 2021 is included. The Programme worked closely with the UK National Testing Programme and the Glasgow Lighthouse laboratory management team on the ground to ensure services were meeting the needs of the Scottish population.

NHS NSS ROLES IN RESPECT OF TTI DURING PANDEMIC RESPONSE

44. Various parts of NHS NSS played significant roles in the response to the pandemic in relation to the scope of Module 7. The key areas involved in the response are outlined below.

Clinical Directorate

45. The Clinical Directorate leads and drives improved health and environmental and financial impact across NHS NSS through the provision of strategic leadership, professional advice, governance, engagement and involvement.

46. The Clinical Directorate covers Professional and Clinical Leadership for medical, nursing, midwifery, AHP, dental, pharmacy and healthcare scientists, quality improvement, clinical governance, risk management, professional development, service improvement, research development and innovation and strategic and change management.

47. During the pandemic the Clinical Directorate provided senior leadership and expertise in relation to clinical governance of national activities to the Deputy Chief Medical Officer (DCMO) and team by the then NHS NSS Executive Medical Director, Dr Lorna Ramsay, and NHS NSS Director of Healthcare Science, David Stirling, as members of Scottish Testing Clinical Governance Group. The Clinical Directorate advised on and supported setting up of the COVID-19 Testing Clinical Governance Oversight Board for Scotland, engaged with UK / four nations colleagues on matters relating to testing clinical governance and reported back to the Scottish Government with information and advice.

48. Clinical Directorate staff participated in clinical review of Scottish testing pathways (with input from other NHS NSS experts as relevant, for example, the ARHAI Scotland team on IPC aspects of pathways), provided healthcare science expertise to quality assure testing kits and equipment for use in national testing activity for Scotland. The NHS NSS Executive Medical Director and Director of Healthcare Science were part of the DCMO group which reviewed UK pathways for their use in Scotland, recommending any changes required for the Scottish context.

49. As testing moved into a more business as usual footing, meaning Health Boards were running PCR testing services; regional hubs were in operation; and partner laboratories had been identified and on-boarded, NHS NSS was asked by the CMO in October 2021

to manage and deliver a national COVID-19 Testing Clinical Governance Oversight Board (CTC GOB) which was led by the Clinical Directorate with input from several staff. This involved engagement and communication with the Scottish Government, all territorial Health Boards (via the Scottish Microbiology and Virology Network [SMVN]), HIS, SAS and PHS.

50. Senior leadership and scientific expertise to the Chief Scientist was provided by the NHS NSS Director of Healthcare Science as Chair of the COVID-19 Assay Development and Innovation (CADI) Group. The Director of Healthcare Science also worked closely with NHS Lothian to identify non-NHS partner laboratories who could assist in increasing PCR testing capacity under NHSScotland governance arrangements and provided clinical leadership to the development of the three Regional Testing Hubs in Scotland.

Digital and Security

51. DaS provides national digital health and care services across NHS Scotland as well as the technology that underpins the work of all NHS NSS Directorates. Services include technology leadership, national service provision and delivery of major national digital change and implementation programmes. DaS also provides expertise on information security and governance, including cyber security, and clinical informatics.

52. DaS provided the following services provided to the NHS in Scotland in relation to Module 7 included:

- Digital Infrastructure - Rapid introduction of Azure Cloud hosting, Cloud telephony, O365 Microsoft Teams, Microsoft Intune, augmented network capacity

- Cyber Security and Compliance - Security Consultants provided daily input to COVID-19 solutions with recommendations to comply with security standards and security risk assessments were undertaken for COVID-19 solutions and interfaces. DaS commissioned independent security testing was also undertaken for new solutions and annual review tests

- Enterprise Digital Solutions - Provided rapid applications to support COVID-19 Test and Protect services – National Integration Platform, National laboratory test data integrations, ServiceNow portals, new CHI interface (Community

Health Index – unique person identifier)

- Business Insight and Intelligence - The NSS Seer data platform provided Health Boards and Public Health Scotland with access to COVID-19 Test and Protect data and provides Scottish Government with access to dashboard reporting

- Clinical Informatics - The Clinical Informatics team engaged with clinical users and stakeholders

- Solutions Architecture and Business Analysis - Provided technical architect consultancy and analysis to the COVID-19 digital products. Gathering user insights and intelligence for COVID-19 digital products

- Information Governance - NSS COVID-19 data systems required Data Protection Impact Assessments, Data Sharing Agreements, engagement with Information Commissioner's Office (ICO) whilst identifying Data Controllers / Data Processors and ensuring that the processing is necessary and carried out in the public interest during the COVID-19 pandemic

- Contracts and Vendor Management - Provided support to the COVID-19 service when required. Most of the contract and vendor management was undertaken by Service Management staff

- Digital Portfolio Services - COVID-19 Test and Protect service was managed using agile processes and project delivery and support resources coordinated across all other digital services and health service partners and Scottish Government

- Innovation Enablement - Rapid development of CMS for national contact tracing, working with third party suppliers to rapidly develop COVID-19 Apps for domestic use – CO3 Webform, National Notification Service, portals for test kit ordering.

APPENDIX C provides descriptions of the services listed above.

Health Facilities Scotland

53. Across NHS Scotland and within NHS NSS, HFS provides operational expertise and guidance to NHS Scotland bodies on a range of healthcare facilities topics. HFS delivers and coordinates effective advice and support in relation to national facilities, decontamination, equipping and technical matters which support and improve the health and wellbeing across the NHS Scotland estate. HFS also provides operational facilities management to all NHS NSS sites.

Figure 3: Overview of services provided by HFS

54. HFS provided support and advice on the expansion of COVID-19 testing facilities in Scotland through the regional testing laboratories and the mega laboratory.

55. HFS Property and Capital Planning Team, and Facilities Team supported the design and construction of the three NHS Scotland Regional Testing Hubs in the West (Glasgow), East (Edinburgh) and North (Aberdeen). This included supporting the appointment of contractor and consultant advisors, plus coordinating multi-disciplinary technical support to the Scottish Government, three territorial Health Boards (NHS Greater Glasgow and Clyde [NHS GGC], NHS Lothian, NHS Grampian) and SNBTS teams, on the feasibility, briefing, design, construction quality and equipping of the Regional Testing Hubs to supplement capacity of the UK Lighthouse COVID-19 testing system MM/017/INQ000532721.

56. HFS put in place contracts with all of the appointed contractors and consultants including acceptance of invoices for payment.

57. HFS Equipping Services supported the development of equipment requirements and were responsible for the preparation of budget costs, specification, procurement and managing deliveries of equipment required for the three Regional Testing Hubs with the following exceptions:

- Supply of the main test analysers which were provided by National Procurement.

- Information technology equipment which was provided by the Health Boards.

58. The HFS Property and Capital Planning Team were part of the UK wide Mega Lab project group and sat on Mega Lab Site Selection and Fit-Out Working Group. This group was chaired by Deloitte and had representation from across the four nations. HFS provided technical advisory representation, on behalf of the Scottish Government from late October 2020 until the project was discontinued in January 2021.

59. In relation to the Regional Testing Hubs, the role of HFS was to provide subject matter expertise associated with the procurement of supply chain partners and consultants. The HFS resource was made up of members from the Property and Capital Planning Team (contracts/invoicing etc.); Architectural Team; Engineering and Fire Safety subject matter experts; and the Equipping Team (the latter with respect to ancillary equipment to support the laboratory fit out).

60. External Authorising Engineering support was commissioned by HFS for water, ventilation and electrical services. AECOM were appointed by HFS to provide project management, CDM and Cost advisor services across projects.

61. Each regional facility had their own design team – BMJ architects provided architectural support on all 3 projects. X-buro provided engineering design on the Glasgow laboratory, AECOM provided engineering design on the Edinburgh laboratory and Hulley and Kirkwood provided engineering design on the Aberdeen laboratory. HFS provided support on the selection of the design team based on supply chain availability and experience of similar laboratories.

62. Avison Young were involved with the Glasgow laboratory in a design, project management and cost advisory capacity through works already underway on the site. AECOM supported HFS in an overview of project management and cost advisory services on the project.

63. Examples of the type of advice provided by HFS and its appointed representatives included:

- Supporting Scottish Government with on site selection, for example, identification of potential sites in conjunction with regional health boards
- Appointment of contractors and design team members
- Supported development of project briefing requirements for each facility – this was developed iteratively as learning from other sites emerged, for instance, feedback from equipment manufacturers was received, site constraints emerged
- Appointment of third-party Authorising Engineers to provide technical oversight on behalf of HFS to ensure laboratories were designed to appropriate standards. This was complimented by our own in-house technical team
- Co-ordinated peer reviews of each facility to ensure consistency and quality of design approach, for example, the Edinburgh design team reviewed the Glasgow design team proposal; the Glasgow design team reviewed the Aberdeen design team proposals
- Provided contractual support and invoicing support via Property and Capital Planning team
- Provided equipping advice on ancillary equipment required to make the laboratories operational – this did not include the main laboratory testing equipment as already noted within the statement.

Mega Lab

64. The role of HFS was less involved in comparison to the regional facilities, as the project ultimately did not proceed (NHS NSS are unaware of the reason why it did not proceed as this was being driven by UK/Scottish Government). In summary the role from an HFS perspective was to provide support to Scottish Government as follows:

- Attendance at contractor interviews and scoring of contractor tender packages. Procurement was being driven by UK Government, not HFS. HFS were only a

part of the panel. Kier was appointed for the Scottish element of the project

- Supported Scottish Government in site selection/appraisal activities

- Attended a number of meetings to discuss how the project may progress, these meetings were generally chaired by Deloitte. HFS attended in a support capacity and had no direct instruction to undertake any further technical/ equipping/ procurement works associated with the project from the time of contractor appointment/ site selection through to the project ultimately being discontinued.

The National Contact Tracing Centre

65. NHS NSS was commissioned by PHS to be the national service delivery lead for, what was initially the National Contact Tracing Centre (NCTC), and later became the National Contact Centre (NCC).

66. Using telephone and digital channels, NCC provided:

- Flexible national resource pools to augment contact tracing and public health teams located in Health Boards

- Central co-ordination of workload across all Health Boards and NCC itself, including the provision of mutual aid across Health Boards

- The reporting of operational performance data for all delivery partners

- The centralised management of knowledge bases used by all contact tracing teams (Health Boards and NCC)

- The development and communication of call handling scripts

- The quality management system in which changes to contact tracing or isolation policy were translated into materials to be used by contact tracing teams.

67. The NCC provided the national telephone channel communication service for those in Scotland who had travelled internationally and were required to isolate to different levels across the course of the pandemic.

68. The NCC also provided a range of telephone and digital channel services relating to testing itself. This supported staff from a range of test pathways to order tests or record results.

69. Outside the scope of Module 7, NCC also provided a wide range of telephone and digital channels for the COVID-19 vaccination programme.

National Procurement

70. National Procurement's key service provision is to provide a Once for Scotland Procurement Service, offering National Frameworks and a National Distribution Centre (NDC) service for non-medicine consumables to all NHS Scotland Health Boards and Special Boards. National Procurement also provides expert advice and support to Health Boards on procurement matters, working closely with colleagues in Health Board procurement teams, creating a community of expertise.

71. There are four core functions which National Procurement undertakes, and which supported the COVID-19 response in relation to the scope of Module 7:

i) Strategic Sourcing

National Procurement is responsible for identifying and evaluating potential suppliers, negotiating contracts, and establishing relationships with suppliers to provide high-quality products and services at competitive prices, and ensuring full compliance with public procurement regulations.

A key element of the strategic sourcing approach is category management. National Procurement organises procurement activities into specific categories, such as medical products, pharmaceuticals, and non-medical consumables. This approach allows for more focused and specialised expertise in each category, resulting in more effective procurement strategies and better overall value for money.

ii) Supply Chain Management and Operational Logistics

National Procurement is responsible for the procurement, inventory management and demand planning of all products provided via the NDC. This involves working with suppliers and end users to ensure that service level fulfilment is provided to

the required levels. Activity is carried out in collaboration with the other key functions of National Procurement to ensure that the overall service provision meets all necessary governance and compliance requirements.

The NDC is the biggest public sector logistics operation in Scotland. Three warehouses stock over 9000 product lines and over 80,000 items are delivered to hospital wards, departments and community centres each week. This accounts for approximately 80% of the highest-moving products used every day in NHS Scotland's hospitals. The NDC hosts Scotland's national pandemic stockpile.

iii) Contract Management National Procurement manages contracts with suppliers

Ensuring that contractual terms are met, performance is monitored, and that any issues are addressed promptly. This includes maintaining strong relationships, working collaboratively with NHS Scotland key clinical, commercial and stakeholder groups to identify opportunities for improvement and cost savings.

iv) Quality Assurance

National Procurement is responsible for ensuring that the products and services procured meet the required quality standards as defined by established regulators and the established Commodity Advisory Panels (CAPs), in terms of safety, efficacy, and compliance with relevant regulations. This involves working closely with suppliers and healthcare organisations to address any quality-related concerns, ensuring that purchases are compliant and meet specifications.

In undertaking these functions National Procurement's services engage in continuous improvement, collaboration and knowledge sharing. Working closely with other procurement organisations within Scotland, including the Scottish Government, and where appropriate, stakeholders across the UK in regard to 'four nations' areas such as medicines. This includes sharing best practices, market intelligence, and supplier information to enhance the overall procurement process and achieve better value for money. This is undertaken whilst leveraging technology, data analytics, and industry best practices to drive efficiency, cost savings, and value for the NHS in Scotland.

During the pandemic National Procurement supported the expansion of testing laboratory capacity through the purchase of equipment and testing consumables,

for example, the procurement and distribution of PCR tests and the distribution of LFDs. This was led by the National Laboratories Programme (NLP) and the SMVN, coordinated by the Scottish Government led Testing Operational Delivery Group (TODG). PCR test kits, specific to Scotland's requirements, were established for use in the regional laboratories as a working group under the governance of the TODG. Test kits were assembled through an approved supplier with the new medical device registered under Medicines and Healthcare products Regulatory Agency (MHRA) as a Class I medical device and sample collection kit.

Programme Management Services

72. PgMS is a sub department of the Strategy, Performance and Transformation directorate. It provides programme management services to the health and care sector. PgMS work with Health Boards, the Scottish Government, and other public sector bodies to deliver improvements to patient experience, safety, and care. PgMS consists of specialists in programme management, service design and service transformation.

73. During the pandemic the Scottish Government commissioned PgMS to work for, and on behalf of, the Scottish Government in specific projects and programmes of work.

74. NHS NSS PgMS provided Programme Management Support to the national Test and Protect Programme. This involved the setting up of a Programme Management Office (PMO). The PMO was created to provide the required visibility, information and co-ordination across the programme. It did not have any decision-making responsibilities but rather supported the enablement of the programme through:

- Planning and governance
- Reporting and change control
- Assumption and dependency management
- Risks and issues management.

75. PgMS also provided programme support for the delivery functions of the Test and Protect Programme which were:

- Regional Testing Hubs

- Testing Services
- Innovation.

The support was purely facilitation and non-decision making.

76. The programme support for both areas included the following roles:

- Programme Director
- Programme Managers
- Project Managers
- Project Support Officers.

Scottish National Blood Transfusion Service

77. SNBTS supply blood, tissues and cells to NHS Scotland. They provide specialist diagnostic and treatment services to ensure matched blood and platelets are available for patients across Scotland. They also produce clinical policies and guidelines for NHS Scotland staff in clinical transfusion settings. SNBTS maintained the quality, safety and sufficiency of all its products and services throughout the COVID-19 pandemic. SNBTS played a role in the development and deployment of SARS-CoV-2 tests and providing overflow testing capacity for NHS Lothian. Former SNBTS laboratory sites were used for the three Regional Testing Hubs.

Strategy, Performance and Service Transformation Directorate

78. The SPST Directorate (previously known as the SPST Strategic Business Unit [SBU]) provided a large response to the COVID-19 pandemic. This incorporates PgMS, Strategic Planning, Marketing and Communications and various other corporate functions. The NCC also was developed and remained within SPST until October 2024. The SPST SBU took on the responsibility with NHS NSS for Test and Protect Programme from May 2020.

79. As is described throughout this response, NHS NSS provided multiple key roles in in relation to those items described in the Outline of Scope for Module 7 numbers 1-5. Throughout, it is important to understand that NHS NSS's role was one of operational

capacity and deployment, and the provision of digital and data services which allowed the Scottish Government to formulate and reformulate policies relating to test, trace and isolate throughout the pandemic, and for PHS to provide the Scottish Government with relevant advice. NHS NSS' role was not as a policy decision maker nor in developing public health guidance. Our role was to take the agreed policy and guidance, the resources available (workforce, testing, digital, data) and deliver operational services on the ground.

Key Individuals in respect of TTI

80. NHS NSS acted throughout the pandemic as a key national delivery partner working with the Scottish Government, PHS and other agencies. The majority of NHS NSS Test and Protect senior team were involved in advisory groups and programme boards established to provide and interpret information for the Scottish Government policy areas to consider in relation to policy making.

81. The key individual within NHS NSS were:

- Mary Morgan was Director of Strategy, Performance and Service Transformation from October 2018 until appointed as Chief Executive Officer for NHS NSS in February 2021. In her capacity as Director of SPST, Mary provided key leadership in NHS NSS to the NHS NSS COVID-19 Testing team as part of the Testing Programme.

- Martin Morrison was Associate Director (Service Delivery) in Practitioner Services from 2014 until May 2020 when he was seconded to the Test and Protect Programme as Programme Director for Contact Tracing, which included the establishment of the National Contact Tracing Centre, now the National Contact Centre (NCC). Once the NCC was established, he became the service's Operations Director. From January 2021, his role was widened to include Operations Director for all of NHS NSS' delivery to the Test and Protect Programme, including PCR and LFD testing programmes, and attended the Test and Protect Programme Board. He chaired the TODG, deputised for the Scottish Government chair of the Testing Programme Board and when these Boards were unified into the Test and Protect Transition Programme Board, he was the co-chair of the Programme with the Scottish Government Director of Population Health. Martin continued to operate as Operations Director for Test

and Protect and the NCC's responsibilities for the Flu and COVID-19 Vaccination Programme (FVCV) through to November 2023.

- Pam McVeigh was appointed as Associate Director of the National Contact Centre in November 2021. Pam supported the Operations Director for Test and Protect as the lead senior manager responsible for day-to-day running of the NCC, supporting both Test and Protect, FVCV and a range of other services, and remains in that role. Pam attended the Test and Protect Programme Board during the Transition Board period.

- Janis Heaney was appointed as Associate Director, COVID-19 Testing in May 2020, having supported the programme since the beginning of April 2020. Janis supported the Operations Director for Test and Protect, providing operational leadership and oversight of all Pillar 2 (UK Government Testing Programme) sampling activity. She was responsible for leading the development of operational solutions to Scottish Government testing strategies and attended the Test and Protect Programme Board.

- Ruth Campbell was appointed as Associate Director, COVID-19 Response in October 2021 until August 2022. Ruth supported the Operations Director for the Test and Protect programme providing operational leadership for Pillar 1 testing (healthcare workers, social care workers, prisons and school education) liaison with government colleagues and NHS supply and logistics on LFD supplies; liaison with representatives from the Regional Testing Hub laboratories for PCR testing; and supported the Test and Protect PMO in the latter stages of the programme and attended the Test and Protect Programme Board.

- Dr Lorna Ramsay has held multiple senior medical positions across NHS NSS and was appointed as Executive Medical Director in November 2018 until she retired in January 2024. This role had executive responsibility for clinical governance, research, development and innovation, medical device regulation and confidentiality as Caldicott Guardian.

- Dr David Stirling is NHS NSS' Director of Healthcare Science, and at the start of the pandemic was working with the National Laboratories Programme to develop a more integrated laboratory service for NHS Scotland. He supported the initial Scottish COVID-19 Testing Clinical Governance Group (SCT CGG) group chaired by the DCMO and the CTC GOB. He also chaired the CADI

Group which assessed the various test systems being offered to NHS Scotland and made recommendations on their appropriateness for NHS Scotland use. He led the work to identify potential partner laboratories to increase NHS testing capacity, was Clinical Lead for the establishment of the three Regional Testing Hubs and supported the work of the Testing Programme Board - Assurance and Oversight. He also contributed to a number of UK groups involved with testing governance and patient safety APPENDIX D.

- Deryck Mitchelson, was Director of Digital and Security between August 2018 to January 2022. He was responsible for agreeing Test and Protect digital solutions to be stood up.

- Steven Flockhart has been Director of Digital and Security, Chief Information Officer since May 2022. He was previously Associate Director for Cloud Engineering and Operations between March 2020 and May 2022 where his role was to ensure all network, server and Cloud infrastructure was stood up and to support the provision of digital devices and communications networks to Health Boards.

- Eilidh McLaughlin was Associate Director of Information Security and Governance, from January 2020 to April 2022. She led on information governance for digital products, for example completing Data Protection Impact Assessments (DPIAs), developing privacy notices and working with the Information Commissioner's Office (ICO).

- Nichola Huey was Programme Director early 2020 until 2022. She led on the planning and implementation of digital solutions with third parties and internal delivery teams.

- Jessica Henderson was Programme Director from May 2019 to April 2021. She led on the delivery of the NLP and attended the Test and Protect Programme Board.

- Gordon Beattie is the current Director of National Procurement, a position which he has held since 9 December 2019. During the relevant time period National Procurement was part of the Procurement, Commissioning and Facilities (PCF) Strategic Business Unit (SBU) at NHS NSS, led by the Director of PCF, Jim Miller who held the post from 2015 to 2021. In April 2023 National

Procurement became a separate business unit within NHS NSS, no longer sitting within the PCF SBU. The service provisions of National Procurement were not affected by this organisational re-structuring.

- Paul Hornby was Strategic Sourcing Lead – Medical and Surgical Category from 2005 to present. He was procurement manager for all medical and surgical categories including COVID-19 Testing, PPE, medical and surgical equipment, and attended the Test and Protect Programme Board.

- David Taggart was Category Manager (COVID-19 Testing) from May 2009 to September 2023 (currently on secondment to NHS Golden Jubilee). He was responsible for the procurement and distribution of laboratory equipment and laboratory consumables for NHS Scotland Labs and Regional Labs, UK LFD tests and NHS Scotland PCR Swab Testing Kits, and attended the Test and Protect Programme Board.

82. The role of Programme Director (and later Operations Director) for the NCC was to establish the necessary resources, technology and processes to deliver population scale contact tracing and isolation advice services. The role required working with teams across NHS NSS to procure and implement digital solutions and to access commercial contact centre resources; with our Human Resource teams to recruit staff into the NCC core team and set up the staff bank; and to develop the necessary knowledge bases and scripts for the use of contact tracers from either NCC or Health Boards and deploy those through a quality management system.

83. The role required daily engagement with delivery partners from Health Boards and PHS for example during the implementation phase to deploy the Case Management System (CMS) to each Health Board; to train staff; to implement workflows and reporting arrangements. During later stages it was to flex the resource and capability which the NCC had to support peaks and troughs of demand nationally and with specific Health Boards to ensure that performance targets were achieved. The role also included reporting of operational contact tracing performance to PHS as the service commissioner and to the NIMT to allow them to assess contact tracing performance as part of their advice to Scottish Government.

84. The Associate Director for COVID-19 Testing Operations provided leadership and oversight of the operational delivery of the UK National Testing Programme in Scotland. Primarily the role was to ensure that testing policy decisions made by the Scottish

Government could be operationally delivered. Advice and guidance were provided to local Health Boards, local authorities and employers on appropriate testing routes and available capacity across all regional and local test sites in Scotland. Daily SitRep meetings were held with DHSC and four nations representatives and information on sampling and analysis capacity was provided to the Scottish Government policy colleagues as well as information on any risks or issues in the testing system. Perspectives on feasibility of testing solutions, proposed locations for new testing sites and overall performance of the testing system were provided to policy colleagues, Health Boards and local authority representatives and employer organisations. These perspectives were taken on board.

85. The Associate Director for NHS NSS COVID-19 Response from October 2021 ensured communication between operational delivery teams (supply, logistics, NCC), a range of stakeholder groups (healthcare workers; social care organisations; prisons) and their respective Scottish Government Policy leads, for the operation of testing pathways, including LFD and PCR testing. During November and December 2021, approaches to testing changed in response to the new Omicron variant of the COVID-19 virus and public health advice on testing requirements. This required ongoing assessment of the availability of test kits to testing pathways, and laboratory capacity in response to demand, for which communication with the Scottish Government, Health and Social Care Partnerships, Health Boards, NHS NSS governance groups overseeing clinical governance of testing, and networks of laboratory leads was required. During the pandemic, liaison with the different sectors testing their workforce was required as they adjusted their testing routines based on PHS and Scottish Government clinical advice. Regular reports on testing supply operations were made to the Testing Operational Delivery Governance Group, the Test and Protect Board – Oversight and Assurance and in the later stages, a Scottish Test and Protect Transition Governance Group.

86. I am not aware of any gaps of note with regards to NHS NSS' role, functions or responsibilities in the development, roll-out and implementation of Test and Protect. As demonstrated throughout the statement roles and responsibilities developed over time as either the pandemic continued and/or new technology became available (e.g. LFD tests) or Scottish Government policy changed. A full chronology of key events, listing of meetings and relevant reporting, can be found in APPENDIX D and a summary of key meetings owned or attended by NHS NSS staff can be found in APPENDIX E.

87. Reports were input into governance meetings within the Test and Protect Programme. A listing of meetings including relevant reporting is available from the relevant Programme

Management Offices (PMOs) as they acted as the configured document repository for any reports or briefings.

88. The NCC issued a regular contact tracing SitRep report on a cadence aligned to the required pandemic response which varied over time. For much of the pandemic the report was issued daily but at other times other frequencies were observed, for example, the reporting frequency would correlate with the demand for testing and prevalence for COVID-19 in the community. The report was issued to the Scottish Government, PHS and Health Boards. An additional contact tracing summary report was produced for Scottish Government only for periods of the pandemic response. Production of these reports was ceased in May 2022 as part of the Test and Protect transition plan.

89. A list of documents related to briefings or situation reports generated by NHS NSS intended for use by the Scottish Government to assist in informing its decision-making in relation to Test and Protect is contained in APPENDIX F.

SUPER-SPREADER EVENTS

90. HPS and the Scottish Government were alerted by international health authorities on 2 March 2020 of an individual who had tested positive for COVID-19 following attendance at a conference for over 70 delegates in Edinburgh at the end of February. This notification was not a confirmation of a positive case in Scotland, which would only be done following a receipt of a positive test result.

91. HPS set up an Incident Management Team (IMT), with representatives from Health Boards and national and international public health agencies, to ensure all attendees were contacted and given appropriate public health advice. The advice included self-isolation and contact tracing of any attendees showing symptoms of COVID-19. This work was led by Dr Jim McMenamin in his role within HPS before he moved to PHS in April 2020.

WORKING WITH OTHER PUBLIC BODIES

92. The Scottish Government enforced powers to place the NHS in Scotland into emergency measures in March 2020. This meant that the Scottish Government and Ministers were responsible for all key decision making in relation to the pandemic in Scotland and worked with organisations such as NHS NSS, to establish national programmes of work to deliver Scotland's response to the pandemic.

93. As part of the Test and Protect Programme, other bodies within Scotland that were important points of contact for NHS NSS during the pandemic included the following:

- Scottish Government Directorates, particularly the Population Health Directorate, were an important point of contact in relation to testing, contact tracing, isolation support policy teams, vaccination policy teams, COVID-19 ready society policy team, analytics service, CMO office, and Chief Nursing Officer's (CNO) office

- Territorial Health Boards and NHS NES in relation to the delivery of contact tracing jointly with National Contact Tracing Centre (now known as the National Contact Centre (NCC)). NHS NES supported the development and delivery of a range of training programmes for staff engaged by territorial Health Boards, PHS and NCC in contact tracing, as well as providing advice on role definitions and design.

- PHS for advice on public health, commissioning of contact tracing and border monitoring services

- SAS and the British Armed Forces around support for Mobile Testing Units (MTU)

- Department of Health and Social Care (DHSC) in relation to operation of 4 countries agreement

- PHE/UK Health Security Agency (UKHSA) on strategic and operational delivery, including the provision of PCR and LFD

- NHS England (NHSE)/UK Infection Prevention Control (IPC) cell for UK IPC guidance for the four nations

- Scottish local authorities were an important point of contact for the isolation support financial grant, deployment of PCR and LFD test sites and the provision of COVID-19 vaccination clinic sites

- UK Government Cabinet Office for matters relating to testing activities for the United Nations Climate Change, Conference of the Parties (COP) 26 to the UN Framework Convention on Climate Change summit hosted in Glasgow in

October / November 2021

- SMVN in relation to the development and deployment of NHS Scotland COVID-19 testing

- Academic, public and private sector partnerships to expand testing laboratory capacity

- CapGemini in the development of the TTI Simple Tracing Tool and Native App

- Deloitte in the early stages of the pandemic on the establishment of the Regional Testing Hubs.

Chief Medical Officer

94. NHS NSS is a diverse organisation and, as such, has multiple working relationships with the CMO themself and the Office of the CMO and the various teams within that Scottish Government Directorate.

95. On a formal level, the NHS NSS Executive Medical Director (EMD) is professionally accountable to the CMO for Scotland, as are all NHS Scotland Health Board Executive Medical Directors. This means the CMO has input to EMD recruitment, ensures their satisfactory annual medical appraisal, makes recommendations for revalidation, etc. The Chief Pharmaceutical Officer (CPO) and the Chief Healthcare Science Officer are part of the CMO and CNO Directorates respectively. The NHS NSS Director of Pharmacy and NHS NSS Director of Healthcare Science have similar professional accountability and relationships with them.

96. The CMO or their office may request specific work to be undertaken by NHS NSS, in which case this would be assessed and discussed to agree whether NHS NSS will undertake the work and, if so, the resources, timescales and funding required; the governance arrangements, etc prior to work commencing. Alternatively, NHS NSS may recommend to CMO or their office that certain work is progressed which would again be followed by appropriate engagement discussions and agreements. Work sponsored or commissioned by CMO (sometimes co-sponsored with another Scottish Government health directorate) can be ongoing activity relating to NHS NSS areas of expertise or shared services (e.g. innovation procurement services) or may be time limited such as delivery of a specific report (e.g. transgender pathways) or leading on a major national

programme (e.g. Scan for Safety). Reporting on activity varies depending on the nature of the work, ranging from high priority activities being overseen via the NHS NSS Local Delivery Plan which is agreed annually with Scottish Government, to smaller, more ad-hoc work being undertaken on a much more informal basis, such as requesting advice or input from a specific individual based on their particular expertise, including through involvement in a group or committee.

97. Many parts of NHS NSS have a working relationship with the CMO, their office or Directorate, for example

- Practitioner Services - work with the chief pharmacist and team in relation to prescriptions activity
- National Specialist Services - coordination of specialist teams or national groups to develop reports on a highly specialised area
- National Procurement services - support to the Chief Scientific Officer (health) (CSO) in relation to innovation procurement
- Clinical Directorate - provision of clinical leadership and expertise to specific areas of CMO work as relevant
- Programme Management services – working with the CPO and team on the management of CMO sponsored national programmes such as Digital Prescribing and Dispensing Programme, Scan for Safety.

98. A number of NHS NSS staff supported the Scottish Government engagement with UK TTI groups as outlined in APPENDIX D. NHS NSS staff provided data and reporting to the National Incident Management Team (NIMT) which provided context to the advice the NMIT formulated and that PHS sent to the CMO.

Chief Scientist

99. The Director of Healthcare Science chaired the COVID Assay Development and Innovations (CADI) which reported to the Chief Scientist and the Testing Oversight Group on the suitability of testing modalities being offered to NHS Scotland. The Director of Healthcare Science also participated in discussions led by the Chief Scientist on wider testing strategies, such as waste water testing. Within the wider Test and

Protect Programme, expert medical and scientific advice was provided via the Scientific Advisory Board on Testing which was chaired by the then Scottish Government's Chief Scientist within the Health and Social Care Directorates. NHS clinical and non-clinical staff attended that Board and would act upon any advice provided by it.

The Scottish Government Resilience Room SGoRR 'Calling Notice for Deep Dive on Covid-19 Testing'

100. I attended a meeting of the Scottish Government Resilience Room SGoRR 'Calling Notice for Deep Dive on Covid-19 Testing' on 3 April 2020. The CMO at that time requested attendance to provide an update and answer any specific questions about COVID-19 testing capacity/plans in Scotland. At that time Scotland had moved from a position of 600 to 6000 test capacity through a range of efforts, such as, an expansion of slots available at regional test sites, on-boarding of new regional test sites, introduction of mobile test units, expansion of PCR testing capacity into Health Boards. It was noted in the meeting by the Chair that this was insufficient and a goal of 60000 would be more realistic. There was some discussion about the key worker groups to be given access to available testing and the demand that was being experienced. Through the meeting and preceding preparation, I was made aware that the UK Government was setting up a "drive through" testing capability at Glasgow Airport. I made arrangements to visit the site the following day. NHS NSS can provide the paper associated with the meeting but as owners of the meeting Scottish Government will be able to provide the full suite of papers including minutes MM/018/INQ000233398.

TESTING

101. The NHS NSS COVID-19 Testing team was initiated in April 2020. Initially a small team was established to take on responsibility for the management of the key worker testing programme which had been established as part of the UK National Testing Programme. This involved working with identified key worker employers to enable booking of test slots at the recently established regional drive through test centres in Glasgow and Edinburgh airports. The team were responsible for supporting organisations to identify staff who required a test and uploading files to a secure shared drive to enable test slots to be allocated.

102. In April 2020, the NHS NSS COVID-19 Testing team began to work with British Armed Forces to establish a deployment schedule for the fleet of 13 MTUs, provided as part of the UK National Testing Programme. Working with local Health Board testing Single

Points of Contact (SPOCs) and local authority resilience leads, locations across Scotland were identified to widen access to testing for Scottish citizens. The first MTU deployments took place in late April/early May 2020. Standard Operating Procedures (SOPs) were developed for the MTUs during May and June 2020. By the end of May 2020, 18 MTUs were operating across Scotland as well as five Regional Test Sites (RTS).

103. In the summer of 2020, a decision was made by the Testing Programme Board – Oversight and Assurance to transfer responsibility for the resourcing and management of MTU fleet to SAS The NHS NSS COVID-19 Testing team worked with British Armed Forces and SAS to develop standard operating procedures, training plans and handover processes. Operational delivery of the MTU service transferred to SAS in September 2020. NHS NSS retained responsibility for engagement with local testing contacts, development of MTU scheduling and management of new tasking requests including outbreak support MM/019/INQ000532722. A part of the team's role throughout the pandemic was to provide advice and guidance on operational testing solutions to respond to policy decisions, outbreak situations or changes in positivity rates.

104. NHS NSS COVID-19 Testing team attended daily four nations testing calls and developed a report which was provided to the Scottish Government team detailing daily positivity rates across the UK, lab testing capacity information and any key risks or issues in the national programme MM/920/INQ000543009. The team also attended weekly programme meetings, which included representatives from Scottish Government, to supply information on sampling capacity across all MTU and RTS locations as well as providing advice and guidance on sampling solutions to proposed testing policy developments.

105. The team remained responsible for the operational delivery of the Pillar 2 testing programme in Scotland until June 2022 continuing with management of deployment of MTUs, working with local partners to respond to outbreak situations and supporting local and national IMT meetings with advice and guidance on testing solutions. Some of the key activities during that time include:

- Deploying MTUs to support testing of students in university halls of residence in September 2020 and working with UK National Testing Programme to establish local test sites for university students

- In August 2020 worked in partnership with NHS Fife, Fife Council and

University of St Andrews to establish the first Local Test Site (LTS) in Scotland in St Andrews town centre. The model was established as part of the UK National Testing Programme and widened access to testing to those who were unable to travel by car to a mobile or regional test site

- Outbreak testing in prison settings
- Testing of seasonal agricultural workers in the summer of 2020
- Support for testing of in bound travellers and cruise ship passengers in Scotland in quarantine
- Community testing implementation in December 2020
- Testing of hauliers between December 2020 and March 2021
- Coordination of MTU deployments and pop-up collection points for COP26 in November 2021
- Programme management support for operational testing response for schools during 2021.

106. From October 2021 a team of NHS NSS Operational Managers became responsible for three testing pathways:

- Healthcare workers (NHS Board staff, primary care staff including primary care contractors)
- Prisons and (school) education
- Social care workers – this testing pathway comprised 14 different categories of social care services and included care homes, care home visitors, domiciliary home care and care at home. Social care services included in the testing pathway were approved by the Scottish Government. The 14 different categories of social care services were:
    - Care Home Staff
    - Care at Home Domiciliary Staff

- Care Home Visitors
- Care at Home Adult Day Care Centres
- Care at Home "Highly Mobile"
- Care at Home Personal Assistants & Scottish Nursing Guild Employees
- Care at Home Sheltered Housing / Housing Support
- Short Breaks / Respite
- Learning Disability
- Residential Accommodation for Children
- Homelessness Centres
- Drug & Alcohol Services
- Women's Shelters
- Social Workers

Tests were also supplied to Mental Health & Children and Young People's Community Services, Children's Personal Assistants, Independent Living Fund Assessors and the Care Inspectorate.

107. Operations Managers continued to meet with Test and Protect workstream governance groups responsible for the three pathways; liaised with Scottish Government policy leads for these pathways; engaged with supply and logistics, and NCC personnel to resolve queries, provide updates to SOPs and advice during changes to testing routines, and met with stakeholder groups convened by Scottish Government. During periods of change, Operations Managers communicated directly with lead contacts in the three sectors across all local authority areas, to get their information and feedback on resilience of supply and stock when testing increased or decreased. This intelligence was relayed directly to the Scottish Government leads responsible for LFD supply, laboratory capacity, overall testing policy and the Clinical Governance Oversight Group.

Supply and delivery data was provided to the Test and Protect Governance groups directly from the NHS NSS Supply and Logistics team in National Procurement.

108. During the emergence of the Omicron variant in November/December 2021, the Operations Team attended IMTs and assisted PHS to supply PCR kits directly to identified individuals enabling results data to inform public health decisions on managing the variant and to assist in contact tracing.

109. In the transition period when Test and Protect stepped down (March to June 2022) after the UK Government decided to withdraw testing, the Operations Team supported Scottish Government Policy teams to assess digital developments that could be rapidly established in Scotland to replace LFD online ordering portals managed by the UK Government.

110. The Clinical Directorate supported the Clinical Governance arrangements for testing within Scotland. This included review of nationally agreed pathways, SOPs and user information for suitability in the Scottish context. The Clinical Directorate also recommended and supported the establishment of an oversight function for testing clinical governance. Each laboratory providing a testing service was responsible for its own clinical governance arrangements, however the CTC GOB was able to bring these partners together to ensure that risks and issues affecting more than one provider could be appropriately managed.

111. The COVID-19 Testing Clinical Governance Oversight Board (CT COB) was chaired by the NHS Director of Healthcare Science and had the purpose:

- To establish an agreed understanding of the roles and responsibilities for Clinical Governance of all parties engaged or involved in the provision of COVID-19 testing in Scotland

- To work with testing partners to promote quality assurance and quality improvement across all aspects of COVID-19 testing

- To manage and resolve escalated clinical issues, risks and dependencies from the Programmes

- To provide assurance reports to the Test and Protect Portfolio Steering Group on the Clinical Governance systems and processes in place

- To advise on risks and mitigations associated with any proposed changes to Testing pathways

- To manage the interfaces and dependencies with Clinical Governance functions in other parts of the UK.

112. As described earlier in the statement Scottish COVID-19 Testing Clinical Governance Group (SCT CGG) was a separate group that was chaired by the Scottish Government DCMO.

113. The Board had representation from the Scottish Government, all territorial Health Boards, through the SMVN, NHS NSS, PHS, the SAS.

114. The early stages of the pandemic were characterised by a large number of companies offering technologies for COVID-19 testing. The NHS NSS Director of Healthcare Science chaired the CADI Group, the purpose of which was to triage these offers and make recommendations to the Chief Scientist and the Testing Programme Board – Oversight and Assurance as to which were suitable for the NHS Scotland context. This group also served as a mechanism whereby tests which were validated for use in one laboratory, could be rapidly deployed to others without the need for lengthy repeat validation.

115. During the pandemic, National Procurement took on additional responsibility for the sourcing, stocking and distribution of testing equipment and consumables. National Procurement managed, at the request of the Scottish Government, the procurement and distribution of Polymerase Chain Reaction (PCR) swab sample testing kits and PCR Testing Equipment for all of Scotland. This included NHS Scotland Health Board virology laboratories from late March 2020 and the three Regional Testing Hubs. National Procurement managed the Scottish allocation of LFD kits from the UK Government Testing Team, who procured these on a national basis on behalf of the four nations.

116. In the early stages of the pandemic the key procurement challenges for National Procurement were around securing supply of testing consumables, new testing equipment and the associated reagents. National Procurement did not have a laboratory support service team so had to stand down non-urgent activity and reallocate senior experienced staff to create this capacity. The small team worked tirelessly in conjunction with the NLP, SMVN PHS and Scottish Enterprise to identify and secure 'critical

commodities', including commodities such as PCR sample testing kits and PCR assays for laboratory testing and associated consumables. Equipment was typically delivered directly to laboratories although some consumables were held in the National Distribution Centre (NDS) warehouses. The capacity available via NHS Scotland laboratories increased rapidly, made up from Health Board Laboratories, Partner nodes (other local capacity made available by Academia and third-party suppliers) and UK Government contracted "Lighthouse Laboratories". Regular reporting provided capacity coverage analysis, and on the whole capacity exceeded the required daily capacity throughout the pandemic. MM/020/INQ000335860 provides an example of Test and Protect dashboard used for the regular reporting of capacity coverage.

117. Scottish Government led modelling of the swab test kit demand based on different scenarios. National Procurement created a material requirement plan modelling available stock, in-bound supply and demand forecasts. National Procurement engaged with distributors to gain a secure supply of swabs at the start of the pandemic, with DHSC managing weekly allocations from the only UK Manufacturer of PCR Testing Kits – Medical Wire Equipment.

118. Scotland's allocated share from DHSC was insufficient to match PCR testing forecasting requirements from the TODG, as a Scottish Government led group, they may hold information on this. Through the work of The Testing Supply Chain Oversight Group, chaired by Mr McKee (Scottish Minister for Trade), a Chinese manufacturer was identified via Hutchison Technologies based in Dundee, who had offices in China and direct links into a Chinese manufacturer of PCR Testing kits. This Chinese manufacturer was already an established key supplier into the Chinese Government for PCR Testing Kits and could both meet the UK specifications and Scotland's volume testing requirements. PCR sample testing kits were immediately dispatched and validated for use by the NLP and SMVN group with volume shipments commencing into Scotland from early May 2020 through to September 2020, matching testing demand forecasts.

119. From April 2020 to September 2020 National Procurement attended regular meetings (generally Monday, Tuesday and Friday) with the Minister for Trade Industry and Innovations – Testing Supply Chain Oversight Group where details of daily testing requirements and demand forecasts were discussed.

120. National Procurement supported the TODG to implement testing in Social Care Settings in February 2021. National Procurement supported the introduction of a care home testing pack and distribution service which enabled a care home kit to be developed for

each residential care home to request, receive and send samples directly to the Regional Testing Hubs for analysis.

121. Between October 2020 and January 2021 National Procurement assisted with a project to consider the creation of a 'Mega Lab' capacity in Scotland for COVID-19 testing. NHS NSS were in the process of leasing a large warehouse in central Scotland to provide logistics capacity for PPE and the UK led 'Mega Lab' project considered the use of part of this capacity to enable the project in Scotland. Ultimately the project did not proceed, and NHS NSS leased the full warehouse capacity in line with plans in February 2021. NHS NSS is unaware of the reason why the 'Mega Lab' did not proceed, this initiative was driven by UK and Scottish government.

122. DaS procured, developed and supported digital platforms for the Testing Programme or where necessary procured digital solutions from third parties to support the development of the TTI Simple Tracing Tool, CO3 Online Tracing Form and National Notification Service described further in paragraph 213. MM/022/INQ000532739 outlines the digital programme established to implement the digital tools required to develop a digital intelligence system to provide data for Test and Protect.

123. **National Integration Hub** - InterSystems Ensemble solution was developed and managed by DaS, which routes data sources to the appropriate systems. National Integration Hub is an NSS developed, managed and supported data integration platform for use within NHS Scotland that is built onto an Ensemble Integration Engine from a supplier named InterSystem Ensemble. The system was already in use within NHS Scotland to provide data to be consolidated with another set of data, usually when there is different data formats. In this case laboratory test data from different data formats. Laboratory test data from different laboratory sources fed into the National Integration Hub and was matched with the Community Health Index (patient identifier) to allow for local and national contact tracing and surveillance.

124. **National Laboratory data integration** - ECOSS (Electronic Communication of Surveillance Scotland) was an existing platform, developed and supported by DaS, for national laboratory data storage and processing used to support enhanced surveillance and reporting of infections under the Public Health Scotland Act. This was then used as the mechanism to provide COVID-19 test results data from the Scottish NHS Laboratory services into the National Integration Hub.

125. The majority of COVID-19 PCR testing in Scotland was performed by the UK Lighthouse Laboratories. NHS NSS created new data integrations from NHS Digital data stores via our National Integration Hub to collect this data for transfer onto other applications such as the Case Management System (CMS). The data within the CMS allowed telephone or digital contact tracing to be undertaken. CMS received test results, whether positive or negative, from all testing technologies (PCR and LFD) and took specific action on positive tests in respect of initiating contact tracing activity.

126. Staff in the NCC and Health Boards supporting contact tracing would then use the CMS to record contact with the individual who tested positive (index case) or any of their close contacts. Data in the CMS could be used to identify patterns which could be outbreaks in particular settings which would subsequently inform actions to be taken by health protection teams in Health Boards. CMS data for both tests and contact tracing was used to monitor the performance of the overall Test and Protect system.

127. Lateral Flow Device Ordering and Reporting Portal - a portal was provided by DaS using ServiceNow to allow eligible organisations to order test kits and report their results. Specific organisational groups included high risk workplaces such as care homes, prison staff and prisoners, and unpaid carers. Scottish citizens would order direct from UK Gov test kit ordering service. The portal for Scottish organisations was determined to be more efficient in enabling the supply chain to be managed in Scotland using Scotland's allocated stock.

128. Test and Protect Seer dashboards - Seer is a data and analytics platform for health and care data across Scotland for healthcare providers and government policy teams. The following reporting dashboards were developed by DaS based on COVID-19 testing data available within the Seer platform:

- Laboratory test data – NHS Scotland, UK Gov, Antigen testing
- Care Home testing data
- Contact Tracing – volume, journey performance, risk and settings
- Protect Scotland – KPIs relating the performance of Protect Scotland App
- National Call Centre Efficiency

- Check In Scotland venue check-ins.

129. National Procurement procured Point of Care Test (PoCT) equipment and consumables and worked with Health Boards as part of winter planning for 2021 to deploy this technology to Accident and Emergency (A&E) and unscheduled care in all hospitals in Scotland.

130. In the majority of instances, Category 1 PoCT was deployed, this meant that no PCR test was required at all. Therefore, patients arriving at hospital emergency departments could have a PoCT taken, processed through the equipment or device which would be located close to or in the A&E department, and have a test result available within thirty (30) minutes rather than waiting several hours for the PCR result from the hospital laboratory. This allowed quick and easy identification of patients who were COVID-19 positive so they could be appropriately managed during their A&E attendance or if they were admitted to the hospital as an in-patient.

131. The use of PoCT testing devices for carrying out rapid testing in Health Boards was viewed as a key enabler in reducing the risk of nosocomial spread during the pandemic in terms of detecting COVID-19 positive patients and managing patient placement and flow to reduce transmission; and to manage admissions into the clinical care pathway.

132. The CADI Group reviewed data on PoCT test performance, and made recommendations on which test systems were suitable for use in Scotland.

133. SNBTS played a role in the development and deployment of SARS-CoV-2 tests. At the beginning of the SARS-CoV-2 pandemic SNBTS collaborated with colleagues from the University of Oxford developing a pseudo typed SARS-CoV-2 virus microneutralisation assay capable of detecting neutralising antibodies to SARS-CoV-2 as a marker of past infection and epidemic progression. Between 17 March and 18 May 2020 seven batches of 500 samples were collected from SNBTS blood donors across Scotland and tested. A set of 100 samples from an anonymous archive collected from SNBTS blood donors between September 2018 and December 2019 (i.e. before the first reports of SARS-CoV-2 in China) were also tested as controls.

134. The control samples and those from 17 March 2020 were negative for SARS-CoV-2, but reactivity rose progressively thereafter to a range of between 2.1% and 7.6% dependent on the Scottish health board/region. It should be borne in mind that these donors would all have been fit and healthy at the time of donation and given a median 14-day

seroconversion period, the reactivity would have reflected infections occurring at least two weeks prior to the date of sampling. Overall, the data suggest a prevalence of prior infection of around 5% of the healthy Scottish population (say around 250,000 people) at that time which was in excess of the number of people reporting clinical infection and commensurate with what we later learned about the incidence of asymptomatic infection MM/023/INQ000466558.

135. Once CE-marked commercial assays became available SNBTS validated the more rapid SARS-CoV-2 EuroImmun enzyme-linked immunosorbent assay (ELISA) which, at defined values, was shown to correlate with neutralising antibody titres and could be deployed at large scale to identify convalescent plasma containing potentially therapeutic levels of anti-SARS-CoV-2 neutralising antibodies MM/024/INQ000466559.

136. SNBTS continued to test cohorts of the Scottish blood donor population using the EuroImmun assay through to October 2020 as part of the Scotland-wide seroprevalence studies. From October 2020 to May 2022 SNBTS sent samples weekly and latterly monthly to colleagues in NHS Fife for testing, whilst SNBTS provided data on age, sex and health board for analysis by HPS who published the data on their webpages. Towards the end of this period the prevalence of seropositivity in the Scottish blood donor population exceeded 95% as a result of vaccination and prior infection with SARS-CoV-2.

137. With specific relation to the deployment of LFDs in Scotland as part of the UK National Testing Programme, the NHS NSS COVID-19 Testing team supported operational delivery of LFD testing solutions. Following testing policy decisions by the Scottish Government, the team supported the implementation of LFD collect options at local testing sites, RTS and MTU locations during responses to Variants of Concern MM/025/INQ000496332. LFDs were also distributed via pop up locations during COP26 and during focussed community testing interventions.

138. The NHS NSS Operations Team managed testing pathways where LFDs were introduced to supplement PCR testing in the three areas of Healthcare Staff (including primary care contractors); Social Care staff (including Care Home visitors), Prisons and Education (schools). Decisions were taken by Scottish Government leads based on advice from CMO, clinicians and stakeholders about frequency and logistics of testing and supply of LFDs. In these pathways, National Procurement, responsible for supply and logistics, developed a “push” model delivering quantities of test kits based on the size of institutions and frequency of required testing. This was supported by the NCC

helpline receiving enquiries about supply and deliveries from sectors which were resolved by the logistics team or operations team. Health and Social Care Partnerships were also provided with some central supplies for their areas and used local logistics networks to distribute or enable collection of test kits locally.

139. New types of LFD tests procured during the period of testing were approved for use by UK Government clinical governance groups. The COVID-19 Clinical Governance Oversight Group in Scotland liaised with the UK Government and approved any advice for testers (Instructions For Use: IFU) that were revised.

140. The Scottish Government was provided with data on test kit stocks nationally and locally to assist its policy leads managing supply of LFDs from the UK Government to the Scottish Government, using National Procurement data on warehouse stocks and demand.

141. Working with the NHS NSS COVID-19 Testing team, National Procurement managed the Scottish allocation and distribution of LFD kits to health and social care services from the DHSC, who procured these on a national basis on behalf of the four nations.

142. Scotland's LFD requirements were advised by the DHSC on a national basis and reviewed by the Scottish Government and the Testing Programme, based on products issued by NHS Scotland through the Testing Programme's allocation. MM/026/INQ000481480 is the national scenario modelling for Scotland LFT requirement. MM/027/INQ000481511 is an SBAR setting out NHS NSS' approach to distributing LFTs allocated to Scotland Health Boards.

143. National procurement commissioned Sykes, latterly known as Sitel, in the Scottish Borders to distribute LFD kits that were procured by the UK Government. Sitel managed the ongoing assembly of the specific inactivating PCR kits for the identified social care organisations. They were also part of the distribution network for LFD across all Scottish NHS Scotland and Health and Social Care sites on behalf of NHS NSS.

2021 UNITED NATIONS CLIMATE CHANGE CONFERENCE ('COP26')

144. Glasgow hosted COP26 in late October/early November 2021. Whilst the UK Government had lead responsibility for COVID-19 testing within the secure 'blue zone' of the conference itself, how to manage the COVID-19 impact of delegates and other parties arriving in Scotland as part of the conference fell to Test and Protect in Scotland.

145. NHS NSS delivered:

- Deployment of a MTU in the exhibitor zone, providing access to both PCR and LFD tests
- Reallocation of mobile testing capacity from across Scotland into Glasgow to support the increased population and interaction before, during and after the conference period
- Additional LFD test sites and distributions at travel hubs in Glasgow and other locations and in conference hotels
- Enhanced fast-track PCR testing for identified delegates
- Increased wastewater testing in the conference area
- A trained team within the NCC available seven days a week 12 hours a day to carry out delegate and entourage contact tracing.

146. NHS NSS established daily stand-up meetings to identify and resolve operational issues. The meeting was attended by staff from the Scottish Government, NHS NSS, PHS, Transport Scotland, Glasgow City Council and NHS GGC. The Test and Protect Programme Board received a weekly status report reporting on progress against plan, risks and issues MM/028/INQ000532740.

TESTING STRATEGY

147. The development of testing strategies and policy, including eligibility for testing, was the responsibility of the Scottish Government. NHS NSS provided advice on and was involved in the development of testing methods.

148. The Scottish COVID-19 Testing Clinical Governance Group, chaired by the DCMO considered the SOP and IFU for all the proposed testing pathways in Scotland, making any amendments required for the Scottish context. The NHS NSS Executive Medical Director, and Director of Healthcare Science both contributed to this group. This work was subsequently taken on by the COVID-19 Testing Clinical Governance Oversight Board, chaired by the NSS Director of Healthcare Science.

149. The early development of COVID-19 testing focussed on PCR as the 'Gold Standard' methodology. There was a great deal of experience with this technology, and it was proven to have both high specificity and sensitivity. Consequently, a large part of the NHS NSS effort was in increasing capacity for PCR tests, on a variety of platforms. The advent of large-scale production of LFDs capable of detecting COVID-19 offered many advantages over PCR in being able to be performed without the need for Nucleic acid extraction (one of the rate limiting steps in PCR testing), and by or close to the person being tested. It was clear however, that these devices were not as sensitive as PCR, and there was considerable resistance from some within the Scottish virology community that their use was a retrograde step. The Testing Clinical Governance Group supported the deployment of LFDs, based on the evidence that while not as sensitive as PCR, they were sufficiently sensitive for clinical use. The view was formed that PCR may have been overly sensitive, detecting viral nucleic acid for longer than individuals could transmit the condition.

150. In April 2020 when the COVID-19 Testing team was established the availability of testing was limited to key workers including NHS staff and Police Scotland. Health Boards had established their own testing capacity (Pillar 1) and there were two regional test centres (Pillar 2) established at Glasgow and Edinburgh airport where key workers could access testing via their employers. At this point in the pandemic only PCR testing was available. Any samples collected at the UK Pillar 2 testing sites were analysed by the UK Lighthouse laboratories.

151. Sampling capacity was significantly increased using PCR tests as the criteria for testing widened to all symptomatic individuals over the age of five in July 2020. The introduction of LFDs enabled much wider access to testing for the population and LFD tests were distributed through a variety of routes throughout the remainder of the pandemic.

152. From October 2021 the Testing Operations Team focused on supply of LFD and PCR test kits to the three areas of Healthcare Staff (including primary care contractors); Social Care staff (including Care Home visitors), Prisons and (school) Education. Decisions were taken by the Scottish Government leads based on advice from CMO, clinicians and stakeholders about frequency and logistics of testing and supply of LFDs. During testing transitions, engagement with stakeholder organisations was largely undertaken by policy leads in the Scottish Government. The NHS NSS Operations Team engaged in some dialogue with local leads in Health and Social Care Partnerships and

Health Boards to informally gain an understanding of their approach to testing and their adjustment to new guidance or requirements.

153. In December 2021, 46 Health and Social Care Partnership leads for LFD distribution to care-at-home social care providers were contacted to discuss their demand projections over the Christmas period following the upsurge of demand caused by new variants of COVID-19. Of these, 12 identified re-supply needs and all others could manage demand with existing stocks. During this period, intelligence was informally gathered from social care providers via direct contact with queries on process and through a Scottish Government-led national group for social care leaders. From this dialogue, themes emerged of social care settings wanting reassurance of processes for outbreak testing, which was managed by Public Health leads, and clear communication of changes to testing routines as these were established by Scottish Government.

154. In June 2022, 14 Territorial Health Boards' leads were contacted by the NSS COVID Testing Operations Team to discuss each Health Board's approach to patient and staff testing and any experiences relevant to shared learning. Themes for shared learning included the challenges Health Boards faced in applying LFD results to patient records electronically, to which most Health Boards had annotated paper patient files; the challenges staff faced with reporting their LFD results into the national portal for this purpose; their need for a clear long term view of policy on testing to inform their local planning; the importance to them of national data on staff testing; and the desire for local flexibility to enable Health boards to be responsive to prevalence impacting staff absence.

155. This was reported back to the Scottish Government with options for ensuring that guidance changing the cadence of testing via a Scottish Government Director's Letter could be supported by NHS NSS supply and logistics, and the NCC, for clear and consistent communications to sectors.

156. Standard Operating Procedures (SOPS) were developed for every pathway and procedure of the Test and Protect system. These were developed by the Scottish Government-led Project Boards for each workstream, with stakeholders and approved by clinicians, where guidance concerned implementation of testing in key settings (e.g. prisons, social care) or in specific functions (e.g. laboratories; logistics). NHS NSS ensured SOPs were distributed to key contacts in relevant sectors and to call centre operators in the NCC.

157. In November and December 2021 NHS NSS supported PHS to develop the logistical response to the emergence of the new variant Omicron within a testing strategy which used Whole Genome Sequencing via analysis of targeted home PCR testing to identify the variant. NHS NSS attended NIMT and meetings with public health leads in PHS to enable a rapid response to the new variant. The emergence of Omicron led to a Scottish Government decision to increase testing throughout the population, with public access to LFD at community testing via test sites, collection points and pharmacies, workplaces and schools. The frequency of LFD testing increased in health and social care. PCR testing also increased via MTUs as well as in health and social care.

158. In February 2022 UKHSA decided to significantly scale back COVID-19 testing services. In response, the Scottish Government established nine short-life working groups (SLWG) to consider the clinical and operational options for Scotland's own approach to testing which NHS NSS attended.

159. The SLWGs were led by Scottish Government Testing Leads. NHS NSS Testing Leads attended the working groups relevant to their operational roles:

- Test to Protect Staff Testing SLWG; Nigel Hutchinson and Ross Edwards
- Test to Monitor SLWG; Paul Walker
- Laboratory Strategy SLWG; Ruth Campbell
- Test and Protect Workforce SLWG; Ruth Campbell
- Test to Support Outbreak Management SLWG; Janis Heaney

160. NHS NSS' main role was to establish internal working groups to deliver the transition requirements decided by Scottish Government. The NHS NSS working groups were:

- Transition for UKSHA Customers to NHS Scotland; Janis Heaney
- Development of VAM/ Outbreak Response; Ruth Campbell and Janis Heaney
- Development of New Digital Ordering and Fulfilment to Replace UKG System; Paul Hornby
- Development and Improvement of Results Portal; Bev Wayne

161. NHS NSS input was liaison and dialogue with Scottish Government leads when required, by providing status information or data such as volumes of tests in stock and distribution or volumes of tests being carried out in laboratories, or to report progress and feasibility of operational responses required to the testing transition.

162. In March 2022 the Scottish CMO decided to reduce testing. Scottish Government policy leads made decisions with their stakeholder groups on when and how to reduce testing in their respective sectors. NHS NSS provided data on stock, logistics and reported test results via TODG and the Test and Protect Oversight Board and additionally NHS NSS reported feedback provided to its Operations Managers from stakeholders, to inform Scottish Government decisions.

163. Between March and September 2022 Scottish Government led a gradual reduction and stop of testing services. NHS NSS carried out a respective winding down of testing operations including liaising with leads of Regional Testing Hubs, supply, storage and logistics to plan for resilience against future outbreaks and including the recall of unused test kits from health, social care and other testing supply points.

ADVICE PROVIDED BY NHS NSS IN RELATION TO TESTING

164. NHS NSS staff acted as an operational conduit between Scottish Government, NHS Boards, academia, commercial laboratories, SNBTS laboratory capability and the four nations testing programme.

165. NHS NSS COVID-19 Testing team attended daily DHSC situation meetings and produced a written report each day which was shared with the Scottish Government policy leads and Test and Protect senior staff. This provided information on prevalence rates across the country as well as any up-to-date risks or issues with laboratory capacity or performance.

166. The NHS NSS Operations Team attended testing pathway boards and governance groups with support from NHS NSS PgMS to provide a secretariat to these groups. These groups were led by or closely involved with the Scottish Government policy lead for the operational area or sector. NHS NSS Operations Managers reported to testing pathway boards on how NHS NSS-managed functions were fulfilling their development, operation and scaling down tasks in the testing pathway; and engaged with communication across all partners involved in testing pathways. Where testing pathway boards, governance groups or incident management teams required support concerning

supply of test kits, logistics of delivering test kits, collation of reporting from laboratories or test result portals, NHS NSS Operations Teams co-ordinated these requests and actions.

167. Requests for PCR test kits by care homes and prison services were made through the online portal and shipped to the required location by a third party logistics company who were contracted for this specific purpose. Completed test kits were collected by a separate contracted courier company and returned to the specific regional testing laboratory assigned to carry out the required testing. The specific assignment of regional testing laboratories to care home location was agreed by the testing board.

168. LFD kits were supplied in a similar manner with requests through the portal for social care. LFD kits to Health Boards (secondary care) were supplied through the normal requisitioning system that hospitals use and delivered to the required location.

169. Regarding the supply of test kits, the NHS NSS Operations Teams collated data from UK Government Supply forecasts from NHS Test and Trace; stock and delivery data from Scotland distribution centres; data collated from health and social care partnerships and Health Boards on stock. These informed projections made by Scottish Government that supply could meet demand when changes to testing were required.

170. NHS NSS National Procurement managed Scotland's delivery and collection of test kits via designing distribution centres and delivery routes to ensure regular deliveries of test kits. The delivery data (number of test kits) was reported to the Test and Protect Operational Delivery Governance Group weekly.

171. Laboratory test performance by volume was collated by NHS NSS through direct reports from laboratories and collated into a Scotland overview reported to the Clinical Governance Oversight Group.

LABORATORY CAPACITY

172. During the early stages of the pandemic response, NHS NSS worked closely with Scottish Government and other delivery partners to grow testing capacity and focus what capacity existed at the highest priority areas, for example, health and social care, Fire, Police Scotland and SAS.

173. The National Laboratories Programme (NLP) was redirected from its transformation objectives to focus entirely on the testing response to pandemic in March 2020. The NLP worked with NHS NSS partners including National Procurement, DaS and the Clinical Directorate on the expansion of testing capacity in Scotland.

174. Laboratory testing capacity was increased by expanding the scale of NHS Scotland hospital laboratories, contracting capacity available from non-NHS Scotland organisations and establishing new NHS Scotland Regional Testing Hub laboratories.

Expanding scale of NHS Scotland hospital laboratories

175. All Health Boards had their own laboratories to undertake routine testing procedures, however few had the capacity to process PCR tests. The NLP worked with the SMVN to scope what existing testing capacity, from either virology or non-virology NHS laboratories (such as molecular genetics laboratories), could immediately be redirected to COVID-19 testing, and worked with National Procurement and suppliers to source new testing platforms and consumables. The NLP worked with the SMVN and Health Boards to successfully facilitate the delivery and distribution of testing platforms (the physical units that enable an assay or multiple assays to be processed, in this case PCR testing) and kits at the onset of the pandemic, ensuring that the Scottish Government was informed accurately and timeously.

176. SNBTS and NHS Lothian amended existing IT connectivity to enable SNBTS to provide overflow testing capacity if required. SNBTS performed 2666 COVID-19 PCR tests on behalf of NHS Lothian between 21 April 2020 and 1 September 2020 and reported back the results to the Health Board.

Contracting Capacity from non-NHS Scotland Organisations

177. As part of the NLP the NHS NSS Director of Healthcare Science led work to recruit partner laboratories outside NHS Scotland who were either able to redirect their diagnostics capability or create testing capacity. A number of academic and commercial laboratories expressed a willingness to support this work, and NHS NSS, together with NHS Lothian worked to establish the feasibility of each, according to availability of consumables for their testing platforms, and their willingness/ability to come under the NHS clinical and information governance arrangements.

178. All partner laboratories were managed under the clinical and information governance arrangements of NHS Lothian Health Board. The role of the NHS NSS Director of Healthcare Science was to support the selection of those laboratories and support the NHS Lothian Quality Manager in assessing the quality assurance arrangements of partners. Staff within partner laboratories were given training in NHS Lothian policies and procedures to allow them to upload results to the NHS Lothian system. These results were then checked and verified by registered NHS Lothian staff before being authorised and released.

179. The partner laboratories included academic partners (University of Edinburgh, Moredun Research Institute/SRUC) and commercial partners (Biobest laboratories, and Wm Grant and Sons). All these partner laboratories agreed to work within NHS Scotland clinical and information governance arrangements. Whilst limited in terms of capacity numbers, the COVID-19 testing performed by these partners bridged the period prior to the establishment of the Regional Testing Hub and allowed a degree of surge capacity essential to maintain satisfactory turnaround times. MM/029/INQ000532717 provides an overview of the testing capacity available from partner laboratories and the level of usage of the facilities.

Establishing Regional Testing Hubs

180. The capacity requirement to deliver the Test and Protect strategy was identified at 60,000 tests a day. A proposal was submitted to TODG and approved in June 2020 for a network of COVID-19 Regional Testing Hubs to be delivered by NHS Scotland primarily for testing of care home staff, prisons staff and other employee groups working with high-risk individuals. MM/030/INQ000532725 This paper was developed as a response to a paper outlining a proposal for a Regional Hubs model for NHS COVID-19 testing and seeks to provide responses to:

- How the proposal would be delivered including timeframes
- Relationship with commercial laboratory capacity which has been secured; and
- Overview of innovative workstreams, including anticipated impact, timeframes and caveats.

181. In September 2020, NHS NSS was commissioned by the Scottish Government to develop three new regional COVID-19 only testing laboratories MM/032/INQ000532724.

This initiative leveraged NHS NSS' knowledge and skills in operating the NLP and harnessed expertise from across multiple NHS NSS services such as PCF (consumables, equipment and outfitting laboratories), DaS (development of local technology and integration, national testing data flows, notification of results to care homes), SPST (programme management and the host for the COVID-19 Operational Testing Team). In addition, HFS dealt with the contracts and leases. The NHS NSS Director of Healthcare Science provided clinical leadership to the programme.

182. The three Regional Testing Hubs were established in former SNBTS laboratory sites in NHS GGC, NHS Lothian and NHS Grampian. SNBTS were involved in initial discussion on the establishment of the hubs but had no ongoing involvement.

183. The proposal outlined the opportunity to provide additional regional resilience through the deployment of additional PCR analysers across three regional locations, providing an additional 10,000 tests a day from the three NHS Scotland run facilities. Funding was made available for one year with a review in March 2021. On August 28, 2020, the Scottish Government requested an increase in capacity to 22,000 tests a day from NHS Scotland run facilities. In order to meet this need, four new machines (Thermofisher Amplitudes) were deployed in NHS GGC at Gartnavel and at sites agreed with NHS Grampian and NHS Lothian.

184. The NHS Scotland policy was to maximise PCR testing capacity within the Regional Testing Hubs, and this resulted in a requirement for bespoke testing kits that would inactivate the virus before return to the laboratory for testing. UK Lighthouse Laboratories used a type of transport medium, Viral Transport Medium (VTM), which kept the virus alive. National Procurement and the SMVN Group worked with a Scottish manufacturer to develop and introduce a PCR testing kit containing an inactivation transport medium which 'killed' the live virus. The introduction of this inactivation PCR testing kit not only removed the risk of onward infection to those staff handling the tests but also reduced the processing time on arrival at the laboratories as samples were directly routed to the testing platforms for analysis.

185. As home and community-based testing developed, a critical supply risk emerged around January 2021 relating to PCR test kits. National Procurement worked closely with Scottish Enterprise to develop a new PCR test kit assembly, including items such: as a swab; information leaflet; instructions for use; waste disposal bag; vial containing sample solution; a return bag; and distribution supply solution with a company based in the Scottish Borders who responded to the challenge of building the required testing

'kits'. Kit components were sourced from another company based in Scotland and a kitting service created the complete kits to be used by care home staff and prison staff.

186. A key challenge was establishing the manufacturers licencing under the Medical Devices Regulations (MDR) which the kitting supplier was not able to achieve. To overcome this NHS NSS became the manufacturer under the MDR regulations (Class I Medical Device) to ensure this supply capacity was enabled.

187. Initial project delivery dates were September 2020; this was pushed back to December 2020 due to delays to the building, commissioning and delivery of key equipment.

188. A project board was established to oversee the build and implementation of the project. The project was managed by a team from the NLP and led by a Programme Manager allocated by NHS NSS PgMS; reporting to TODG. The team responsible for preparing and fitting out the Regional Testing Hubs was led by Health Facilities Scotland (HFS).

189. The regional hubs became operational between December 2020 and January 2021.

190. The Scottish Government set targets early on for the NLP to increase capacity e.g. daily testing capacity per Health Board or across Scotland. The NLP also worked with a variety of stakeholders to seek and develop novel methods of testing, bringing some such approaches to the Health Service. New testing services exploiting new IT, logistics and communication systems were all established which are still in use to this day. Some of the more novel testing techniques were not used or implemented, however it was necessary to explore all opportunities given the new challenge being faced.

191. NLP collaborated with a range of stakeholders to build capacity and resilience for COVID-19 testing. Working with Scottish Enterprise a survey was issued across their network of organisations to identify any potential collaborations for expanding testing capability. As a result, a whisky distillery was identified with PCR capability and mobilised as a 'partner node'. A similar partnership was also mobilised with Edinburgh University. Other avenues explored included organisations such as Marine Scotland.

192. In terms of new approaches to testing, NLP worked with procurement and clinical stakeholders to procure Lumira Point of Care capabilities which were adopted in a number of Health Boards to improve patient safety and flow by reducing the time to result. It was noted at the time that appropriate use was required given high specificity but slightly lower sensitivity than PCR testing.

193. In addition, NLP collaborated with academic colleagues to explore feasibility of options such as 'pooling of samples' to further increase capacity. This was not required as capacity increased but was an important avenue to explore at the time as it may have provided significant additional, low cost capacity to support the response had further capacity been required.

194. NLP worked collaboratively to mobilise a new infrastructure for regional hub PCR testing and lateral flow testing. Collaboration included working with NSS Digital to develop a digital interface to enable ordering of test kits and conveyance of results.

195. In addition, work was undertaken with Scottish Manufacturing Advisory Service and NHS NSS National Procurement to identify a supplier who could create an equivalent to VPSS, a transport medium which killed the virus at source, making processing much more efficient - this was utilised to support the Regional Hub model, reducing turnaround time and workforce requirement. A logistics partnership was procured to transport samples from the test sites (care homes etc) to the Regional Hubs.

196. Testing pathways were developed in conjunction with Scottish Government stakeholders and key services such as prisons and social care in both PCR and lateral flow testing. This enabled tailored approaches to specific service need.

197. Work was also undertaken with the Scottish Manufacturing Advisory Service to apply lean methodologies to NHS laboratory services such as in NHS Tayside, along with Regional Hub pathways in an effort to minimise turnaround time of results.

198. Commissioning of the specialist Blood Borne Virus (BBV) laboratory service in Glasgow and Edinburgh in February 2020 was the joint responsibility of NSD and HPS (as it was then). NSD have jointly commissioned the service in NHS GGC and NHS Lothian for a number of years with HPS and now PHS. There was no separate commissioning process for COVID-19 testing activity in the laboratories. Funding was supplied directly from Scottish Government and PHS were involved in decision-making.

NLP Report March 2020

199. The National Laboratories Programme NHS NSS Leadership in the Deployment of testing across Scotland document was submitted to the Inquiry in Module 2A MM/033/INQ000291509. The report sets out the role that NHS NSS and the NLP had in expanding COVID-19 testing capacity in the early stages of the pandemic. The report

provides an overview of how the NLP COVID-19 Laboratory Diagnostic Programme increased capacity through:

- Deployment of testing equipment and reagents into Health Boards
- Expanding capacity through academic, public and private sector partnerships to secure resilience as COVID-19 impacts the workforce and drives capacity issues throughout the system
- Development of a COVID-19 dashboard and Health Board profiling to allow for 'semi real-time' information to be available to drive responsive decision making.

200. The report also notes key achievements at the point of publication (March 2020):

- Purchase of testing equipment for rapid deployment across Scotland
- Bolstering capacity to levels higher than NHS England and moving towards a rate which is identified as high performing in other countries
- Delivery of 1200 volunteers onto a register to work in laboratories
- Agreement from academic partners to rapidly deploy their own laboratory resources
- Confirmed buy-in from over 3 companies so far, with a further 20 interested and engaged in supporting NHS COVID-19 testing capacity
- Confirmed support from public sector partners.

TESTING OF HEALTH AND SOCIAL CARE STAFF

201. In April 2020 the NHS NSS COVID-19 Testing team supported some health and social care organisations including The State Hospital, Scottish Ambulance Service and some private social care providers to book test slots at RTS located at major airports in Scotland. This process involved organisations submitting details of staff who required a test via spreadsheets, with these being uploaded to an online secure file system hosted and managed by Deloitte.

202. In July 2020 the NHS NSS COVID-19 Testing teams offered support to care homes managing staff testing regimes. As part of the UK Pillar 2 testing programme care homes could order PCR test kits using an online ordering portal. Tests were delivered directly to care homes and collected on the day of sampling by couriers booked using an online system. NHS NSS COVID-19 Testing teams were a first line of escalation for care home testing leads when ordering test kits or arranging couriers MM/034/INQ000259979.

203. The Social Care testing pathway started in December 2020 in care homes and expanded by social care service type to 14 separate pathways over the following eight months, each with different testing routines determined by Scottish Government policy leads for each sector in consultation with stakeholder groups.

204. Primary Health workers, hospice staff, NHS 24 and Scottish Ambulance Service workers were tested by LFD twice weekly. Health Boards took delivery of test kits for their own distribution to staff in hospital and community services.

205. By December 2021 Care Home testing comprised twice weekly LFD testing and one weekly PCR test for staff; and visitor LFD testing on arrival (including visiting professionals), delivered and (for PCR) collected directly from care homes. Care at Home domiciliary staff had one PCR test per week; whilst Care at Home in other categories used LFD tests, and adult day centres used LFD tests, provided by local PPE hubs.

206. During Omicron in December 2021 PCR-only pathways were provided with additional LFD supply and testing became daily.

207. In April/May 2022 during the transition phase, seven pathways ended and five continued to test but with a reduced eligibility for patient-facing roles in the highest risk settings. A survey was commissioned to contact all 1000 organisations affected by reduced eligibility to inform them of criteria for ongoing testing and update their staff numbers to support the continued "push order" model whilst reducing the supply of test kits.

208. The survey of the care homes was successful as it helped confirm how many actual care staff (not patients) were in each of the care homes and therefore PCR kits could be provided in anticipation of future use. The final response confirmed there were slightly more care staff within these locations than initially thought however sufficient kits had been procured in anticipation of an updated forecast.

MOBILE TESTING UNITS

209. NHS NSS took the lead in operational deployment of Mobile Testing Units (MTU), initially through a Military Aid to Civil 12 Authority (MACA) agreement with the British Armed Forces and later through SAS. NHS NSS worked with NHS Health Boards and Local Authority resilience teams to ensure that the MTU capacity was deployed where it would achieve the most effective impact. By May 2020, MTUs supported deployment to care home outbreaks of COVID-19.

210. The key NHS NSS staff involved in the operational delivery of MTUs are:

- Janis Heaney – Associate Director, COVID-19 Testing Operations
- Tracy Maxwell, Operations Manager
- Lynn Scott, Operations Manager
- David McClure, Operations Manager
- Caroline McDermott, Operations Manager.

211. NHS NSS COVID-19 Testing team led on the engagement and communication with local public health teams and local authority resilience teams to identify appropriate locations for deployment of MTUs. Locations were determined based on local intelligence, positivity rates, outbreak situations or where access to testing was difficult due to rurality or other factors. The team gave advice and guidance on site suitability, testing capacity and other logistical requirements of deploying an MTU. The team also led on developing testing solutions utilising MTUs for areas such as community testing, delivery of test kits to care homes using MTUs and outbreak testing. All tasking requests were submitted to a dedicated mailbox which was managed by the NHS NSS Covid Testing team. The team led on development of weekly schedules for each health board areas and advised SAS MTU staff on required deployments MM/035/INQ000532720.

212. At the end of April 2020 there were 13 MTUs available in Scotland. By February 2021 there were 42 MTUs in Scotland as part of the UK National Testing Programme. A unique arrangement in Scotland enabled SAS to "split" MTU teams to support additional deployments. This meant that we could have a maximum of 84 deployments across the country. The MTUs were deployed to a wide range of locations across all Health Board

areas in Scotland, including remote and rural locations and Scottish islands. The MTUs were deployed from April 2020 until the end of the testing programme in 2022. Regular weekly schedules were created with Health Boards and MTUs generally deployed to fixed locations on a weekly basis. MTUs were also deployed as needed to outbreaks either within communities or specific locations such as large employers. In August 2020 a number of mobiles testing units were deployed to support testing over 600 employees of 2 Sisters Food Group in Tayside; In November 2020 an MTU was deployed to undertake a full day of testing after an outbreak at Thomas Tunnock Limited in Uddingston; and in March 2021, an MTU was deployed to a community in Ayr in response to outbreaks in two local primary schools.

213. Scotland also had access to a number of reserve MTUs via the UK National Testing Programme as a contingency. The reserve MTUs were resourced by the third-party organisations responsible for the drive through Regional Test Centres – Mitie UK and Sodexo.

214. In April 2020 British Armed Forces were providing the resource for the MTUs under a Military Aid to Civil 12 Authority (MACA). NHS NSS COVID-19 Testing team were allocated a key point of contact in the British Armed Forces who acted as an overall coordinator for the MTU deployments. The NHS NSS COVID-19 Testing team identified required locations for deployment and tasked the British Armed Forces to deploy the units. A shared rolling schedule was developed detailing dates and locations of deployment. DHSC guidance documents and SOPs were utilised. When the decision was made at Testing Programme Board that SAS would take on responsibility for staffing and managing the MTU service the NHS NSS COVID-19 Testing team worked with British Armed Forces and SAS staff to deliver training and develop handover plans. The NHS NSS COVID-19 team were responsible for submitting new tasking requests to SAS, identifying key local contacts and ensuring sites met minimum requirements.

215. The NHS NSS COVID-19 team established relationships with NHS Health Board public health teams and Local Authority resilience teams. All health boards had a designated lead for testing. Public health leads were responsible for identifying the areas of most need for MTU deployment and Local Authority resilience leads were responsible for identifying suitable venues which could accommodate the requirements of the MTU. As the number of available MTUs increased they were able to be deploy to additional locations and respond to specific outbreak situations as needed. Priority for MTU deployment was always given to outbreak areas wherever possible. The NHS NSS COVID-19 team members attended local and regional resilience meetings as well as

attending local and national IMT meetings to offer advice and guidance on MTU availability and deployment. Weekly schedules of deployments were developed, and processes put in place to support forward planning of deployments.

216. In May 2020 NHS NSS worked with the Scottish Government and Health Boards to develop an operational solution to providing PCR test kits to Scottish care homes. Several options were explored with each region to identify the most effective and efficient way of enabling test kits to be delivered and collected. NHS NSS then liaised with the British Army in Scotland lead to task MTUs with dropping off test kits at care homes enroute to their deployment location in the early morning and then collecting completed test kits from the care homes on their return to the RTS in the late afternoon. Priority was given to areas where the need was greatest and to larger care homes MM/036/INQ000532706.

217. In the autumn of 2020 testing strategy for returning university students was agreed by the Scottish Government. Students travelling to university accommodation were advised to test before travelling and again when they arrived at their accommodation. Through local public health teams, it became clear that outbreak situations were occurring in a number of student accommodation premises. In order to facilitate testing of students a solution needed to be identified. The decision to utilise the MTU capability was taken by Test and Protect Programme. NHS NSS COVID-19 Testing teams then had responsibility to work with SAS to identify available MTU vehicles. The team worked with university facilities colleagues to identify suitable locations. Initially the response was required in Glasgow University halls of residence accommodation and MTUs were deployed to car park locations to support student testing. MTUs were deployed at other points in the pandemic as part of outbreak management. These decisions were made at local IMT meetings in conjunction with public health teams in Health Boards. Minutes from these meetings would be owned and held by Health Boards.

218. A number of locations in rural areas were part of the regular deployment of MTUs throughout the course of the pandemic. Locations were identified by local public health and testing leads based on ensuring as wide access as possible to testing. MTUs were deployed to some Scottish Islands on a relatively regular basis for example Skye, Bute and Arran. A deployment to Shetland was also coordinated. As the pandemic developed, the Scottish Government testing strategies focussed on working towards as high a proportion of the population as possible being within a 30 – 45-minute drive from a test centre. Local test sites (walk through test sites) were established in towns and for more rural locations the NHS NSS COVID-19 Testing team worked with Scottish Fire

and Rescue (SFRS) to establish small scale test sites (SSTS) in rural locations where drive through testing was accessible or tests could be collected and dropped off when completed and then returned to laboratories for analysis using couriers supplied by the Pillar 2 of the UK National Testing Programme MM/924/INQ000543013. A specific test booking phone line was established by NHS Highland for some of the SSTS. Home test kits were available to order to most to Scottish post codes with drop offs at priority post boxes established by Royal Mail. Courier collection of test kits was also possible. Bespoke testing arrangements were made for some more remote island communities in partnership with Health Board testing leads, SAS and courier organisations.

219. The challenges of testing in rural locations were predominantly related to logistics and travel times. All MTUs deployed from a RTS and had to return there at end of testing window to ensure test kits were transported to laboratories for analysis. Driving distances and road conditions, particularly in the winter period did on occasion lead to challenges accessing rural locations.

220. NHS NSS Operations Team maintained contact with local distribution hubs and Health Board leads to ensure supply during winter conditions. Occasionally arrangements were made with regular domestic flight operators (e.g. to the Western Isles) to ensure continuity of supply when Island Health Boards reported that additional stock was needed due to ferry delays. There were no adverse weather events during the winter of 2021/22 that interrupted continuity of delivery or collection of test kits by courier in mainland Highlands.

221. The flexibility and adaptability of NHS NSS was also demonstrated in the lead up to Christmas 2020 when, at late notice, hauliers were required to demonstrate negative test results to enter Europe. NHS NSS was able to quickly deploy additional pathways on our digital portal and adapt existing protocols

222. In December 2020, NHS NSS setup an LFD testing site facility at Larkhall, specifically for hauliers. SAS were trained up on LFD testing at short notice.

223. SAS recorded the result on behalf of the hauliers on the LFD COVID-19 Testing Portal, which is a secure web portal with a central database, developed and managed by DaS. The result data flowed into the National Integration Hub to be verified with an NHS patient identifier Community Health Index (CHI). The data flowed into the Case Management System (CMS) which had information about COVID-19 positive tests to support contact tracing. The laboratory result data was verified against the CHI (patient

identifier) within the National Integration Hub and then the CHI matched data was transferred to the CMS for contact tracing.

224. The LFD COVID-19 Testing Portal already existed to service Care Home and Community testing and was adapted quickly for use with hauliers.

225. The system sent a text message to the drivers via the National Notification Service, as evidence of negative testing. This allowed safe crossing at borders for hauliers.

226. If the driver received a positive LFD test result, they had to go for a confirmatory PCR test. These were also provided by SAS and processed by the Scottish regional labs. If the PCR test returned a positive result, drivers had to make arrangements with their employer to isolate for 10 days.

227. This service operated from late December 2020 until 31 March 2021.

228. The Lateral Flow Device Ordering and Reporting Portal is still available but is now only for reporting PCR tests results.

229. Authorised PHS staff have access to the raw data (positive and negative test results) to perform their public functions as outlined in the Public Health Scotland Order 2019 MM/037/INQ000532705.

230. Authorised Health Board staff, approved by their Caldicott Guardian, have access to LFD data relating to their own patients, based on patient postcode of residence. This is accessed in the NHS NSS Seer platform Data Virtualisation Layer.

231. Scottish Government has access to aggregated and non-personally identifiable information via dashboards.

TRACING

232. NHS NSS was asked to become the key national delivery partner for contact tracing by the Scottish Government, although commissioned by PHS. In May 2020, when Test and Protect and the contact tracing service were being established, it would have not been possible for PHS to deliver contact tracing without NHS NSS.

233. PHS was responsible for the oversight of commissioning and public health. NHS NSS' role in relation to contact tracing was through the implementation and operational management of the NCC and the procurement or development of a range of digital tools and platforms which were deployed to contact tracing teams and the public in Scotland.

234. NHS NSS started work in May 2020 and the NCC was operational from late June 2020. Initially its role was to provide a small core resource team centrally which could support and augment the resources that territorial Health Boards had identified as being able to carry out contact tracing. Those Health Board resources would be drawn from Health Protection Teams (who had experience of contact tracing for other pathogens) and staff from other roles in services which had been reduced or temporarily suspended as a result of the pandemic.

235. During the first three weeks of NCC, all Health Boards deployed the Case Management System (CMS). The CMS was developed in May 2020 by DaS on the ServiceNow platform to provide a system that would allow COVID-19 cases to be linked to their contacts and places for the purpose of providing isolation and testing advice and to limit the spread of infection MM/021/INQ000532732, MM/039/INQ000532726. This platform was accessible by NCC and Health Boards replacing all previous local or temporary approaches to contact tracing for COVID-19. The CMS was able to be rapidly deployed using internet Software as a Service (SaaS) which allowed secure and multi-factor authenticated access for all users. The decision to use cloud-based technologies for CMS and for contact centre telephony solutions were vital in terms of being able to flexibly deploy access to these platforms in later months.

236. By August 2020 it was apparent that the scale of contact tracing was larger than what the available resources from Health Boards could support and it was agreed that NCC would increase in size to around 270 staff. NCC put this resource in place via further recruitment and some contractual arrangements with commercial contact centres. Later when vaccination and COVID-19 status certification became a service, which NHS NSS was commissioned to support, NCC expanded to more than 400 staff, 800 bank workers and had access to more than 1000 additional staff via its commercial contract arrangements. This approach allowed NCC to rapidly upscale and downscale resource by drawing on each resource pool, which benefitted contact tracing within Test and Protect and vaccination services alike. A new contact centre framework of multiple providers was set up specifically in response to NCC's requirements to enable the flex up and down of resources rapidly, in addition to its core and bank workforce.

237. NCC's role was to work with PHS and Territorial Health Boards to provide a Once for Scotland contact tracing service, with all delivery partners using the same data, knowledge bases and contact tracing scripts ensuring a consistent national response. NCC operated a national freephone helpline which was published widely, for example, on NHS Inform, but also contained in messaging sent to those who had tested positive for COVID-19. NCC services for contact tracing operated throughout the first two years of the pandemic on a 12-hour day, 7 day per week basis with the exception of some public holidays. As Scotland moved beyond its response phase, NCC services for contact tracing were reduced in alignment with Scottish Government policy, including reductions in the number of staff required in the workforce and also the hours of operation.

238. Throughout the pandemic, NCC developed knowledge bases and scripts used by all contact tracers (both in NCC and in Health Boards) which reflected the extant Scottish Government policy and advice from PHS. NCC worked closely with the clinical and communications teams in PHS to ensure that scripts and other information available to contact tracers were clinically approved, version controlled and distributed to all contact tracing staff. At the peak of the pandemic, there were times where advice could change quickly several times a week, and having a well-maintained quality management system was essential in ensuring the correct guidance was always available to staff and to the public.

239. NCC also provided access to real time language translation services supporting more than 130 languages other than English and a video interpretation service via ContactScotlandBSL for those who required British Sign Language support.

240. NHS NSS continues to be the host organisation for NCC. NCC was set up within SPST Directorate as a new service. The Programme Director (later Operations Director) of NCC was seconded from another role in NSS to lead the implementation and then the operation of NCC.

241. The NCC Programme Director reported to the Director of SPST.

242. The NHS NSS Executive Management Team formed a sub-group to oversee the implementation of NCC through the first several months of operations.

243. Wide support was required from all parts of NHS NSS to help implement the NCC including:

- Digital and Security (DaS): as well as the development and deployment of the platforms referenced earlier in the statement, DaS procured and deployed laptops, monitors etc to NCC core staff and enabled remote working access for those staff to the NSS network. For bank staff, DaS created Bring Your Own Device (BYOD) policies, which allowed secure access from non NSS devices for NCC staff; for workers in commercial contact centre partners, DaS supported integration of those supplier networks and devices into the NCC service.

- The Information governance team within DaS supported NCC with all aspects relating to data protection including privacy notes and data protection impact assessments.

- Human Resources: the HR team were heavily involved all aspects of developing the NCC workforce, from job role definitions through to recruitment and onboarding onto NSS workforce systems. HR also worked closely with Disclosure Scotland to ensure that NCC staff held the appropriate Protecting Vulnerable Groups status.

- National Procurement: supported NCC by leading on the procurement of digital and contact centre framework services.

244. In addition to NCC, NHS NSS supported contact tracing by providing a range of digital platforms and tools, some of which were used by contact tracing teams and some of which were used directly by members of the public. These platforms and tools consisted of:

- **TTI Simple Tracing Tool** - a Simple Tracing Tool for Test, Trace and Isolate (TTI) strategy was designed with CapGemini and PHS and developed by StormID with support from the Digital Health Institute (DHI), for use by Health Boards local public health teams to support contact tracing. It was piloted from 18 May 2020 with three Health Boards (NHS Lanarkshire, NHS Fife and NHS Highland), and was rolled out further from 25 May 2020 through PHS led workshops. This was largely superseded by the CMS and the NCC.

- The "Simple Tracing Tool" contained patient demographic and contact details data for the positive laboratory test results within a Health Board for contact tracing. Contact tracers would be assigned index cases to manage, and they

would contact individuals by phone interview to record a list of their close contacts. It was intended as an interim tool to provide basic features for data collection by phone interview. It did not have any workflow and required manual processes. MM/922/INQ000543011

- **Case Management System** – this was the core platform used by all contact tracing teams where in NCC or in Health Boards, with escalation workflows to staff in PHS. The CMS received COVID-19 test results (positive/negative/void) from all testing sources including those provided through the UK National Testing Programme as well as from all local testing in Scotland including hospital laboratories and the three Regional Testing Hub laboratories which had been built specifically in response to the pandemic. The CMS alerted those who were COVID-19 positive with information about isolation and the NCC helpline, providing work queues of individuals who were COVID-19 positive but did not have digital communication details available, so that they could be phoned on a landline. Daily reporting from the CMS was available to assess contact tracing performance against key performance indicators which had been set by PHS. The daily report issued by the National Contact Centre on 1 December 2021 and the report issued to the National Incident Management Team on 30 December 2021 are included as examples of the reporting derived from CMS data. In respect of testing, overall assessment was being made against turnaround (from sample taken to receipt of result in CMS) of tests against 24 and 48 hour performance indicators. In respect of contact tracing, performance was monitored in relation to how many contact tracing cases (the index case and their contacts) had been fully contact traced within 24, 48 and 72 hours or longer. The target was to achieve 80% of cases completed within 48 hours of receipt of a positive test result in CMS.

- **National cloud-based telephony service** – NHS NSS procured this service via an existing UK Government framework, an internet-facing cloud contact centre telephony and virtual "softphone" handsets which were deployed to all contact tracers in NCC and Health Boards. A softphone is a software which runs on a personal computer (PC) and has the same function as a physical phone. Within contact tracing, softphones were deployed to laptops/ PCs and used by contact tracing staff who were provided with computer headsets. A member of staff logged into their softphone would be part of a pool of staff assigned to respond to calls coming in on the main NCC 0800 number. By using softphones and the virtual contact centre system, data about calls could

be integrated into CMS to form part of the overall contact tracing record. This allowed call metrics to be captured such as volumes, response times and individual contact tracer productivity. This system was used to host a range of helplines including the freephone number used by NCC and Health Boards for contact tracing. NCC answered all incoming contact tracing calls on the freephone number, then seamlessly passed on the call to the relevant NHS Board depending on the type of call or managed the call within NCC. Both NCC and Health Boards used this service for all outbound calls relating to contact tracing. The contact centre telephony service was integrated into the CMS so that call records became part of the overall case data held in CMS. Calls were recorded to support contact agent quality review and improvement.

- **CO3 system** – a digital web form was outsourced and developed by a third-party Storm ID based on requirements to provide a mechanism for digitally collecting information from citizens alongside the telephone channel provided by NCC. CO3 allowed for those who had tested positive for contact tracing to provide other information including close contacts and places they had been during their infectious period via a secure portal rather than receive a telephone interview from a contact tracer.

- **National Notification Service (NNS)** - outsourced and developed by third-party Storm ID to provide citizens with notifications of their COVID-19 PCR positive and negative test results via SMS.

PROTECT SCOTLAND/ CHECK IN SCOTLAND APPS

245. DaS were involved in the development and maintenance of the Protect Scotland and Check In Scotland Apps.

246. The Protect Scotland mobile App, also known as the Proximity App, was in use during the pandemic and was made available to citizens for download from App stores. It utilized new technology provided by Apple and Google to anonymously identify potential close contacts through proximity of other phone devices over Bluetooth. When a person tested positive for COVID-19, part of the contact tracing process would send the person a code which, if they had the App and entered the code, would send an alert to those potential close conducts advising them of this and providing them relevant testing and isolation advice. In this way, the Protect Scotland app allowed the identification, isolation and onward testing of contacts who were unknown to the person who tested positive

(e.g. someone they had been sitting next to on a bus). The App was paused at the end of April 2022.

247. The App implementation was managed by NHS Education for Scotland and a third party called Nearform Ltd. There was a four nations approach, all sharing a federated server built by Nearform Ltd. The National Cyber Security Centre was involved in the architecture of the App.

248. NHS NSS supported the Scottish Government with solution architecture, information governance, security and compliance guidance. NHS NSS reviewed the System Security Policy written by NHS NES.

249. NHS NSS integrated the CMS with the Nearform backend infrastructure, whereby CMS passed a citizen mobile number, a test date, an onset date and JobID (unique identifier) for each positive test case. This resulted in generation of an authorisation code, that was provided back to the CMS, in turn sending an authorisation code to an index case via SMS text.

250. The Check In Scotland service was commissioned by the Scottish Government and developed by DaS. The App allowed businesses, such as the hospitality sector, to display a QR code which visiting customers could scan on arrival at the business venue. The app would allow their personal data to be captured and stored securely. In the event of an outbreak at that venue, multiple potential close contacts could be quickly communicated to using this check-in data. Relevant isolation and testing advice was provided to those alerted via SMS or email.

251. The Check In Scotland App was outsourced to a third party (CapGemini) to support hospitality venues to comply with legislative requirements. Specifically, to obtain, record and retain visitor information (First Name, Last Name, Mobile Number and Email address) for at least 21 days from the data on which the visit occurred. Citizens scanned an official Check In Scotland QR code via their smartphone or by downloading the App. Data was used for contact tracing purposes only.

252. The Check In Scotland development team opted for both a web and native App to run the service.

- Web App built and developed by NHS NSS

- Native App built and developed by CapGemini.

253. There were various components to the service:

1. Venue Registration – venue (setting) registers with the service and prints their unique QR code for display in their establishment

2. Web based citizen form – online form for gathering personal details from the citizen

3. Mobile App – application for scanning of QR codes for check in and out with automated data entry of personal details.

254. The service had a soft launch on 11 December 2020 with hospitality venues invited through direct mail and social media to pre-register on a voluntary basis to participate. Visitors had the ability to check in and out digitally in participating venues from 18 December 2020.

255. The App version of the service was available for download from Google Play and the Apple App store from 18 January 2021.

256. Following the voluntary adoption, Check in Scotland was available to any business in Scotland from 26 April 2021.

257. The App was paused on 20 March 2022 and then decommissioned MM/040/INQ000532738.

258. Protect Scotland data was available to support contact tracing by the NCC.

259. Protect Scotland data was also used to notify citizens via the CMS when they had been in close proximity to a Covid positive person.

260. The Protect Scotland app allowed a person to opt in or out by downloading or deleting the App. The Protect Scotland App was not mandated in legislation.

261. Check In Scotland data was held centrally in a secure data store for 21 days. The data was only accessed in the event of an outbreak being identified by contact tracing staff in the NCC or a Health Protection Team in a Health Board. Contact tracers would contact

the venue to advise there may have been an outbreak and request access to the venue check in register. Contact tracers then contacted or sent digital alerts to individuals who attended the venue at the time of the identified outbreak.

262. Venue registration data and check in / out data was stored within the NHS NSS Azure platform. The data linked with the CMS for Contact Tracers to request information which would require authorisation by NCC or PHS management before being released.

263. NHS NSS had no concerns about privacy and/or integration/compatibility with other apps in other nations as integrations with the 4 nations were covered by strict data sharing agreements. Additionally, Data Protection Impact Assessments (DPIAs) under section 255 Health and Social Care Act 2012. MM/041/INQ000532704 allowed the data sharing to take place between the nations. It was comprehensively governed and assured by the Scottish Government for security and compliance.

ISOLATION

264. Isolation advice was specified by Scottish Government policy and by PHS guidance. Agreed isolation advice and guidance was instructed by PHS to be published via NHS Inform and accessed digitally by people in Scotland MM/923/INQ000543012.

265. NHS NSS' role was to operationalise that advice via the NCC for contact tracing by ensuring the relevant scripts, knowledge base articles and digital messaging, for example, text messages or emails sent to individuals who were positive for COVID-19 or their close contacts, were kept consistent with Scottish Government policy and PHS guidance. The NCC operated a quality management system and a quality assurance team who managed changes to those items which were clinically signed off by PHS.

266. The NCC knowledge bases were continually being updated in terms of practical support so that those contacting the NCC could find out additional information. Escalation routes for clarification of situations which were not covered in standard guidance were available from the NCC and Health Boards to PHS.

267. Local Authorities in Scotland were responsible for the provision of financial support related to anyone isolating due to COVID-19, where the person isolating was eligible for that financial support. The NCC ensured that the correct sign posting to financial support information was part of contact tracing scripts and digital messaging. A "text back" service was deployed into the CMS which allowed someone who wanted to find

out more about financial support to the opportunity to provide their postcode into CMS. This would then allow the sharing of personal data to the relevant local authority for them to make contact with the person isolating.

268. NHS NSS Practitioner Services supported the issuing of shielding letters to high-risk individuals through an existing contract with Royal Mail. PHS provided the patient data and Scottish Government provided the content of the letter to be issued. NHS NSS used the Royal Mail platform provided by CFH Docmail using hybrid mail to generate and send the letters.

269. NHS NSS did not make decisions in relation to isolation of the general population. Those decisions were made by the Scottish Government based on inputs from a number of groups, including the NIMT.

270. The NHS NSS Test and Protect Operations Director was a member of the NIMT for the purposes of reporting the performance of contact tracing and testing programmes and attended meetings where PHS and Health Boards were formulating their advice to Government on general population isolation, that advice was not something that NHS NSS directly contributed to.

271. NHS NSS is not a patient facing organisation, with the exception of donor and clinical apheresis services within SNBTS. NHS NSS was not responsible for formulating isolation guidance but reiterated and followed guidance issued by Scottish Government via scripts created from the guidance and signed off by PHS. These were used through all interactions with the public during contact tracing activities. Digital contact tracing signposted the public to PHS guidance MM/921/INQ000543010.

272. The Scottish Government commissioned NHS NSS and PHS to provide a service providing additional advice and support to those who arrived from international travel either directly into Scotland or where their final destination was Scotland having arrived elsewhere in the UK. Travellers to Scotland were provided with guidance which included isolation advice and testing advice including where they could access testing MM/925/INQ000543014.

273. The service relating to providing advice and support for those who had come to Scotland via international travel was commissioned in June 2020. This service would use the same NCC workforce who were recruited for contact tracing. Health Board staff were not involved in the provision of this service. A smaller module deployed on the

same platform as the CMS was developed to be able to receive data on travellers and generate any digital messaging. The NCC developed separate scripts and knowledge bases for this service in parallel with those for contact tracing. A separate freephone number was established for this service using the same cloud-based telephony service used by contact tracing staff.

274. The support and advice given to travellers was consistent with that specified by Scottish Government policy and PHS Guidance. The NCC's role was to ensure that NCC staff contacting any travellers via telephone or digitally via SMS or email were given information which was consistent with the extant policy and guidance at that time. Policies would change regularly depending on, for example, the status of COVID-19 in the countries that travellers had come from, and the risk that that could pose to transmission of COVID-19 in Scotland. PHS had the responsibility to publish any relevant guidance on NHS Inform.

275. PHS received traveller data and every person who had arrived in Scotland via international travel or for whom that was their final destination, was given information digitally on arrival in the UK. These data were then transferred to the NCC and held in the same platform as CMS. The NCC contacted an agreed 20% of these individuals by telephone, regardless of receipt of the earlier PHS message, and also used that data to support any of those individuals phoning in to seek additional clarity or support. If the individual could not be contacted by telephone (after several attempts), that information was provided back to PHS. PHS could use that data to advise Police Scotland who could at their decision attend the location at which the person had reported they would be isolating.

276. Links were established between the main CMS system used for contact tracing and the separate dataset relating to travellers where a traveller subsequently tested positive for COVID-19. This allowed quick identification of positive travellers as a higher risk category for additional contact tracing to be carried out if required. In some instances, where PHS considered the risk to be sufficiently high, PHS sourced flight manifesto data which then allowed the NCC to provide additional contact tracing.

COMMUNICATION

277. The responsibility for public health messaging lay with Scottish Government and PHS, not with NHS NSS. Public health information was published on the Scottish Government website and on NHS Inform by PHS. Both organisations also used social and

mainstream media to publish public health information. Daily media briefings were held by Scottish Government ministers and officials.

278. NCC staff were members of communications groups lead by PHS who developed and signed off public messaging and guidance. The role of the NCC attendee was to ensure visibility of changes of guidance so these could be incorporated into the digital (email and SMS) messaging and scripts that would be used in contact tracing for those who had tested positive for COVID-19 and their close contacts. The content of scripts and digital messages was clinically approved by PHS.

279. NHS NSS, via the NCC, were involved in communications groups to understand what communications were being planned and issued so that contact tracing scripts and digital messages could reflect messaging.

280. By design the contact tracing, isolation advice and support and traveller advice services were multi-channel – telephone and digital. There was no presumption that everyone would be able to access the internet or have a mobile phone device. Processes were in place to use digital contact methodologies via email or SMS to signpost to online content, where those contact details had been provided. Where contact details were not provided, telephone was the default channel and the NCC and Health Board staff would provide the same content that was available online over the telephone channel. Within the telephone channel, all the NCC services (and Health Board services) provided access to real-time translation services for more than 130 languages and to contact SCOTLAND-BSL for those who needed to use British Sign Language.

281. The NHS NSS Marketing and Communication team responded to media requests for information or statements that were submitted to NHS NSS as part of business-as-usual activity. Between January 2020 and March 2022, the team responded to 58 media requests in total, including:

- 3 COVID-19 status app enquiries
- 11 COVID-19 vaccination enquiries
- 26 miscellaneous COVID-19 enquiries
- 18 hospital onset COVID-19 cases in Scotland enquiries.

282. The NHS NSS Crisis Communications Action Plan MM/042/INQ000532727 outlines the roles, responsibilities and protocols for sharing information as part of NHS NSS strategic management response to a major business continuity or emergency incident. The plan is an element of the NHS NSS Resilience Management Plan MM/043/INQ000108639, MM/0044/INQ000108641, MM/0045/INQ000108642, MM/016/INQ000108643.

283. It is invoked in the event of a major incident to ensure prioritisation of resources to support the response effort.

284. The NHS NSS Resilience Management Plan defines a crisis, from a resilience perspective, as any event that causes or could lead to the loss of access to processes, people, technology, facilities, and/or vital records required to perform NHS NSS's critical services.

285. The NHS NSS Crisis Communication Action Plan was enacted on 20 January 2020 as part of the implementation of the NHS NSS Resilience Management Plan. The NHS NSS Crisis Communication Action Plan was a general communication plan and was not specific to Test and Protect. As the pandemic progressed, crisis communication activity became a business as usual for the NHS NSS Marketing and Communication team.

EQUALITIES

286. NHS NSS facilitated a number of equality impact assessment focus groups during the Covid-19 Pandemic. On 19 June 2020 NHS NSS facilitated an Equality Impact Assessment Focus Group meeting for the COVID-19 Test and Protect deliverables MM/046/INQ000532737. The meeting was chaired by the NHS NSS Head of Equality and Engagement and was attended by representatives from the Scottish Human Rights Commission, PHS, the Equality and Human Rights Commission, NHS NES, NHS 24 and Inclusive Scotland.

287. NHS NSS delivered on behalf of PHS the new National Contact Tracing Centre (NCTC). The EQIA focussed on assessing the set-up of the NCTC. Previous work had been carried out to impact assess the recruitment of tracers to the NCTC and also the predecessor to the Case Management System (CMS) tool being used by tracers in the NCTC, the Simple Tracing Tool.

288. Staff were recruited both externally to and internally within NHS Scotland. Staff were provided with in-depth training in order to be able to perform their role. Staff were to use the Case Management System (CMS) while on shift.

289. Summary of recommendations and NHS NSS actions from previous work carried out in impact assessing the recruitment of tracers to the NCTC and CMS:

- For future rounds of recruitment, when asking those who noted their interest to submit an application, an additional sift is conducted to identify those who are disabled and are eligible for an interview in line with the Right to Interview scheme operated by NHS Scotland. This change was implemented in the NCC recruitment process.

- For future rounds of recruitment, advertisement of vacancies should be done via Disability Positive Organisations and other membership bodies in addition to SG or NHS Scotland recruitment sites. This recommendation was not implemented by the NCC.

- Further planning going forward is required to ensure staff who use BSL have access to all of the necessary support to work in the NCTC. This recommendation was implemented by the NCC.

- To ensure the 'Bring Your Own Device' (BYOD) requirement in previous applications is no longer a barrier to applying for a post in the NCTC in the future, it is recommended that recruitment information (job descriptions and person specifications) be re - worded to include a statement clarifying that BYOD is not a barrier to employment. This recommendation was implemented by the NCC.

- Additionally, NSS could consider a commitment to providing devices for all staff offered positions as soon as they are available and/or conducting an individual assessment of all candidates to assess whether they would better benefit from being supplied a device rather than bringing their own. This recommendation was implemented by NHS NSS.

- To ensure a holistic approach to on -boarding is taken for NCTC staff, they should be eligible for a risk assessment to be conducted to ensure their personal needs have been fully assessed and acted upon. This

recommendation was implemented by the NCC.

- Recruitment information (job descriptions and person specifications) for posts within the NCTC are clear that reasonable adjustments will be made or staff who join the service. This should be a conversation between their supervisor and the post holder on-boarded. This recommendation was implemented by the NCC.

- The group to have sight of the final training programme to ensure all the points raised have been acknowledged or addressed as part of the training package. This training programme was provided to the group to assess that all points raised were addressed.

- Complete a check and balance exercise of the CMS to confirm what contact tracers will be prompted to ask those they contact, focusing on how they are to approach asking contacts if they have a disability. This recommendation was implemented by the NCC.

- Local community groups and support networks be approached to provide the NCTC with guidance and support to ensure the service can engage with all community populations in Scotland. This recommendation was not implemented by the NCC.

290. On 28 July 2020 a follow up session on Equality Impact Assessment Focus Group Meeting - COVID-19 Test and Protect Deliverables was held MM/047/INQ000532736. The meeting was chaired by the NHS NSS Head of Equality and Engagement and was attended by representatives from Health Boards, Safelives, Women's Aid Scotland, SCLD (Scottish Commission for Learning Disabilities), Inclusion Scotland and Women's Support Project. The meeting focussed on topics that were not discussed in detail at the previous session including a discussion regarding gender-based violence in relation to engagement with the NCTC.

291. Summary of recommendations and NHS NSS follow up actions:

- Consideration required as to how contact tracing scripts can include jump off points whereby contact tracers can identify when to escalate the case to tier two for both medical cases and cases where consideration is required regarding a person's protected characteristics. This change was implemented

in the NCC scripts

- Identifiable situations must be escalated to local authority areas to assist in tracing and protecting those in circumstances such as sexual exploitation as they may be more familiar with local services and support services of value. This process was implemented by the NCC

- It is recommended an additional flag be implemented in the CMS to identify a case where the individual should be treated more sensitively in order to progress the call and to escalate the case to a colleague with appropriate training. A specific flag / note was added to CMS to allow cases to identified as sensitive

- Development of an infographic for public awareness to clarify that contact with the NCTC is confidential and that no information will be shared with other public services such as the police. This infographic could be shared with local support groups and endorsed as a safe and secure way to remain safe during the pandemic and subsequent months. This recommendation was not implemented

- Review of the advocate function within the CMS to ascertain whether additional questions should be asked at the point of which a contact identifies they have a carer or advocate who can speak on their behalf. For example, should it be asked if they have learning disabilities to assist the tracer in getting the information across to them in the most appropriate way? This function was implemented in CMS

- Important points noted in these sessions to be reviewed and appropriately escalated to the SG and or PHS on behalf of this group. This recommendation was implemented on behalf of the group

- Contact and review experiences from sexual health contact tracing to explore whether their experience of complex case identification can be utilised as a way of tier one tracers identifying flags or possible jump offs to escalate appropriate cases as soon as possible. This recommendation was not within the remit of NHS NSS but would have been progressed by PHS or Health Board Health Protect Teams.

292. The Digital Health and Care Innovation Centre (DHI) developed a suite of digital tools to enable integrated COVID-19 monitoring in the community, including MM/048/INQ000532750.

293. Automated test result communications (NHS NSS):

- Simple Tracing Tools for local public health teams Equality and Human Rights Impact Assessment of the DHI Tracing Tool 2
- Co3 - Consent based symptom, contact and location self-tracking for patients
- Structured clinical assessment and data capture
- Lightweight, collaborative care planning tools.

294. On 6 April 2020 these tools were endorsed by the Scottish Government Digital Health and Care team, Public Health Scotland and the National eHealth Leads group, and a programme was established to oversee the national implementation via NHS NSS. The NHS NSS Associate Director for Information Security and Governance led on work for NHS NSS. The NHS NSS Head of Equality and Engagement provided support and guidance with the EQIA ensuring that the impact assessment was carried out with key stakeholders and those who represent and/or have knowledge and experience of equality and human rights. A focus group was convened with key colleagues from the NHS Scotland Equality network, NHS NSS and DHI. The training for the newly recruited contact tracers was not in scope for the purposes of this impact assessment and the broader Public Health Scotland Track Equality and Human Rights Impact Assessment of the DHI Tracing Tool Trace Isolate and Support (TTIS) programme was reviewed and impact assessed separately.

295. A summary of points raised:

- The web form must adhere to the W3 WCAG AA Version 2.1 as this is a legal requirement
- Build in strategies to manage the psychological impact of waiting for a test result (both negative results and positive). Acknowledge that escalation procedures will be implemented at local levels

- Not everyone has a mobile phone therefore it will be necessary to build in a field on the web form to include landline phone number

- Include scripting prompts throughout the web form

- The system has built in restricted categories to ensure that (1) does not include the deceased (2) care home residents (3) inpatients

- The CO3 form covers only Release 0.1, which is the service that helps automate the tracers' tasks, and which has no citizen-facing component

- What learning and good practice is available from existing models for triage in NHS24

- The contact tracing process for COVID-19 does have similar considerations to, for example sexual health contact tracing. Reinforced confidentiality messaging, data protection measures however the spread/transmission of COVID-19 is very different

- Some people may be reluctant disclose their true movements and contacts e.g. involved in criminal behaviour or illegal /crimes, they may have not adopted lockdown measures 100%

- Availability of COVID-19 messaging and information not available in all community languages required which has excluded Asylum Seekers

- Data capture free text fields will present challenges for analytical flow and an overlay of systems will be needed to enable this

- Control measures applied to recruitment of contact tracers to ensure that contact tracers are culturally competent and aware of equality and inequality issues. (this will be picked up in a separate impact assessment)

- The Near Me Equality Impact Assessment was facilitated by NHS NSS however is a SG led programme.

296. Near Me is a video consulting service that enables some people in Scotland to have health and social care appointments from home or ideally, wherever is convenient and

practical MM/0049/INQ000532749. The EQIA was prepared on behalf of the Scottish Government under the leadership of Dr Margaret Whoriskey, Head of Technology Enabled Care and Digital Healthcare Innovation and was approved by the Near Me Covid-19 Response National Group, 26 August 2020. The NHS NSS Head of Equality and Engagement facilitated discussion to ensure that the EQIA was completed. In relation to the scope of Module 7 the EQIA found that:

- Potential benefits: Near Me reduces travel time, inconvenience, and risk of infection with benefits for all protected characteristics but in particular older people, individuals shielding and pregnant women

- Potential harms: In its current form Near Me was not yet fully accessible for everyone to use from home. This is due to digital exclusion and/or a lack of confidential or suitable space being barriers for some

- National mitigations: Build links with Connecting Scotland, Public Health Scotland, and Scottish Council of Voluntary Organisations to understand the scope and impact of digital exclusion on use of Near Me and provide advice to ensure compatibility

- Local mitigations: Build links with Connecting Scotland, Public Health Scotland, and Scottish Council of Voluntary Organisations to understand the scope and impact of digital exclusion on use of Near Me and provide advice to ensure compatibility. Build links with Connecting Scotland, Public Health Scotland, and Scottish Council of Voluntary Organisations to understand the scope and impact of digital exclusion on use of Near Me and provide advice to ensure compatibility.

297. The Check in Scotland service was designed and built to support hospitality venues in Scotland to digitally collect contact details of all visitors in a safe and secure way, supporting NHS Scotland's contact tracing services by integrating into contact tracing systems.

298. The Scottish Government Digital Directorate, NHS NSS and PHS worked together to design, build and launch the venue check-in/out service. The NHS NSS Head of Equality and Engagement worked with colleagues in the Scottish Government to complete an EQIA in December 2020. The ownership of the service, including

responsibility for ongoing maintenance of the EQIA was handed to the Scottish Government Digital Health and Care Directorate in January 2021 MM/050/INQ532707.

LESSONS LEARNED

299. NHS NSS conducted an internal review from July to October 2020. The NHS NSS C-19 Lessons Learned Final Report October 2020 MM/051/INQ000137452 does not include issues relevant to the Provisional Outline of Scope for Module 7.

300. The NHS NSS COVID-19 response during 2020/21 was audited and reported to the Public Audit Committee MM/052/INQ000198845. This audit report detailed NHS NSS' key role in the set up and operations of the test and protect programme and COVID-19 testing labs.

301. NHS NSS provided support to increase testing capacity across the NHS Scotland labs network including the deployment and supply of testing platforms and supplies. Three regional hubs were established alongside the delivery of testing pathways for health and social care staff across Scotland.

302. The NCC was established within NHS NSS, on behalf of PHS, to support contact tracing. Since April 2020, NHS NSS has trained over 1,200 new employees to deliver the tracing function. As a core part of the induction all new employees were trained in information governance, information security and confidentiality, recognising the importance of ensuring the security of data they had access to.

303. NHS NSS' DaS team played a critical role in coordinating intelligence around test results. This included the development of a digital portal and the provision of data analysis to support the decision-making by the Scottish Government and other partners.

304. NHS NSS operated within its revised Revenue Resource Limit in 2020/21. It received £504.9 million in revenue funding from the Scottish Government for its normal activities and a further £297.7 million to fund its contribution to the response to the COVID-19 pandemic.

305. An analysis of funding from 2015/16 to 2020/21 shows that NHS NSS is now heavily reliant on non-recurring funding to deliver services. Reliance on non-recurring funding limits the ability of NHS NSS to effectively plan and resource future developments.

306. The NHS NSS 2020/21 Annual Audit Report MM/053/INQ000108705 summarises the findings from the 2020/21 audit of NHS NSS which focused on:

- an audit of NHS NSS's 2020/21 annual report and accounts including the issue of an independent auditor's report setting out our opinions
- a review of NHS NSS's key financial systems
- consideration of the four audit dimensions.

307. The NHS National Services Scotland 2020/21 Annual Audit Report notes that National Procurement played an essential role in procuring testing kit consumables and in setting up COVID-19 testing labs and outlines two findings in the audit of financial statements in relation to NHS NSS' role in Test and Protect.

- Allocation of the cost of PPE and testing kits to other public sector bodies

  Throughout the COVID-19 pandemic NHS NSS was responsible for obtaining and issuing PPE and testing kits to other public sector bodies across Scotland. Initially the other public sector bodies were not including the 'cost' of these items as they had been provided free of charge. Late technical guidance confirmed that this view was incorrect, as these items were used by staff in delivering services, and the costs should be reflected in the bodies' accounts. NHS NSS had maintained records of the allocations and provided bodies with an analysis of the overall cost of items supplied. There were elements of estimation within the allocation which were concluded as reasonable.

  Revised funding allocation letters were issued to address the financial impact. The financial statements were adjusted to recognise additional income from Health Boards of £120.6 million with an equal reduction in the funding received from the Scottish Government.

  Additional narrative was included in the annual report in relation to the provision of PPE and testing kits to other public sector bodies as there is no impact on the financial statements of NHS NSS of these allocations.

- Recognition of testing kits provided by UK Government

  As part of the above allocation process NHS NSS identified testing kits provided by the UK Government and allocated for use by the general public. The accounting treatment following the same principles as those outlined above. The donated testing kits represent costs associated with the response to the COVID-19 pandemic and therefore must be recognised in the accounts of NHS NSS.

  The financial statements have been adjusted by £71.8 million to recognise the additional cost of providing the testing kits to the general public and the income associated with their donation from UK Government. Audit work confirmed the allocation and valuation of these ..

308. The reports notes that additional revenue funding in 2020/21 from the Scottish Government to NHS Scotland for COVID-19 £297.9 million including £59.7 million for the implementation of COVID-19 screening and testing arrangements. NHS NSS received a total capital allocation for 2020/21 of £29.7 million. This included £18.8 million to cover the capital costs associated with the implementation of COVID-19 screening and testing.

309. NHS NSS played a pivotal role in setting up and operating the contact tracing programme for Scotland. From early in the pandemic NHS NSS began to engage on the need for contact tracing as part of the response to the COVID-19 pandemic. NHS NSS provided support to increase testing capacity across the NHS Scotland labs network including the deployment and supply of testing platforms and supplies. Three regional hubs were established alongside the delivery of testing pathways for health and social care staff across Scotland.

310. NHS NSS worked well with partners, including the Scottish Government, Scottish Enterprise and the National Manufacturing Institute from early in the pandemic to source suppliers and make the supply chain for testing kits more resilient.

311. The CTC GOB conducted a Lessons Learned Exercise in 2022 MM/054/INQ000532709. The 5 recommendations from that exercise were:

I. A clear theme to emerge from evidence was the lack of widespread understanding of Clinical Governance, and how this should be coordinated in a national pandemic response. This was characterised by lack of clarity on the division of responsibilities between Health Boards and Scottish Government.

Recommendation: the Scottish Government should consider how pandemic preparedness activities include:

a) Defining the purpose, scope and priorities for Clinical Governance in Pandemic response

b) Agreeing and sharing operational response plans including roles and responsibilities for Clinical Governance.

II. The limited coordination of investment in diagnostics prior to the pandemic meant NHS Scotland had to undertake major equipping projects at a time of unprecedented international demand for equipment.

Recommendation: The Strategic Network for Diagnostics should establish a workstream on pandemic preparedness to include the review of resources and recommendations for how services should be configured along with equipment refresh schedules. This workstream should also establish a strong link with SG policy colleagues.

III. A large number of technologies were offered to NHS Scotland to assist with testing, some through the UK Government procurement schemes, and some directly from manufacturers or their agents. While the CADI Group assisted in triaging these offers and making recommendation on acceptability, there was no systematic approach to evaluating such innovations.

Recommendation: The Innovation Design Authority should consider the establishment a process for 'Once for Scotland' assessment of test kits and technology for adoption across NHS Scotland.'

IV. The rapid deployment of molecular testing to every health board presented major challenge to the quality management of these services and highlighted inefficiencies in our approach to verification and validation of tests. Challenges included:

- Deploying PCR testing to laboratories with no previous experience of molecular diagnostics or requirements to separate pre and post processes

- Initially, there was a paucity of external quality assurance materials to aid in assay validation/ verification. This was alleviated by the establishment of a National Quality Assurance Group which distributed reference material and guides to verification of assays and review verification reports from all laboratories to confirm they met acceptable standards.

- Multiple different testing platforms exist across the NHS Scotland estate, each interfacing in their own way to a variety of laboratory information systems.

Recommendation: The Strategic Network for Diagnostics should consider establishing a workstream to support a coordinated approach to quality planning, quality improvement, quality control and quality assurance across NHS Scotland laboratories, providing assurance to the Scottish Government on the safety and reliability of testing.

V. The adoption and implementation of PoCT was variable across Scotland, with challenges to widespread acceptance being conflicting clinical advice and

difficulties over Interfacing with IT systems. COVID-19 PoCT experience has also highlighted on ongoing concern over the responsibility for governance of PoCT in general.

Recommendation: Scottish Government may wish to consider identifying a policy lead for Point of Care Testing, who will work with the Strategic Network for Diagnostics to establish a national approach to the appropriate use, governance and quality management of POCT.

312. The report was agreed in meetings where Scottish Government Policy Leads were participants. The chair of the group, the Director of Healthcare Science met with the Scottish Government Co-Director of Population Health, Christine McLaughlin in October 2022 to discuss the report and recommendations MM/055/INQ000532723.

313. The initial establishment of the UK Government Lighthouse Laboratories, the digital solutions and clinical governance to support their work were developed without consideration of NHS Scotland systems. This was raised as an issue to the Scottish Government by the Director of SPST early in the development of the testing services. As a consequence, work had to be carried out by DaS to 'retrofit' solutions to add CHI numbers, and ensure results were appropriately entered into public health systems. The CTC GOB was established to provide clinical oversight to the different providers of testing services in Scotland.

314. Learning from the NHS NSS Testing Operations teams included that the early identification of key testing contacts in both Health Boards and Local Authorities was challenging. Ensuring accurate and up to date details of local and national resilience groups will be critical in the event of another pandemic with clear roles and responsibilities documented.

315. Once contacts at a local level were established it enabled the testing programme to rapidly develop bespoke operational solutions to respond to local testing needs. This local knowledge of geography, population and rapid identification of areas where there were high levels of prevalence enabled a tailored response. It is important to remember that while a Once for Scotland approach is needed that there will always be local variation and unique challenges across the country to accessing testing.

316. In relation to contact tracing, the early decisions made to use cloud-based internet facing Software as a Service (SaaS) solutions were key enablers of future flexibility,

being able to scale and deploy additional services. Had that decision not been made, the speed at which scaling and new service deployment could have been achieved would have been much slower. For example, NHS NSS' decision to procure and deploy cloud-based telephony / contact centre software allowed rapid deployment into Health Boards, commercial contact centre partners and the use of Bring Your Own Device (BYOD) in the NCC staff bank. Had on premises solutions been procured or existing solutions which were behind corporate firewalls been leveraged, those deployments would not have been possible.

317. Wherever possible, a Once for Scotland approach was taken and that meant there could be common processes, training, data consistency across all of Scotland rather than having national and local systems which needed reconciled. It also meant that mutual aid between Health Boards and NCC was easily facilitated.

318. Leveraging NHS NSS's existing investment in Seer services to provide a wide range of visual dashboards and, to a lesser extent the operational reporting on contact tracing and testing from CMS, was essential to a consistent understanding of the pandemic using real-time data to support decision making.

319. The development of the three Regional Hub laboratories had two beneficial effects. Firstly, it provided additional capacity so that COVID-19 PCR tests for health and social care workers, care home residents and prisons were not taking up capacity in the testing centres or Lighthouse laboratories set up by the UK 4 Nations Programme, so more capacity was available for community testing. Secondly, when the Lighthouse system came under pressure during high demand peaks and laboratory turnaround times increased, the turnaround times for results for tests going through the Regional Hubs was unaffected.

LEGACY OF TTI SYSTEM, AND FUTURE DEVELOPMENT

320. NHS NSS retains elements of the infrastructure that was deployed and knowledge that was developed during the COVID-19 pandemic. Testing pathways and standard operating procedures developed throughout the duration of Test and Protect are permanent records of the complex system established to support access to testing across a range of different use cases. These legacy documents would be easily updated in the event of a future pandemic.

321. The CMS continues to be operational, although currently only provides an active service for those patients who are eligible for COVID-19 anti-viral treatments. It remains integrated with all COVID-19 PCR, PoCT and LFD testing data flows and could quickly be scaled back up by procuring additional licences should that be required. Whilst the CMS has been developed to support only COVID-19, it could be adapted to support other pathogens. CMS was rapidly developed as a solution for the immediate challenges of the COVID-19 pandemic. The COVID-19 digital products are almost five years old and are now approaching end of life. Long term solutions for ongoing testing and contact tracing surges would require recurring investment to have a maintainable standby solution at all times.

322. The NCC continues to operate at a reduced scale, supporting Flu and COVID-19 vaccination programmes and other services with a small core workforce. It also accesses support during peak vaccination periods of commercial contact centre partners. This could be scaled up again to provide a national contact tracing or test support telephone channel service.

323. NHS NSS retains the Lateral Flow Device Ordering and Reporting Portal test ordering and results digital portal developed and deployed to use cases in Scotland. It currently supports eligible patients who require access to testing to support the prescription of COVID-19 anti-virals. Again, this could be developed quickly in the event of a future pandemic event.

324. Through National Procurement, NHS NSS continues to manage the small-scale production of PCR and LFD test kit production, with two commercial partners in Scotland. These facilities support ongoing test requirements, such as the PHS Community Acute Respiratory Infection (CARI) programme but could be scaled up over several weeks to provide much increased test kit volumes. Since the pandemic, National Procurement has allocated funding to provide a permanent procurement resource for centralised co-ordination of ongoing COVID-19 testing requirements. This involves setting up a number of contracts that can be accessed quickly. These contracts are focused on a resilient supply chain and where possible one that exists in Scotland or, at least, in the UK.

325. Some of the laboratory equipment which was procured during Test and Protect and some which was procured by the UK National Testing Programme has been redeployed into NHS Scotland diagnostic laboratories, who have confirmed they could quickly scale

to provide at least 96,000 PCR tests per week if required, although additional workforce resource would be required to support this level of testing MM/056/INQ000532752.

326. Whilst none of these are sufficient to meet the demands of the scale and duration of the COVID-19 pandemic, they are important parts of a response which Scotland continues to have within its capability should they be required and would support a faster response than in 2020.

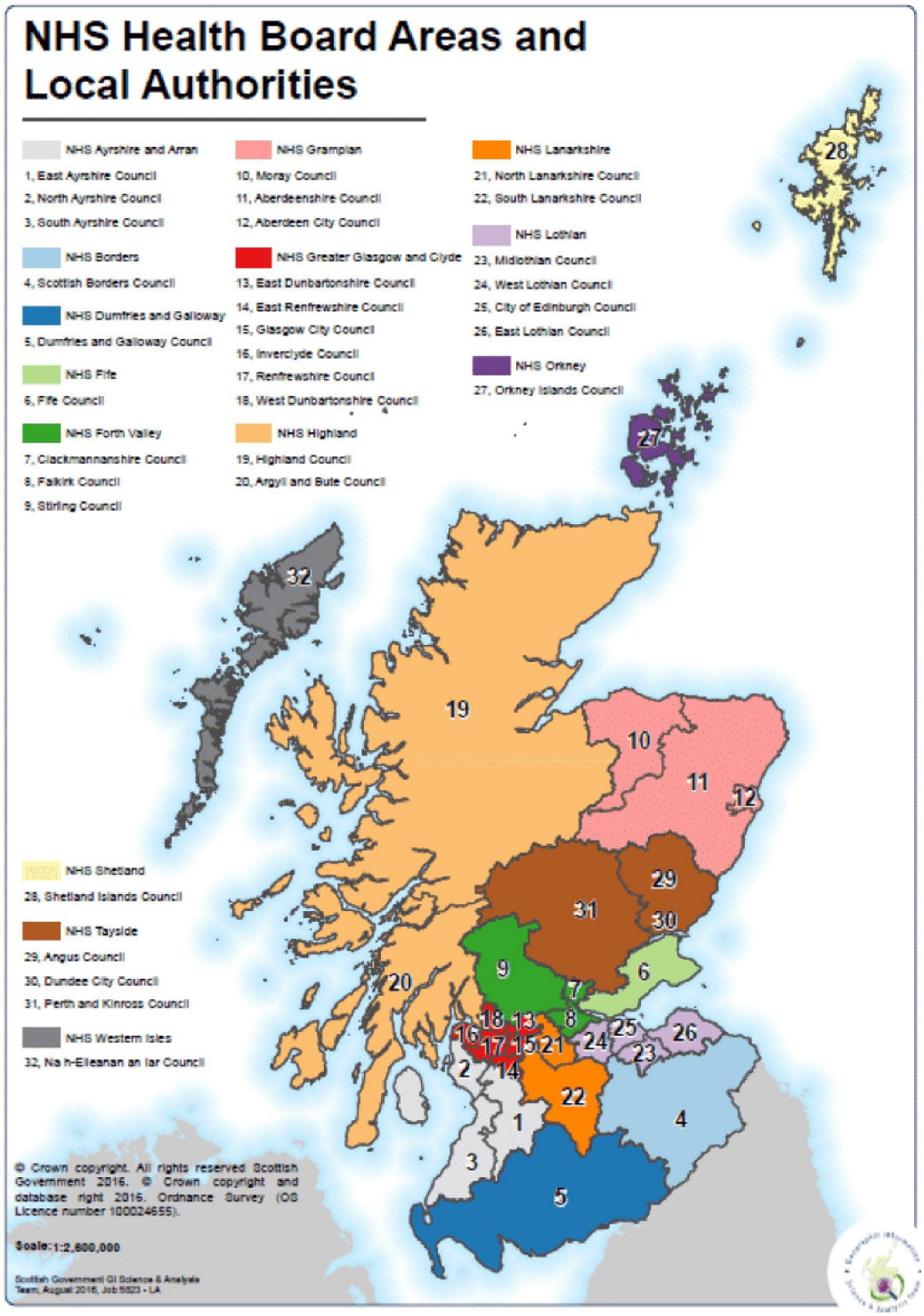
STATEMENT OF TRUTH

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

Signed: PD

Dated: 27 February 2025

APPENDIX A - NHS HEALTH BOARD AREAS AND LOCAL AUTHORITIES



APPENDIX B - POSTHOLDERS IN KEY DECISION MAKERS ROLES DURING THE RELEVANT PERIOD

Post	Post Holder	Dates
NHS NSS Chair	Mr Keith Redpath	Present
NHS NSS CEO	Mr Colin Sinclair	2016- 2021
	Mrs Mary Morgan	Present
Medical Director	Dr Lorna Ramsay	2018 - 2024
Director of Finance	Mrs Carolyn Low	Present
Director of HR	Mrs Jacqui Jones	2010- 2023

	Mrs Mary Morgan	2018- 2021
Director of Strategy, Performance, Service Transformation (SPST)	Mr Lee Neary	Present
Director of Procurement, Commissioning and Facilities (PCF)	Mr Jim Miller	2016- 2021
Director of National Procurement (previously part of PCF)	Mr Gordon Beattie	Present
Director of Health Facilities Scotland and Healthcare Associated Infection Scotland	Mr Gordon James	2019- 2021
Interim Director of Procurement, Commissioning and Facilities		May 2021 - December 2021
Director of NHS Scotland Assure	Mrs Julie Critchley	Present

Director of Scottish National Blood Transfusion Service (SNBTS)	Mr Craig Spalding	2019- 2022
	Professor Marc Turner	Present
Director of Digital and Security (DaS)	Mr Deryck Mitchelson	2019- 2022
Director of DaS	Mr Steven Flockhart	2022- Present

ANNEX C – DaS SERVICE DESCRIPTIONS

Service	Description
Digital Infrastructure	Provide a stable and resilient platform on which to operate effectively and support service change, covering virtual, physical and Cloud infrastructure, Server Management, User device management, User account management.
Cyber Security and Compliance	Expertise and intelligence on cyber threats and security assessment. Solutions for enterprise level security controls. Advanced monitoring, vulnerability scanning. Threat detection and prevention, forensic analysis, and incident response. Well architected security framework, risk assessment, threat modelling.
Enterprise Digital Solutions	Provide tailored technology to automate services, increase productivity and save time. Website and application development and support. Provide new technology platforms with system integration solutions for API interfaces with other agency IT systems. Quality Assurance and testing using qualified systems testers and agile testing principles.
Business Insight and Intelligence	Delivering intelligent data through provision of all platforms and data products. Data platforms and virtualisation layer, dashboards, and reports.
Clinical Informatics	Professional advisory service covering full product lifecycle related to clinical systems and standalone Software as a Medical Device. Advising of clinical hazard identification and risk analysis as part of a National Clinical Safety Assurance Service.
Professional Digital Services	

Solutions Architecture and Business Analysis	Support the design and delivery of Test and Protect related technology solutions by providing expertise to help identify business needs and business requirements, technology solutions options and appropriate solutions design.
Information Governance	Information Governance consultancy to ensure NHS conforms to IG requirements, the legal basis for data processing under Data Protection legislation and data security measures are in place. Advisory service on risk and compliance and safeguards to be considered to protect citizens and the organisation.
Contracts and Vendor Management	Contract, Service, and Vendor Management Services for national contracts and agreements, BAU services and third-party management, including Atos managed services.
Service Management	Service Management for national systems including product support, change management, supplier management, contract management, cost management, capacity management, issue escalation and clinical based governance.
Digital Portfolio Services	Facilitating strong governance and leading technical delivery across digital services. This ensures they collectively contribute to the implementation of strategic objectives in a way that is efficient, consistent, and focused on what people value.
Innovation Enablement	Development of digital packages that take advantage of latest technology to deliver digital information, tools and services and thereby empowering users, including citizens, to access information and intelligence and promote prevention and improvement policy and strategies and support research activity.

APPENDIX D – MEETINGS OWNED AND ATTENDED BY NHS NSS

Group Type	Group Name	Purpose	Owner of Group	Secretariat	Papers Held by NSS	NSS attendees / departments involved in meeting	Dates
Governance	Test and Protect Steering Group	The purpose of the group is to provide strong leadership and oversight over the delivery of Scotland's Test and Protect strategy, originally published as Test, Trace, Isolate and Support Strategy on 4th May 2020, with subsequent updates including Testing Strategic Framework	Scottish Government Chair - Richard Foggo	NHS NSS PgMS of behalf of Scottish Government	MM/057/INQ000532731	Lee Neary Barabara Ann Neilson	14/04/2021 - 15/12/2021 (monthly) 26/01/2022 23/03/2022 27/04/2022

		published 17th March. This includes: • Maintaining oversight of the design and delivery of the Test and Protect approach. • Interpreting overall progress and identify and mitigate any major challenges to achieving the desired outcomes. • Ensuring significant risks to the delivery of a joined-up Test and Protect					

		solution are identified and recorded and that appropriate actions are taken to mitigate risks. • Requesting strategic advice as needed on key enablers – for example, workforce, digital solutions and supply chains. • Acting as advocates for the Scottish approach to Test and Protect and in turn, seek endorsement					

		from colleagues for related initiatives and developments. • Offering specific advice and insights to other oversight and sub-groups considering COVID-19 recovery planning and wider horizon scanning.					
Operational	Testing Operational Delivery Group	• To manage the operational delivery of the Testing Programme as part of the Test and Protect	Scottish Government / NHS NSS	Scottish Government - PgMS	MM/058/INQ000532729	Martin Morrison Janis Heany David Stirling Ruth Campbell PgMS	13/10/2020 - 03/03/2020 (weekly)

		Portfolio and support the transition into Business as Usual • To manage and resolve escalated operational issues, risks and dependencies from the Programmes • To manage the interfaces and dependencies with other Test and Protect Programmes (e.g. Pathways)	Chair - Martin Morrison			Programme / Project Managers / PSOs This became an open meeting for all Boards (national and local) and many of our Ops managers and leads from NP attended	

		and with Operations					
Governance	Transition Programme Board - Oversight and Assurance	To deliver leadership and direction for the implementation of the Testing programme as part of the Test and Protect portfolio deliverable/ objectives Provide assurance to the Test and Protect Portfolio Steering Group that there are robust systems and processes in place for monitoring and assuring the quality of portfolio programmes To manage and resolve escalated issues and risks from the Testing Programme To make key investment, governance	Scottish Government Chair - Christine McLaughlin	Scottish Government - PgMS	MM/059/INQ000532728	Martin Morrison Pam McVeigh David Stirling Ruth Campbell Janis Heaney Sharon Jamieson (Finance and Governance, NSS) David Taggart (Procurement, NSS) PgMS Programme / Project Managers / PSOs	Fortnightly

		approval and change control decisions To manage the interfaces and dependencies with other Test and Protect Programmes (e.g. Pathways) and with Operations					
Governance	Contact Tracing Executive Delivery Group	The Executive Delivery Group has delegated authority to manage Contact Tracing consistently across NHS Scotland and make recommendations on major service delivery changes to the Test and Protect Steering Group. The Executive Delivery Group will enable rapid and responsive decision making to support	Scottish Government Co-chairs Colin Sinclair / Mary Morgan and Angela Leitch (PHS)	PHS	MM/060/INQ000532730	Colin Sinclair Jacqui Jones Carolyn Low Deryck Mitchelson Martin Morrison Simon White	

		changing demand levels and resulting operational requirements under delegated authority from Scottish Government. The Executive Delivery Group represents senior management from across NHS Scotland, Public Health Scotland and Scottish Government and has been established to ensure proportionate governance and decision making arrangements and principles are in place.					
Governance	COVID-19 Assay Development and	Making recommendation to SG on which technologies	David Stirling, Director of Healthcare	Scottish Government	Papers held by Scottish Government		

	Innovation (CADI)	fit with test and protect programme	Science chaired CADI on behalf of Scottish Government/Chief Scientist Office.				
Governance	Scottish Covid Testing Clinical Governance Group (SCT CGG)	• The role of SCT CGG will be to ensure greater clarity on clinical governance and accountability for new elements of Covid 19 testing provided through UK Government (UKG) routes. • The SCT CGG will consider these new elements of testing in terms of the pillars of clinical governance i.e. clinical effectiveness, risk management, patient experience and	Scottish Government Nicola Steedman (Chair), Interim DCMO	Scottish Government	MM/061/INQ000532711	David Stirling Lorna Ramsay	

		involvement, communication, resource effectiveness, strategic effectiveness, and learning and improvement. • Specifically the SCT CGG will comment on, for the Scottish context, the appropriate clinical governance and infection control requirements for sampling and testing procedures, including responsibilities of site staff, how to conduct interactions with people being tested, and clinical data management principles. • Each UKG SOP approved through the UKG 'mass testing					

		clinical governance process' will be subject to review by the SCT CGG. • This review process will o be rapid o identify any amendments required to the standing operating procedures (SOPs) for implementation in Scotland and o outline how the SOPs will operate including any amendments, changes or additions for implementation in Scotland. • The SCT CGG will assure themselves of the overall clinical governance of the elements of these					

		testing pathways that are within their remit. This will include o quality control o assurance o planning and o improvement • The SCT CGG will liaise appropriately with the UKG on those elements of these testing pathways which remain the responsibility of the UKG testing scheme. • The SCT CGG will address any IG issues that arise in conjunction with clinical governance issues.					

Governance	COVID-19 Testing Clinical Governance Oversight Board (CTC GOB)	Covid testing here refers to all aspects of the testing process, from the collection and registration of samples, through the transport and logistics process, to testing (LFD, PCR or sequencing and serology) and reporting of results to end users (citizens and health/public health professionals). Clinical governance is the system through which NHS organisations are accountable for continuously improving and maintaining the high quality of their services and	NHS NSS Chair - David Stirling, Director of Healthcare Science, NHS NSS	NHS NSS - PgMS	MM/062/INQ000532688	David Stirling - Director of Healthcare Science, NHS NSS Andrew Longmate - Clinical Lead for Clinical Governance and Quality Improvement Ryan Cooper - Point of Care Testing Programme Lead Ingolfur Johannessen - Covid testing Clinical Governance Lead (Interim)	

		safeguarding high standards of care by creating an environment in which clinical excellence will flourish Clinical governance encompasses quality assurance, quality improvement and risk and incident management. This is achieved by improving clinical effectiveness, involving and seeking patient and public input and feedback, monitoring key performance indicators by gathering, tracking and trending information and data as evidenced by self-inspections and supported by staff				Victoria Moffat - Scottish Clinical Leadership Fellow Ruth Campbell - AD T&P Operations Team	

		management, education and training. The purpose of Covid Testing Clinical Governance Oversight Board is; To establish an agreed understanding of the roles and responsibilities for Clinical Governance of all parties engaged or involved in the provision of Covid-19 testing in Scotland. To Work with testing partners to promote quality assurance and quality improvement across all aspects of Covid testing.					

		To manage and resolve escalated clinical issues, risks and dependencies from the Programmes To provide assurance reports to the Test and Protect Portfolio Steering Group on the Clinical Governance systems and processes in place. To advise on risks and mitigations associated with any proposed changes to Testing pathways. To manage the interfaces and dependencies with					

		Clinical Governance functions in other parts of the UK.					
Governance	Test and Protect Transition Programme Board	To manage the implementation of the Test & Protect Transition plan in a way that ensures that this is achieved in line with our principles of 'managing well' – treating staff fairly and with respect, clear decision making and engagement, and delivering value for money. The group will plan and manage the transition through implementation to the future state, ensuring earnings from the programme to date are applied throughout.	Scottish Government / NHS NSS Co-chairs: Christine McLaughlin SG, Director of Test and Protect Martin Morrison, NSS Operations Director Test and Protect	NHS NSS PgMS	MM/063/INQ000532687	Janis Heany David Stirling Martin Morrison Ruth Campbell Janis Heaney Bev Wayne Pam McVeigh Andrew Beveridge, Finance Business Partner Health and Care, NSS Carolyn McAuley, HR Business Partner, NSS	05/11/2020 - 05/08/2020 (weekly) Then fortnightly from 19/08/2021 - 17/02/2022

		Review of portfolio status and ensure overall delivery direction is provided across portfolio through making key decisions, managing key problems that have been escalated from the Workstreams. Review and discussion of key Programme risks and issues, agreement of items for escalation to Steering Group. o Monitor Risk (to the programme) o Develop ongoing risk management process for Test & Protect o Decide clear control process o Ensure progress towards key milestones				Barbara Ann Nelson, NSS Workforce	

		in the Transition plan. Beyond transition, the group's remit will develop to cover decommissioning and asset distribution, as well as development of a Scotland only service for the future. Receive advice concerning workstream proposals from: • Clinical Governance Oversight Board • Tactical Operating Group Monitor and oversee underpinning workstreams: • Finance • Workforce • Digital • Labs Strategy					

		• Data • Communications					
Governance	CHOB (Covid Hub Oversight)	Establishment and oversight of regional hubs	Chair - Ingo Johanson (NHS Lothian but worked for NHS NSS on a sessional basis including chairing this group)	NHS NSS - PgMS	MM/064/INQ000532718	Ingo Johanssen Jordan Renfrew Ruth Campbell David Stirling	
Operational	Joint COVID-19 Diagnostic Group	The purpose of the meeting would be purely technical, to identify barriers, glitches, or concerns and address them promptly. It will enable NLP to react quickly to pressures and be proactive with supply	NHS NSS Chair - Ingo Johannessen	NHS NSS -PgMS	MM/065/INQ000359066 MM/066/INQ000532713 MM/067/INQ000532714	David Stirling Guy Southcott Jess Henderson David Taggart	

		and implementation challenges. Primarily, this meeting can then focus on operations/implentations with the Strategy being driven by the HPS Virol Cell/ScotGov Oversight Board that is currently being formed by ML and DY.			MM/068/INQ000532715 MM/069/INQ000532716		
Operational	COVID-19 Supply Chain Group	Secure Supplies for PCR Testing - this meeting changed and became Testing Supply chain (and capacity) Oversight Group	Scottish Government Chair - Mr McKee (Scottish Minister for Trade)	Scottish Government		Elaine Fingland Jess Henderson David Stirling Mary Morgan Guy Southcott Jacqui Melville	

Operational	COP26 Daily Stand Up Meetings	Focus will be on operational issues which come up on a daily basis and need to be resolved immediately. This meeting is not set up to discuss Policy, Strategy or Surveillance reporting.	NHS NSS Chair - Martin Morrison	NHS NSS - PgMS		Martin Morrison Paul Walker Janis Heaney Lynn Scott Gavin Anderson Imogen Storm Maggie McGeary	15 Oct - 12 Nov 2021
Governance	DHSC Test and Trace and MHRA Oversight and Steering Group		UK Government - Department of Health and Social Care	UK Government - Department of Health and Social Care		David Stirling	

Operational	Four Nations Genomics Delivery Working Group		Public Health England	Public Health England		David Stirling	
Operational	Technologies Validation Group		UK Government	UK Government		David Stirling	
Operational	MHRA CTDA		MHRA	MHRA		David Stirling	
Operational	Real-world performance monitoring review		UK Health and Safety Agency	UK Health and Safety Agency		David Stirling	
Operational	Patient Safety Panel		UK Health and Safety Agency	UK Health and Safety Agency		David Stirling	

Operational	Mega Lab Site Selection and Fit-Out Working Group		Deloitte	Deloitte		Health Facilities Scotland	Oct 2020 - Jan 2021
Operational	National Incident Management Team meetings		PHS	PHS		NHS NSS COVID-19 Testing Team Martin Morrison	
Operational	Local Incident Management Team meetings		Territorial Health Boards	Territorial Health Boards		NHS NSS COVID-19 Testing Team	

APPENDIX E – TEST AND PROTECT TIMELINE

Date	Key Activity	Description	Key Organisations
21 March 2020	WHO Testing Strategy published	WHO publish interim laboratory testing strategy recommendations for COVID-19	WHO
March 2020	UK National Testing Programme	NHS NSS COVID-19 Testing team established to deliver UK National Testing Programme Pillar 2 is Scotland.	NHS NSS (SPST)
17 March 2020	Development of SARS-CoV-2 tests begins	SNBTS collects samples from blood donors across Scotland to support developed of SARS-CoV-2 tests.	NHS NSS (SNBTS) / University of Oxford
1 April 2020	PHS launched	PHS established with HPS and ISD functions moving from NHS NSS	PHS
3 April 2020	Scottish Government Resilience Room 'Calling Notice for Deep Dive on Covid-19 Testing'	Mary Morgan attends the Scottish Government Resilience Room 'Calling Notice for Deep Dive on Covid-19 Testing'	Scottish Government
20 April 2020	NHS Louisa Jordan opens	NHS Louisa Jordan opens in Glasgow	Scottish Government / NHS NSS

21 April 2020	SNBTS starts providing overflow PCR testing capability for NHS Lothian.	SNBTS and NHS Lothian amended existing IT connectivity to enable SNBTS to provide overflow testing capacity if required.	NHS NSS (SNBTS) / NHS Lothian
23 April 2020	UK Lighthouse Laboratory opens in Glasgow	UK Lighthouse laboratory opens in Glasgow.	UK Government DHSC
April 2020	UK Government Lighthouse Laboratories commissioned	DHSC (Department of Health and Social Care) commissions Deloitte to set up and deliver the large regional testing centres. Access to testing was limited to NHS and other key workers and other first response organisations – Fire, Police and Ambulance.	UK Government DHSC
End April 2020	Regional Testing Site open in Inverness	Inverness testing site opens	NHS NSS (SPST)
End April 2020	UK National Testing Programme digital booking portal launches	Digital portal developed to enable employers to directly book test slots for staff	NHS NSS (SPST)
1 May 2020	Testing capacity target exceeded	Target to reach capacity for 3,500 tests a day across NHS labs exceeded	Scottish Government

18 May 2020	Simple Tracing Tool for Test, Trace and Isolate pilot launched	Digital tool piloted in three Health Boards (NHS Lanarkshire, NHS Fife and NHS Highland)	PHS / CapGemini
25 May 2020	Simple Tracing Tool for Test, Trace and Isolate rolled out across Scotland	Digital tool rolled out further through PHS led workshops	PHS / CapGemini
28 May 2020	Test and Protect strategy launched	Test and Protect – NHS Scotland's approach to controlling the spread of coronavirus (COVID-19) in the community rolled out across all Health Boards	Scottish Government
May 2020	Mobile Testing Units launch	The first MTU deployments began in early May and by late May 18 units were operating across Scotland	NHS NSS (SPST)
May 2020	Test and Protect Portfolio commissioned by Scottish Government	Scottish Government commission Test and Protect Portfolio to delivery Test and Protect strategy	Scottish Government
1 June 2020	NHS Scotland Assure launched		NHS Scotland Assure
June 2020	NCC launched	NCC launched to enable effective tracing of close contacts once a positive case was identified	NHS NSS (SPST and DaS)

25 August 2020	Local Test Site opened in St. Andrews	First of 11 planned walk-through sites set up to widen access to testing for those to travel to a mobile or regional testing site.	NHS NSS (SPST) / NHS Fife / Fife Council / University of St Andrews
28 August 2020	Testing capacity target increased	Scottish Government requests an increase in capacity to 22,000 tests a day from NHS Scotland run facilities.	Scottish Government
August 2020	Regional Test Hubs commissioned	SG commissions NSS to develop the new regional COVID-19 only testing labs	Scottish Government
August 2020	NCC capacity increased	NCC increased in size to around 270 staff to provide additional capacity to support Health Boards in contact tracing.	NHS NSS (NCC)
10 September 2020	Protect Scotland App launched	The Protect Scotland mobile App, also known as the Proximity App, was made available to citizens for download from App stores.	NHS NSS (DaS) / Scottish Government
Sept 2020	Mobile Testing Units transfer to SAS	The SAS takes on responsibility for running the MTU operation	SAS
Sept 2020	MTUs deployed to university halls of residence	MTUs sent to university site and work undertaken to set up Local Testing Sites at university campuses	NHS NSS (SPST)

October 2020	UK Mega Lab project launched	HFS and NP joins the UK Government run Mega Lab Project to provide technical advice on behalf of the Scottish Government.	UK Government / Deloitte
15 December 2020	Regional Testing Hub (West)	First Regional Hub goes live (West Hub, Glasgow)	NHS NSS (SPST)
18 December 2020	Regional Testing Hub (North)	North Regional Hub opens	NHS NSS (SPST)
Early Dec 2020	Community testing implemented	Community-based mass testing pilot model delivered	NHS NSS (SPST)
End Dec 2020	Testing of hauliers begins	Provided a testing solution for hauliers who had to prove a negative test prior to travel to Europe	NHS (SPST and DaS)
Winter 2021	PoCT deployed across Scotland	NP precured PoCT consumables and equipment for use in A&Es and unscheduled care in all hospitals around Scotland	NHS NSS / Health Boards
18 January 2021	Check In Scotland launches	The Check in Scotland enabled people to provide their contact details by scanning the official Test and Protect Check in Scotland QR code poster via their smartphone camera or by downloading the Check in Scotland app.	NHS NSS (DaS) / Scottish Government

22 January 2021	Regional Testing Hub (East)	East Regional Hub opens	NHS NSS (SPST)
January 2021	UK Mega Lab	Mega Lab project discontinued	UK Government / Deloitte
End Oct 2021	Glasgow hosts COP26	Test and Protect Programme manages impact of testing to non-delegate individuals as result of COP26.	NHS NSS (SPST)
March 2022	Testing in Scotland to reduce	Scottish CMO makes decision to reducing testing in Scotland.	Scottish Government – Chief Medical Officer
March – June 2022	Test and Protect Programme begins to step down	Test and Protect Programme transition period being to step down the programme	NHS NSS (SPST)
September 2022	Testing services stop in Scotland	Free testing services no longer available to public in Scotland	Scottish Government

APPENDIX F – TABLE OF DOCUMENTS AND BRIEFS

Documents related to briefings or situation reports generated by NHS NSS intended for use by the Scottish Government to assist in informing its decision-making in relation to the Pandemic.

Report Name	**Date Range**	**Frequency**
NCTC Daily Status Report and SITREP –**MM/070/INQ000292182 – MM/367/INQ000292479**	30/09/2020 – 29/04/2022	Daily
Contact tracing in a page report –**MM/368/INQ000291676 – MM/INQ000292181**	16/10/2020 – 01/05/2022	Daily
2020 02 12 PCF Resilience Template wc 10 Feb **MM/871/INQ000137442**	07/02/2020 – 10/02/2020	1 document
2020 02 07 PCF Resilience Template – **MM/872/INQ000291491**	03/02/2020 – 06/02/2020	1 document
Weekly CT comparison for FM brief –**MM/873/INQ000291492** **MM/874/INQ000291493**	24/06/2021 and 01/07/2021	2 documents
202009 – HPS Briefing Note – COVID19 Update 9 – **MM/875/INQ000291494**	24/02/2020	1 document

202007 – HPS Briefing Note – Update 8 final **MM/876/INQ000291495**	14/02/2020	1 document
202007 – HPS Briefing Note – Wuhan novel coronavirus (WN-CoV) Update 6 Final 1.2 –**MM/877/INQ000291496**	31/01/2020	1 document
202007 – HPS Briefing Note – Wuhan novel coronavirus (WN-CoV) Update 5 – **MM/878/INQ000291497**	30/01/2020	1 document
202005 – HPS Briefing Note – Wuhan novel coronavirus (WN-CoV) Update 4 **MM/879/INQ000291498**	24/01/2020	1 document
202003 – HPS Briefing Note – Wuhan novel coronavirus (WN-CoV) Update 3_Final –**MM/880/INQ000291499**	17/01/2024	1 document
2020 02 07 HPS Coronavirus Response Template 7 Feb 2020 – **MM/881/INQ000291500**	03/02/2020 – 06/02/2020	1 document
HPS Coronavirus Response Template 12 Feb 2020 **MM/882/INQ000291501**	08/02/2020 – 11/02/2020	1 document
HPS Coronavirus Response Template 19 Feb 2020 – **MM/883/INQ000291502**	12/02/2020 – 17/02/2020	1 document

2020 03 23 HPS Coronavirus Response Template – **MM/884INQ000291503**	15/03/2020 – 23/03/2020	1 document
2020-03-25 NSS Mobilisation Plan – FINAL (incl clinical staff) **MM/885/INQ000291504**	March 2020	1 document
B2027 1 Mobilisation Plan COVID-19 – **MM/886/INQ000291505**	29/04/2020	1 document
Appendix 28 B2023 NSS Mobilisation Plan – **MM/887/INQ000291506**	26/03/2020	1 document
NHS NSS Remobilisation Plan May 2020 to July 2020.pdf – **MM/888/INQ000291507**	May 2020 – July 2020	1 document
NHS NSS Remobilisation Plan August 2020 to March 2021.pdf– **MM/889/INQ000291508**	August 2020 – March 2021	1 document
NSS Role in COVID-19 Testing - final – **MM/033/INQ000291509**	March 2020	1 document
National Boards Response – Recovery NSS Updated 280420 – **MM/890/INQ000291510**	27/04/2020	1 document
NSS COVID-19 Mary Morgan Presentation – **MM/891/INQ000291511**	February 2021	1 presentation
Cabinet Secretary Visit 19 02 2020 –**MM/892/INQ000291512**	19/02/2020	1 presentation

Briefing Note for Cabinet Secretary – HPS Response to COVID APPROVED – **MM/893/INQ000291513**	19/02/2020	1 document
Additional High Risk care reporting to TOG –**MM/894/INQ000291514 – MM/897/INQ000291517**	17/01/2022 – 28/01/2022	4 documents
COP 26 TaP Weekly Status Reports **MM/898/INQ000532741**- **MM/905/INQ000532748**.		8 documents
CTCGOB TaP Transition Workstream Highlight Reports **MM/906/INQ000532690** – **MM/919/INQ000532703**	25/03/2022 – 08/07/2022	14 documents