Witness Name: Dr Joanne McClean
Statement No: 1
Exhibits:36
Dated:20/02/2024

UK COVID-19 INQUIRY

WITNESS STATEMENT OF DR JOANNE McCLEAN

I, Dr Joanne McClean, will say as follows:

1. I was appointed as Director of Public Health (DPH) for the Public Health Agency of Northern Ireland (PHA) in July 2022 and took up post on 1st September 2022.

2. I hold a primary medical degree (MBBCh BAO) awarded by Queen's University Belfast in July 1999. I also hold a Master's degree in Public Health awarded by the University of Manchester. I am a member of the Faculty of Public Health of the Royal College of Physicians and secured membership by passing the membership examinations. I am a registered doctor with a license to practice and am on the GMC specialist register for public health medicine.

3. After graduation I worked in junior doctor training posts in clinical medicine. I joined the Northern Ireland higher specialist training scheme for public health medicine in August 2004. I completed training and was appointed to a consultant post in the Service Development and Screening Division of the PHA in January 2011. Between my appointment and January 2020, the focus of my work was on providing public health input to the commissioning of health services for children. I continued to maintain knowledge and skills relating to health protection and provided support to the health protection service when required, including providing consultant cover for the health protection on call service when the service faced staffing challenges during this period.

4. At the onset of the COVID-19 pandemic, my main focus was on ensuring paediatric services were ready for the expected wave of infection. Since it was evident early on that children were not as severely affected as adults, my focus was on ensuring paediatric services were configured to ensure continued provision of acute and inpatient care, could withstand high levels of staff sickness and a huge increase in demand for adult care and that the configuration would allow use of spare capacity in paediatric inpatient units for the care of adults should that need arise. In April 2020 I was asked to provide input to the management of COVID-19 in the care home sector. This included working with colleagues to develop a plan to support the sector. From late August 2020 I took on lead PHA responsibility for supporting schools and the education sector. I continued in this role until June 2021 when I was seconded to the Department of Health as an Associate Deputy Chief Medical Officer, a role I remained in until taking up the Director of Public Health post in September 2022.

5. This statement is made on behalf of the Public Health Agency in response to a request for evidence by the Inquiry pursuant to Rule 9 of the Inquiry Rules 2006. There are 36 Exhibits produced with my statement. This is my first statement in relation to Module 2C of the COVID-19 Inquiry. Given that I did not take on the role of Director of Public Health until September 2022, I am not able to provide a first-hand account for some aspects of this statement. I have spoken to and received information from my predecessors and other colleagues, some retired, to gather the required information.

6. Aside from my own appointment, there has been significant organisational change in PHA since the start of the pandemic. All executive members of the PHA board have changed at least once since the onset of the pandemic. The Assistant Director for Health Protection who was in post at the start of the pandemic, retired before I came into post. In addition, of the seven health protection consultants who were employed by PHA at the start of the pandemic, only one is still in post and they are currently on personal leave so not available for work. This significant turnover presented challenges in drafting my statement, given the central role the health protection service played in the response. I and the PHA team have reviewed emails, notes of meetings and spoken to some of the retired and resigned individuals in collating this response.

Health and Social Care in Northern Ireland

7. The structure of the health and social care system in Northern Ireland does not mirror that in place across the other regions of the UK. Whilst the universal system of healthcare, free at the point of use, was established in 1948 in Northern Ireland at the same time as the rest of the UK, the "NHS" as an entity does not exist in Northern Ireland. In 1973, health and social services were integrated by the Health and Personal Social Services Order (Northern Ireland) 1972 which created Health and Personal Social Service Boards (HPSSBs) for commissioning health and social care from local Trusts. The colloquial term used at that time to describe the service was "the HPSS" although it never existed as a tangible entity.

8. In 2009, the four HPSS Boards were replaced by the Health and Social Care Board (HSCB) under the provisions of the Health & Social Care (Reform) Act (Northern Ireland) 2009. The HSCB was the body responsible for commissioning health and social care services from HSC Trusts (see below for an explanation of the relationship with the PHA in this regard) and managing the performance of Trusts against various targets and performance indicators. The HSCB also had responsibility for commissioning family practitioner services such as general practice and dental services as well as holding statutory responsibilities in relation to safeguarding children. In April 2022, following an earlier series of reviews of the HSC in Northern Ireland, the HSCB was dissolved and replaced by the Strategic Performance and Planning Group (SPPG) which is part of the Department of Health (DOH). The SPPG is responsible for discharging all functions previously carried out by the HSCB.

9. Given the time period covered by this module, I will refer to HSCB throughout. I will also refer to the Department of Health as "DOH" or "the Department". From 2009, and until the present day, the term "HSC" is used to describe the collective system of health and social care in Northern Ireland. However, as with the HPSS, the HSC is not a body in its own right. I will use the term "HSC" to describe the system of health and social care throughout this statement.

The Public Health Agency

10. The PHA was established under Section 12(1) of the Health & Social Care (Reform) Act (Northern Ireland) 2009. The PHA is a statutory body and as such has specific powers to contract in its own name and act as a corporate trustee. Our functions can be summarised under three broad headings:

    - Improvement in health and social wellbeing and reducing health inequalities – with the aim of influencing the wider determinants of health and securing the provision of specific programmes and services aiming to improve health and wellbeing and reduce health inequalities.
    - Health protection – with the aim of protecting the community (or any part of the community) against communicable disease and other dangers to health and social well-being, including dangers arising from environmental hazards and the public health response to major incidents and other emergencies.
    - Service development – working with the HSCB with the aim of providing professional input to the commissioning of health and social care services to ensure that services are of high quality, equitable, safe and effective. We are the lead agency for the commissioning and quality assurance of population screening programme in Northern Ireland.

11. The PHA is also responsible for research and development across the HSC. To do this we fund a wide range of research programmes and also support capacity to undertake research across the health service by funding research infrastructure in HSC organisations.

12. Additionally, there are a number of other pieces of primary and secondary legislation under which the PHA operates. The key legislation includes:

    - The Public Health Act (Northern Ireland) 1967 is concerned mainly with the control of infectious diseases. It places requirements on doctors in Northern Ireland to notify the Director of Public Health if they are aware that or have reasonable grounds to suspect that an individual has; they diagnose a notifiable disease. The Act allows the Department of Health to add or

remove diseases from the list of notifiable diseases. COVID-19 was made a notifiable disease on the 5 March 2020. The Act also specifies a range of powers which can be used to control the spread of these infections.

- Work led by DOH to update the Public Health Act got underway around 2016. PHA staff contributed to that process. The work while has been paused at points in time since then. The Department is actively working to update the Act and PHA are inputting as required. The Department is planning consult on the new act in January 2024, introducing the Bill to the NI Assembly in June 2024 with a view to have the new Act in place by Summer 2025. This depends on there being both an Assembly and Executive in place.
- The Health and Personal Social Services Order (Northern Ireland) 1972 which sets out requirements, roles and functions of various bodies in the health and social care system in Northern Ireland.
- The Health and Personal Social Services (Quality, Improvement and Regulation) (Northern Ireland) Order 2003 which places a statutory duty of quality on HSC bodies in the delivery of their services and allows the regional regulator (the Regulation and Quality Improvement Authority or RQIA) to review and inspect these services in order to evaluate the quality of them,
- The Health and Social Care Act (Northern Ireland) 2022 which dissolved the HSCB and in a very small number of cases, amends references in other legislation from HSCB to the PHA.

13. Prior to the pandemic, the Agency was structured under four directorates:

- Public Health;
- Nursing, Midwifery and Allied Health professionals;
- Operations; and
- HSC Quality Improvement.

14. An organisational organogram is included (Exhibit **JM/1 - INQ000270534**). As part of the pandemic response, a new Directorate of Contact Tracing was established in December 2020, and I will cover this later in my statement. I will also explain how methods of working changed during the pandemic response. On closure of the Contact Tracing Service in June 2022, we reverted to the four-directorate structure outlined above.

Internal Structures

Public Health Directorate (PHD)

15. I lead this Directorate as Director of Public Health (DPH) and I have overall responsibility for all functions. My role is multifaceted but can be divided into two main areas: the first is overseeing the professional public health function; and the second is operational management of the Directorate.

16. I have professional responsibility and accountability for the delivery of the public health function. This means ensuring my directorate has staff with the required skills and competencies to do this. As mentioned above the role of DPH Is specifically mentioned in the Public Health Act (1967) in connection with the control of communicable disease. I am also responsible for the delivery of other aspects of the public health function: specifically, health improvement, service development, screening and service development. The role requires me to have completed specialist training in public health and be on the GMC specialist register for public health medicine. I am supported in this aspect by three Deputy Directors of Public Health (DDPH), all of whom are also on the GMC specialist register. These three DDPHs support me in discharging the public health function and are responsible for leading health protection and other incidents on my behalf as required.

17. The other big area of responsibility I hold is the operational management of the Directorate. This includes all aspects of day-to-day management and includes finance, procurement, staff management and contributing to the overall PHA corporate function. Specialist skills and qualification in public health are in short supply so I have tried to separate this area of work from the DDPH roles so they can focus on professional public health delivery. This separation is designed to support

the public health function, so time is not spent on work that is better done by individuals with management expertise and skills.

18. I also have one Assistant Director of Public Health (ADPH) who is responsible for the HSC Research and Development function which is in the Directorate. This individual's experience, skills and knowledge are related to research and development and in general, they would not be expected to lead public health work including, for example a response to a health protection incident.
19. The tables below show the number and whole time equivalent of staff working in the Directorate, in total and broken down by division, at key points during the scope of this Module. These figures have been drawn from the PHA workforce information system and include only those members of staff employed on a substantive basis, they do not take into account any locum or agency staff usage at each time juncture.

Public Health Directorate - Headcount by Role

	31 Dec 2019	31 March 2020	31 March 2021	31 March 2022
Total Headcount Public Health Directorate	195	193	215	216
AFC Headcount Public Health Directorate	162	161	178	178
Medical/Dental Headcount Public Health Directorate	33	32	37	38

Public Health Directorate - Whole Time Equivalent (WTE) by Role

	31 Dec 2019	31 March 2020	31 March 2021	31 March 2022
Total WTE Public Health Directorate	181.69	181.04	199.6	203.58
AFC WTE Public Health Directorate	152.94	151.54	166.65	169.33
Medical/Dental WTE Public Health Directorate	28.75	29.5	32.95	34.25

Public Health Directorate - Divisional Headcount

	31-Dec-19	31-Mar-20	31-Mar-21	31-Mar-22
Total Headcount	18	18	21	16

Director of Public Health Office*				
Total Headcount Health Improvement	63	61	61	61
Total Headcount Health Protection	42	42	64	67
Total Headcount Research and Development	20	20	20	18
Total Headcount Service Development and Screening	52	52	49	54

Public Health Directorate - Divisional Whole Time Equivalent (WTE)

	31-Dec-19	31-Mar-20	31-Mar-21	31-Mar-22
Total WTE Director of Public Health Office*	15.92	16.52	19.52	14.99
Total WTE Health Improvement	60.26	58.11	57.68	58.99
Total WTE Health Protection	39.24	40.04	60.44	64.04
Total WTE Research and Development	19.33	19.33	18.9	16.9
Total WTE Service Development and Screening	46.94	47.04	43.06	48.66

**The Director of Public Health and a number of AFC band 3 and 4 administrative staff who provide support to the wider Directorate sit within this area.*

20. In the next part of my statement I will describe three teams that operate within the health protection division of my directorate and who were central to our response to COVID-19. I will explain their role and how they operate during normal times. This will help give an understanding of how the initial response to the emergence of COVID-19 was developed.

Emergency Planning Team

21. The 2009 Reform Act places a statutory duty on the PHA for the protection of the Northern Ireland population against health threats including communicable disease and dangers arising from environmental causes (such as a chemical incident) or public health grounds arising out of emergencies. In addition, the PHA discharges its

responsibilities for joint partnership working to prepare for emergencies in line with the Northern Ireland policy circular for emergency Preparedness for Health and Social Care (2010) (**Exhibit JM/2 - INQ000381487**) and the Northern Ireland Civil Contingency Framework (2021) (**Exhibit JM/3 - INQ000381498**).

22. My responsibilities in emergency planning include emergency preparedness; the development of public health emergency plans for major incidents; and support for Trusts and other HSC and non-HSC organisations as required. These functions are delivered by the Senior Emergency Planner who leads the Emergency Preparedness and Environmental Hazards team (EPEH). This team is part of the Health Protection division.

23. In the period immediately prior to the pandemic the team comprised of:

    - One Senior Emergency Planner AfC Band 8C;
    - One Emergency Planning Officer AfC Band 7; and
    - Input on environmental hazards from a consultant in health protection.

24. The enhancement of the EPEH Team was part of the wider service development of the Health Protection service and reflected in the August 2020 business case to DOH for the enhancement of the health protection service.

25. The responsibilities of the Public Health Agency in respect of emergency planning include:

    - Development and updating of the Joint Emergency Response Plan (JREP) (**Exhibit JM/4 - INQ000102841**) – which covers the response of the PHA, HSCB and BSO to major incidents;
    - Responding to public health emergencies (including chemical and biological) through the provision of robust local arrangements 24/7;
    - Providing an early risk assessment of the actual or likely impact these incidents may have on public health or public safety;

- Ensuring that an effective ongoing public health response/advice is provided for chemical contamination or other pollution that could have an adverse impact on the health of the population;
- Ensuring that out-of-hours contact and 'on-call' arrangements are maintained and that the provision of 24/7 public health advice is sufficient during an emergency response;
- Establishing, running and contributing to a scientific and technical advice cell (STAC) as and when required;
- Participating in multi-agency emergency preparedness and response as set out within the civil contingencies' framework; and
- Working with the resources available to provide HSC organisations with emergency preparedness guidance, advice and training as required.

26. In the early days of the pandemic it became clear that the EPEH team was too small to be able to discharge all the required functions while participating in the pandemic response. The team was therefore expanded to better enable discharge of the function and is currently made up of:

    - One Senior Emergency Planner AfC Band 8C (in post at start of pandemic);
    - One Emergency Planning and Business Continuity Manager AfC Band 8A (appointed January 2022);
    - Two Emergency Planning Officers AfC Band 7 (one in post at start of pandemic and a second appointed from July 2020);
    - One Environmental Hazards Officer AfC Band 7 (from July 2020); and
    - One Emergency Planning Support Officer AfC Band 4 (from March 2022).

    One health protection consultant provides input to the team in respect of environmental hazards. The team works across the directorate and across PHA as a whole in discharging their responsibilities. Further information about the specific activities the emergency planning team participated in during the pandemic is set out later in my statement.

27. The team members fulfilled the following roles during the pandemic response:

- Establishment and management of the Emergency Operations Centre, January to March 2020;
- Leadership and co-ordination of the Port Health Response for NI;
- Completion of the contact tracing pilot and supporting the establishment of the initial service;
- Representation on multi-agency forums as part of the response to COVID-19;
- Supporting operational expansion including access to telephony, IT and accommodation as required;
- Representation on PHA internal groups;
- Chaired PHA Universities and Higher Education COVID-19 Working Group;
- Planning for mass gatherings such as
    - The Irish Open Golf 2020
    - ISPS Handa World International July 2021
    - UEFA Super cup August 2021.
- Completion of Data Sharing Agreements;
- Representation on the North/ South Health Protection Committee - COVID-19;
- PHA Incident Management Teams- co-ordination of concept of operations (ConOps) including completion of Situation Reports (sitreps).

28. The EPEH team is responsible overall for giving public health advice to HSC organisations, multi-agency partners and to the public on more slowly evolving chronic environmental hazards, issues that could pose a threat to the health of the population. The team also fulfils the statutory consultee role for the PHA to respond to applications under the Industrial Pollution Prevention and Control legislation.

Pandemic Planning

29. In the years prior to 2020, the PHA undertook a range of activities in relation to pandemic planning. The groups listed are not organisations, (emergency preparedness groups and their roles and remits are covered in the PHA response to Module One of the Inquiry), but broadly they considered the various aspects of pandemic planning and preparedness.

- Joint Emergency Planning (JEP) Board
  The role of the JEP Board is to ensure that there is an appropriate and proportionate level of HSC preparedness across the three organisations to enable an effective HSC response to emergencies which have a significant impact on the local community. This planning group did not convene during the pandemic as members were involved in the pandemic response their roles on this group were superseded by the activation of HSC Silver.

- NI Health Emergency Planning Forum (HEPF)
  This is a DOH-led Emergency Planning Group. The role and remit of the group is to: advise and inform all HSC Organisations about aspects of emergency preparedness and to act as a two-way channel of communication; to share good practice; to facilitate the promotion of continual improvement in emergency preparedness; provide feedback on emergency preparedness strategies and policies (including Controls Assurance Standards now superseded by the Emergency Planning Core Standards); and providing a forum for discussion of training needs and best practice. Representation on this group consists of Emergency Planning Leads from the HSCB, HSC Trusts, NIFRS, NIAS, BSO, NIBTS and the British Red Cross.

- HSCB-PHA-Trust Emergency Preparedness Group
  This is an informal group for HSC Trust emergency planners chaired by the PHA Senior Emergency Planner and the HSCB (now SPPG) emergency planning lead. The purpose of the group is to provides a opportunity for member organisations to discuss current issues in relation to emergency preparedness and share best practice and learning. The group did not

convene during the pandemic as all members were involved in their respective organisation's pandemic response. This group is not responsible for the production of any plans beyond those for their respective organisations. The purpose of the group is:

- To ensure that HSC Trust plans are compatible with the Joint Emergency Response Plan (JERP).
- To act as a co-ordination group for the health response to multi-agency emergency planning fora.
- To share learning and provide a forum for the discussion of issues in relation to plan development, validation and training.

- Emergency Medicines Group

  This group is chaired by the Department's Senior Principal Pharmaceutical Officer. Membership was drawn from the DOH pharmaceutical leads, DOH Emergency Planning Branch, HSCB Pharmacy Lead, Regional Emergency Preparedness Pharmacist and PHA Consultant in Communicable Disease Control and Senior Emergency Planner. The purpose of the group is to maintain oversight on the management, distribution procurement of the emergency medicines stockpile and advise on arrangements for HSC emergency activation plans relating to antiviral, antibiotic medicines and pandemic vaccines.

- PHA and HSCB Pandemic Preparedness Working Group (chair)- Task and Finish Group (January - June 2019 which oversaw work commissioned of PHA and HSCB by DOH)

  This Task and Finish Group was established specifically to develop NI Pandemic Flu Guidance. This was not a response group and the group was stood down following submission of the draft guidance to the NI DOH in June 2019 for their consideration. The Department of Health had not fed back to PHA and HSCB prior to the pandemic so the status of the plan remained as draft.

  Membership of the group included:

  - PHA Health Protection

- PHA Emergency Planning (chair)
- PHA Nursing and AHPs
- HSCB Emergency Planning
- HSCB Primary and Integrated Care
- HSCB Social Care and Children's Services
- HSCB Critical Care Network NI lead

- DOH NI Pandemic Flu Oversight Group
  To take forward work on pandemic preparedness and response capabilities specifically in relation to health and social care, the DOH NI established an NI Pandemic Flu oversight Group (NIPFOG) in 2018. The primary objective of NIFOG was to oversee the development of a service -facing surge and triage guidance for the HSC - incorporating Primary, Secondary and Social Care.

30. So, in summary, the EPEH team lead the PHA's work in preparing for emergencies such as pandemics. They also provide input to our responsibilities in relation to environmental public health. During emergencies they play a very important role to support our response as described above. PHA is a small organisation. This means that our teams tend to be small and at times of increased demand and pressure, no more so than during a public health emergency like a pandemic, there is a need for them to be able to discharge a range of functions.

Health Protection team including Acute Response and Duty Room

31. The term "Acute Response" has been used in PHA to describe the work the health protection team do to ensure timely and appropriate public health action is taken in response to potential threats that could harm the health of individuals or groups in the population. The day-to-day service is delivered via a "duty room" where new enquiries and calls are handled. During normal times there is a physical duty room where the team carry out their work. However, during the pandemic and when we are responding to significant incidents, the number of people rota'd on will increase so the team may be spread across more than one location. This was the case during the pandemic. Even when staff were in different locations, the collective term "duty room" is still used.

32. Most of the day-to-day work is in relation to the public health management of infectious diseases of public health significance. The duty room is staffed using a rota of staff drawn from the wider health protection team of nurses, public health registrars, specialty doctors and health protection consultants. Phone calls, emails and laboratory reports come into the room and are managed by the team as necessary. The room operates from Monday to Friday on a 9-5 basis. Outside of these hours an on -call service delivered by public health registrars and consultants in in place.

33. The majority of the day-to-day work of the team relates to managing single cases and outbreaks of infectious diseases. This could be responding to a laboratory report showing that an individual has an infection with potential public health implications; or providing advice on management of an outbreak of vomiting and diarrhoea to the local council environmental health team to investigate potential cases and outbreaks of suspected food poisoning. The team also provide advice to healthcare professionals about the actions required to prevent further spread of an infection, for example by advising a GP what actions should be taken for the case and contacts of a case of acute infective hepatitis to reduce the risk of spread. The team also liaise with NI Water in relation to water quality issues and take calls on other issues from members of the public. Calls from schools and day nurseries about the management of cases of infectious disease in the setting are another example of work undertaken.

34. An important point to make at this juncture is that contact tracing forms a standard part of the response to infectious diseases. The team in the PHA who work in health protection and contribute to the duty room rota are familiar with the principles and practice. A common situation where contact tracing is used is when a child is diagnosed with a toxin producing e-coli infection and the people they have been in contact with are tested for the infection. There are many other conditions where contact tracing takes place. Tuberculosis is another example people may be familiar with. On a day-to-day basis the number of cases of infectious disease where contact tracing is being used by the team in health protection is in single figures. A significant challenge with COVID-19 - even in the relatively early days - was the scale at which contact tracing was required.

35. During normal times a team are allocated to work in the duty room each day on a rota. A named health protection consultant is assigned to the team each day on a rotational basis to provide consultant input and oversight. The core team who populate the duty room rota continue to be drawn from the wider health protection team which, following this enhancement, is currently made up of:

    - 1 WTE AfC Band 8c Nurse Consultant (upgrade from 8B during pandemic)
    - 2 WTE specialty doctors (both appointed in January 2023)
    - 2 WTE AfC Band 8A- Senior Health Protection Nurses (both new posts)
    - 7 WTE AfC Band 7 – Health Protection Nurses (two additional)
    - 3 WTE AfC Band 6 – Health Protection Nurses (one additional)
    - 1 WTE AfC Band 5 administrative manager (new post)
    - 2 WTE AfC Band 4 administrators
    - 3 WTE AfC Band 3 administrators.

    The information in brackets shows the enhancements which were made in the health protection team as a result of investment agreed to expand the team in light of the pressures.

36. The duty room rota also has input from a total of 13 specialty registrars in public health. They are recruited nationally and follow a UK-wide curriculum. This is a multidisciplinary cohort of trainees from medical, dental, scientific and allied health backgrounds. The registrars follow a five-year programme with a nationally set competency-based curriculum to achieve registration as a consultant in public health. The number of registrars working in PHA and the level of input they have to health protection and therefore the duty room varies over time as they rotate through different organisations.

37. When not rota'd for a shift in the duty room, the nursing and medical staff above in the health protection team are involved in other health protection work which contributes to PHA's ability to provide an effective response. Activity includes

keeping guidance and standard operating procedures up to date, participating in working groups at NI and UK level about particular topics, working with the Department of Health on health protection policy issues, overseeing and implementing vaccination programmes and engaging with and maintaining partnership working arrangements with other organisations, for example environmental health, Trusts and colleagues working in animal infections. They are also expected to participate in relevant training and take part in any exercises to prepare the team to respond to various potential threats. Therefore, the additional staff now in place not only provide additional capacity to respond to public health incidents but they provide capacity to undertake developmental and partnership work which will enhance our ability to respond in future.

38. For the most part prior to the pandemic there were about 20 calls per day into the duty room and staffing was planned on that basis. In the event of a sudden increase in demand for the service – as typically happens during an outbreak of an infectious diseases in a setting – the team is expanded, drawing staff from the wider health protection team to increase the size of the duty room team for a period. Should an incident be of a scale where managing it in the duty room would disrupt business as usual and compromise the response, a parallel team and rota is established to manage the incident. In most cases this is run as an Emergency Operations Centre (EOC) with support from the emergency planning team to establish and run this this. Staffing an EOC like this is drawn from a wider pool of staff in the directorate and beyond. This arrangement is typically put in place to manage an outbreak with lots of affected people and contacts. During 2022, an EOC has been stood up on three occasions which were: to manage an outbreak of e-coli in a day nursery, a suspected outbreak of meningitis in a school and to respond to a complicated outbreak of Group A streptococcus in a primary school in Belfast.

39. Once a decision to open an EOC has been taken, the EPEH team is responsible for putting the arrangement and required rotas in place. This responsibility rests with them as they have the best knowledge on what is required, how to record actions and decisions accurately and how to put the required IT and telephony resources in place to support the expanded team.

Surveillance

40. Surveillance is often defined as "information for action". This is the team within the health protection division who collect information about incidence, prevalence and behaviour of infectious disease in the population. The purpose of gathering the information is firstly so we can identify rises in infections of public health significance to take action. We also use surveillance information to guide our response to outbreaks and assess the effectiveness of any interventions. Surveillance is a vital part of the service. The response of the health protection team in the duty room and beyond depends on good surveillance information. The surveillance team also depend on the health protection team to gather information.

41. The Health Protection Surveillance team prior to the COVID-19 pandemic comprised four small teams: Gastrointestinal and respiratory diseases; blood borne viruses, sexually transmitted infections, vaccine coverage and vaccine preventable diseases; surgical site infections; and healthcare associated infections and antimicrobial resistance. It was then led by a graduate of the Public Health England-run Field Epidemiology Training Programme. Consultants in health protection provided topic expertise into surveillance programmes. The team used a range of approaches for data collection, processing, storage and reporting. Some parts of the team's work used a statistical programming language to partially automate of data processing and reporting, and the use of dashboards for sharing intelligence with consumers. The team did not then have access to adaptable technological systems for the full automation of data processing and reporting.

January 2020 – March 2020

42. During January 2020, reports were emerging from China about a new respiratory infection which was resulting in large numbers of people becoming seriously unwell and dying. Information was coming to the UK from various sources including the World Health Organization (WHO). The PHA and DOH get official information on situations like this from UK bodies. The International Health Regulations (IHR) are in place to strengthen health security between countries. Under the IHR, each member state has one focal point which is the primary recipient of information. For the UK at that time the focal point for the UK was PHE. In this instance, PHE held this responsibility for the whole of the UK. In situations like this, it was standard for PHE

to convene and establish an Incident Management Team (IMT) to which the devolved administrations were invited to participate. In general terms the purpose of the IMT is to assess the situation, review information and implement control measures. Broadly, PHA's role was to share information about the situation in Northern Ireland and to receive information from the other countries.

43. PHA joined the PHE IMT and attended the meetings throughout the pandemic. The IMT was an important source of information on the infection for PHA. While PHA was a member, given PHE's size and national role they led the IMT and had lead responsibility for the production of guidance. PHE chaired daily teleconferences with the Devolved Authorities' Health Protection Services from January 2020, briefing them on the outbreak in China and providing a daily risk assessment.

44. In response to what was emerging as a significant threat based on the information coming via the PHE teleconferences, an EOC led by PHA was stood up on 23 January 2020 and HSC Silver was activated on the same day. The purpose of the EOC at that stage was to manage the large amount of information coming to PHA through the UK meeting and other sources such as the World Health Organization and; ensure this information was shared with the right people and groups for action as described in paragraph 45 below; and to ensure that were necessary actions were closed. There were also lots of queries coming in from various sources seeking information and guidance and a robust mechanism to manage and record this was required. HSC Silver was established on the same day.

45. Following the PHE IMT summary on 22 January a decision was made to activate HSC Silver to support the co-ordination of a consistent approach for NI planning and response with reference to the following:

- Identification of potential WN-CoV cases
- Case management
- Laboratory testing
- Patient pathways

- Co-ordination of communications and sharing of information across the HSC and partner organisations
- Infection Prevention and Control and PPE.

46. Correspondence to this effect was sent to HSC Trusts, HSCB, the NI Port Health Forum and DOH. HSC Silver meetings were scheduled for 3pm daily (Monday-Friday). Co-ordination of the sitreps from HSC Trusts was led by the PHA Emergency Planning Team. Trust Sitreps were submitted daily in line with agreed timeframes. All sitreps were then analysed and issues for escalation to HSC Silver and summarised on the daily HSC Silver Issues Log which were then tabled for discussion at the daily Silver meetings with Trusts. Following the HSC Silver meeting, the daily sitrep for DOH was completed and submitted by 9.30 am the following morning.

Themes reported via HSC Silver and Sitreps EOC Phase 1 (23 January -16 March 2020)

47. An analysis of themes reported during Phase One found the following issues reported to HSC Silver:
    - Guidance;
    - Patient Pathways;
    - Testing;
    - PPE;
    - Planning;
    - Communications; and
    - Isolation for homeless community.

48. Themes reported from HSC organisations as recorded in the key issues log included:
    - Planning for surge;
    - Contingency plans for air transfer and activation;
    - Transfer of infected patients;
    - Travel queries;

- HR issues;
- Media queries;
- Testing;
- PPE;
- Hospital visiting;
- Social & Community Care issues;
- Self-isolation & social distancing requirements;
- Clinical and waste management;
- COVID-19 plans for new arrivals i.e. asylum seekers;
- Financial compensation for costs such as deep clean, staffing etc;

49. Themes reported in daily sitreps to DOH included:

- Patient Transfer Protocol to HCID England;
- Correspondence from CMO to other governmental departments via CCGNI- Departments to be asked to review and consider their pandemic contingency plans;
- Air Transport –GB purchasing 6 epi-shuttles (an isolation unit designed for the transport of highly infectious and vulnerable patients). Discussion to be held with NIAS to explore the possibility of purchasing some for NI;
- A communication protocol following confirmation of a confirmed case in NI;
- Requests for guidance on a range of issues;
- Resourcing of PPE;
- Issue of supply of antibiotics - a number of supplies are from China; contingency arrangements need to be explored;
- Links with Mater Hospital in Dublin established to discuss contingency arrangements for access to their HCID beds;
- Discussion at UK level on lab testing and how to develop locally to be taken forward with virology;

- Potential need for legislation to enforce aspects of guidance;
- Need to potentially downscale non-COVID-19 services;

HSCB/PHA COVID-19 Business Continuity Sitreps

50. As agreed by AMT/SMT commencement of a joint Business Continuity sitrep started on 18 March 2020. Each Directorate sitrep was submitted every working day (Monday – Friday) by 3pm. The Directorate sitreps were then collated and a summary report with key issues requiring escalation was brought to the 8.30am AMT/SMT the following morning.

51. Themes escalated included:

- Training;
- Update guidance for staff;
- Instructions for online meeting i.e. Zoom meetings;
- Standing down of services due to resources – staff;
- Support;
- Workforce position including COVID-19-related absence.

52. Under this structure, PHA staff provided input and expert public health, medical and nursing advice to a wide range of other groups concerned with surge planning, respiratory and clinical care service plans, communications, infection prevention and control and advice to care homes as examples. Some of these groups were led by PHA staff and, in others, staff were participants where other organisations led. All decisions were made collectively, and it would be difficult to dissociate the PHA input to decision making from that of other bodies. Having consulted with colleagues, I am not aware of any difficulties around activation of HSC Silver or the procedures as outlined in the JREP.

Cell Structure

53. In the early stages of the pandemic a number of cell management groups were created:

- Executive Cell
- Emergency Operations Centre
- Logistics & Supply
- Infection Control
- Communications & Media
- Knowledge Management
- Technical Scientific
- Resource (HR & Finance)
- Surge – Integrated Care
- Surge – Acute
- Social & Community
- Business Continuity
- COVID-19 Business General

54. Each Cell Management group had a cell name, key email contact, senior staff from PHA, BSO & HSCB to lead the groups and a set of terms of reference.

55. The role of the Cell Management Groups was to review the query and provide professional direction to the EOC. If the issue could not be resolved then the EOC lead raised the issue with Silver. Once resolved the matter was referred back to the EOC to provide a completed response to the relevant HSC body.

56. The establishment of the cell response is in line with the JREP and JREP EOC Plan.

Health protection Response - January 2020 Onwards

57. The section above has covered some of the wider work the PHA was involved in during the early stages of the pandemic. I will now come back to the health protection response.

58. While in the very early days, the role of the EOC was information management as described above, very quickly it became apparent that we were going to need a

system in place to manage suspected cases and contacts. It was obvious that the scale of this would not be something we could manage in the duty room and that we would need to expand and do it through an EOC. We already had an EOC established as described so the remit was expanded to include the management of returning travellers who had been in an area where COVID-19 infection was present and were either contacts of a COVID-19 case there or who developed symptoms which may have been caused by COVID-19.

59. A step change in the activity relating to the incident occurred when the first cases were confirmed in Italy on 21 February 2020. The staffing for the EOC was expanded to make sure we could deliver what was required. A consultant lead drawn from the health protection team was identified daily to cover different aspects of the response – for example guidance, case management etc. The number of consultants identified to support the EOC case management function increased as time went on and the workload became bigger.

60. Staff from the wider health protection team were rota'd into the EOC (with separate staffing for business as usual duty room continuing). Public health registrars and consultants who did not usually work in health protection were redeployed to staff the EOC. All registrars and consultants in public health have core knowledge, skills and competencies in health protection that allowed them to work in the EOC, working to the PHE guidance and managing suspected cases and contacts appropriately. Staff from other parts of the PHA including from nursing were also brought in to help.

61. Initially most case management work centred around providing advice and guidance to returning travellers from areas where COVID-19 was in circulation, we had our first possible case on 22 February 2020. Our first confirmed case presented on 26 February 2020 and was confirmed on 27 February 2020. The case management work involved providing information and arranging testing pathways; and to manage contacts of cases. The guidance being followed was the PHE guidance which was shared via the UK-wide IMT. The PHE guidance included case definitions, close contact definitions and guidance on isolating and managing symptoms. While we did not substantively change this, we did have to put it into a digestible format that staff,

some of whom had not been recently working in health protection, could follow and apply it correctly. Training was also provided for those staff.

62. Initially most case management work centred around providing advice and guidance to returning travellers from areas where COVID-19 was in circulation. The case management work involved providing information and arranging testing pathways; and to manage contacts of cases. Contacts were all followed up by telephone call. The type of follow up depended on the nature of the contact and the risk of infection. Some contacts were followed up actively and given a weblink to provide information about whether they had developed symptoms on a daily basis. If they did not provide the information by a cut off time a follow up call was made.

63. As well as facilitating management of the cases and contacts as described above, the information was captured systematically so we could contribute to the body of knowledge about the virus. Staff from the surveillance team led the implementation of the First Few Hundred protocol which was a PHE-led study (**Exhibit JM/5 - INQ000381506**) - the FF100 protocol. This commenced on the day we were notified of our first possible case. The scientific paper published as a result of the collection of data on the 39 cases we received between 26 February and 12 March 2020 was published (**Exhibit JM/6 - INQ000381507**)

64. More cases emerged quickly; and by late February and into March 2020 there were more and more returning travellers with symptoms or histories of having been in contact with COVID-19 cases. The case definition at that time included a travel history to an affected area. The number of calls to PHA increased significantly very quickly with lots of requests for advice about symptomatic people, contacts and general guidance.

65. PHA did not attempt to produce our own guidance. We would not have had the capacity, expertise or access to the most up to date information to attempt to produce this sort of guidance from scratch. Additionally, to produce guidance on the same issues would have been an unnecessary duplication of effort when resources were better used in other parts of the pandemic response at that time. In keeping with our standard approach to a new or emerging health threat, we took advice from and followed the guidance produced by the expert national team in PHE. The PHE

guidance included case definitions, close contact definitions and guidance on isolating and managing symptoms as well as guidance for specific settings such as care homes. While we did not substantively change this, we did have to put it into a digestible format that staff, some of whom had not been recently working in health protection, could follow and apply it correctly. We used that guidance and where necessary adapted it to reflect nomenclature (for example, referring to HSC rather than NHS) and structures (for example, ensuring that references to PHA rather than local authorities) in NI. We also explained the guidance and provided support to other organisations to support their ability to understand and implement it in their particular setting or situation.

66. It is hard looking back almost four years to remember the degree of uncertainty and how quickly things were developing on a daily basis. It was not unusual for guidance to be changed during a shift. For example, guidance to consider travellers returning from Northern Italy as high risk for infection should they present with symptoms changed to the whole of Italy during one shift on a Sunday. This was challenging for staff to keep up with. It also meant that advice given in the morning differed from that given in the afternoon. While this was not incorrect, it was hard for the public and often the media to understand and could seem to be "contradictory" to them.

67. It was very important that we stayed up to date with and implemented new guidance without delay. To make sure this happened a senior registrar or consultant was identified each day to ensure new guidance was shared and implemented.

68. The EOC flexed its capacity in terms of staffing and hours of operation during this period. Even in the period before NI had its first case, the number of calls coming into the EOC was significant. The EOC operated seven days a week. There was also an increase in the number of calls to the out of hours service provided by on-call registrars and consultants. Calls were coming in right through the night.

69. The increase in the number of cases made it very hard for the team working in the EOC to keep up with the case management and contact tracing required. At this point the team were still using HPZone which is a good system for managing small numbers of cases and contacts, but is not suited to anything of the scale which was now being seen. There were multiple manual processes to record and collect

information. Phoning cases and contacts was very time consuming and, without the benefit of a supporting IT system, the work was unwieldy and difficult to get reliable information from easily. The PHA team worked extremely hard under difficult circumstances but it was a struggle to continue.

70. The UK moved from containment phase of the pandemic to delay on 12 March 2020. The immediate impact of this on the team in PHA was that the case and contact tracing activity stopped. This brought some relief to staff, many of whom had been working long hours, seven days a week to deliver the contract tracing capacity. At the same time it felt counter-intuitive from a public health perspective that we were not continuing some activity. It was clear that we were not going to be able to contain the virus given the rapid increase in the number of cases. However, I believe there was a sense that, given we did not know very much at all about how the virus was behaving, we might have continued in some form to collect epidemiological information.

71. On 16 March 2020, in line with the move from containment, the EOC transitioned from a Health Protection led EOC (leading on guidance, communications, response to public health queries and contact tracing) to a support centre for HSC organisations for the next phase. 13 Cell Management Groups were established. From 16 March, HSC Silver, which had been chaired by public health from its establishment on 23 January, was chaired by HSCB. Health Gold which was the Department of Health was established on the 27 March 2020.

72. While the EOC with the contact tracing activity happening stood down, there continued to be an increase in the number of calls to the duty room for advice about COVID-19 related issues. The day to day response to cases of other infections continued. The duty room rota was increased in size so there were more staff rota'd on at any one time. Initially this additional staffing came primarily from within the health protection team.

73. For the wider PHA, there were other areas of work that needed attention. For the public health directorate, supporting the HSCB, Department and Trusts in preparing the Health Service in NI for an expected surge in cases was a focus. This area of work is covered in detail in our response to Module Three.

74. As mentioned above, PHA participated in the PHE-led national incident management team. At this point PHA also led on public messaging in Northern Ireland. Several PHA consultants undertook a wide range of media interviews to provide information to the public. PHA also produced resources and information on our website.

75. PHA was also the lead for ensuring primary and secondary care received up to date information and advice about the management of cases and contacts. We were participating in various groups relating to the overall silver structure preparing the health and social care system for the expected wave of infection. The PHA was also working with a wide range of other organisations and agencies. Within Health we were providing advice to Trusts. We also led the infection prevention and control cell which provided advice on IPC for healthcare settings. There was intensive work involved in this given little was initially known about how the virus spread.

76. The Health and Safety Executive Northern Ireland (HSENI) has statutory powers under the Health and Safety at Work (Northern Ireland) Order 1978 to impose duties on employers to look after the health and safety of their employees and responsibilities on employees to comply with the measures put in place for their health and safety. The PHA works with HSENI through its normal course of duties where there is a concern that there is a deviation from public health guidance and advice, potentially causing a risk to public health. Examples of requests from HSENI answered by PHA included advice on guidance for employers on self-isolation, vaccinated workers, testing of close contacts of positive cases, partitions in the workplace and car-sharing.

77. From the beginning of 2020, PHA was regularly updating DOH on the progress of the pandemic and sharing information gleaned from meetings with PHE. Health Protection staff were involved in meetings with Public Health England where information and scientific evidence was shared. DOH, through its engagement with counterparts in DHSC, the other chief medical officers and participation in UK government briefings and meetings. The Inquiry has asked on what basis the PHA reached the view on the potentially significant impact of the pandemic in NI. PHA reached this conclusion through a combination of discussions with colleagues in

HSCB and with CMO; alongside our engagement with Public Health England and the risk assessments carried out by them. An example of a risk assessment is shown at (**Exhibit JM/7 - INQ000415955**). These were UK risk assessments and PHA contributed by sharing intelligence about the situation in Northern Ireland. PHA did not undertake NI-specific risk assessments.

78. As an Arm's Length Body (ALB) of the Department of Health, the PHA has regular communication with colleagues who work in the Department – who are part of the NI Civil Service. During the COVID-19 pandemic there was very regular contact between PHA staff and civil service staff at all levels. This is part of normal working arrangements between the two organisations. Aside from this informal engagement. Colleagues in PHA regularly participated in a range of groups chaired by DOH. The inquiry has specifically asked if the Acute Response Team engaged directly with the NI Civil Service. As described above, the acute response team is part of the wider health protection team. The team reported into Dr Gerry Waldron, who was the assistant director of public health for health protection, and on to the Director of Public Health. Dr Waldron and the individuals who worked as DPH during the period in question would have had regular engagement with the Civil Service through DOH.

Initial Support for Care Homes

79. By mid-March 2020, the duty room team was enhanced to a provide 7-day service. At this point, the majority of the work related to calls from care homes who had symptomatic residents and staff. The team built on the systems in place for supporting care homes prior to the pandemic to support outbreak management. Additional agency staff were recruited and staff were secured through the workforce appeal. Nursing and other health care professionals working in other parts of the PHA were redeployed to the duty room to provide additional capacity to be able to respond to the increased volume of calls and the requirement to support many more care homes than normal. Prior to the COVID-19 pandemic the duty room would have managed outbreaks in care homes but never in the numbers seen during COVID-19.

80. The introduction of COVID-19 restrictions had a dramatic impact on non-COVID-19 health protection work. Transmission of the infections which usually make up the

majority of the workload for the duty room fell to record low levels. This did help free up capacity to respond to the workload associated with COVID-19.

81. The number of calls remained high during this period and included calls from various settings and individuals. However, by far the greatest amount of work was associated with managing COVID-19 in care homes in Northern Ireland.

82. As part of normal business prior to the pandemic, the health protection team had well-established relationships with care homes as part of its role in supporting them with outbreaks of other infectious disease. The PHA provided guidance, training and facilitated a network of "link nurses" to help support education and good practice in infection prevention and control. When care homes experienced outbreaks it was standard practice for them to contact the health protection team for input. This consisted of advice, support with investigating the source where appropriate and sometimes a support visit from a health protection nurse.

83. The number of calls from care homes reporting suspected COVID-19 outbreaks and symptomatic residents increased rapidly during March / April . The duty room team followed guidance and provided advice and support to care homes. However, because of the sheer number of outbreaks we were not able to provide onsite visits which is something that would have happened prior to the pandemic. The first probable outbreak in a care home in Northern Ireland was identified on 16 March 2020.

84. As noted above, the HP Zone system used to support the health protection response has limited capability in relation to large numbers of cases and outbreaks. It was therefore challenging to get oversight of the overall picture.

85. In April 2020, through our long-established contact with care homes, we became aware of serious issues in the sector and raised a concern with DOH about resilience. The PHA Chief Executive spoke to the DOH Permanent Secretary and an urgent task group was established and an action plan put in place to support the sector. Whilst this was not a concern about the management of the pandemic per se, it is an example of how PHA raised concerns about the impact of the pandemic on the population and sought to address it. Staff from PHA were heavily involved in the development of an implementation of the action plan.

86. The issues we were aware of included care homes with very high attack rates, high rates of hospitalisation and deaths. Care homes are used to dealing with residents with significant healthcare needs and the attending infection protection and control measures expected in a care home. However, the infectivity of COVID-19 meant it spread rapidly in care homes full of vulnerable residents causing a huge toll of severe illness and deaths. This was an enormously challenging and distressing situation.

87. A collective approach was taken to respond to the situation in care homes. This will be covered in detail in another module but the multifaceted co-ordinated approach did result in a reduction in infections and deaths in care homes.

88. In spite of the efforts described above, care home outbreaks did occur. Care homes continued to receive support from the health protection team working in the duty room in respect of COVID-19 and other outbreaks through the course of pandemic. When an outbreak was notified to the duty room the team went through a detailed discussion with the nurse in charge. The purpose of this was to assess the situation, find out the number of affected residents and staff, severity of illness. It was also to go through key guidance on infection control and best practice to reduce the risk of spread within the home. There was a regular rhythm of support calls established. Calls were daily to homes where difficulties were experienced.

89. The PHA had had a guidance function since the start of the pandemic where a rota was in place for consultants to undertake this work each day. The reason the cell was established was to try and streamline the work. It was felt that if a smaller number of people were involved in the work they would get a better grasp of the various issues and be able to work more efficiently. It also allowed requests for advice and input to be tracked to make sure they were prioritised and responded to. The function of the guidance cell was not to produce guidance. It was to interpret and provide advice on the implementation of guidance. This advice was provided to colleagues in PHA in response to specific requests. The guidance cell also supported other organisations who were developing guidance to apply to their own setting. For example, the Education Authority in Northern Ireland produced guidance to enable school music to be delivered in schools. There was a huge amount of detail in this guidance which extended to different types of instruments etc.

90. Two locum doctors were tasked with checking national guidance to ensure it reflected guidance and advice being produced for Northern Ireland as well as ensuring that up to date guidance was shared with the relevant stakeholders which would have included Northern Ireland government departments and arm's length bodies. They were supervised by a senior registrar who became a consultant during this time. From its commencement in October 2020 until it stood down, the guidance cell managed over 1000 separate requests for advice. These came from within PHA, from the wider HSC, other Departments, ALBs and other organisations. As stated above, PHA was not producing the guidance itself. Often, we were approached by other bodies to quality assure guidance they had drafted to ensure it reflected current public health advice.

91. Throughout the pandemic, health protection staff participated in Incident and Outbreak Management Team meetings in line with PHA policy and procedure. Whilst most work was related to COVID-19, they also continued to provide advice, guidance and support to settings where other outbreaks of infectious disease occurred.

Directorate of Nursing, Midwifery and Allied Health Professionals (NMAHP)

92. The NMAHP is led by a Director of Nursing and supported by a Deputy Director for Allied Health.
93. The NMAHP directorate is currently divided into teams, each led by a senior member of staff:

- Children and young people (incorporating maternity, school health and safeguarding);
- Children, young people and families team (education for children with complex needs, vulnerable children and young people and Sure Start);
- Mental Health and Learning Disability;
- Acute care, primary care, nursing workforce and criminal justice (nursing);
- Acute care, elective care (AHP);
- Older people (incorporating cancer, palliative care, care homes and district nursing);

- Patient and Public Involvement;
- Patient Client Engagement; and
- Quality and Safety

94. As at 6 September 2023 there are 68 staff in post, the majority of staff in the directorate are registered professionals with a background in nursing, midwifery or allied health.

95. The Director is accountable to the Chief Executive of the PHA. Professional supervision is provided through the Chief Nursing Officer (CNO). The directorate contributes to a wide range of work programmes with the overarching aim of improving health outcomes to the population of NI through the development of public health nursing and AHP functions. These include leadership for quality and safety of services, professional leadership for Nursing, Midwifery and Allied Health professionals related health improvement, provision of professional Nursing, midwifery and AHP public health advice, support and leadership to service development, reform and modernisation, commissioning and governance functions of the within HSC.

96. The directorate also holds specific responsibility for local population engagement through partnership working, co-production and PPI as well as progressive improvement of patient, client and user experience. The directorate is primarily outward facing to the HSC and key stakeholders including local government, education and the PSNI. In delivering across roles and responsibilities, the directorate maintains close working relationships with other directorates in the PHA, colleagues on the PHA Board, Department of Health, SPPG and HSC Trusts.

97. During the Pandemic and in line with the PHA Business Continuity Plan, practically all of the Nursing, Midwifery and Allied Health Professional Team were redirected to respond to the pandemic. More detail in respect of the NMAHP response is included in submissions to Module 3 and Module 4 of the Inquiry. An overview of activity is set out below.

Infection Prevention Control

98. The Executive Director of Nursing working in Partnership with PHA Health Protection Infection Prevention Control Specialists co-chaired the Infection Prevention and Control Cell. A regional (Northern Ireland wide) infection prevention and control team was established – see (**Exhibit JM/8 - INQ000381508**) IPC Cells Terms of reference and membership.

99. The Regional IPC Cell was represented on the four Nations Infection Control Group by the PHA's Infection Prevention Control Nurse Specialist. This expert IPC group worked together to support the effective application of IPC COVID-19 19 and PPE guidance across the four nations, share and resolve common challenges and as appropriate make recommendations on IPC guidance developed by Public Health England. The output of the four Nations IPC Cell and PHE - once approved by the four Nations Clinical Advisory Groups (chaired by Professor Chris Whitty) - were largely adopted in Northern Ireland.

100. The Regional Infection Control Cell provided support to Trusts and provided advice on Departmental of Health COVID-19 Guidance, for example in relation to care homes, domiciliary care and learning disability services. The cell also provided support in relation to the effective application of PPE and worked in partnership with the 'Supply Chain Cell' in relation to PPE modelling and supply. Crucially the cell set up a 'Product Testing Team' to help test new products before their application in practice environments. The regional cell also worked closely with the PHA Healthcare Acquired Infection 'Nosocomial' Outbreak Team (which was part of the PHA Health Protection Surveillance and Infectious Diseases Outbreak Function) in providing advice and support to Trusts on the management of outbreaks.

Care Home and Domiciliary Response

101. Colleagues, in partnership with the HSCB, worked with the sector to develop:

- Guidance – including the development of risk-based surge planning and acute care in-reach models and for resumed visiting.
- A mutual aid contingency plan in response to workforce shortages.
- In partnership with the Regional Clinical Education Centre, a range of COVID-19 training programmes.

102. The work of the care home cell was overseen by the PHA/HSCG Social Care Cell, which reported through to the Department of Health's, 'Social Care COVID-19 Group,' chaired by the CNO and Chief Social Services Officer for Northern Ireland.

Vaccinations

103. The nursing team were also involved in supporting the Northern Ireland Vaccination Programme. This included the reallocation of the nursing and AHP team to oversee the management of the regional vaccinator bank, vaccination clinics planning, and the co-ordination of bank vaccinators deployed across care homes, primary care, and pharmacy. The team was also involved in the administration of the COVID-19 vaccination across numerous vaccination centres. The Executive Director of Nursing Midwifery and AHPs was also a co-signatory to the various Patient Group Directions.

Schools COVID-19 Response Team

104. The PHA early years nursing midwifery and AHP team were reassigned to work as part of the school's response team. This included being part of the bespoke school contact tracing team and working with children and young people services in providing advice and guidance on the management of COVID-19. The team also provided support and guidance in relation to children and young people with disabilities, and those who lived in residential environments.

Surge Planning

105. The nursing team supported surge planning, particularly in relation to nursing and AHP workforce management. This included supporting the development of bespoke guidance for Critical Care and for High Dependency units and supporting the development of an upskilling programme for staff being redeployed to work in ICU environments. The team also worked closely with the Regional Respiratory and Critical Care Hub.

Enhanced Care Model

106. Two staff from the Directorate were also redeployed to work with the DOH Chief Nursing Officer and Chief Allied Health Professional Officer on the development of an Enhanced Acute Care and Intermediate Care model. This model enabled the development of a range of assessment tools and interventions, which could better enable the management of acute deterioration within a care home or a person's own home settings.

Midwifery

107. The Midwifery team worked closely with maternity services to provide advice and guidance on the management of COVID-19 across Maternity units and Community Midwifery Services. The team were also involved in supporting the development of Visitor guidance as part of the CNO role in leading the development of person-centred visitor guidance.

Mental Health and Learning Disability

108. The Mental Health and Learning disabilities Nursing and AHP team, worked with the HSCB and DOH Mental health and learning disability services on the application of COVID-19 guidance within mental health and learning disability environments. This included input to visiting guidance and development of a bespoke dynamic risk framework for the re-opening of learning disability services.

Developing Guidance and Knowledge Cell

109. As noted above, Directorate staff were involved in providing Nursing, Midwifery and Allied Professional input to a wide range of guidance. Specifically, under the leadership of the CNO and as agreed with the PHA Chief Executive, the Nursing team had a lead role in developing the Northern Ireland 'Care Partner Model', This model was fundamental in opening safe and effective visiting, particularly in the care home sector. (**Exhibit JM/9 - INQ000381983**)

110. The Team also made a significant contribution in developing a repository of information for the PHA. This repository was designed to support the effective co-ordination of guidance across all functions of the Agency.

111. In line with the PHA's statutory role of public involvement the Nursing and Allied Health Professional team also oversaw several patient and staff experience surveys. These surveys were used inform service development.

Staff Wellbeing

112. The PHA Head of Allied Professional also played a key role in shaping the development of wellbeing resources for staff. This involved working with the DOH Workforce Team, which resulted in the development of a range of wellbeing and psychological supports staff.

Operations Directorate

113. The Operations Directorate is led by the Director of Operations and two Assistant Directors. The Directorate comprises 53 staff from a range of specialist professional backgrounds located across the PHA offices.

114. This Directorate is responsible for providing planning, communications, health intelligence and corporate services for the Chief Executive, PHA board and wider Agency. It leads on the development, implementation and review of corporate plans, business planning, performance management and risk management and ensures that appropriate and effective governance is in place.

115. The Agency's internal and external communications are handled in this directorate – including media and public relations, social media, public information campaigns, multi-platform publishing and event management.

Health Intelligence

116. Health Intelligence is part of this directorate. This is the part of the Agency that undertakes research, analyses, critical appraisal reviews and complex evaluations to provide a robust evidence base for work undertaken across all of the Directorates. During the period, the Health Intelligence team produced the following reports:

Document title	Document date (Date Created) (yyyy-mm-dd format)

COVID-19 Evidence Overview – Digital Solutions	2020-04-10
COVID-19 Evidence Overview – What do the public know about coronavirus (Covid-19)?	2020-04-21
Covid-19 Evidence Overview – How will Covid-19 affect health inequalities?	2020-05-05
Covid-19 Evidence Overview – Who is most vulnerable to the impact of Covid-19?	2020-05-19
Evaluation of Pilot of Day 0/Day 7 testing of COVID Close Contacts	2020-06-01
COVID-19 Evidence and Guidance Overview: Smoking and Vaping	2020-06-12
Briefing for TTI Comms Sub-Group	2020-06-16
COVID-19 Evidence and Guidance Overview – Obesity, Physical Activity and Nutrition	2020-06-17
Covid-19 Evidence Overview – Mental health impact on the general population	2020-08-27
TTP Campaign Evaluation Topline Results 10.09.2020	2020-09-07
Evidence Overview – Behavioural Insights & Test, Trace, Protect	2020-09-14
Scoping Review – Covid-19 Vaccine Hesitancy	2020-10-28
Covid-19 Quantitative Research - Questions on Contact Tracing	2020-12-11
Covid-19 Quantitative Research - Tracking results from PHA surveys of the Northern Ireland public's knowledge, beliefs & attitudes to covid-19	2021-02-12
Covid-19 Quantitative Research – How Does the NI Public feel about getting vaccinated against Covid-19	2021-03-03
Attitudes and behaviours of Health and Social Care staff towards COVID 19 vaccination - Survey with HSC Trust staff	2021-05-01
Resource Pack – Covid-19 Vaccination in Marginalised/Vulnerable Communities	2021-05-24
Attitudes and behaviours of Health and Social Care staff towards COVID 19 vaccination - Survey with domiciliary care staff	2021-06-01
Attitudes and behaviours of Health and Social Care staff towards COVID 19 vaccination - Survey with staff who work in primary care services	2021-10-01
Evaluation of Covid-19 vaccination campaign 'Every vaccination brings us closer together'	2021-10-18
Tracker Survey of The Northern Ireland Public's Knowledge, Beliefs & Attitudes to Covid-19 And the Measures to Mitigate It's Spread	2021-11-19
Evaluation of the Big Jab Weekend	2022-01-01
Qualitative research to Explore Perceptions and Attitudes towards the Current Covid-19 situation within NI	2022-03-31

117. Evidence Overviews were shared via the PHA Knowledge Management Silver Cell's dissemination process, ie circulated within PHA, to BSO, SPPG, Trusts and DOH. The descriptor on the front page of each overview made it clear that they could

be shared onward to partner organisations in the pandemic response, eg councils. A presentation of the findings of the Evidence Overview on Covid-19 and health inequalities was given to the Transformation Advisory Board chaired by the then Minister of Health.

118. Findings from Health Intelligence quantitative and qualitative research on the N Ireland public's knowledge, attitudes and behaviours were shared with PHA Senior Management, members of relevant Management/Oversight Boards (eg Contact Tracing and Vaccination) and subgroups (eg Vaccination Comms Subgroup). Presentations of findings were made on request to the Contact Tracing Management Board and Oversight Board and to the Strategic Information Group (chaired by the Chief Scientific Officer).

119. PHA campaign evaluations were shared with the PHA Communications Leads and they directed onward sharing. Findings from the evaluation of the Contact Tracing Pilot for Day 0/Day 7 testing were shared with the PHA Consultant Contact Tracing Lead and the then Director of Public Health and they directed onward sharing.

Shared Services

120. The PHA has a contract with the Business Services Organisation (BSO) to receive a number of "shared services". These are services provided to a range of HSC smaller ALBs and cover areas such as legal services, IT, procurement, health and safety, facilities, payroll, human resources HR and recruitment. At present, and at the time of the pandemic, we shared a Director of Finance with the HSCB. Given the importance of finance and HR services, these directors from other bodies attend the PHA board. The Operations Directorate manages the Service Level Agreements for Shared Services.

Health and Social Care Quality Improvement

121. Health and Social Care Quality Improvement (HSCQI) Northern Ireland is a Quality Improvement Network that has its origins in the Donaldson Report (2014) and was committed to in the 10- year Health and Social Care Transformation Strategy "Health and Well-being 2026: Delivering Together" (2016). Following a 2-year design and

development phase HSCQI was established by DOH as a Hub and Spoke Network in 2019.

122. The HSCQI Network is overseen by an overarching Senior Leadership Alliance known as the "HSCQI Leadership Alliance". All Trust Chief Executive Officers are members of the Leadership Alliance. Other members include CEOs from the PHA, RQIA, SPPG and BSO, Departmental Chief Professional Officers, Primary Care representatives and a service user/carer.

123. HSCQI works in partnership with many organisations locally, nationally and internationally including,

- The Health Foundation and the Q Community;
- Health Improvement Scotland;
- Improvement Cymru;
- The THIS institute
- Health Service Executive Quality and Patient Safety Directorate in the Republic of Ireland; and
- Health Improvement Alliance Europe.

124. During the pandemic, HSCQI undertook some projects in respect of gathering and disseminating learning and identifying areas for improvement. This work was done at the request of the HSCQI Leadership Alliance, carried out by the network of QI leaders and facilitated by the HSCQI Hub in PHA.

125. These included:

- Virtual visiting (**Exhibit JM/10 - INQ000381510**)
- The use of technology to enable virtual consultations (**Exhibit JM/11 - INQ000381477**)
- Staff health and wellbeing (**Exhibit JM/12 - INQ000381478**).

126. Findings were presented to Minister Swann in October 2020 at a virtual workshop facilitated by HSCQI and recommendations implemented by sharing learning through

the ECHO platform. The recommendations in respect of staff welfare and wellbeing were taken forward though a regional group led by the Belfast HSC Trust. Southern HSC Trust had been developing good practice in respect of virtual visiting and this was used as the basis for regional visiting guidance. These recommendations have been used beyond the pandemic, for example to allow virtual visiting for families who cannot easily make it to HSC sites to see their loved ones in person.

127. The Director of HSCQI at the request of the CNO provided QI input to a Rapid Learning Initiative focused on identifying learning in relation to the response of the Care Home sector to the first wave of the pandemic. The RLI was commissioned by the CNO, chaired by the DCNO and was co-delivered with the IHI. Learning identified through this RLI was used to inform the establishment of the DOH Enhanced Clinical Care Framework to support the care home sector going forward.

PHA Board

128. The PHA Chief Executive and Executive Team is accountable to our Board which is comprised of 12 members:

- The Non-Executive Chair and seven Non-Executive Directors (NEDs) (appointed by the Minister of Health); and
- The Chief Executive and three Executive Directors who are employees of the Agency.

Other Directors in attendance are the Director of HSCQI, Director of Finance (from HSCB/SPPG), Director of Social Care (HSCB/SPPG) and Director of Human Resources (BSO).

129. The board in turn is accountable to the Minister. The PHA operate under the provisions of a Management Statement and Financial Memorandum (MSFM) drawn up by DOH. The MSFM sets out the broad framework under which the PHA operates including its overall aims and objectives; roles and responsibilities of the key personnel (Chief Executive, Chair, Permanent Secretary and Executive Sponsor); rules and guidelines accompanying our duties, functions and powers; and the accountability arrangements between us and DOH. The PHA board is responsible

for setting the strategic priorities of the Agency in line with Ministerial priorities. The PHA board does note have any decision-making functions in relation to acute public health issues. The Board focuses on corporate strategy in line with the arrangements set out in the Framework Document and MSFM.

130. PHA board meetings normally take place 11 times each year and the Chief Executive reports at each meeting and did so at all meetings during the pandemic. The Chief Executive also provided updates to Board members outside of formal meetings as circumstances required.

131. The Board receives updates on performance and key issues across the Agency as well as a financial update. At the end of March 2022 and during the pandemic, there were two formal Committees of the Board – the Governance and Audit Committee; and the Remuneration and Terms of Service Committee.

132. The Board operates under the Codes of Conduct and Accountability for Board Members of HSC Bodies issued by DOH. These codes set out the basis on which HSC bodies should fulfil their operations and duties conferred by the Department. They also explain the delineation between the role, responsibilities and functions of the Executive and Non-Executive teams.

Board Meetings During the Pandemic

133. During 2020, there were additional meetings of the PHA Board in April, May, July, October, November and December. Some of these meetings were not of the full PHA Board as they were to provide briefings on specific issues to the NEDs. The table below sets out what was covered in the meetings in 2020.

Date of Meeting	Type of Meeting	Issues discussed
10 April 2020	Extraordinary Meeting of full Board	Overview of the current situation as at that date PHA's role in managing outbreaks in care homes PPE

		Testing Current PHA response arrangements Post-pandemic planning and priorities / community resilience and recovery
6 May 2020	Briefing for Non-Executives facilitated by Chief Executive and Deputy Chief Executive	Clarification of roles between DOH/PHA/HSCB/Trusts Contact tracing PPE Data collection Testing Monitoring trends Inequalities
9 July 2020	Extraordinary Meeting of full Board	Bradley Report
29 October 2020	Briefing for Non-Executives facilitated by Chief Executive and Director of Public Health	Overview of the current situation as at that date Contact tracing
30 November 2020	Meeting of Non-Executives only	Appointment of a PHA Director of Contact Tracing
8 December 2020	Briefing for Non-Executives facilitated by Chief Executive and Director of Public Health	Overview of the current situation as at that date Contact tracing

134. In 2021 and 2022, there were no additional meetings outside the regular monthly frequency. The PHA NEDs met without the PHA Executive Team present during the period covered by the scope of this module.

135. The PHA maintained a Corporate Risk Register during the period with additional risks added in respect of the pandemic. Regular risk register updates were presented to the Governance and Audit Committee and the PHA board. Directorates also maintained individual risk registers throughout the period and continue to do so as part of normal business.

136. There were many updates to the Corporate Risk Register during the period and these are summarised in the table below:

Summary of Updates to PHA Corporate Risk Register: Jan 2020 - March 2022

	Position as at							
	31-May-20	31-Aug-20	31-Dec-20	31-Mar-21	30-Jun-21	30-Sep-21	31-Dec-21	31-Mar-22
Total No. of Risks on Register	12	14	18	17	18	19	18	17
No. Risks Added	8	2	5	0	1	1	1	1
No. Risks Removed	2	0	1	1	0	0	2	1
No. Risk Ratings Increased	0	1	0	0	0	0	0	0
No. Risk Ratings Decreased	0	1	0	4	1	1	2	2

137. Updates to the PHD Risk Register are covered in the table below:

Summary of Updates to PHA Public Health Directorate Risk Register: Jan 2020 - March 2022								
	Position as at							
	31-Mar-20	31-Jul-20	31-Dec-20	31-Mar-21	30-Jun-21	30-Sep-21	31-Dec-21	31-Mar-22
Total No. of Risks on Register	6	9	13	13	13	13	15	15
No. Risk Ratings Increased	0	0	0	0	0	0	0	0
No. Risk Ratings Decreased	0	0	0	0	0	0	0	0

138. No amendments were rejected by the Audit and Risk Committee during the period.

Governance

139. In common with all DOH ALBs, PHA is subject to formal governance arrangements including:

- An annual self-assessment of board governance submitted to DOH;
- Publication of the Annual Report as per legislative requirements;
- Formal twice-yearly accountability meetings between the Chief Executive and Chair and the Chief Medical Officer (as Executive sponsor of the Agency) and the Permanent Secretary; and
- Regular Sponsorship Review Meetings between the CMO and Head of Population Health Development Branch in DOH and the PHA Executive Team.

140. Additionally, there is ongoing interaction between the PHA and DOH which, whilst not part of formal accountability, is normal between an ALB and its parent Department – for example in the provision of information or advice to inform policy decisions. Throughout the period, PHA staff had discussions and conversations both internally and with others including DOH about the management of the pandemic. The command structure allowed specifically for issues of concern to be flagged from

Bronze, to PHA at Silver and then on to DOH at Gold and this was used in the early phases.

141. Internally, PHA put in place a system of daily huddles facilitated by HS|CQI whereby senior staff met and shared information and concerns about the impact and progression of the pandemic. Local issues were discussed and plans made for escalating or resolving.

Audit

142. Internal and External audit programmes continued during the period. Whilst some normal accountability arrangements were suspended (as per paragraph 143) the Executive Team and NEDs viewed it as important that extant internal governance arrangements were not affected.

143. Internal audits carried out during 2020/21 included financial review, management of contracts with community and voluntary organisations during COVID-19, governance during COVID-19, risk management and contact tracing.

144. The objectives of the governance audit were:

- To ensure PHA were able to maintain service delivery with appropriate governance processes were in place during COVID-19.
- To ensure actions/decisions taken during COVID-19 are supported by appropriate and adequate documentation.
- To ensure that gifts and hospitality had been appropriately controlled during COVID-19. It was noted that no gifts and hospitality donations were received during the audit period.

145. The audit found that overall there was a satisfactory system of governance, risk management and control. Internal audits during 21/22 included financial review, recruitment of vaccinators, performance management, Board effectiveness and Serious Adverse Incidents Processes.

Governance Arrangements During the Pandemic

146. On 20 April 2020 DOH wrote to its ALBs advising that, in order to allow colleagues to fully focus on their COVID-19 response, most routine governance and sponsorship activities would be kept to a minimum. This meant that some usual governance arrangements including ground clearing and end-year accountability meetings would not take place. Additionally, the requirement for DOH to have sight of a draft Governance Statement before submission to the Northern Ireland Audit Office was lifted. (**Exhibit JM/13 - INQ000381479**).

147. In October 2020, DOH confirmed that usual mid-year governance activities were also paused to allow the HSC to focus resources on the pandemic response (**Exhibit JM/14 - INQ000326142**). The paused activities included mid-year ground-clearing and accountability meetings, mid-year assurance statements and sponsor branch checklists. Additionally, it was advised that the Department of Finance Review of Arm's Length Bodies would not proceed and that the replacement of MSFMs with ALB Partnership Agreements was also paused. In August 2021, it was confirmed that normal governance arrangements would be reinstated from 2021/22 onwards (**Exhibit JM/15 - INQ000381481**).

Additional Sponsor Branch Support for PHA

148. On 02 June 2020, CMO indicated that he wished to stand up a series of extraordinary sponsorship review meetings with the PHA to provide support to manage the unprecedented demands on the Agency and address concerns raised over capacity and capability. This also was taking place in the context of wider rebuild work going in the HSC at the time.

149. At this point, PHA staff had been working often long days and weeks since January 2020. There had been two reviews by this stage and whilst we did not have sight of the Review of Gold & Silver structures, it is likely that it had made recommendations on how PHA should be supported going forward. There was considerable stress on a number of people at that time – not solely in PHA – and it was inevitable that this would occasionally give rise to challenges.

150. The meetings covered a range of issues but focused on providing reassurance to DOH as to PHA's capacity and capability to manage its response to the pandemic

as well as how DOH could practically support PHA in this regard. The impact of the meetings was a better understanding of pressures both in PHA and DOH and a more focused approach to collaborative problem solving. I have spoken to colleagues who attended these meetings and they felt that the meetings were helpful overall.

Funding

151. The PHA financial revenue and capital allocations for the fiscal years 2019-20, 2020-21 and 2021-22 are set out below:

		2019-20 £	2020-21 £	2021-22 £
Revenue funding:	Recurrent	97,424,985	103,969,870	121,171,613
	Non-Recurrent	12,368,044	14,012,857	11,513,787
	Total	**109,793,029**	**117,982,727**	**132,685,400**
Capital funding:	Recurrent	-	-	-
	Non-Recurrent	12,941,723	13,718,891	14,425,814
	Total	**12,941,723**	**13,718,891**	**14,425,814**

152. Additional COVID-19 allocations were received during fiscal years 2020-21 and 2021-22 as set out below: (**Exhibit JM/16 - INQ000325399**) and (**Exhibit JM/17 - INQ000325398**)

		2019-20 £	2020-21 £	2021-22 £
Revenue funding:	Recurrent	-	-	-
	Non-Recurrent	-	10,188,789	13,613,284
	Total	-	**10,188,789**	**13,613,284**
Capital funding:	Recurrent	-	-	-
	Non-Recurrent	-	949,941	940,700
	Total	-	**949,941**	**940,700**

153. PHA was sufficiently funded through the course of the pandemic. It was made clear by DOH and TEO that funding was not a barrier to us in any area of our response and we never felt constrained by this at any point. Having conferred with colleagues, none felt that finances were an impediment to implementing our pandemic responses

Pandemic Structure

154. In response to the pandemic, the PHA operated under the steps set out in the JREP. By February 2020, the PHA was operating a Level Four response as described in the Plan. The basic structure of the Agency remained in place – with the eventual addition of the Directorate of Contact Tracing which I will discuss later. The levels of response in the JREP are set out in the table below:

Level of Joint Response (JR)	**Public Health / Service Continuity Implications**	**Joint Response**	**Example**
Level 1 JR	An Acute Incident with **no** Public Health or Service Continuity implications	**Noting** and Monitoring	A serious Road Traffic Collision (RTC) managed by single HSC Trust
Level 2 JR	An Acute Incident with **potential** PH /+ Service Continuity implications	**Advice** from either PHA **or** HSCB (now SPPG) or both	A fire in a plastics recycling plant with a toxic smoke plume (chemical incident) and potential evacuation of a health estate.
Level 3 JR	An Acute Incident with **definite** PH / + Service Continuity implications	**LOWER END OF SPECTRUM** **Action by an Incident Control Team[1]** of PHA and HSCB (now SPPG) +/- BSO **HIGHER END OF SPECTRUM** **Action by an Incident Control Team[2]** of PHA and HSCB (now SPPG) This level may also include the setting up and running of an EOC / Information Hub	An acetylene gas tank incident at a hospital with subsequent horizontal evacuation of inpatients and cancellation of outpatient clinics. A fire at a COMAH site with significant

[1] This may in the initial stage be 3 senior officers, one from each of PHA, HSCB (now SPPG) and BSO

[2] IC Team (Silver) is a formal process with agendas; minutes and actions etc. and as a minimum will include Assistant Directors/ Directors or their nominated representatives from at least one organisation.

			numbers of casualties **OR** a plane crash with mass casualties and fire on board plane
Level 4 JR	An Acute Incident with **definite major** PH / + Service Continuity implications	**Action by Incident Control Team**[3] of PHA; HSCB (now SPPG) & BSO. This level will include the setting up and running of an EOC/Information Hub	A large HAZMAT / CBRN terrorist incident with the setting up of a STAC (Scientific and Technical Advice Cell) **OR** a high mortality pandemic influenza. Mass Casualty Incident or MTFA with multiple casualties.

155. The PHA did not establish a discrete COVID-19 directorate or unit during the pandemic. PHA Is a small organisation and the Agency Management Team received daily information about all aspects of the work underway. The daily huddle system allowed for sharing across directorates. During the pandemic, around 80% of our resource was directed to work related to COVID-19 with the remaining resource focused on issues such as rebuilding public health programmes such as screening and other interventional work on smoking etc. DOH issued a letter confirming that the focus of the PHA should be on COVID-19 response and that the rest of the Agency should go into business continuity.

156. Whilst the establishment of a dedicated unit was considered, it was not thought to be a necessary given the above. The cell structure outlined earlier shows how PHA staff were redeployed from the beginning of the pandemic to best support the regional response. Additionally, as also described earlier, PHA staff were redeployed to areas within the organisation that were experiencing high levels of demand (such as contact tracing and health protection) at various points during the period. Having conferred with colleagues, I do not believe that such a unit would have been of additional assistance.

157. In the initial stages we followed the steps in the JREP and the Gold-Silver-Bronze infrastructure described therein. As it became clear that the response was to be

[3] This ICT (Silver) will include senior Management Team members from the three organisations

sustained over a prolonged period, DOH took on a command and control approach to some aspects and the PHA was directed to operationalise strategic decisions made by the Department. In practical terms, this meant that whilst DOH retained overall accountability for these issues, PHA was in charge of day-to-day running of services such as the contact tracing service and Covid-19 testing.

158. In respect of Covid-19 testing, DOH established an Expert Advisory Group (EAG) on testing as described later in this statement. The key role of the group was to develop the Northern Ireland testing strategy for COVID 19 and to oversee/coordinate implementation of testing and Dr Brid Farrell, PHA Assistant Director of Service Development at the time, was appointed chair of the EAG. The EAG reported directly to the CMO and produced draft protocols for testing of healthcare staff and patients. Contact tracing is covered later in this statement.

159. Part of the HSC response to the pandemic was to ensure that staff resource across the system was directed to where it was needed most. As a result, HSC organisations including the PHA were offered staff on secondment from roles not considered critical to the frontline medical or nursing response. The PHA received seconded HSC staff from various HSC bodies particularly in the initial phase of the pandemic response. The tables below show staff seconded in to PHA from HSC bodies and the role they undertook:

	Qtr 1 2020/21	Qtr 2 2020/21	Qtr 3 2020/21	Qtr 4 2020/21	Qtr 1 2021/22	Qtr 2 2021/22	Qtr 3 2021/22	Qtr 4 2021/22	TOTAL
Number of additional HSC staff supporting the PHA via secondment	2	4	6	1	2	1	4	2	22

	Breakdown of Role
Chief Executive Role	1
Admin and Clerical Role	13

Specialist Nurse Role	7
Core Trainee (Clinical Role)	1

160. At the same time, some PHA staff were seconded out of the Agency in order to support the HSC or DOH response to the pandemic. Among others, this pool of staff included the Director of HSCQI who was instructed to return to BHSCT to undertake clinical work and myself when I was seconded to DOH as Associate DCMO. The temporary loss of staff obviously had an impact on the PHA. However, structures were re-organised to maintain our ability to respond to the pandemic. Staff moves were based on need across the system as a whole and we understood that the skills of our staff were better utilised in other organisations.

161. The PHA also benefitted from staff seconded from other organisations including the Strategic Investment Board (SIB) and Queen's and Ulster Universities. The table below shows staff seconded from non-HSC bodies:

Non-HSC organisation	Number of Staff
Agri-Food and Biosciences Institute	1
Department of Agriculture, Environment and Rural Affairs	1
Land & Property Services	1
Local Council	3
Queens University Belfast	2
Strategic Investment Board	2
University of Ulster	1
TOTAL	11

162. From the early stages of the pandemic, PHA staff were redeployed internally to workstreams outside of their permanent business areas. This was to ensure, as much as possible, that those areas facing the greatest demand had an appropriate staff complement. PHA entered business continuity and this included

the redeployment of staff to areas where they were most needed. As already discussed, around 80% of the Agency's work was focused on the pandemic response and this obviously meant that many areas of usual business were paused. Consultant staff who were redeployed from Service Development and Screening to support Health Protection are all trained in public health. The staff who were redeployed to CTC underwent training and refresher training before they were included on the rota.

163. There was close oversight and control of the internal redeployment of staff with the Chief Executive and Directors meeting daily to discuss how and when staff would be returned to their own business areas. The process of returning staff was managed to ensure that those doing high-priority work were returned first.

164. There have been long-term impacts of the internal redeployment – particularly where staff were working outside of their own business area for a sustained period. For example, we had intended to review our procurement strategy and had recruited a project manager to do this work. However, he was immediately deployed as a manager in the Contact Tracing Service and as a direct result, we have a higher number of Direct Award Contracts in place than we had intended. Also, the return of the Director of HSCQI to clinical work meant that her work on developing a sustainable funding model for the Institute had to be paused.

165. Additionally, the long-term redeployment of Service Development staff to the Health Protection response meant that they were unable to contribute to a range of core / new programmes of work including for example. service design, profession-specific programmes and the early stage redesign work around the new commissioning model for NI which was required as a consequence of the migration of the HSCB to the SPPG.

COVID-19 Contact Tracing Service

166. In the very early days of the pandemic, the PHA undertook contact tracing as described in earlier paragraphs. The Inquiry has asked if contact tracing was the primary function of the PHA at this point in the pandemic. During the early stages of the pandemic, contact tracing was one of many functions of the PHA Health

Protection Team. Contact tracing is an established mechanism to manage infectious disease However, as described the health protection team was also providing advice to individuals and organisations in relation to COVID-19 as well as its other non-COVID-19 work at the time. Contact tracing was being done but did not have primacy over other work at that point.

167. PHA was not involved in discussions about the decision to stop contact tracing in March 2020. A meeting was convened by CMO and we were advised that tracing was to be stopped across the UK, including in Northern Ireland in line with the PM's announcement. As described above, while there was a sense of relief given the volume of cases we were managing, there was some disappointment. It was recognised that the spread was such that we would not have been able to keep up and the testing capacity did not yet exist to offer large scale testing of suspected case. However, it felt counter-intuitive to public health practitioners not to be putting some sort of service in place, if only to gather information about how the infection was behaving given how little was known at that time. It was also of interest to understand how many contacts cases had and how many contacts went on to become cases. I am not aware of PHA having expressed any concerns to the Executive, DOH or any other body in respect of the UK-wide decision to cease contact tracing at this point.

168. At the beginning of April 2020, CMO convened a meeting with PHA and requested that we pilot arrangements for a large-scale contact tracing service in anticipation of a new wave of COVID-19 cases. The pilot was to be complete within a very short time frame during which 76 staff were trained to carry out contact tracing. After April 2020, PHA was closely involved in the design and delivery of a dedicated Covid-19 contact tracing service for NI and was in charge of day to day operation of the service when it opened in May 2020.

169. Early in the pandemic, the PHA was approached by local government representatives who advised that council staff could be made available to support contact tracing. Environmental Health Officers are experienced in the principles of contact tracing as part of their day-to-day work and some ex-EHOs were recruited to work in the contact tracing service. However, at no point was a group of 500 people

trained to undertake contact tracing for Covid-19. In the event, and with the agreement of the Contact Tracing Steering Group described below, PHA went with a different operating model for the Service.

170. Emergency response planning prior to the pandemic had not contemplated the need for a dedicated, large-scale contact tracing service that was to be sustained for more than two years. This was one of the many unprecedented events of the pandemic.

171. The first business case for funding the Covid-19 Contact Tracing Service was predicated on having to trace an average of 50 cases per day with the ability to scale up or down as demand required. As far as I have been able to ascertain, the reason for using 50 cases as a standard was due to the availability of testing in April/May 2020 when the case was drafted. In September 2020, cases rose to over 4,000 for the month and these were managed through a sustained increase in contact tracing hours which rose from approximately 700 tracing hours a week to approximately 1,500 tracing hours a week by month end. PHA had been building a bank of contact tracing staff since May 2020 and was able to increase capacity to meet demand until case numbers rose to over 1000 per day at the end of September 2020.

172. On 1 May 2020 the CMO, therefore established a Steering Group to oversee the implementation of a Contact Tracing Service (CTS) for Northern Ireland. Dr Elizabeth Mitchell (retired Deputy CMO) and Alistair Finlay (from Queen's University Belfast) were appointed as joint Chairs of the Contact Tracing Steering Group (CTSG). The remaining members comprised of senior officers from Department of Health; PHA; BSO; the Patient and Client Council (PCC); the Northern Ireland Council for Voluntary Action; and Queen's University Belfast and Ulster University.

173. The pilot had not provided complete proof of concept for a large-scale tracing service. It had not had time, for example, to design and develop a dedicated IT platform for recording cases and contacts. The Steering Group was established to bring all other aspects of the service to fruition. As well as IT these included HR (recruitment, appointment, payroll); facilities; information governance; and the establishment of a COVID-19 telephone helpline service.

174. The CMO was the Senior Responsible Officer for the Contact Tracing Project and also the Chair of the Test, Trace, Protect Strategic Oversight Board which was established to oversee both the contact tracing and testing programmes.

175. The key aims of the CTSG were to:

- Deliver an extensive and comprehensive CTS for Northern Ireland;
- Confirm the service model to include traditional contact tracing and technology enabled elements;
- Oversee the recruitment of suitably experienced staff/volunteers;
- Provide appropriate IT platforms to support the work;
- Identify and secure resources and facilities for the service; and
- Identify appropriate governance, project management and administrative support for the service.

176. CTSG was established by the CMO as DOH took a more direct approach to managing the pandemic. It was recognised that in order to deliver a regional service, capable of managing several hundred cases each day would require cross-organisational, multi-disciplinary working and that this is most efficiently facilitated via DOH having direct oversight of the programme. It would be usual and appropriate for DOH to establish such steering groups where a number of regional organisations would be called to work together at pace and scale.

177. The Steering Group was stood down in September 2020 and operational control handed over to the PHA. The Steering Group leads submitted a paper to CMO setting out the rationale for standing down the Group

178. In December 2020, Dr Liz Mitchell was appointed as Director of Contact Tracing in recognition that the size and scale of the operation required a dedicated Director to be accountable at the appropriate level for clinical governance and performance. A project lead had been seconded to the PHA in early-May 2020 to oversee the operational aspects of implementing the service and she was appointed Deputy Director of Contact Tracing following a recruitment exercise in February 2021.

179. Contact tracing did remain a function of the Agency, but it was overseen by the TTP Oversight Board chaired by CMO. In having a dedicated Director for the Service, the PHA retained responsibility for the operation of the Service but not the policy direction – i.e. the PHA was not responsible for defining and redefining close contacts or isolation periods etc, but was responsible for (and put in systems to measure) the quality of calls made and productivity overall. It may assist the Inquiry to seek further information on responsibility for defining these concepts from the Department of Health.

180. In my view, DOH was best placed to advise the Executive on policy direction and issues such as isolation periods and close contact definitions. These were often informed by national discussions between the four UK CMOs and amended or adopted in NI as considered appropriate by the Executive (advised by DOH in line with procedure). I do not wish to give the impression that PHA was not engaged by DOH in discussions on these issues – we were asked for, and provided, views on proposals as they were drafted – but the decisions were made by the Executive in accordance with DOH advice which was provided by CMO and CSA.

181. Contact tracing within the Contact Tracing Centre was undertaken by a large pool of Clinical Contact Case Workers (AFC band 6) with additional support provided by a smaller pool of Health Technicians (AFC band 4). Day to day operational issues were managed by a tier of Contact Tracing Team Leads (AFC band 7).

182. In addition to these staff, a number of senior managers, clinical staff and administration staff also worked within the Service (**Exhibit JM/18 - INQ000326136**).

Testing Capacity in Early Stages of the Pandemic

183. The only COVID-19 testing available in March 2020 was through health and social care (HSC) laboratories in Trusts (also known as pillar 1). The challenge In March 2020 was to increase testing capacity rapidly. DOH convened an expert advisory group on testing, chaired by the PHA, to address how to increase testing capacity in Northern Ireland.

184. To address the challenges posed by limited testing capacity, priority groups were agreed for testing which can be found in the testing guidance issued on the 19 March

and updated on the 26 March. This guidance was co-ordinated by the Public Health Agency who convened a task and finish group with Trust representation to develop the guidance. The guidance aimed to provide an objective justification for testing based on existing testing capacity and took account of emerging knowledge about COVID-19 over the following months and the approaches being taken in the other nations and the Republic of Ireland. As the pandemic progressed new types of tests became available and were included in the guidance.

185. On 4 April 2020, the first drive-through centre for COVID-19 testing was operationalised in Belfast, followed by Derry and Craigavon as part of the national testing initiative (also known as pillar 2). The PHA worked with the national initiative to identify sites for testing and the location of walk through testing sites. They also advised where mobile testing units should be located throughout the pandemic based on COVID-19 numbers in a locality or in response to an outbreak in a work setting as advised by the contact tracing service. In the absence of a public booking platform, the booking of tests was co-ordinated by the PHA for key workers including HCWs and independent sector workers. The national testing initiative used a local private laboratory (Randox) to test samples. That contract was with DHSC in London.

186. The public facing booking platform for the national testing initiative went "live" on 18 May 2020 and symptomatic members of the public could book a COVID-19 test through an online portal.

187. In the early months of the pandemic, the only testing available was through Trust laboratories. The national testing initiative was operationalised on the 4 April 2020 in Belfast. There was limited access to testing for the general public unless they were identified as a key worker or healthcare worker.

188. When additional testing capacity became available in Trusts, there were concerns raised by Departmental officials that the capacity was not being used completely every day particularly in particular for healthcare workers (HCWs) to address the high numbers of absences of HCWs in Trusts.

189. At the outset of the pandemic HSC laboratory IT systems did not record information about whether the person being tested was a HCW or not. To address the information needs of the DOH, daily information on testing numbers broken down by patient and HCWs was compiled by the Health Intelligence sub directorate and sent to DOH at a set time every day. This was a manual data collection form where a member of staff contacted the individual laboratories and obtained the information directly from them.

190. When the national testing initiative was operationalised locally on 4th April 2020 (initially Belfast followed by Derry and Craigavon) the intention initially was that the testing capacity would be used to test key workers and HCWs. This was to protect Trust lab capacity as a separate supply chain for testing supplies and reagents w used in the national testing initiative. Trust Chief Executives indicated at a meeting on or around 8th April 2020 advised that they wanted to test their own staff and expressed concerns about the turnaround time for results from the national testing initiative compared to their own laboratory services. While their concerns were understandable, not all Trusts had adequate laboratory capacity to do this outside Belfast. In the early part of the national testing initiative turnaround times for results could be problematic and at one stage N Ireland temporarily transferred N Ireland test samples to a laboratory in Scotland for testing until the performance of the national initiative laboratory (Randox) improved.

191. An expert advisory group on testing was established by the DOH and was chaired by the PHA. An academic consortium was established as part of the expert group to support increased testing capacity in Trust laboratories. The consortium included AFBI, ALMAC (independent laboratory) and CITRIC laboratory in Derry.

192. Subsequent testing advice were issued via the CMO on the advice of the expert advisory group on testing. This advice was regularly updated throughout the pandemic (versions 3 to 9).

193. The guidance aimed to provide an objective justification for testing based on existing testing capacity and took account of emerging knowledge about COVID-19

over the following months and the approaches being taken in the other nations and the Republic of Ireland.

194. The PHA perception was that the advice was followed in general by Trusts. At no stage throughout the entire pandemic was the testing capacity in Trust laboratories exceeded. Local medical directors had discretion to permit testing outwith the guidance.

195. In a rapidly changing pandemic differences in opinion on priorities for testing are inevitable. The task and finish group and the expert group on testing tried to balance competing priorities based on emerging evidence. PHA advised that all residents and staff in care homes should be tested when an outbreak is declared from the 24th April 2020. It was included in the interim guidance issued (Version 4) issued on the 4th May 2020. During June 2020 all care homes (staff and residents) were tested and from the 3rd August 2020 monthly testing of all staff and residents in care home was started in addition to outbreak testing.

196. It was included in the interim guidance issued (Version 4) issued on the 4th May 2020. The PHA undertook a surveillance study in a care home outbreak on 23rd April 2020 to examine this issue. Preliminary findings were available from 28th April 2020. The findings were:

> "This study highlighted that only testing symptomatic residents and staff may not identify all residents and staff with the infection. It is therefore critical that all residents and staff are tested in outbreak situation to identify asymptomatic and pre-symptomatic individuals with COVID-19 that could transmit the virus before significant symptoms develop. Finding supports the recent change to the Northern Ireland policy for testing all residents and staff for SARS-CoV2 in care homes with new outbreaks."

PHA Response to the Pandemic

197. The role of the PHA in the pandemic is described at various points in this statement and described in more detail in our response to Module Three. We worked with

colleagues in HSCB and across the HSC on surge planning and delivering a system-response to the first wave (**Exhibit JM/19 - INQ000381485**).

198. We also provided advice and information to the Minister for Health and CMO. A range of information and advice was provided in response to Private Office Enquiries which is a direct source of advice and information to a Minister when required to respond to an Assembly Question or correspondence from an MP or MLA. Examples of this information are included at (**Exhibit JM/20 - INQ000415968**).

199. There were daily, weekly and monthly feeds of information to DOH in the form of sitreps for contact tracing, testing capacity and uptake, surveillance and care homes.

200. As described earlier, PHA also reviewed guidance shared by other Departments to ensure that it reflected current public health advice in respect of COVID-19.

201. PHA staff were involved in a range of groups tasked with managing various aspects of the HSC system response to the pandemic including infection prevention and control, critical care planning, vaccination, care home support, communications and engagement and staff wellbeing. All of these groups reported ultimately to CMO, CNO or other senior DOH staff.

202. PHA did not provide advice or information directly to the Northern Ireland Executive. Information and advice was provided to DOH who then determined what and how to communicate this to the Executive through the Minister.

Management of Later Stages of the Pandemic

203. On 22 October 2020, DOH wrote to advise that the Minister had established a COVID-19 Command Group to manage the second wave and the PHA was directed to advise on several of the cells established under this approach (Exhibit **JM/21 - INQ000381486**). The rationale for this decision was explained as the Department seeking to manage further waves as a business continuity issue, rather than an emergency. There was therefore a move away from using the previous Gold-Silver-Bronze emergency planning arrangements to avoid duplication of effort, simplify the decision-making process and to ensure sustainable working arrangements.

204. The Inquiry has asked why DOH had not established a COVID-19 Command Unit for managing the first wave. I would respectfully ask suggest that the Inquiry direct this question to DOH who are best-placed to respond. Having conferred with colleagues, I believe that it was timely at this point for DOH to establish a new way of working as by the time of preparing for the second wave, it was no longer appropriate to be using mechanisms designed for a contained emergency.

205. The Inquiry has asked if it is reasonable to describe the PHA's role in the pandemic as "subsidiary" to DOH. The PHA is an Arm's Length Body of the Department of Health and is accountable through its Board to the Minister. It is therefore fair to technically describe our standing as subsidiary to the Department. During the pandemic, ALBs worked with the Department, and each other, in the best interests of the people of Northern Ireland.

206. As the pandemic progressed, the PHA was represented on a range of new DOH-led groups established to respond as situations such as travel changed in line with new regulations, policy and best practice (**Exhibit JM/22 - INQ000381488**).

PHA Responsibilities Towards the Public

207. The key areas where we had responsibilities towards the public in relation to COVID-19 were:

- Operating the Contact Tracing Service – including establishing and supporting the NI COVID-19 Care telephony service operated by NI Direct;
- Communications and engagement – including media appearances, campaigns and public information;
- Putting in place a system that could take information gathered through testing and contact tracing that identified settings and areas of high prevalence;
- Interventions in workplaces or geographical areas where cases were significantly higher than expected. Such interventions included enhanced testing in Kilkeel when case numbers there were found to be high; enhanced testing and support for meat processing plants to operate more safely when their case numbers

were high; and working with local churches to support safer practice when we picked up that funerals appeared to be a common link between case numbers in various locations.

- Supporting establishments which had outbreaks – by providing advice and guidance and delivering interventions such as targeted testing;
- Operationalising the Pillar Two testing strategy including determining and publicising the location of mobile testing units;
- Contributing to policy guidance when requested for example on issues such as visiting in care homes;
- Supplementing the information provided on the Department of Health's COVID-19 dashboard with a detailed surveillance report which was published weekly).

208. PHA did not create any policy guidance during the period.

Relationships with Other Sectors

Education

209. One key interface was that between the PHA and the primary, secondary and special education sectors. In late summer 2020 the PHA established a working relationship with the Education Authority (EA) and Department for Education (DE) to support the pending return to classrooms. The PHA established an Education Cell at the beginning of September 2020 to coordinate the contact tracing and provision of advice to school principals who were notified of positive cases of COVID-19 in staff or students. PHA staff also joined twice weekly meetings with DOH, EA and DE to discuss strategic and operational issues.

210. The Education Cell operated 7-days a week from September 2020 communicated most up to date NI guidance on testing and isolation direct to schools. The main focus was to enable the rapid identification of close contacts of positive cases and reduce chains of transmission of COVID-19 within school communities.

211. The Education Cell developed, and updated as required, operational guidance for schools during the COVID-19 response which was disseminated to all schools via EA. This included information on general measures to mitigate risks such as social distancing, use of face coverings, and specific information on managing positive cases and close contacts within education settings. The team worked closely with the EA to support an EA-led phone line for COVID-19 - related queries that were not about case management. We delivered training, webinars and attended a range of stakeholder meetings.

212. Staff from the Education Cell also worked closely with the DE and EA to develop school COVID-19 testing programmes. Regular asymptomatic home testing using lateral flow devices was made available to pupils and staff in accordance with the NI recommendations. Weekly saliva-based LAMP testing was introduced for all special school staff and students starting in February 2021, as this method of testing avoided the need to take repeated swabs from children with special needs. Northern Ireland was the only part of the UK to provide this service to all its special schools.

213. PHA did not have a role and did not provide any advice in respect of the decision to close schools in March 2020.

Care Homes

214. A second key interface was with nursing and residential care homes. These are predominantly provided by the independent sector in Northern Ireland. In response to a change in testing policy in May 2020, care homes and residential homes in Northern Ireland were supported by the PHA to implement a programme of asymptomatic testing. Testing kits and all logistical support was made available to homes. PHA staff organised for all homes to get registered for a postal service delivered in partnership with UKHSA. Homes were offered mobile testing support in the early days of implementation in order to facilitate rapid commencement of asymptomatic testing of all staff and residents. A package of support was made available to all homes included staff training and resource materials.

215. All homes received access to online swabbing training video resources with accompanying on line competency assessment tool. The PHA liaised with all five HSC Trusts (who commission the majority of this care and are responsible for the

quality of it) to coordinate support activity and ensure homes received staffing assistance and mentoring as required.

216. PHA staff organised, with colleagues, multiple online training sessions to ensure staff in homes had the necessary information to implement this programme of testing. The PHA also worked with the Clinical Education Centre to facilitate "self-swabbing training" as part of the ongoing package of support.

217. The DHSC procedural guidance manual was adapted for use in Northern Ireland and updated in accordance with policy changes and changes to testing protocols. Brief checklist materials and website material were made available on an ongoing basis with posters developed as easy read guides.

218. A dedicated email address was established for care homes to use for queries, comments and feedback. All feedback was shared with colleagues and used to inform ongoing, continuous review of the programme. The initial phase of the testing programme was completed in all care homes in Northern Ireland at end of June 2020. Operational processes thereafter were refined and communicated on an ongoing basis in accordance with testing policy and protocol changes to ensure smooth delivery of the service in Northern Ireland.

219. In November 2020 asymptomatic care home staff PCR testing increased from fortnightly to weekly and the PHA supported all operational matters to deliver on this change. Further changes supported by the PHA included implementing a testing regime for care partners, care home visitors, the supported living sector, hospices and the wider adult social care sector including personal assistants and domiciliary care staff.

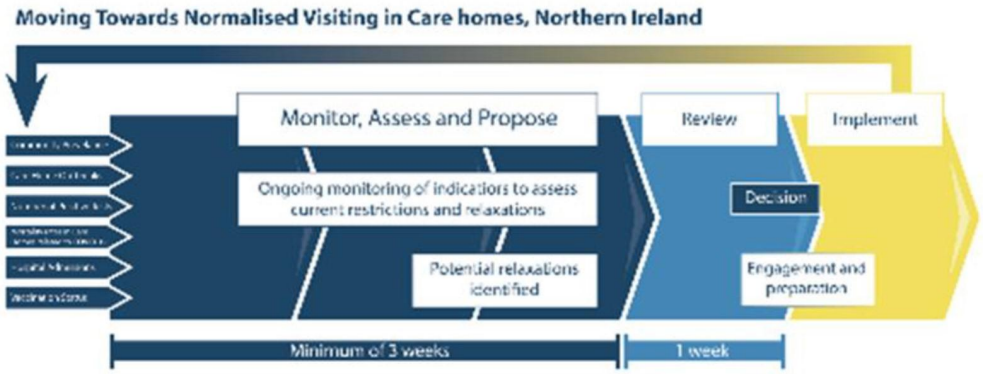
220. In December 2020 DOH sought advice from PHA in respect of Christmas Visiting Guidance (**Exhibit JM/23 - INQ000381489**. Also, in December 2020, PHA received a letter from DOH asking that we lead on further implementation of the care partner concept and appropriate visiting (including end of life) through developing a risk assessment and visiting planning process (**Exhibit JM/24 - INQ000381490**). An information leaflet on Visiting in Care Homes was therefore developed for issue to Families/Carers of all residents and issued to Trusts for onward distribution on 28 January 2021 (**Exhibit JM/25 -INQ000381491**).

221. In February 2021 DOH wrote again to PHA requesting that we lead on development of a plan for the care home sector to move to a more normalised situation with regards to visiting. This plan would then inform DOH policy. (**Exhibit JM/26 - INQ000381492**) A Regional Working Group was established and chaired by PHA to deliver against the request.

222. The PHA Nursing and AHP Directorate established the 'Normalising Visiting Forum' to support delivery of a pathway. A wide range of stakeholders were engaged including residents, families and care home providers using a co-production approach. In addition, a survey was issued across the system to residents, families and care home staff seeking views in relation to easing visiting restrictions. There were 1345 responses; 939 families, 77 residents and 329 care home providers. Based on the available evidence, feedback from the survey and consultation across all stakeholders, the PHA developed a pathway - 'Visiting with Care: A Pathway'. This provided a risk-assessed, staged approach to allow residents to receive visitors, as well as facilitating them to leave the home to visit other households, community facilities and have excursions. The pathway was endorsed by DOH and on 7 May 2021 formally launched as its new approach to visiting in Care Homes (**Exhibit JM/27 - INQ000381493**).

223. Departmental care home policy leads were also on this group as well as PHA health protection consultants. As such there was joint working between the PHA and DOH to adapt visiting guidance using a risk-based approach as the pandemic progressed – taking into account epidemiology, data on outbreaks, mortality, COVID-19 prevalence across the region, hospital admissions, hospital capacity, national position as well as feedback from visitors.

224. On 24 May 2021, DOH requested that the PHA provide 4 weekly cycles of reviews based on a range of data to advising the Minister of progress in moving along the different stages of the pathway; see diagram below.



225. Over the intervening 16 months, the provisions of the Pathway were subject to ongoing scheduled reviews, based on the consideration and assessment of relevant data by a panel of Public Health Officials. Based on the outcome of those reviews, PHA wrote to the Minister recommending whether to further progress along the pathway at that time. Throughout this time the PHA supported ongoing engagement through the Normalising Visiting Forum to garner the views of the wider stakeholders including a further survey with residents, families and care home staff.

226. Progress was made along that Pathway, culminating in the development of a return to normal visiting pathway designed by the PHA and key stakeholders. This document 'Visiting with Care – The New Normal' (JM/26) took effect from 1 September 2022 as DOH guidance. This guidance sets out an updated risk assessed set of arrangements for residents to receive visitors. It effectively removes all restrictions on visiting in those care homes not experiencing an outbreak, while a risk assessed method of managing visiting during outbreaks is also set out which replaces the previous requirement for all visiting to cease during an outbreak.

Work of Health Improvement Teams

227. Reviews of the NI Vaccine uptake data in March 2021 identified a number of geographic areas and national/ethnic background groups which were below the Northern Ireland average vaccine uptake levels. The DOH Vaccine Plan consequently included a focus on vaccine equity to ensure implementation of

interventions that would address vaccine hesitancy and low vaccine update relative to the Northern Ireland average.

228. Low vaccine uptake working group actions and results included:

- Workplace interventions to target Ethnic Minority & Migrant communities;
- Community-based interventions particularly in deprived areas;
- Working with vulnerable groups including the homeless community, asylum seekers, travellers, 'foreign' fishermen;
- Production of a Low Vaccine Uptake Toolkit (an on-line toolkit) to provide a central point of access to materials and resources for individuals and organisations seeking to promote COVID-19 vaccination uptake within their local communities, designed for use by HSC Trusts, Community Pharmacy and Local Councils and the Community and Voluntary Sector;
- Outreach vaccine clinics in third level educational settings. This involved close planning with Further Education and University contacts and 3,300 COVID-19 Vaccines were provided as a consequence in Autumn 2021 and 2022.

229. The PHA's Health Improvement teams utilised their extensive contacts with Councils, Community Planning Partnerships; NGO's and Government Departments, over 500 organisations with contracts with the PHA including key Community and Voluntary groups and young people to ensure consistent messages on COVID-19 were provided throughout localities. This included encouraging community and voluntary groups to use the PHA Vaccine Toolkit and support to Churches to minimise transmission at services (including funerals).

230. The teams also coordinated the response to the psychological impact of the pandemic including:

- Messaging content around health promotion topics such as the Take 5 mental health campaign, drugs and alcohol and physical activity;
- A stress control on line programme to support psychological wellbeing of wider HSC workforce launched 16th April 2020;

- An online helpline - launched and updated to include helplines that were set up in response to COVID-19;
- A specific helpline providing information on support available to communities and councils supporting their communities.

Important Points of Contact Within Northern Ireland

231. I would consider our links with universities, local councils (especially Environmental Health Offices), Northern Ireland Water and the Health and Safety Executive to have been particularly important points of contact during the pandemic. Universities had additional expertise in epidemiology and analytics capacity. Local councils had relationships with their populations, including some hard to reach groups that aided our work with them in respect of managing high case numbers or encouraging vaccine uptake. Environmental health also sits within local councils and these colleagues provided support in the early stages for contact tracing and disease management. Both Environmental Health and the Health and Safety Executive have enforcement powers in respect of infectious disease outbreaks and we worked with them to determine if any such action (or supportive interventions) were required during outbreaks and incidents. NI Water was a key partner in the Waste Water Surveillance programme that provided another source of intelligence for the spread of the disease.

Rapid Review of the Epidemiological Function within the Public Health Department of the Public Health Agency with a Specific Focus on Contact Tracing

232. I was not party to the discussions on this Rapid Review which was commissioned by the Chief Executive. However, as with many other aspects of the pandemic, the demand for information, data and intelligence was unprecedented. In the early stages of the pandemic there was a significant, and understandable, demand made on PHA for information. The Department of Health, the media, politicians and the public all had a need for information and in many cases they turned to the PHA to provide it. The volume and frequency of these requests placed considerable pressure on the surveillance and health protection teams in particular. The requirements for "live" information was challenging as there was also a requirement to make sure the information provided was accurate. Our teams were using several systems and

sources to produce this data. PHA did not then have access to technical infrastructure to fully automate data processing. Even working to the best of their ability, and over long days and weeks, the unyielding pace of the demands caused internal frustrations and stress. At the same time, DOH expressed frustration that their urgent requirements were not always met to their satisfaction.

233. Information about the numbers of deaths attributed to COVID-19 was of key importance. There was no pre-existing system to inform PHA about deaths as they happen. The interim Chief Executive of the PHA wrote to Health and Social Care Trusts on 26 March 2020 to ask Trusts to report in-hospital deaths where the patient had been diagnosed with COVID-19 to the PHA through an internal web portal built on Microsoft SharePoint (**Exhibit JM/28 - INQ000381494**). However, this did not allow for reporting of deaths in other settings such as care home and in the community. As part of the routine response to care home outbreaks the acute response Health Protection team receive a daily report from independent sector nursing and residential facilities that are reporting an increased incidence of an infection or outbreak. Part of this process is to include the number of residents currently with symptoms or confirmed infection, hospitalisation or death attributable to the infection (stated on part one of the death certificate).

234. It was challenging to meet the understandably tight deadlines required by DOH and manage the volume of other requests for data. It has been suggested that this led to some frustrations and the Rapid Review was commissioned to ascertain where improvements could be made.

235. The PHA surveillance team, prior to COVID-19, had limited experience of processing the amount of data that became necessary during the pandemic. Some in the team had experience with statistical programming in R and the production of dashboards using Microsoft PowerBI and made use of this capacity as part of their reporting. However, the team did not have access to technology or skills to create and maintain large databases or to schedule data processing tasks early in the pandemic. Later in the pandemic this capability became available because of the technical developments led by the Digital Health and Care Northern Ireland team in the Department of Health. These resources were used to process and integrate

health protection surveillance datasets, greatly improving PHA's ability to provide timely and robust information and analysis.

236. The report of the Rapid Review was first shared at a confidential session of the PHA Board in July 2020. The PHA Board did not accept the review in its entirety. This was a rapid review which took place during a period of high demand on the Agency and, having discussed with colleagues who were present at the time, the view was that the remarks contained about the relationship with DOH reflect frustrations expressed with the processes and systems in place at the time.

237. The report was not widely circulated among staff in the Agency and many of the staff in the surveillance team did not see it. Nor did senior members of the public health team. I did not see the report until preparing this response. The DPH in post at the time the report was commissioned did see it.

238. By June 2020 many PHA staff had been working for six months on the pandemic, trying to manage and meet a number of competing, high priority demands as well as the general stress and pressure of the pandemic on their own lives outside of work. One issue that the Agency Management Team and Board was especially conscious of was that many staff were working long hours and the apparent criticism in the report would have been extremely demoralising.

239. Overall, I am advised the relationship with DOH was good. We understood and worked with them to utilise all the skills and resources across the HSC system to manage the pandemic across several years. Of course, there were challenges which arose at various times, but these were managed in a supportive manner – for example through the additional sponsorship arrangements put in place.

240. The PHA Board took the view that the recommendations of the Review should be considered separately from the opinions of the author. Each was considered and an action plan developed for those agreed for implementation. The extract below is taken from the notes from that meeting.

> *Recommendation 1 – The Agency should establish a formal programme to manage both its work in relation to the Covid-19 pandemic and progress towards a return to business as usual.*

It was noted that the DoH has set up a Rebuilding HSC Services Programme Board. The PHA along with other HSC organisations participated in this. The focus is on returning services to business as usual. Professor van Woerden added that there is also the PHA Second Wave Planning Programme Board complemented by weekly Covid-19 AMT 'Huddle' Meetings which focused specifically on Covid-19.

Recommendation 2 - The Agency should establish a dedicated Covid-19 team bringing together staff from the surveillance team and the Health Intelligence Team, including dedicated administrative support.

Members did not feel that a dedicated team was needed as outlined above.... Dr Keaney suggested that this recommendation is covered through the compilation and publication of the weekly and monthly epidemiology bulletins which involves the teams working together.

Recommendation 3 - The Agency should recruit an Assistant Director of Epidemiology to provide direct support to the Director of Public Health. On a day to day basis the post holder should be part of the Covid-19 Team.

The Interim Chief Executive advised that a bid has been made for permanent funding to cover this post and the post is currently been recruited on an acting basis

Recommendation 4 - The Agency should establish an office of the Chief Executive to manage and record all requests for information being received by the PHA, both Covid-19 and non Covid-19 related.

The Interim Chief Executive stated that a central point for Covid-19 requests is needed. Professor van Woerden noted that existing AQ/FOI processes and a recent proposal from Mr Stephen Wilson in this respect. Mr McClean indicated this, along with application of recently introduced

HSCB pro forma, would help re tracking and quality assurance of the responses which go back.

Recommendation 5 - The Agency should approach the Department of Health to establish if the Department would be able to loan a small team of statisticians (2-3 staff) and 1-2 policy staff with training in programme management who could become part of the Covid-19 team.

The Interim Chief Executive advised that Mrs Paula Smyth has been progressing this, but Professor van Woerden highlighted issues with securing the staff on secondment from the Department. Mr McClean suggested using a specialist recruitment agency to find individuals with a statistical background. Professor van Woerden said that some of these staff will need to be deployed in the contact tracing centre.

Recommendation 6 - The Agency should commission a rapid review to establish which parts of:
a) the Public Health Agency Business Continuity Plan; and
b) the Public Health Agency specific arrangements, described in the Joint Emergency Response Plan,
have been implemented/followed as part of the response to Covid-19 and also which parts have not been implemented/followed.

Mr McClean advised that Mrs Patricia Crossan and Miss Rosemary Taylor were keeping under review any issues relating to business continuity planning and Mrs Lisa McWilliams and Ms Mary Carey were undertaking a comprehensive review and learning exercise in relation to emergency planning arrangements
Recommendation 7 - The Agency should as an interim measure bring the management of both the Health Intelligence Team and the Surveillance Team under a single Assistant director.

This recommendation was rejected by AMT. Members agreed that a better focus is on continuing to maximise co-ordination and flexible working

across these and other teams given the diversity in support required across all PHA functions as well as partner organisations.

Recommendation 8 - The Agency should commission a capacity study to look specifically at both the Surveillance Team and the Health Intelligence Team with a view to developing standard job descriptions for these staff. This should form the basis of a strategy to develop these staff.

This recommendation was also rejected as per Recommendation 7 above on the basis that there were very different areas of focus and expertise required within these functions.

Recommendation 9 - The Agency should take steps to update the key pages on the PHA website to show the current management structure and members of the management team down to assistant director level.

Mr McClean advised that the PHA website is currently being rebuilt and he agreed to take this recommendation forward

Recommendation 10 - The Agency should undertake an audit of software and IT systems in use with a view to developing a corporate IT strategy.

Professor van Woerden noted that there are some specialised software packages in use which are becoming dated and potentially problematic in terms of support. Mr McClean indicated that the PHA should look at what it needs for the future and supported the idea of commissioning an audit, including reference to equivalent systems in Wales, RoI etc. Professor van Woerden and Mr McClean will liaise with BSO ITS in the first instance to progress this.

Recommendation 11 - The Agency should develop a PHA policy on the role and use of intelligence. This policy should place the use of intelligence at the heart of everything which the PHA does. The policy needs to be

underpinned by a strategy which ensures that operationally an intelligence-led approach is consistently at the heart of everything that the PHA does.

Members noted that this linked to Recommendation 3 and would be part of the role of the new Assistant Director. Mr McClean indicated this objective is very important and must include the requirements of HSCQI, Nursing/AHP and in due course Social Care in this and suggested development of a corporate data and intelligence strategy covering all these needs to support the strategy and work of the wider PHA.

Recommendation 12 - The Agency should undertake a review of the future direction of PHA's online presence. The PHA needs clarity on the extent to which its online presence will be through NI Direct and the future role of its own website. The review should look at the current resource including the future of currently unfunded posts working on NI Direct content.

Mr McClean said that PHA must increase and modernise its online presence and add to the skills and capacity it has. Mr McClean indicated he would like to bring someone in with expertise in this field. The Interim Chief Executive agreed that an individual should be commissioned to provide advice to PHA and to bring early recommendation back to the PHA Board.

Recommendation 13 - The Agency should undertake a review of the arrangements for joint appointments with a view to ensuring that joint appointees whose contracts require them to work part of their time with Queens University Belfast have ring fenced and protected time to do so.

Professor van Woerden noted that PHA has increased its number of honorary contracts but did not feel there needed to be any review. Mrs Quinn suggested that the issue is protected time for these individuals to carry out their work for both PHA and, for example, QUB. Mrs MacLeod proposed that the recommendation be rejected. Mr McClean said that it is important to state that PHA remains committed to joint appointments.

241. The report was discussed at further confidential lessons of the PHA Board in August, September and October 2020 – by which time a further review of the PHA had been agreed (The Hussey Review) which would also look at the use of information and intelligence.

242. The Inquiry asks if PHA felt compromised in our ability to carry out their specialist public health roles, including supporting the Infection control response to, and epidemiological surveillance of, COVID-19 because of the way the DOH operated. Having conferred with colleagues, I can advise that while there were certainly challenges the two organisations worked together to cover the enormous workload associated with managing the pandemic. The COVID-19 response was so wide and far reaching that it was right that many of the decisions were policy decisions taken at government level. The fact that PHA had minimal input to this probably had the effect of helping ensure staff were able to carry out the operational public health response.

243. It is my understanding that, prior to the pandemic, there had been an intention to review the PHA as part of normal business and, in particular, given the intention to close the HSCB and the impact that this would have on the Agency and its functions as well as the Bengoa report of 2016. In summer 2020, the PHA Chief Executive and CMO discussed the need for this review to take place and Professor Hussey was suggested as a potential author. The purpose of the review was to consider the future of PHA in the context of a post-pandemic HSC and the closure of the HSCB. (**Exhibit JM/29 - INQ000381494**). Given the increased focus on the use of information and intelligence, it was expected that this would be included in the review, but it was one of many issues covered.

244. DOH had also commissioned a rapid review of the gold and silver structures and whilst PHA did not receive a hcopy of the report, it appears to have been this that prompted some of the changes cited in the Review of Epidemiology paragraph 9.2. The PHA Chief Executive asked several times for a copy of this review but it was not shared. Respectfully, I would suggest that the Inquiry ask DOH as to the rationale for this. It would have been helpful to have been sighted on the report.

245. The Inquiry will have noted that there were three significant reviewed carried out on part of the PHA while the team was dealing with the pandemic. While, I have no doubt the purpose of the reviews was to identify areas for improvement that would ultimately help PHA, being reviewed at any time – never mind during a pandemic – does bring stresses and I want acknowledge that staff at all levels may have felt this.

Key Roles and Personnel

246. The table below sets out the key decision makers, their time in post and an overview of their responsibilities during the timeframe under consideration.

Role	Name	Period in Post	Responsibilities
Chief Executive	Valerie Watts (interim)	10/2016 – 03/2020	As Accounting Officer, was responsible for overseeing and leading the organisation's overall response to the Pandemic ensuring the Agency effectively discharged its statutory responsibilities
	Olive Macleod (interim)	03/2020 – 07/2021	
	Aidan Dawson	07/2021 – present	
Director of Public Health	Dr Adrian Mairs	03/2018 – 02/2020	As the most senior Public Health professional, was responsible for ensuring that the Agency discharged its statutory public health functions in providing professional leadership and advice to the Chief Executive, Chair, Board and wider PHA and public health leadership more broadly across the health & social care system.
	Professor Hugo Van Woerden	02/2020 – 12/2020	
	Dr Stephen Bergin (interim)	12/2020 – 08/2022	
	Dr Joanne McClean	09/2022 – present	
Deputy Director of Public Health	Dr Brid Farrell	09/2021 – 04/2023	During the course of the Pandemic a Deputy Director of Public Health post was established to support the Director in the discharge of their duties.

Assistant Director of Public Health – Health Protection	Dr Gerard Waldron Dr Gillian Armstrong Dr Jillian Johnston	01/2019 – 01/2022 12/2021 – 06/2022 01/2022 – 10/2022	Led the response of the Health Protection Service to the pandemic; ensured that the capacity of the service was sufficient to respond both to the developing and enduring pandemic and the "normal" HP issues; led the communication response within HP; liaised at a high level within and outside HSC to ensure the key issues, advice and guidance were disseminated; established networks with colleagues in other UK nations and the Republic of Ireland.
Assistant Director of Public Health - Service Development	Dr Brid Farrell up until September 2021 when she assumed Deputy DPH role.		As chair of the DOH Expert Advisory group on testing played a key role in leading on the roll out of the COVID-19 Testing system in Northern Ireland whilst also overseeing the PHA input into critical care surge planning at service level in partnership with HSCB colleagues.
Director of Operations	Ed McClean	04/2009 – 12/2020	Led the Agency's Operations Directorate response to the pandemic, ensuring operation of critical business and governance functions and overseeing business continuity arrangements throughout.
	Stephen Wilson (interim)	12/2020 – present	
Assistant Director of Operations – Communications	Stephen Wilson	04/2009 – present	Responsible for leading the Agency's public health communications and Health Intelligence programmes

and Knowledge Management			throughout the pandemic. Worked in close partnership with counterparts from NI Departmental and Arm's Length Bodies.
Assistant Director of Operations – Planning and Business Services	Rosemary Taylor	04/2009 – 05/2021	Led the Agency's financial planning, operational planning and key Corporate support services including for example logistical support for contact tracing premises and equipment.
	Stephen Murray		
Director of Nursing & Allied Health Professionals	Rodney Morton	01/2020 – 09/2022	Led on the PHA IPC response, care homes response and support for the vaccination roll out programs. In addition, professional support and advice was provided as required to early years and homeless settings, critical care and respiratory hubs and critical care surge planning.
Director of Contact Tracing	Dr Liz Mitchell	12/2020 – 06/2022	Appointed by DOH to ensure that the CT Service operated in line with strategic direction.
Deputy Director of Contact Tracing	Jennifer Lamont	02/2021 – 02/2023	Oversaw operations of the CT Service.

247. Whilst the changes of Directors of Public Health at these times were planned for and implemented smoothly, it would be naive to say that the changes had no impact. Change of senior staff always brings some anxiety amongst staff and this was perhaps enhanced by the pandemic and the pressures on staff. However, one of the benefits of a small organisation is that close working relationships are forged and, through these, the impact of the changes at DPH was managed as effectively as the circumstances would allow.

248. The Deputy DPH (dDPH) position was initially introduced in December 2019 to support the then retiring DPH, Dr Adrian Mairs. The dDPH position continued until

the end of March 2020, following the formal retirement of Dr Mairs and the commencement of his successor, Professor Hugo Van Woerden.

249. Professor Van Woerden took up post on 1 March 2020. The decision to re-establish the dDPH position was taken in or around August 2020 to provide support to the incumbent DPH. Dr Stephen Bergin was appointed to the role of dDPH. . When Professor Van Woerden retired at the end of December 2020. Dr Bergin was then required to cover the duties of the soon to be vacant DPH position. Given the pandemic, it was not practical at that point to undertake a recruitment exercise, hence Dr Bergin acted into the DPH role from December 2020.

250. Dr Bergin suffered significant ill-health between June and September 2021 and, during this time, Dr Brid Farrell assumed the role of DPH, before taking up the dDPH upon Dr Bergin's return in September 2021 and remaining in that position for the remainder of the pandemic. Dr Bergin had a further episode of ill health from Spring 2022. Dr Farrell again assumed the interim DPH role until I commenced on 1st September 2022.

251. The Chief Data Advisor role was not created during the period covered by this module. The Covid-19 pandemic exposed the PHA's lack of an information strategy and digital capacity. This role is an interim role to help develop this capacity while the wider review of the Agency develop recommendations for this function.

Staffing Challenges

252. Prior to the pandemic, the PHA was carrying a number of vacancies across its directorates and the corporate risk register included risks reflecting the seriousness of this position.

253. There was a specific challenge with the number of Public Health consultants – most acutely Health Protection (HP) consultants. In 2019, three out of eight HP consultant posts were vacant. In October 2019 two permanent and two locum posts were offered and accepted. However, in November 2019 a further two consultants retired and another indicated a move to another organisation leaving a staffing complement of 5 Whole Time Equivalent (WTE). In early 2020 a third locum post

was accepted (initially at 0.5 Whole Time Equivalent (WTE) but increased to 1 WTE during the pandemic) and one of the other locum posts was made permanent.

254. Throughout the pandemic Consultants in Public Health who were employed as service development and screening consultants worked in Health Protection to support the response. All consultants in public health with a certificate of specialist registration employed by the PHA have had training in health protection as part of their registrar training and are therefore the agency used this workforce to help with the pandemic response. Therefore, whilst the gaps in the HP consultant workforce were an issue, we worked swiftly to redeploy resources so that the impact on our work was minimised.

255. The shortfall in specialist epidemiological resources was a known risk to PHA and in 2019 we had submitted a business case for additional resource.

256. I have consulted with colleagues on the issue of programme management and statistician resources available to the PHA in the early stages of the pandemic. We accept that these gaps caused an issue in the early stages of the pandemic and we moved quickly to import expertise from external sources such as SIB and other organisations. We accessed some expert medical statistician involvement through the HSC Leadership Centre. We also accepted this finding from the Hussey Review and have increased our capacity in this area in the interim.

257. In June 2021 DOH agreed additional funding to increase the total number of health protection consultants to 12 and a further two were appointed taking the staffing complement to 6 WTE permanent Consultants, 3 WTE locum appointments with three vacant positions.

258. I understand that Professor Van Woerden left his post for personal reasons. Many senior staff left as they had reached retirement age. Conversely, several senior staff remained in post after retirement age in order to assist with the pandemic response.

259. We experienced a particular issue with analytics staff who were recruited specifically to work in the Contact Tracing Service. These posts were banded as Agenda for Change (AfC) Band 5/6 and because the service was not permanent the

Agency recruited on a fixed term basis. Staff enjoyed the job and were working with innovative systems and products, but many (understandably) left for permanent, better paying jobs – often in the private sector. The competition for these highly trained staff from the private sector is something that is difficult for the HSC to match.

260. The primary impact of staff turnover was the pressure placed on other colleagues – many who worked long hours and did not take their full complement of leave. The quality of the response was not impacted adversely as the staff in post remained dedicated to the tasks in hand.

261. The PHA was able to access additional funding from DOH to cover the costs associated with the pandemic response. A specific COVID-19 business case template was developed and this streamlined the process for approvals. We did not have any issues with funding.

262. As set out earlier, we received additional funding from DOH in respect of both capital and revenue. PHA never had any requests for funding refused. PHA was sufficiently funded through the course of the pandemic. It was made clear by DOH and TEO that funding was not a barrier to us in any area of our response and we never felt constrained by this at any point.

Co-operation with Organisations in the UK and Republic of Ireland

263. Since its inception, the PHA has worked effectively with its counterparts in the United Kingdom and Republic of Ireland. These effective working relationships stood us in good stead during the pandemic as we learned from each other about good practice, managing challenges and sharing intelligence on outbreaks and incidents (this was particularly relevant with RoI colleagues given that we share a land border). Our primary relationships were with:

- Public Health England (later UK Health Security Agency (UKHSA));
- Public Health Scotland;
- Public Health Wales;
- The Health Service Executive in RoI; and
- The UK Cabinet Office via DOH.

264. The PHA established new (or utilised existing) formal information sharing protocols with these agencies in respect of contact tracing data, outbreaks and incidents and international travel. There were regular meetings with colleagues in Contact Tracing, Health Protection, Nursing and Comms teams across the jurisdictions. These meetings were helpful to the PHA not only in gathering intelligence on the progress of the pandemic across the nations but also in identifying and mitigating key risks; and assessing different approaches and options for managing issues and communications during the period.

265. Of particular note were the weekly informal meetings with Health Protection colleagues in the Border HSE areas – North Western and North Eastern – as these enabled rapid identification of cross border issues and outbreaks.

266. Tables setting out a number of significant meetings attended by the PHA during the specified period are included below:

Chronology of significant meetings where a Minister or senior civil servant from either the UK or NI governments was present and which considered Covid-19 and the response to the pandemic	
LIST OF RELEVANT MEETINGS	CHAIRING ORG
Adult Social Care Governance - Surge Planning	Department of Health
Care Home Vaccination Programme	Department of Health
Central Medical Advisory Committee	Department of Health
Clinically Extremely Vulnerable Cell	Department of Health
Contact Tracing Service Steering Group	Department of Health
Covid Clusters and Outbreaks Group	Department of Health
Covid-19 Cancer Cell	Department of Health
Covid-19 Clinical / Professional Advisory Cell	Department of Health
Covid-19 Communications Cell	Department of Health
Covid-19 Digital Communication Cell	Department of Health
Covid-19 Elective Care Cell	SPPG (formerly HSCB)

Covid-19 Mental Health Cell	Department of Health
Covid-19 Testing Programme in Care Homes	Department of Health
Covid-19 Therapeutics Oversight Board	Department of Health
COVID-19 Vaccination and Booster Programme	Department of Health
Covid-19 Vaccination and Immunisation Policy Group	Department of Health
Covid-19 Vaccination Board	Department of Health
Covid-19 Vaccination Cell	Department of Health
Digital Test, Trace and Protect	Department of Health
DOH Gold Command	Department of Health
Expert Advisory Group on Covid-19 Testing	Public Health Agency obo Department of Health
Health and Education Liaison meeting	Department of Education
HSC surge planning	Department of Health
International Travel Restrictions Programme board	Department of Health
NI Covid-19 Modelling Group	Department of Health
NI Covid-19 Nosocomial Support Cell	Department of Health
NI Emergency Preparedness Group	PSNI and Local Government
Northern Ireland COVID-19 Wastewater Surveillance Operational Delivery Board	Department of Health/ DAERA/NIEA
PHA/Health Protection Catch-up	Department of Health
Rebuilding Management Board	Department of Health
Regional COVID-19 Ethics Advisory Group	Department of Health
Schools Assurance Group	Department of Health
Strategic Clinical Advisory Cell	Department of Health
Strategic Intelligence Group	Department of Health
Test, Trace, Protect Strategic Oversight Board	Department of Health
Testing in Care Homes - Task and Finish Group	Department of Health
The HSC Performance and Transformation Executive Board	Department of Health

Chronology of significant meetings with either Public Health England/UK Health Security Agency or public health officials from the Republic of Ireland which considered Covid-19 and the response to the pandemic.	
LIST OF RELEVANT MEETINGS	**CHAIRING ORG**
Infection Prevention and Control a 4-nations group	Unknown
Four Nations Meeting	Rotating
Four Nations Health Protection Oversight Group	Rotating
Four Nations Health Protection Working Group	UK Government
Five Nations Meeting	Rotating
NI PHA and ROI Port Health Forum	Public Health Agency
North/South Health Protection Committee	Health Protection Surveillance Centre (ROI) Public Health Agency
North/South Testing and Tracing Group	Department of Health
UK Health Protection Committee	UK Government
UKHSA NI Programme Board	Department of Health
UKHSA Epidemic Modelling Review Group	Department of Health
Variant Technical Group [UKHSA]	National COVID-19 Response Centre (NCRC) [PHE]

Relationship with the Republic of Ireland

267. The land border with the Republic of Ireland posed a unique challenge for the PHA compared to the other devolved administrations. As there are two separate jurisdictions on the island of Ireland, it was inevitable that guidance, advice and legislation would differ, sometimes significantly so. Fortunately, the Health Protection Service had established good relationships with colleagues on the other side of the border and this was applied to situations arising during the course of the pandemic. The onset of the UK exit from the European Union had also stimulated the need to develop an enhanced Memorandum of Understanding regarding the management of cross-border incidents and outbreaks of communicable disease. This was in place in late 2019 just before the onset of the pandemic.

268. Within the Health Protection Service, as part of the provision of health protection services, there is a need for ongoing communication with Republic of Ireland Health Protection colleagues. A common land border, with uninterrupted flow for leisure, business and employment purposes means that communicable disease outbreaks on one side of the border could rapidly spread to the other side. Communication ensures that early alerts of potential cross-border issues take place. This occurs both in and out of normal business hours as on call rotas and contact numbers are shared. Occasionally both health protection services will jointly investigate a major cross-border outbreak, for example, a Shigella outbreak linked with a postulated food source with cases in both countries in 2018/19.

269. This was the basis upon which cooperative work during the pandemic was built and PHA staff maintained these links, for example in dealing with outbreaks in border areas like Derry and Strabane.

270. Discussions about any co-ordinated approach with the Republic of Ireland to the pandemic would have been for Departmental or Executive colleagues to have at a strategic, governmental level.

271. It is to be expected that there would be differences in the approach of both jurisdictions. These differed at various stages of the pandemic and included diagnostic and testing protocols, duration of isolation for cases and contacts, travel restrictions and ultimately the types of vaccine used and the nature and sequence of population covered. This made direct comparison of statistics from both jurisdictions difficult to interpret. It was important for both sides to recognise these differences and take account of them where necessary - for example, travellers arriving at Dublin Airport and going directly to Northern Ireland were advised of the different restrictions that applied there.

272. The lack of standardised datasets did not impact on PHA's ability to carry out its role in the pandemic. Having spoken to colleagues, it seems that DOH made comparisons of COVID-19 epidemiology with the Republic of Ireland as part of its work, but this was not carried out by PHA.

273. The enhanced working with Republic of Ireland colleagues has contributed to closer cooperation, in effect an already good working relationship has been improved upon. Existing relationships and structures were used to communicate and manage border incidents.

274. PHA staff worked closely with colleagues in the Irish Health Service Executive (HSE) in agreeing data sharing arrangements for travellers arriving in the Republic of Ireland and travelling on to Northern Ireland. This was a long and sometimes challenging process given the different processes in place on each side of the border. Challenges included the differences in legal and governance processes that meant for example that the PHA legal representative was unable to speak directly to their ROI counterpart and had to work through the HSE representatives. There were also differences in the datasets collected in each jurisdiction that could not be amended. All changes to the Agreement had to be approved by the Irish Attorney General which led to some delays in the process. However, we ultimately came to an agreement that allowed for data sharing to ensure that we could provide advice on isolation and testing as required.

275. The Inquiry has asked PHA's view on whether the island of Ireland should have been considered as a "single epidemiological unit" for the purposes of the pandemic. As part of normal business, PHA works closely with colleagues in the Republic of Ireland in sharing information and managing incidents in border areas. This continued during the pandemic and was enhanced in some cases where extant Memoranda of Understanding were replaced by more detailed Data Sharing Agreements in the areas of contact tracing and the notification of infectious diseases.

276. PHA did not commit to a view during the pandemic and, as a jurisdiction, Northern Ireland currently works and plans as part of the UK. To change this would require a political decision. Research using sequence data, led by a team at Queen's University Belfast demonstrated the transmission of SARS-CoV-2 across the island of Ireland (**Exhibit JM/30 - INQ000381496**). Testing access, policy and data processing were different in the two jurisdictions. Healthcare journeys were not identical (reflecting the different healthcare systems), and data collection was not identical (for example, death registration in the Republic of Ireland is permitted much

later than in the UK). One of the most useful sources of intelligence, the Office for National Statistics Coronavirus (COVID-19) Infection Survey, was not available for the Republic of Ireland. It would have been technically not feasible to treat the island of Ireland as one unit of epidemiological measurement for COVID-19 when any aggregation or direct comparison of the two jurisdictions would contain data that reflected different policy and practical realities. Despite these divergences, PHA did work closely with counterparts in the Republic of Ireland when managing cross-border incidents and in sharing information and intelligence about the pandemic. This is in common with our approach to all public health outbreaks and incidents and we have well-established relationships, systems and processes to support this. Theoretically, had the entire island had the same political and health and care systems, followed the same policies in respect of COVID-19 and collected the same data, there may have been public health benefits in closer working but this was not the case.

277. The Inquiry has asked if would have been proper or reasonable to compare Northern Ireland to New Zealand or other island nations during the pandemic. I do not think that this is a useful comparison to make. Northern Ireland is not an island nation, it is one of two jurisdictions on the island of Ireland. Ireland is not nearly as isolated as New Zealand, being 12 miles from Great Britain at the nearest point. Northern Ireland forms part of the United Kingdom politically and part of the island of Ireland geographically. Its unique position, which gives rise to political, cultural, social, geographical, economic and infrastructural interdependence with both Great Britain and the Republic of Ireland, does not lend itself to comparison with New Zealand, or other island nations. It is worth stating, however, that I consider the relationship between the PHA and its counterparts in the Republic of Ireland to be useful, collaborative and mutually beneficial. This relationship predates the pandemic, as cooperation on an island with an open border has been, and always will be, essential.

278. The Inquiry has asked if alignment with the UK was the better option from a public health perspective and again PHA did not commit to a view during the pandemic. Alignment, whether with the UK or the Republic of Ireland, is a political decision. The role of the PHA was to manage the ever-evolving public health response to the

pandemic, and it did not have either the resource or inclination to consider this question. The PHA and its staff are only able to comment authoritatively on public health matters. To assert a view on the question of alignment would, by necessity, require us to disregard multiple other factors upon which any meaningful discussion around alignment should be based.

Impact of COVID-19 on the Population of Northern Ireland

279. The Inquiry wishes to understand the impact of COVID-19 on the population of Northern Ireland over time. I am aware of comparative studies of excess mortality that cover this time period. One study is published on the website of the Office for National Statistics (**Exhibit JM/31 - INQ000381497**) and another published in the European Journal of Public Health (**JM/32 - INQ000381500**), which includes authors from the UK statistical agencies.

280. When comparing regions, it is important to consider the age structure of the population. Excess mortality considers not only deaths identified as being due to COVID-19 but also those that were not detected as such, as well as deaths from other causes. It is plausible that lower mortality in the first wave was because the epidemic effectively started later due to fewer and/or later introductions of SARS-CoV-2 to Northern Ireland than to other UK nations. The simultaneous introduction of restrictions across the UK at a time of exponential epidemic growth would have meant that the epidemic in Northern Ireland was less advanced at the time of the intervention. The Republic of Ireland also introduced similar policies a day before Northern Ireland.

281. Statistical analysis of SARS-CoV-2 genomic sequences by a team at Queen's University Belfast suggested that the majority of introductions of SARS-CoV-2 in Northern Ireland and the Republic of Ireland up to the end of May 2020 were of viruses that were of lineages that were in circulation in England (JM/30) likely reflecting the most frequent travel. The same was true for all later lineages, even after correction for the UK's larger amount of sequencing compared to most countries. This indicates the importance of the COVID-19 situation in England for Northern Ireland.

Use of Information and Sources of Data

282. By early May 2020, the PHA established a record linkage system for detecting hospitalisations with COVID-19 and hospital-acquired COVID-19. This was initially created outside the health protection surveillance team but it later became adopted by that team, who subsequently operated its functions. It was the basis for the healthcare-associated COVID-19 surveillance programme. This work allowed us to measure admissions to hospital with community-acquired COVID-19, and the corresponding number of inpatients. These were used as the main indicators for the Northern Ireland COVID-19 modelling group's analyses. The hospital-acquired COVID-19 surveillance was used to inform Trusts and PHA about the number of people who likely acquired infection while in hospital, which supported their situational awareness.

283. The HSCB's Integrated Care department provided aggregate intelligence about attendances for COVID-19 and activity at its COVID-19 centres.

284. Numerous epidemiological reports and aggregate data submissions to other agencies were created over time. These included SARS-CoV-2 variant reports based on sequencing and genotyping data during 2021, through our participation in the COG-UK programme. The PHA supported Queen's University Belfast (QUB) to produce a variant dashboard that was hosted by QUB. As the COVID-19 response grew, elements of the response in the PHA and in other parts of HSC developed business intelligence functions related to COVID-19 as well as general surveillance and epidemiology. These included reports focused on care homes and schools. The PHA's sentinel surveillance system for influenza was adapted to include COVID-19, but due to the reduction in in-person assessment for respiratory infection in primary care, it was not used for COVID-19 surveillance. The Office for National Statistics Coronavirus (COVID-19) Infection Survey included Northern Ireland and provided the most important source of estimates of the community prevalence of COVID-19. The survey was launched in England on 26 April 2020 and was expanded to include Wales on 29 June 2020, Northern Ireland on 26 July 2020 and Scotland on 21 September 2020. Specifically on the ONS Coronavirus Infection Survey, the pre-release results were shared by ONS to key named individuals in the Department of Health directly, and DoH Information Assets Directorate prepared its own report based on these. To the best of my knowledge, the pre-release results were shared

with named individuals 1-2 days before the publication date. Aggregate counts of hospitalisations with COVID-19 from a PHA surveillance system were shared with members of the Department's Modelling Group daily.

285. Reporting on different elements of COVID-19 epidemiology, surveillance and intelligence was being undertaken by separate teams for various purposes. Getting an overview of the key information became challenging. The PHA recognised a need to collate the information to improve efficiency and effectiveness of communication. PHA moved to integrate intelligence products from health protection surveillance, contact tracing, schools contact tracing and testing in a twice-weekly situational awareness report known as the COVID-19 Data Overview Report (also known at times as the Early Warning Report) from 16 April 2021. This was stepped down in January 2022 with a move to the development of a replacement automated report that integrated intelligence from what were then the contemporary information sources.

286. The QUB Wastewater-based Epidemiology programme submitted regular reports and provided a dashboard to stakeholders for its wastewater SARS-CoV-2 surveillance programme. QUB later provided a data flow to the PHA to support integration of intelligence with other indicators.

287. The Office for National Statistics Coronavirus (COVID-19) Infection Survey was a valuable source of intelligence throughout the time of its operation, as it provided the only source of reliable estimates of community prevalence. We incorporated its results into our own internal and public reporting.

288. The PHA health protection surveillance produced reports on the epidemiology of COVID-19 in care homes. The routine reporting used notifications of suspected and confirmed COVID-19 outbreaks to the Duty Room. This provided a useful measure of the impact of COVID-19 in care homes. Information was supplied to DOH for use in their public-facing dashboard. For epidemiological purposes, it was limited in the depth of insight it could provide, as only aggregate information (not individual person-level) was captured and available for analysis. Submissions of data from care homes through a data portal operated by RQIA were used to support identification of care

homes in outbreak situations. These reports were an additional source of intelligence about the impact in care homes. Various options for providing more comprehensive individual-level surveillance were explored, including records of care home residence status in various routine information systems, but none were considered to be acceptably complete, up-to-date and reliable to serve as the basis for a surveillance programme. Ideally, an up-to-date register of care home residents could have been linked to test results to provide better intelligence. We aim to establish a system of this nature in future.

289. During 2022, there was a focus in health protection surveillance on the development of reproducible analytical pipelines in the PHA's Microsoft Azure environment to present integrated intelligence to the PHA and departmental stakeholders, and to the public. The aim of this approach, described by Professor Ben Goldacre's report for the UK Government (*Better, broader, safer: using health data for research and analysis*), is that "this will produce high quality, shared, reviewable, re-usable, well-documented code for data curation and analysis; minimise inefficient duplication; avoid unverifiable 'black box' analyses; and make each new analysis faster." This reporting superseded other reports internally. On 10 June 2022, the first public report produced in this way was published. This approach avoids reliance on data processing by staff and automates this in a robust and transparent way, improving the timeliness and reliability of analyses. This made use of the technical infrastructure provided by DHCNI, and implementation was supported by SIB data engineers in partnership with the surveillance team.

Challenges in Accessing Data

290. The data that were most challenging to access were for care homes, primary care and critical care. I have already described the limitations that arose from not having access to individual-level information about people who were in care homes. For primary care, the PHA had existing access to syndromic surveillance in the form of aggregate reporting of influenza-like illness attendances for in- and out-of-hours primary care. This used the Apollo system, which also underlies the Royal College of General Practitioners Research and Surveillance Centre respiratory surveillance programme in England. This system was adopted during the 2009 influenza pandemic for Northern Ireland by the Department of Health (then DHSSPS), Public

Health Agency, Health & Social Care Board and the Business Services Organisation with support from the General Practitioners' Committee (GPC).

291. The system processed pseudonymised data from primary care to produce indicators of healthcare activity. PHA engaged with HSCB and BSO to develop an indicator of primary healthcare consultation for COVID-19. This was agreed by Silver command. Adaptations were implemented by Apollo, and used from week 20, 2020, in a combined acute respiratory infection and COVID-19 consultation indicator, published in the COVID-19 surveillance bulletins. In January 2021, questions were raised by primary care colleagues about whether the Data Access Agreements used for the influenza surveillance programme extended to COVID-19, and the Northern Ireland General Practice Committee (NIGPC) of the British Medical Association argued that they did not, and that though there was no breach of confidentiality, the processing was not covered by the Data Access Agreements. I understand that NIGPC liaised with the Information Commissioner's Office. An internal investigation was undertaken in PHA, which concluded that there had been no breach of confidentiality, and that PHA had followed due diligence. It concluded that communication between PHA and GPs should be improved with regard to the use of Apollo for surveillance. However, use of Apollo for COVID-19 surveillance was discontinued for the rest of the relevant period. My team has since August 2023 funded SPPG's General Practice Intelligence Platform (GPIP) in place of Apollo for influenza surveillance and has ended its contract with Apollo. My team also undertook a comprehensive review of the information governance for health protection surveillance programmes during 2023.

292. Individual-level critical care data were initially reported manually to the PHA and this was discontinued during the relevant period. Aggregate data occupancy data were subsequently available, but were of relatively limited value. As of August 2023, governance arrangements and data transfers have now been established from critical care units in Northern Ireland to the PHA for the purpose of monitoring the epidemiology of severe COVID-19 and respiratory infections. The PHA is currently undertaking work to re-develop and expand its primary care sentinel surveillance programme. An individual-level dataset of ICU admissions with COVID-19, integrated with other data about testing and admissions, could have supported a

deeper understanding of the proportion of hospitalised patients who required critical care, and how long they required it for, which could have supported ICU occupancy modelling. There was information available from HSCB/SPPG and ICNARC (ICNARC – Reports)

COVID-19 Modelling

293. The PHA had no modelling function prior to the COVID-19 pandemic. Before the COVID-19 pandemic epidemic modelling was not recognised as a need to have independently of the UK Scientific Pandemic Influenza Group on Modelling. During the pandemic, the value of modelling for planning and decision-making was demonstrated. My wider team now includes two mathematical modellers, including one who is employed as a lead infectious diseases epidemiologist. Our service now operates epidemic models and also has also collaborations with academic groups who undertake epidemic modelling.

294. One of the legacies of the pandemic is a much more effective use of live data in determining our response to emerging issues. As part of planning for surges of activity, the Contact Tracing Service utilised modelling data to help determine staff requirements. Case numbers were not the only metric used to calculate staff requirements – other information such average call handling times, shift patterns, opening hours were also included.

295. The Department of Health's COVID-19 modelling group primarily aimed to provide intelligence for the Department of Health to consider in policy-making and advice to Ministers. I believe that it operated effectively in doing so. PHA team members contributed to the modelling group throughout its time in operation by supplying data and providing public health input to discussions.

296. In March 2020, NHS England/NHS Improvement provided a statistical tool to estimate the healthcare demand ("CovidUsageR"), taking scenarios from SPI-M as their source of COVID-19 trend information. The projections were those produced by the Imperial College group and were not specific to Northern Ireland, but were for Great Britain. An informal group of representatives from the four UK nations was established to support the application of this tool in Scotland, Wales and Northern

Ireland. A PHA public health consultant attended these meetings and applied the tool at the request of the Modelling Group, using Northern Ireland population figures to estimate a per capita effect. These informed a briefing note sent from the Department to Trusts on 31 March 2020.

Northern Ireland Modelling Group

297. DOH established its COVID-19 Modelling Group in March 2020. It was chaired by the Department's Chief Scientific Adviser (CSA). Northern Ireland's policy advice resulting from modelling was made on the basis of this group's activities. The Group determined how to present complex information to non-expert audiences.

298. The Modelling Group produced all officially estimates of R and all forecasts that informed advice to policy-makers. Some PHA team members explored the development or application of tools such as compartmental models or exponential projections, before the COVID-19 Modelling group established its working practices and chose the models that it used. These exploratory analyses were therefore not used in advice or decision-making by government. An estimate of the effective reproduction number was automatically produced to accompany the routine report of COVID-19 hospital admissions. Being produced automatically, this did not take account of any contextual factors such as low precision at times of low incidence, or changes in testing policy that would affect interpretation. This was not used as part of advice or decisions but was intended to support the experts on the Modelling Group with a readily available additional source of information. The official reproduction number estimates agreed by the COVID-19 Modelling Group, which were often a synthesis of the outputs of more than one mathematical model, were used for any official purposes.

299. PHA supported the functioning of the modelling group by providing aggregate counts of admissions and deaths in hospitalised patients using the record linkage system described above. This was created at the end of April 2020. The Director of Public Health was a member of the modelling group and contributed to the group's discussions, as did the Assistant Director of Public Health for Research and Development and a consultant in public health from PHA.

Modelling to Support PHA Operations

300. The PHA contributed data for a Joint Biosecurity Centre / UKHSA analysis of the impact of remote learning or school closures and school terms on the effective reproduction number, and undertook some preliminary analyses as part of the work. The group agreed on methods and PHA shared aggregate data with JBC, which were analysed and presented alongside the other nations by JBC. The PHA now has a model for projecting COVID-19 cases, admissions, occupancy and deaths and continues to be a member of the UKHSA Epidemic Modelling Review Group, which took over SPI-M's routine COVID-19 functions.

301. The Contact Tracing Service analytics team developed a suite of complex "real time" operational modelling tools to help break and control onwards transmission:

- A Cluster Detector & Analyser – This model analysed data in real time looking for patterns in cases, contacts & locations visited to find unknown clusters and drive public health advice & interventions.
- A Network Analyser – This model analysed real-time data to backwards trace and uncover unknown patterns that could be actioned to reduce ongoing transmission; and
- A Transmission Change Detector – This real-time model looked for statistically significant changes in growth patterns on defined geographies which could inform, for example, mobile testing unit locations.

302. At weekly Cluster Meetings, Contact Tracing, Health Protection, Surveillance, Health Improvement and Comms staff were joined by colleagues from Environmental Health and the Health and Safety Executive as well as Waste Water surveillance teams from Queen's University Belfast to discuss emerging data and analysis, interventions, results of previous work and horizon scanning.

303. In October 2020 there was a steep increase in case numbers. In September the CSA had advised in weekly updates to the PHA that cases were expected to reach 1000 per day by the end of October.

304. Whilst this caused difficulties for the Contact Tracing Service in maintaining the target for contacting cases ad close contacts within 24 and 48 hours, it was not considered a failure of modelling which was understood to not be a prediction of case numbers. PHA's understanding is that modelling is not a predictive tool. It is used for scenario planning using variable parameters to test what might or might not impact the outcome of an action. For that reason, PHA would not consider that modelling had "underestimated" the development of the pandemic in October 2020. PHA used modelling primarily to support workforce planning in the Contact Tracing Service.

Research

305. The Laboratory-based COVID-19 Community Surveillance Group was established by the PHA as a subgroup and at the request of the Departmental Expert Group on Testing to consider ways in which community infection rates could be monitored, such that data could be considered alongside other sources, and appropriate public health responses initiated. Membership and expertise were drawn from the PHA, Queen's University Belfast (QUB), Ulster University (UU), Department of Health, HSCTs and Health Protection Surveillance Centre Ireland (HPSC). Activities agreed and taken forward were as follows:

- ONS Coronavirus (COVID-19) Infection Survey involvement

The COVID-19 Infection Survey (CIS) is the largest regular UK-wide survey of COVID-19 infections and antibodies, providing vital information to help the UK's response to the pandemic. Following discussions commencing in April 2020, Northern Ireland joined the survey in July 2020, drawing a representative sample of NI households from the NISRA address database. Participants were tested monthly for the presence of the COVID-19 antigen (PCR of nose and throat swab) and antibodies (fingerpick blood sample). This work is led nationally by ONS in conjunction with the University of Oxford (Study Sponsor) and IQVIA as main delivery partner, and data are published weekly, alongside additional ad hoc analyses and academic publications. Separate analyses are undertaken for each UK nation; NI results are published on the DOH website by Information Analysis Branch. The findings are considered by the Departmental Expert Groups on Modelling and Testing as part of wider policy and practice decisions.

- Seroprevalence Survey

A Residual Sample Seroprevalence Operational Group was established to deliver a serial serological survey of antibody status of a convenience sample of the population, with expertise and membership from the PHA, HSCTs, QUB, Ulster University (UU), Agri-Food and Biosciences Institute NI (AFBINI), and NI Blood Transfusion Service (NIBTS). Ethical approval for the collection of samples from HSCTs was obtained from the Northern Ireland Biobank. Collection of samples from NIBTS was approved through NIBTS research governance processes.

Residual blood sera/plasma specimens (originally collected and processed for other clinical purposes) were sourced from the Clinical Biochemistry laboratories within the HSCTs along with samples from NI Blood Transfusion Service at timepoint 3. Samples were acquired during three timeframes: June-July 2020, November-December 2020 and June-July 2021. Samples were analysed using Anti-SARS-CoV-2 IgG electrochemiluminescence immunoassay (ECLIA), Anti-SARS-CoV-2 IgG enzyme-linked immunosorbent assay (ELISA) and ACE2 pseudo neutralisation IgG assay (subset). A total of 4,844 samples were analysed across the three timepoints. The findings were shared with and considered by the Departmental Modelling Group as part of wider policy and practice decisions.

Infection Prevention and Control

306. The PHA was a member of the national infection prevention and control (IPC) cell which included membership from all four UK nations. This group produced guidance on IPC and it is this guidance that was followed in Northern Ireland in respect of IPC throughout the pandemic. Guidance was produced in a collaborative way, using the best-available evidence as its basis. This guidance included the forms of PPE to be worn in both primary and secondary care (**Exhibit JM/33 - INQ000381501**).

307. An IPC cell was also established as part of the NI response to the pandemic (JM/8). This cell was part of the HSC Silver response and the cell was co-chaired by the PHA Executive Director of Nursing and a senior IPC nurse from Health Protection. All HSC Trusts including the NI Ambulance Service Trust were represented on the group along with the RQIA. Primary and social care colleagues from the HSCB were also members.

308. This group discussed and aimed to resolve local service issues around IPC such as where a hospital estate could not provide enough single rooms for isolation. The group also supported cluster and outbreak management.

309. The remit of the IPC Cell was:

- Co-ordination of response to regional COVID-19 Infection prevention and control issues.
- Influencing, informing, translating and dissemination of policy guidance into practice.
- Effective communication between bronze, silver, and gold in relation to infection prevention and control issues and concerns.
- Providing expert advice and guidance across the HSC system.
- Establishing regional infection, prevention and control help and support line.

310. At the beginning of the pandemic the IPC Cell met on a daily basis to address regional IPC issues across the region. For example, Aerosol Generating Procedure guidance queries, issues around PPE and outbreak management. The frequency of meetings reduced as we progressed through the pandemic.

311. The IPC Cell provided a forum to discuss, develop and provide input to IPC guidance, arrangements and policies across the region. The IPC Cell also provided an opportunity to share learning and innovative ideas used in Trusts to minimise the risk of transmission.

312. The IPC Cell provided expert advice and guidance in relation to guidance for acute and community settings and liaised with a number of key groups to do so. For example, the IPC Cell provided input to Care Home and Children's home guidance as and when requested by DOH. Local guidance was developed for a number of projects such as vaccination clinics and car sharing. The cell played a key role in influencing, informing, translating and dissemination of policy guidance into practice.

313. The Cell had a number of strategic tasks and actions which included influencing, informing, translating and dissemination of national policy guidance into local practice. This was demonstrated by the implementation of the 'COVID-19: Guidance for maintaining services within health and care settings' within Northern Ireland. The Chair of the IPC Cell also had responsibility for overseeing the development of a PPE Modelling Framework. This framework supported the effective procurement of PPE in response to COVID-19 and service rebuilding programme.

314. The PHA established a healthcare acquired infections working group in September 2021. This group worked with the 5 Trusts to minimise the numbers of healthcare acquired infections (HCAIs) in secondary care and share learning to reduce the numbers of HCAIs. This included making effective use of the HCAI interactive dashboard in Trusts to assist with recognition and management of cases.

315. Staff attended regular meetings with a range of public sector organisations including the HSC Trusts and other ALBs; the Education Authority; further and higher education bodies, local councils (Chief Executives and Environmental Health Officers); PSNI and Civil Contingencies network. The purpose of these interactions was to support various sectors during the pandemic and recovery phases with dedicated public health advice. We provided quality assurance and support for the development of guidance documents across these sectors and also provided on line/ in person briefings to the sectors and their stakeholders such as service providers and trade unions.

Decision Making Relating to the Imposition or Non-Imposition of Non-Pharmaceutical Interventions (NPIs)

316. In April 2020, the CMO established the Strategic Intelligence Group (SIG) which included membership from the PHA and whose remit was to:

- Interpret SAGE, SPI-M and SPI-B outputs and other emerging scientific and epidemiological evidence in the context of Northern Ireland;
- Provide information to support decision making regarding stepdown of social distancing measures and/or other interventions as the evidence evolves;

- Provide a two-way flow of relevant information and questions between the Department of Health and SAGE/SPI-M/SPI-B/others; and
- Advise the Modelling cell, and Data Analysis and Insights workstream on strategic approach to identifying, accessing and using data to support our understanding and response to COVID-19 in Northern Ireland.

317. SIG collectively provided advice, analysis and expertise to the CMO on the scientific evidence in respect of NPIs; and this informed onward advice to the Minister and Executive to support decision making. The evolving approach to NPIs would be a matter for SIG. The PHA did not provide advice on NPI's beyond participation in SIG. Further detail on SIG including copy minutes are contained on the DoH website Strategic Intelligence Group | Department of Health (health-ni.gov.uk)

318. The PHA was not involved in, and did not attend any, meetings where decisions were made on NPIs as these were Northern Ireland Executive meetings and the PHA did not provide direct advice. I cannot, therefore, advise the Inquiry on the mechanics by which the meetings were conducted or the process for recording meetings.

319. On an organisational basis and as a matter of course, the PHA did not rely on informal communication methods, like that of WhatsApp groups, either internally or externally with the CMO, Ministers or senior civil servants to discuss and elaborate upon decisions made in relation to Northern Ireland's response to the pandemic during the Specified Period. That said, on an individual basis, it is apparent that a number of the key decision makers, listed at paragraph 246 of this statement, who remain within the employment of the PHA did use WhatsApp as an informal communication tool.

320. As the PHA did not make recommendations on the implementation of NPIs, it did not undertake any impact assessments in respect of their use. Under normal circumstances this would form part of the policy-making process and be the responsibility of the policy-making Department. PHA was made aware, through meetings with PHE and DOH that NPIs were being considered for implementation or removal by the Executive but we were not asked directly for input on these decisions.

There was some discussion occasionally on detail – for example whether to change social distancing guidance from 2m apart to 1m – but not on the NPIs themselves.

321. However, one of the PHA's statutory functions is to address health inequalities; and as the pandemic progressed the Agency was acutely aware of the impact of COVID-19 on already-marginalised groups who were often finding it more difficult to comply with NPIs. With regard to communication and the management of outbreaks, due consideration was always given to marginalised / disadvantaged groups. In particular, the knowledge and expertise of the PHA's Health Improvement teams was invaluable. Specifically, the links forged in advance of the pandemic with inter-ethnic forums in the Southern and Northern Trust areas ensured a rapid response to control of outbreaks and dissemination of information. Inter-ethnic forums were used for advice on communications to ensure these were appropriate and effective. They were also involved where appropriate on the Outbreak Control Teams when incidents predominantly or largely affected minority ethnic group.

322. Key PHA leaflets on COVID-19 were translated into various languages to ensure equity of access to public health advice. Videos in British and Irish sign language were also produced.

323. As part of the design process for the Contact Tracing Service, the PHA met with the Northern Ireland Commissioners for Human Rights, Equality, Older People and Children in order to mitigate any issues or concerns for the groups which they represent. PHA staff, including the Contact Tracing Service had access to the HSC Translation Service as needed – including video calling in British and Irish Sign Language. Training in psychological first aid was available for all Contact Tracing staff to help identify callers with potential mental health needs and signpost them to sources of help. There was also a formal process in place to refer callers with social or financial needs to AdviceNI who could provide practical support for these issues. The COVID-19 Care telephone service was established as part of the Contact Tracing Service and was designed to help citizens who were unable to access online support such as booking COVID-19 tests or checking symptoms. This was particularly welcomed by the Northern Ireland Commissioner for Older People.

324. In principle, the NPIs including lockdowns, circuit breakers, isolation of cases and contacts, reduction in person-to-person contact, social distancing, use of face coverings, and travel and repatriation restrictions were considered appropriate responses to an evolving respiratory infectious disease pandemic in the absence of a pharmacological treatment or vaccine and were fully supported by the PHA.

325. The PHA's role was, effectively, to provide support and guidance on the practical implementation of NPIs to a range of stakeholders - including the public at large. It discharged this role in a variety of ways. These included:

- Providing information and advice to case and close contacts through the Contact Tracing Service;
- Information campaigns and media appearances;
- Responding to direct questions raised with us or through the NIDirect COVID-19 Care telephone service;
- Supporting education settings through the Education Cell described above;
- Supporting care homes as described above;
- Supporting other settings such as hospitality when managing outbreaks;
- Providing guidance and advice to various sectors through engagement with representative bodies (such as hospitality or retail); and
- Working directly with public sector bodies on how to deliver their services in line with the extant guidance to reduce transmission of COVID-19 such as advising the NI Courts Service on how they might resume in-person hearings by examining facilities and suggesting how NPIs could be implemented to maintain safety.

326. The border with the Republic of Ireland was relevant to the PHA only in considering operational issues such as managing cases and outbreaks with a cross-border element or in the aspects such as the sharing of information about travellers intending to cross the border at some stage.

327. The PHA is and was supportive of the decision to establish SIG and for this to be the conduit for scientific advice during the pandemic. In my opinion, Northern Ireland could not and should not replicate the structures of SAGE or PHE/UKHSA. I consider this purely from the perspective of scale. Northern Ireland has a population of approximately 2 million people. From a practical point of view, it would not be an efficient or effective use of resources to replicate structures and organisations where we are represented either as members or observers.

328. However, it was important to have a coordinated local approach given that at various points COVID-19 was spreading at a different pace and scale than in the rest of the UK. Local experts also have a more in-depth understanding of specific issues – including the impact of the border with the Republic of Ireland, the urban/rural split and the health "architecture" in Northern Ireland – than could be expected of UK bodies. The Gold-Silver-Bronze command structure was designed to support a coordinated local approach and whilst no system is flawless, it is PHA's view that it was appropriate and served its purpose at the time.

329. Established procedures, links and relationships with England, Scotland, Wales and the Republic of Ireland were used and enhanced during the pandemic in sharing experience and ideas relevant to the operational response. Issues pertinent to Northern Ireland could be readily discussed both within and outside formal meetings.

Travel in and out of Northern Ireland

330. Whilst the PHA has no legislative enforcement powers or capacity, it did have a specific role in the management of people who had travelled from "red list countries" arriving in the Republic of Ireland and indicated their intention to travel on to Northern Ireland. Under regulations, these people were required at a point in time to enter quarantine in an approved hotel and the PHA was responsible for ensuring that they had booked this accommodation.

331. Where they had not and were indicating that they did not intend to, the PHA was required to inform the PSNI who were then responsible for enforcing the regulations. It was only required for the short periods in which the "red list" was in operation (concluding 15th December 2021). Those Northern Ireland travellers arriving from

"red list countries" to GB ports and airports were managed by Public Health England as the requirement was to quarantine in the UK country of arrival.

Lessons Learned

332. The PHA is a learning organisation and throughout the pandemic it took opportunities to reflect on its impact on its staff and its working practices. There has never before been such sustained response required to a pandemic. Previous pandemics have required an intensive but short-lived period of activity. COVID-19 saw a requirement for seven-day working throughout the Agency which was a significant challenge and pressure on its staff. The establishment, at pace, of a large-scale Contact Tracing Service more than doubled the headcount of the Agency and required its own dedicated operations, HR, IT and analytics functions in order to be successful. This brought various challenges and pressures and required careful oversight, leadership and management. In the early phase of the pandemic, the PHA's capacity for COVID-19 testing was limited to Trust laboratories (pillar 1) but gradually capacity increased in pillar 1 and the national testing initiative (pillar 2).

333. The pandemic has brought positive changes to our ways of working. The introduction of operational real-time data and dashboards allowed for much more responsive actions and interventions to prevent and contain the spread of the disease. There is much learning for our management of other infectious disease outbreaks. The ability for the public to book their own PCR tests and have results transferred automatically to their electronic care record was ground-breaking. The use of new surveillance such as waste water data has the potential to be helpful for other diseases.

334. The PHA benefitted from conducting a number of 'in flight' reviews during the course of the pandemic. One of the principal reviews was carried out by Professor Ruth Hussey, a former CMO of Wales. This review led to implementation of some new approaches across the Agency and has informed the ongoing work within a Refresh/Reform programme that the PHA is currently undertaking together with the DOH to ensure that a modernised PHA is equipped to deal with emerging public health challenges. The PHA accepted all recommendations of the Hussey Review.

335. The PHA also harnessed continuous learning approaches within our core work with partners during the Pandemic. For example, working with the Care Home sector during the pandemic shone a light on the importance of relationships, collaboration, co-production and networks with our care home providers. Our work with the sector has not only strengthened our relationships with Care Homes but also with many other stakeholders including COPNI, RQIA, PCC and the DOH. The PHA has a greater appreciation of the contribution of the Care Home sector in supporting some of the most vulnerable in our society and the challenges they face. We have identified the need for a much more focused and collaborative 'partnership' approach to supporting the sector. The Enhanced Clinical Care Framework led by the DOH is a product of the enhanced relationships and the focus of this work is now on the development of a support framework for care homes to better enable continuing safe, high quality and person-centred clinical care within care homes. This will include better clinical pathways across community, primary, independent and hospital sectors with the benefit of a stronger clinical model, and a robust partnership approach post COVID-19.

336. Closer, truly multi-disciplinary working has brought benefits to how the PHA approaches case management and communications internally and with colleagues outside of the Agency. It tried to embrace the HSC values and underpinning vision of collective leadership in what were sometimes fraught situations with decisions required at pace. Conflict and differences of opinion were resolved in a mature and respectful manner on the rare occasions in which they arose. Remote working has been of benefit to many staff who prefer the flexibility it has brought in terms of work-life balance. As the PHA return to business as usual I am keen to retain what we have learned and what can help as we build a new vision for the Agency.

337. There have, of course, been significant effects on the Northern Ireland public as a result of the pandemic. There were more than 3000 deaths in Northern Ireland associated with COVID-19. Each one will have had a lasting impact on family, friends and communities. Ongoing effects such as Long Covid continue to make life difficult for a number of people. The already-long waiting lists for treatment have increased substantially and staff across the HSC are struggling to recover from the effects of

the pandemic on their resilience and ability to continue in high pressure environments.

338. Existing health inequalities were reflected and sometimes magnified as we saw that those with unstable employment were unable or unwilling to self-isolate as in some instances this amounted to a choice between putting food on the table and keeping the wider community safe. This highlights the responsibilities of employers and legislators to ensure this perverse incentive to continue working when ill is addressed.

339. Having to pause some routine screening programmes has caused significant and potentially lasting impacts. On 17 March 2020 HSC Silver Command submitted a proposal to DOH Gold Command recommending the pausing of a number of screening programmes (**Exhibit JM/34 - INQ000381502**) It was proposed that time critical screening programmes would continue. Even as programmes were paused, PHA began working almost immediately on how to safely resume routine screening. A paper was submitted to DOH on 20 May 2020 setting out principles for resuming the programmes (**Exhibit JM/35 - INQ000381503**).

340. The longer-term impacts resulting from the financial and societal costs from managing the pandemic are yet to be measured, but, if unchecked and unaddressed, it is likely that these will further increase existing health inequalities.

341. The pandemic shone a light on health inequalities. The burden of serious illness and deaths caused by COVID-19 was greater in our most disadvantaged communities. Many people in our population are living with long term health conditions and they were more likely to become seriously ill if they became infected with COVID-19. Other factors such as living with obesity or smoking were also associated with a greater burden of disease. As we prepare ourselves to respond to the next pandemic we are committed to retain and strengthen our focus on improving the health of the population in Northern Ireland and reducing health inequalities.

The Absence of Ministers and the Executive until 11 January 2020

342. The PHA was able to carry on its business in the absence of Ministers and the Executive, but it is our view that we are better-placed as a whole when government

is functioning. Ministers and MLAs are the elected representatives of the people of Northern Ireland. They provide a crucial role in not only supporting and directing public policy and finances but also in scrutinising and holding public servants to account on behalf of the public.

343. In general terms, the lack of a functioning Executive hampered the delivery of reforms to our health service such as those outlined in the response to the Bengoa Review and other strategic reviews. Had these been implemented it is possible that there could have been improved health service resilience which would have supported the continued delivery of non-COVID-19 care and perhaps reduced the increase in waiting lists we have seen. and a reduction in health inequalities that directly impact societies' ability to withstand events such as pandemics.

Public Health Communications in Northern Ireland During the Pandemic

344. The role of the PHA in communications during civil emergencies, pandemics and epidemics is set out in the JREP. The key objective is to ensure that appropriate, reliable and timely public health messaging can be coordinated and delivered quickly to optimum effect. A media liaison officer and designated spokesperson are to be appointed from PHA or SPPG; a communications officer is to be appointed from Operations Directorate to lead the PR response and ensure the PHA website is updated with information. The JREP sets out detailed requirements of communications plan – including for out of hours.

345. During the pandemic, the PHA worked with DOH to deliver a significant volume of strategic and operational communications across a wide range of channels and platforms. From publishing the first advice and guidance around the emergence of the novel coronavirus to hosting the press conference following the first case in Northern Ireland; the Agency and DOH were the 'go to' organisations for all media partners for public health advice and information throughout the pandemic.

346. Clarity on the respective roles meant that DOH and the Northern Ireland Executive led on messaging around government policy in relation to the pandemic; whereas the Agency dealt with operational delivery of public health advice and supports such as testing and contact tracing and the creative use of social marketing and public

information campaigns to inform and influence attitudes and behaviours. The Agency and Department retained separate and distinct organisational 'voices' which reflected the respective roles of each – all issues relating to government health policy and its outworking were referred into DOH / TEO throughout.

347. The PHA Communications leads contributed regularly to joint DA communication/marketing meetings to coordinate and discuss messaging and delivery of UK wide campaigns, in addition to the calls email correspondence and assets were shared to check UK wide campaign messaging relevant for Northern Ireland. There was also e-mail correspondence as messaging evolved to ensure accuracy and consistency across platforms such as social media and in news releases and lines against enquiry.

348. Partnership working with local government and other ALBs such as the Education Authority also played a key role in managing local situations and addressing specific areas of concern – for example work with the Inter-Ethnic Forum in Mid and East Antrim Council was instrumental in tackling a local outbreak and language barriers to guidance and advice. Through our Low Uptake Group concerted efforts were also made to increase vaccine uptake with ethnic minorities in particular areas. A range of resources including leaflets and social media videos from "trusted voices" were recorded in different languages to answer common questions on the vaccine and encourage uptake.

349. The need to reach a mass and diverse audience quickly meant campaigns were developed and produced to extremely tight and demanding deadlines. The Agency worked with Devolved Administrations across the UK including TEO to inform and support the roll out of a range of COVID-19 campaign programmes.

350. The campaigns included UK wide campaigns lead by Cabinet Office and NI only campaigns lead by the Northern Ireland Executive. The Agency incorporated TEO branding/slogans on organic communications activity including online and printed information to ensure a consistency and uniformity of messaging.

351. PHA bespoke mass media campaigns included key public health messages prior to the introduction of lockdown measures; the Test Trace Protect campaign (symptoms, testing and contact tracing); the Northern Ireland proximity app; Digital

Self-Trace contact tracing; the COVID-19 vaccine and booster programmes; and 'flu vaccination. The PHA was also in regular contact with the DOH Communications team to share assets such as graphics, animations and videos that were developed throughout the campaigns.

352. Regular press conferences and briefings played an important role in conveying key information to the media and general public, as well as addressing concerns and issues. The PHA did this in its own right and also as part of regular Department of Health media briefings.

353. The Agency also used digital channels - its website, Facebook, Twitter, Instagram and TikTok - to convey messages to target audiences using a range of media approaches including video, graphics and live streams. All messaging issued by the PHA was Northern Ireland-specific, and issues that arose within Northern Ireland such as around schools, care homes, low uptake groups, was approached by developing specific messaging to support the management of these issues.

354. Early in the response messages were developed for ports of entry and bus and rail routes to the Republic of Ireland where guidance was different to UK. Testing for COVID-19 largely used English advice but details around the availability of centres required local promotion especially as many were not fixed sites.

355. As variants circulated, advice specific to certain geographical locations was necessary. Northern Ireland-specific information on testing and contact tracing was branded 'Test, Trace, Protect'. Common principles and advice on vaccination were followed as directed by JCVI. Open Government licensing enabled us to adapt the PHE / UKHSA materials in line with NI branding and specific detail - albeit with some lag in timings.

356. The PHA undertook a programme of messaging both through mass media (COVID-19 vaccine campaign), social media, publications and online channels to promote COVID-19 public health messaging. It also targeted misinformation which was a feature of the pandemic e.g. risk from the COVID-19 vaccine for groups such as women of childbearing age and with ethnic minorities to allay some of the false information that was creating concerns in some groups. Another example was developing social media assets to counter online messaging that the swabs used in

test kits "cause cancer". Quantitative and qualitative NI tracking studies provided insights on disinformation.

357. The Agency assessed responses to social media messaging and adapted it to ensure that it landed well with target groups and took account of issues as they arose or feedback received. A focus group was established with representatives from the Education Authority of the youth community and voluntary groups assisted with ensuring social media messaging targeted to this group was relevant. Omnibus tracking surveys and concept testing (qualitative research) were used to monitor mass media campaigns and develop messaging. Vaccination uptake, downloads of apps and use of online services was also used to monitor the effectiveness of communications.

358. Due to the fact that messaging was aimed at a range of specific audiences, as well as the general public, it was difficult to assess precisely what impact it had in its own right, and indeed it was developed and adapted throughout to complement other work that was being carried out as part of the pandemic response and management. However, through the monitoring of social media activity, daily analysis of media coverage and bespoke public surveys the Agency was able to identify what messaging was landing with the media and public, and how it could be evolved to maximise engagement (**Exhibit JM/36 - INQ000325832**).

Behavioural Change Group

359. This was convened by the PHA's R&D Division to provide evidence-based insights and knowledge to the CMO and Department on best practice approaches to behavioural interventions. Colleagues from both Queen's and Ulster University, PHA Health Improvement, Health Intelligence and Communications teams were all part of the group. Some specific projects and surveys were carried out and the data reported through the various Departmental channels. Requests by the Department received prompt responses and the Chair attended key groups locally and UK-wide to provide continuity of information on behavioural science.

The Government in Northern Ireland's Proposals for Public Health and Coronavirus Legislation and Regulations

360. The PHA had no part in the proposal of public health and coronavirus legislation and regulations. For the most part, the PHA had no role in the enactment of the legislation, except to communicate it to stakeholders.

361. The PHA did have a specific role in respect of arrivals from "red list countries" who arrived in the Republic of Ireland and intended to travel to Northern Ireland.

Recovery Planning

362. The PHA also had no direct role in the Executive recovery plans of 12 May 2020, 2 March 2021 and 2 August 2021.

Statement of Truth

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

Personal Data

Signed:

Dated: 20 February 2024