Witness Name: Karen Bailey

Statement No.: 1

Exhibits: 10

Dated: 17th May 2024

UK COVID-19 INQUIRY

WITNESS STATEMENT OF

Mrs Karen Bailey, Chief Executive, Business Services Organisation

---

1. My name is Karen Bailey and I am providing this statement to the Covid Inquiry in my capacity as Chief Executive of the Business Services Organisation. I will say as follows. I came into the post of Chief Executive in June 2020, initially on a temporary basis, then was subsequently appointed on a permanent basis. My statement covers the period from 1st March 2020 up to the 28th June 2022 although in order to provide context on some points I will refer to activities prior to 1st March 2020.

Business Services Organisation Procurement and Logistics Service's role, functions and aims.

2. The Business Services Organisation (BSO) is a shared service provider to Northern Ireland's Health and Social Care (HSC) bodies and was established, as an arms-length body of the Department of Health (DoH), under the Health and Social Care Reform Act (NI) 2009. This new organisation, BSO, incorporated a number of previously established shared services functions (originally provided by the Central Services Agency which was dissolved by the HSC Reform Act) and included the new shared services functions, specifically relating to payroll, finance and recruitment, which were to be established by the BSO by transfer of these functions from the other individual HSC bodies to central management and delivery by BSO. Within BSO we refer to these shared service functions as "business units" and each

business unit forms part of an individual Directorate. As an arms-length body of the Department of Health (Sponsor Department) the Minister of Health is accountable to the Northern Ireland Assembly for the activities and performance of the BSO. As Departmental Accounting Office for the Department of Health, the Permanent Secretary is accountable to the NI Assembly for any "grant in aid" provided to BSO and designates the Chief Executive of BSO as the BSO's Accounting Officer. Within the Department of Health a Sponsor Branch is identified for BSO and is the primary source of advice to the Minister on the discharge of his responsibilities in respect of BSO. The Chairman of the BSO Board is accountable and responsible to the Minister of Health. I am the designated Accounting Officer for BSO. Procurement & Logistics (PALS) is part of the BSO's Operations Directorate, reporting through a Head of Service to the Executive Director of Operations who in turn reports to the Chief Executive and to the BSO Board.

3. The provision of these shared services is to all HSC bodies, Northern Ireland Fire and Rescue Service (for select shared services only) and Department of Health (for select shared services only) and these services are subject to annually agreed Service Level Agreements (SLA) which set out the types and extent of services to be provided along with annually agreed business volumes. Fees are charged monthly for services and these fees are negotiated annually and are subject to efficiency targets each year. Service level agreements are typically "block contracts" which do not permit for variation in charges where activity volumes are above or below the agreed annual volume. The BSO recovers the cost of service delivery with no "profit" element and any surplus generated by business units through vacancies or additional efficiencies is either used by BSO to address cost pressures or returned to HSC bodies in-year if appropriate. BSO has a target to remain within tight financial constraints which require an annual budgetary break-even.

4. The Business Services Organisation's Procurement and Logistics Service (BSO PaLS) was one of those previously established shared services, operating in a shared service capacity since 1997. The purpose of BSO PaLS is to provide a range of agreed standardised services associated with procurement and supply chain management on a centralised basis along with a limited range of bespoke services commissioned by individual HSC bodies (largely HSC Trusts). The common centralised services are specifically sourcing, contracting and purchasing of goods and services (with the exclusion of construction services), maintenance of online catalogues of contracted goods and services for online ordering by HSC staff,

warehousing and distribution of a standardised range of commonly used consumable products (both medical devices and non-medical devices), ordering and replenishment of consumable products at ward level stores to reduce nursing time on management of ward stocks (known locally as EMM – Electronic Materials Management), operational day to day sourcing and purchasing of non-contract goods and services and a range of training and support services associated with standardised procurement and logistics systems across the HSC bodies. Examples of bespoke services include warehousing and home delivery of Community Equipment supplying products to support patients within their own homes and management of local hospital receipt and distribution centres to co-ordinate supply of goods throughout hospital sites which includes on site operation of the EMM systems.

5. BSO PaLS is not a separate legal entity and as part of BSO relies on BSO's status as a legal entity under the HSC Reform Act 2009 when entering into contracts, leases etc. BSO PaLS acts on behalf of HSC bodies, who are separate legal entities, to award contracts from which they purchase directly or BSO PaLS procures goods (under the legal entity of BSO) for central storage and distribution to HSC bodies. These goods are then recharged at cost to those bodies as part of BSO PaLS warehousing and logistics services.

6. During emergencies or critical incidents which require Health command and control structures to be initiated, BSO is a part of the "Silver Command" structure through the BSO Chief Executive with support from other BSO Directors and functional heads when required. In respect of Covid-19 pandemic, BSO PaLS Assistant Director of Procurement and Logistics, as a subject matter expert, was also co-opted onto Silver Command. Command and Control structures for Health and Social Care are the responsibility of the Department of Health.

7. In preparing this statement I consider that within the provisional scope of Module 3, point 8 is most relevant to BSO's Procurement and Logistics Service and it is this point that will be the focus of my statement.

    i. "Preventing the spread of Covid-19 within healthcare settings, including infection control, the adequacy of PPE and rules about visiting those in hospital."

8. With the onset of the pandemic, the role and functions of BSO PaLS already outlined did not change though there was a greater focus, as one might expect, on the sourcing, purchasing, storage and supply of items critical to supporting the delivery of health and social care services during the pandemic through protection of frontline staff. The range of organisations to which these services were provided was added to significantly when BSO PaLS was directed to expand supply of PPE to GP Practices (31st January 2020), Community Pharmacies (10/03/20), Optometrists (June 2020), Dental Hubs set up in the early surge of the pandemic (03/04/20) and independent healthcare providers (care homes and domiciliary care services) through HSC Trusts (14th March 2020 - through consultation on guidance to be issued to Independent Sector shared with BSO by Department of Health). BSO would traditionally not have supplied to privately owned entities. BSO PaLS also undertook to investigate and resolve Covid related supply chain disruption notified to it directly by HSC organisations and through Silver Command. BSO PaLS did not receive any support specific to the expansion of services to family practitioners and the independent sector beyond the recovery of the cost of goods issued and any costs incurred engaging third parties to support distribution.

9. It is important to recognise that whilst the basic functions of BSO PaLS did not change, the successful delivery of those services was challenged due to the impact of Covid in other regions of the world and the subsequent disruption to worldwide supply chains which that caused. I believe that this was particularly the case with China who focussed supply of their locally manufactured PPE on their domestic requirements during January to March 2020, reducing their exports of PPE and at the same time increasing their imports of PPE with a consequent impact on supply availability across the world. This position had changed by April 2020 but took some months for that change to be felt.

10. In addition to the sourcing, purchase, storage and distribution of PPE and medical devices, BSO PaLS undertook a range of activities that resulted directly from the pandemic. To support future sourcing of PPE, following the first surge in Northern Ireland, BSO PaLS established a dynamic purchasing system (DPS) compliant with the Public Contracts Regulations 2015 in late June 2020 in order to procure PPE in compliance with public procurement law. This was done in recognition that the use of urgency derogations contained within that law might no longer stand the rigours of scrutiny by a court once the initial pandemic surge was over. BSO PaLS established

this arrangement and made it available to all public sector bodies in Northern Ireland on Ministerial direction.

11. There was also a need for much greater liaison between sister organisations in Scotland and Wales and throughout the period covered by my statement there was ongoing ad-hoc contact between BSO PaLS, National Wales Shared Services Partnership – Procurement Service and National Services Scotland's Procurement Services. This was built on established relationships and facilitated sharing of market intelligence and in some instances mutual aid between the devolved nations. Mutual Aid is the sharing of products where one nation is experiencing severe shortages and another has sufficient stock to share with their sister organisation. BSO PaLS co-ordinated mutual aid of PPE to Northern Ireland and from Northern Ireland on behalf of all HSC organisations.

12. As part of the national response to Covid, BSO PaLS represented HSC in a number of areas including WN Covid Supply Chain Cell (chaired by Department of Health and Social Care (DHSC) and "WN" is an abbreviation of Wuhan), operation of the National Supply Disruption Response in respect of Northern Ireland which provided for escalation protocols in the event of severe product shortages in any one organisation (stood up on 13th March 2020 by Steve Oldfield, Chief Commercial Officer, DHSC) and liaison with NHS Supply Chain (NHSSC) and DHSC regarding supply of PPE throughout the period 1st March 2020 to 28th June 2022 through a number of different groups. I have provided a list of those groups as part of my evidence (**KB/1** INQ000446222).

13. Very early in the pandemic it became clear to BSO PaLS that normal processes and supply arrangements could not support the demands being placed upon them by HSC organisations and that it was necessary to make significant changes in order to adapt to the pressures. These changes were both internal to BSO PaLS and external to supply arrangements to HSC organisations. In respect of the sourcing and purchase of goods, a number of procurement staff were restructured into small teams focussing on individual PPE products rather than wider product categories this took place from 31st March 2020. For example, one team focussed on FFP3 respirators whereas in normal times they might focus on protective workwear. This was achieved by pausing normal procurement activity.

14. In respect of storage and distribution, it was clear that a drastic reshaping of services was necessary and there was a requirement for HSC Trusts to establish local PPE stores to provide local capacity to control appropriate distribution to wards and departments with these stores being fed from central supplies procured by BSO PaLS. Warehouse cycles for the ordering and supply of PPE and a range of covid related products such as cleaning products moved from 3-day cycles to 8 hour cycles with Trusts communicating their needs each day though a PPE Supply Chain Cell (operational) with goods despatched that afternoon or evening. BSO PaLS co-ordinated this group and acted as an honest broker in considering how products might be allocated or shared when necessary.

15. These changes in logistics arrangements were recommended to Department of Health in order to secure their support and authority for their implementation. Supply Chain advice to Department of Health was another area of work which BSO PaLS undertook outside of it's normal services but which was vital to ensure that decisions made by the Minister for Health were appropriately informed and that DoH had ready access to supply chain expertise when it was urgently required. There was also a need for BSO PaLS to seek approval for release on behalf of HSC of Pandemic Influenza Preparedness Programme (PIPP) emergency stocks owned by DoH. BSO PaLS did this where a breakdown in supply was likely to occur thus ensuring that emergency stockpiles lasted as long as possible.

16. BSO PaLS were also instrumental in designing a Product Review Protocol to prevent unsuitable goods being purchased. The introduction of the protocol followed the emergence of a gap between technical acceptance testing (carried out by MOIC) and the experience of the product in use, in a clinical setting. In developing the protocol, it provided a means for user feedback to be considered before deploying PPE to frontline use and was identified as an action contributing to the completion of Recommendation 5 of the "Rapid review of Effective Utilisation of PPE and reuse of PPE" commissioned by the Department of Health. This protocol drew on expertise from the Medicines Optimisation and Innovation Centre (MOIC) and the Infection Prevention Control Cell (IPC), established as a response to Covid, to validate product certification and test clinical suitability of certified product for use by frontline staff. The impact of this arrangement was significant for example during the period covered by my statement of the 309,864,000 Type 2R facemasks purchased by BSO PaLS only 7,000,000 were deemed unsuitable and these were purchased prior to the introduction of the product review protocol which was first put into use in May 2020.

17. Critical to the operation of any large system consisting of multiple organisations, as is the case with health and social care in Northern Ireland, are the relationships between those organisations and that is never more so than during a time of crisis such as the pandemic presented. BSO PaLS has always enjoyed positive and mutually beneficial relationships with the organisations they provide with procurement and logistics services. Indeed, the relationships are very much as a "trusted adviser" as well as service provider on procurement and supply chain matters. This has been achieved by BSO PaLS through a well-established relationship management process that involves teams based locally with Trusts allied to a regular rhythm of senior level meetings to assure service excellence and support development and delivery of supply chain strategies that underpin the successful operation of the HSC Trust organisation. These relationships are mutually supportive and valued by both BSO PaLS and the HSC organisations. Feedback from HSC organisations at both operational and strategic levels is extremely positive.

18. During the course of the pandemic the relationships, whilst naturally in the circumstances were put under pressure, remained positive and in responding to the needs of the wider system BSO PaLS established a PPE Supply Chain Cell (operational) which met via video conferencing on a daily basis each day to review the demand and availability of PPE and covid related products and agree a daily allocation to Trust level where supply pressures existed. BSO PaLS also used the group as a source of feedback on product acceptability and triggered interventions from appropriate groups where necessary e.g. IPC Cell or MOIC. This rhythm of meetings remained daily until July 2020 when the frequency was reduced. This group continues to meet on a quarterly basis. An example of the product feedback and interventions triggered can be found in the form of disposable aprons. BSO PaLS were informed by the group that staff were refusing to use aprons supplied by JPK and on 22nd April 2020 BSO PaLS advised that the IPC cell had approved these aprons for use in less critical areas and that this brand of apron was the only apron available from BSO PaLS business as usual stocks (i.e. non-PIPP stocks). On 27th April the group was advised that delivery of an alternative apron was imminent. On 28th April 2020 the IPC cell advised that the JPK apron was no longer approved for use and BSO PaLS advised Trusts to suspend their use. On the same day BSO PaLS sought and received approval for release of aprons from the PIPP stockpile to bridge supply until the alternative apron was delivered. PIPP stocks were delivered to Trusts between 28th and 30th April 2020. On the 30th April 2020 BSO PaLS advised

Trusts to return any stock of the JPK apron to BSO PaLS warehouse. The contract with JPK for supply of aprons was terminated early.

19. As part of BSO PaLS work to support HSC organisations in managing use of PPE, a daily report entitled "PPE Surge Forecast vs Demand Report" was developed setting out the level of PPE stock available, supply on order, planned delivery dates and calculating a number of weeks stock in hand, the reports took into account stock in BSO PaLS warehouses, PIPP stock and stock in Trust central PPE stores. Initially demand was calculated based on daily, weekly and monthly issues from BSO PaLS warehouse to all HSC bodies. Once modelling was available, surge demand figures were taken from that modelling information provided to BSO PaLS and each time modelling was adjusted the demand figures contained in the "Surge Forecast v Demand Report" were updated to reflect any adjustment. These reports gave visibility to PPE availability at the highest level in healthcare organisations (shared to Permanent Secretary of Health, HSC Chief Executives and other senior stakeholders) and as product supply was secured, acted as a source of confidence to the wider HSC system that PPE was available. Daily reporting commenced on 6th April 2020 and moved to twice weekly (14th July 2020), weekly from 1st March 2021 and then monthly reporting from 1st January 2022 respectively. This also continues today albeit to a reduced audience. I have provided a copy of the first report published as evidence along with sample reports from 2021 and 2022 **KB/2, 3 & 4** INQ000446224, INQ000446225 and INQ000446226 respectively).

20. BSO PaLS enjoyed good relationships with the Department of Health prior to Covid and during the period covered by this statement. Throughout the Covid pandemic this was a mutually supportive relationship with open lines of communication to the most senior levels. From March 2020 until August 2020 the Assistant Director of PaLS had almost daily communication with Deputy Permanent Secretary, who was the Gold Command DOH lead on PPE supply, regarding the availability of PPE, PPE suitability, long term security of supply, co-ordination with DHSC and mutual aid. This provided a two-way conduit for rapid resolution of critical matters of strategic significance. Examples of such matters would include support in obtaining Ministerial and Executive approval for a contract with China Resources to procure gloves and facemasks, rapid approval to move to purchase 15m 3M model 1860 N95 masks along with the subsequent notification of termination of that contract following a change in the supplier payment terms which, along with changed product location and delivery details increased the risk to DoH and HSC.

21. The PPE Strategic Supply Cell established by the Department of Health made use of BSO PaLS to review and provide views on the PPE impact of Covid rapid business cases brought forward to DOH for funding by HSC organisations (in particular HSC Trusts, HSC Board and Public Health Agency) and supported by information from BSO PaLS and as part of this BSO's Director of Operations was required to confirm availability of suitable PPE before any business case approval was given. This ensured that no proposal proceeded that could not be supported with PPE and / or that might have an adverse impact on the wider supply of PPE to health and social care bodies. I cannot attest to the length of time taken for full approval of these business cases as that responsibility lay with the Department of Health but I can confirm that advice on the availability of suitable PPE was generally provided by the Director of Operations within 24 hours of receipt of a properly completed business case. Of the business cases advised on by BSO's Director of Operations, I am not aware of any case that was rejected on the basis of an insufficient supply of PPE being available.

22. The operation of the DoH PPE Strategic Supply Cell was underpinned by HSC's PPE Supply Chain Strategic Cell which was chaired by BSO's Director of Operations and drew membership from all key stakeholder bodies including DOH. This group, established in March 2020, was used to provide leadership to the health system on matters relating to the supply of PPE and covid related products for example hand sanitiser and cleaning products.

23. At an operational level a PPE Supply Chain Cell (operational) was established in March 2020 which met daily to deal with operational supply chain matters. This group created the potential to rapidly escalate emerging problems to the Deputy Secretary through the Assistant Director PaLS who was a member. Formal records of the group do not refer to any instances of this occurring.

24. As indicated previously in my statement, BSO PaLS had an established relationship with the DOH Emergency Planning Branch through a Service Level Agreement and met formally twice a year to review operation of the service provided by BSO PaLS and negotiate service level costs. The service provided by BSO PaLS was limited to safe custody of the emergency planning stockpile (PIPP) and rotation of a limited number of lines to maintain currency of the products in use between the stockpile and HSC organisations and reduce the potential for obsolescence. This operated for

a small range of products where there was a high turnover during normal business. BSO PaLS had custody but not authority over the emergency stockpile. Authority over the stockpile remained with DOH Emergency Planning Branch. The arrangements in place made provision for BSO PaLS to release and distribute products from the PIPP emergency stockpile upon request from DOH Emergency Planning Branch and a formal process was set out for this. BSO PaLS did not have any involvement in national emergency planning arrangements which were all handled through DOH. I am aware that other devolved administrations, in particular Wales, included supply chain expertise in their engagement with national emergency planning arrangements.

25. Neither BSO nor BSO PaLS were responsible for the Just in Time arrangements put in place nationally for the supply of PPE products as part of pandemic influenza preparedness nor can we comment on the detail of these arrangements. We were advised of at least one instance during 2020 of a contractor for FFP3 masks contracted to supply on a just in time basis declining to supply masks. We are unable to comment on the basis on which they declined to supply. It is our view that this breakdown in national arrangements contributed to a greater dependence on BSO PaLS to source FFP3 masks, in volume, for HSC in order to fulfil demand at a time of worldwide disruption to supply of such masks and in so doing increased the risk of a breakdown in that supply chain.

26. During the period covered by my statement, BSO PaLS made a number of requests for release of products from the PIPP stockpile. Initially these requests were made by email and as time progressed a formal request form was introduced. Once this latter formality was introduced we noticed that it took longer than previously to secure release sometimes running into a number of days but generally moving from 1 day to 2 days for approvals. This impacted supply on only one occasion (release of eye-protection products) when approval took more than 6 days. On this occasion BSO PaLS received mutual aid from NHS Wales to alleviate the immediate problem. Unlike England and Wales, Northern Ireland did not release all PPE stock into the healthcare system but released stock only in the event of a breakdown in supply of PPE, by which I mean a situation occurring where BSO PaLS was unable to have appropriate PPE available when needed. This provided for a more managed approach to supply of the PPE contained in the PIPP stockpile and prevented a complete collapse in supply occurring.

27. During the period covered by this statement, BSO PaLS did not have any routine engagement with DOH Emergency Planning Branch however there was engagement on some key matters. These included calls in early February 2020 regarding PPE, mutual aid when it was being sought from Northern Ireland by other countries (in particular England) in March and April, re-lifing of date expired masks which was carried out nationally and co-ordinated locally by DOH Emergency Planning Branch and as previously mentioned release of PIPP stockpile to cover any gaps in supply.

28. Whilst BSO PaLS had considerable engagement with HSC bodies and DOH, which it is reasonable to expect in such circumstances as exist during a pandemic, there were also a significant number of organisations with whom BSO PaLS engaged regularly throughout the pandemic or at key times during the pandemic and I will try to set those out for the Inquiry along with the purpose of the engagement.

29. Throughout the pandemic period both prior to and during the period covered by my statement, BSO PaLS had regular dialogue with sister health procurement organisations in England, Scotland and Wales regarding the supply chain pressures being experienced, sharing intelligence on approaches by each nation, PPE stock availability and consideration of potential for mutual aid between countries. Engagement between England through DHSC and NHS Supply Chain tended to be more formalised and involve all of the devolved nations whilst engagement with Scotland and Wales took place outside those formal settings and was informal and open in nature. These latter engagements provided BSO PaLS with opportunities to access products and suppliers albeit the success of this access was limited.

30. Engagement with DHSC initially took the form of a group originally established to prepare for EU Exit (EU Exit Supply Chain Preparedness Group) which, at the outset of the pandemic, evolved into the WN Covid Supply Chain Group in February 2020 and continued to meet regularly until the end of March 2020. From an early stage with this group it became clear that the demand on PPE from NHS England was likely to limit how much Northern Ireland might rely on the supply of products from NHS Supply Chain or any central body in England. We had some concern that NHS England might be prioritised for supply over Northern Ireland for those products that we had traditionally relied on NHS Supply Chain to supply to Northern Ireland pre-pandemic. These products included FFP3 masks and a range of cleaning products which were in high demand due to the pandemic. The principal cause for our concern arose as BSO, BSO PaLS and HSC did not have a formal service level agreement or

contract in place that placed any obligation on NHS Supply Chain to supply products to Northern Ireland.

31. These concerns over supply of products influenced the development of HSC's PPE Supply Chain Strategy and drove BSO PaLS to source suitable PPE directly rather than rely wholly on national supply arrangements.

32. In securing supply, BSO PaLS worked closely with a number of Civil Service departments and their Arm's Length Bodies to a variety of ends. Early engagement took place between BSO PaLS and Construction Procurement Delivery (CPD) who have responsibility for procurement services to the Northern Ireland Civil Service (NICS). They hold the procurement policy responsibility for Northern Ireland as public procurement policy is a matter devolved to the Northern Ireland Assembly Executive. The early engagement with CPD took place on 26th February 2020 and was about product specifications and supply. Further meetings followed in March 2020, which included DOH, regarding the potential to source PPE directly from China as the NI Minister for Finance had become aware that the Health Service Executive in the Republic of Ireland had undertaken such an exercise. BSO PaLS and CPD then met with representatives of HSE Ireland to discuss the potential for a joint approach with them however it was evident that this would not be possible and BSO PaLS then continued to work with CPD and a colleague from the Office of the First Minister and Deputy First Minister (OFMDFM) to engage directly with a company called China Resource who had worked successfully with HSE Ireland. Engagement with CPD on this matter continued until the contract with China Resource was concluded. BSO PaLS also worked with CPD regarding the generation of potential leads for PPE in Northern Ireland through an advert published on the eTendersNI web portal and then through engagement with Invest Northern Ireland to develop local manufacturing potential for hard to source products, in particular Type 2R facemasks and FFP3 respirator masks. This latter engagement enabled the development of a range of local manufacturers to make products to support the pandemic response in N.I and created circa 400 jobs in doing so.

33. As well as engaging with Invest Northern Ireland on developing manufacturing capability, BSO PaLS also found itself engaging with the Northern Ireland Health and Safety Executive (HSENI) from time to time regarding the suitability of some items of PPE and liaison regarding decisions made nationally on key product's acceptability. Examples of BSO PaLS engagement with HSENI include seeking advice on

purchase of FFP3 masks marked "not for medical use" although meeting all required standards, asking HSENI to verify gowns airfreighted from Turkey and facilitating a visit to BSO PaLS warehouses to inspect stocks of PPE.

34. Having considered the key organisations which BSO PaLS engaged with I will now focus on the specific communication with HSC bodies and in particular HSC Trusts who were the prime recipients of PPE, medical devices and medical equipment supplied by BSO PaLS. I have previously indicated that BSO PaLS met daily with key HSC bodies during the period covered by this statement and indeed prior to that period. At these meetings Trusts indicated their PPE and covid related needs and BSO PaLS identified availability and agreed daily supply volumes of PPE and covid related products where necessary BSO PaLS would act as an honest broker to facilitate trading between Trusts. It should be noted that Northern Ireland did not suffer significant supply problems on general medical devices during the period covered by this statement with the exception of syringe needles and a range of diagnostic tests and associated products, specifically swabs and universal containers, used by laboratories. As supply stabilised the frequency of these meetings reduced and a pre-printed form was developed for needs to be submitted rather than a live discussion. This pre-printed form was introduced 10th June 2020. A list of the products considered by this group is provided as evidence **KB/5** INQ000446227). To underpin the work of this group, HSC Trusts provided a daily stock report of the stock level of products in their PPE stores (set up following correspondence from the Chief Pharmaceutical Officer in March 2020 – copy provided for evidence – **KB/6** INQ000120711) and BSO PaLS took that data and along with their own information provided a daily report on PPE stock availability across HSC bodies to an agreed list of key senior stakeholders across the health and care system (Permanent Secretary, Chief Medical Officer, HSC Chief Executives etc.). As previously mentioned at paragraph 19, I have provided a copy of the first report published as evidence along with sample reports from 2021 and 2022 **KB/2, 3 & 4** INQ000446224, INQ000446225 and INQ000446226).

35. To my knowledge there were no instances where supply of products catastrophically failed, that is to say where BSO PaLS were unable to supply any product of the generic type of PPE required. BSO PaLS acted early in the pandemic to introduce demand management arrangements to prevent hoarding of products by individual areas within Trusts and was able to propose and adapt allocation arrangements for

available stock to ensure supply. This is probably best summarised by HSC bodies got what they needed which was not always what they wanted given human nature to hoard during times of constraint. It also meant that on occasion BSO PaLS might be supplying a brand or design of product that was not normally in use within HSC. For example, the supply of Type 2R facemasks with ear-loops rather than tie-backs or a gauge (thickness) of apron made to national specifications but a lower gauge than that normally procured for HSC organisations. In the period March to May 2020,Trusts took 100% of available product as part of the demand management "push" of stock however once supply stabilised Trusts started to opt out of the daily "push" of stock and/or were content to re-allocate stock to other Trusts with a greater need.

36. Incidental to the establishment of this group was the sharing of any leads for PPE products that came directly to HSC organisations rather than through DOH or BSO PaLS. This occasionally led to duplication of leads. In our experience most organisations acted in a collegiate manner particularly once the first surge had ebbed. However during the period 1st March 2020 to 30th September 2020 two Trusts did display tendencies towards self-interest with instances where leads shared by the Trust, on follow up by BSO PaLS we were told that the Trust providing the lead had already bought stock directly themselves. In another instance a Trust failed to declare in it's PPE stock figures items that they had procured directly themselves and were holding as PPE stock. Once identified these practices ceased and I hold the view that by and large all HSC bodies worked well together and acted in the wider interests of HSC staff and patients where PPE and medical devices/equipment was concerned. I hold the view that the collaborative approach adopted across HSC prevented major breakdowns in supply to frontline staff during the pandemic.

37. Another key HSC body which BSO PaLS engaged with regularly was the Public Health Agency. This was particularly the case in endeavouring to establish potential demand for products given the absence of any national modelling being available to support predicting demand for products but was also in respect of national guidance on the use of PPE. As the PHA chaired the Infection Prevention Control cell, BSO PaLS worked closely with them in developing and executing the Product Review Protocol which played a significant role in ensuring that any PPE procured would be acceptable when deployed to frontline staff.

38. Key in ensuring the certification and validity of PPE prior to procurement was the Medicines Optimisation and Innovation Centre (MOIC). This organisation is hosted by Northern Health and Social Care Trust but works on behalf of the wider family of HSC organisations. BSO PaLS worked closely with MOIC and provided product specifications, declarations of conformity and standards certifications to them to enable them to validate these prior to the purchase of any products. This was a key relationship and integral part of the process of acquisition of PPE during the pandemic under the Product Review Protocol. This relationship prevented the purchase of products that were not fit for purpose, fake or fraudulently certified.

39. Previously in my statement I provided an overview of the role that BSO PaLS fulfils within the public Health and Social Care system in Northern Ireland and it fulfilled this role in full in supplying goods to HSC bodies in preparation for the pandemic. HSC bodies rely heavily on BSO PaLS to procure and supply their goods and services (with the exception of construction services) both now and in preparation for the pandemic. Northern Ireland was fortunate in that unlike the rest of the UK it had to take special steps to ensure supply of goods in preparation for the UK's exit from the European Union (EU) and in respect of health, BSO PaLS lead these preparations on behalf of HSC. I will provide further detail on this later in my statement. These actions provided a stock buffer to the initial impacts of the pandemic on products such as gloves and facemasks as well as products used in anaesthesia for example oxygen tubing.

40. In preparation for the pandemic goods were supplied not only to HSC Trusts but also to GP Surgeries (3rd March 2020) and a small volume was supplied to the PHA for deployment at ports of entry to Northern Ireland. From April 2020 onwards, BSO PaLS supply to HSC Trusts included provision for supply of PPE to independent sector healthcare providers (Care Homes and Domiciliary Care providers).

41. It is my understanding that as part of their general pandemic planning, Trusts should maintain 7 to 10 days of critical stock lines such as PPE which would act as a buffer on initial impact. BSO PaLS has no visibility of this and subsequently I cannot comment on whether this was the case or not but can simply confirm that BSO PaLS supplied all PPE, RPE and devices requested prior to the pandemic as part of normal business and then in the immediate face of the pandemic responded to demands for PPE and medical devices from stock or direct from contractors as requests arose

through normal business channels immediately prior to the first cases being declared in Northern Ireland.

42. In preparation for and throughout the pandemic goods were delivered to BSO PaLS warehouses in bulk (generally container loads), broken down by BSO PaLS Logistics staff and supplied onwards to Trusts usually in a palletised form. Once goods were received by Trusts they broke down pallets and distributed products to wards and departments across the Trust. In order to cope with the volumes of products being delivered to BSO PaLS it was necessary for BSO PaLS to acquire additional warehouse space. Initially this warehouse space was modest in size and dispersed across the Greater Belfast area in 3 separate locations. As time progressed BSO PaLS consolidated all PPE warehousing into 3 separate warehousing units in a single business park location on the outskirts of Belfast. Additional resources to support the increased volume of goods for storage, picking and delivery were secured to support this work.

Medical products and equipment connected to Covid-19

43. During the period of the pandemic and in particular the period covered by my statement, BSO PaLS supplied the overwhelming majority of PPE consumed by HSC bodies and I provide a summary of the volumes of PPE/RPE supplied during that period as evidence KB/7 INQ000446230). The figures provided are as published by the Northern Ireland Statistics and Research Agency (NISRA). The total volume of PPE supplied by BSO PaLS was 886,932,000 items (please note gloves are counted in singles not pairs), of that volume supplied during this period 5,914,909 was sourced through mutual aid and the remaining 881,017,091 sourced and procured directly by BSO PaLS. Outside of the figure provided is a small volume of PPE which was sourced directly by two HSC Trusts. By way of comparison, prior to the pandemic in 2019, BSO PaLS supplied a total of 75,364,000 items of PPE in a 12 month period, extrapolating this to a 27 month period for comparison purposes gives an approximate total of 169,569,000 items of PPE supplied over a 27 month period with none of this supply on a "mutual aid" basis and none sourced by HSC Trusts themselves. In the early stages of the pandemic BSO PaLS worked with colleagues in DOH, CPD and NIO to secure a high volume of suitable PPE from Chinese manufacturers by directly engaging a consolidator, China Resources, locally in China to source suitable products and provide a series of options to BSO PaLS for consideration, The options provided were reviewed and validated by MOIC before any contract was entered into to ensure they were fit for purpose. Once a range of

acceptable products had been agreed, the contract for supply with China Resources was signed on 9th June 2020 and deliveries completed by 1st December 2020. In total 172,265,000 items of PPE (Type 2R facemasks and Gloves) were sourced via this arrangement.

44. Sourcing of the balance of PPE supplied was carried out by BSO PaLS staff using a combination of already established suppliers to HSC, cold contact from companies interested in supplying to Northern Ireland and development of local manufacturing capacity. For clarity let me define "cold contacts"; these were contacts from companies or individuals either direct to BSO PaLS, through HSC Trusts or through Department of Health. Each contact was added to a list and, based on the products they offered, were allocated to a specific PPE buying team for follow up. No "VIP Lane" was in operation. A protocol was developed for staff to follow which required certification to be provided along with samples for testing as part of the Product Review Protocol which BSO PaLS developed. In following this protocol, BSO PaLS staff were able to eliminate companies that did not have the capability or product to supply. I have provided a copy of the Product Review Protocol as evidence and this sets out the process in detail KB/8 INQ000325674).

45. Due to pressures on supply, BSO PaLS procured only a small number of breathing hoods for use by HSC staff with almost all high efficiency respiratory products supplied for staff use being disposable FFP3 masks.

46. Medical devices such as oximetry devices, single use products and specialised devices were sourced and procured by BSO PaLS on behalf of HSC bodies. BSO PaLS worked with the Critical Care Network Northern Ireland (CCaNNI) and key experts to identify the required products and source them for supply. By and large existing suppliers already under contract for the supply of such goods were able to supply the necessary products.

47. National calls for manufacture of ventilators and associated equipment were made centrally by UK Government and Northern Ireland received an allocation of the centrally procured equipment which was co-ordinated locally by DOH and delivered to key locations. However, at the outset of the pandemic BSO PaLS engaged with colleagues from CCaNNI and identified an agreed list of ventilation equipment which was procured urgently and delivered between April 2020 and September 2020 with a small number of items outstanding until 2021. This equipment was deployed to key

locations across all HSC Trusts in support of treatment of patients. Included within this list was a range of non-invasive ventilation equipment also which was procured and deployed within the same timescales. The ventilation equipment (invasive and non-invasive) and other critical care equipment required to support patient care was procured by BSO PaLS from pre-existing NHS Supply Chain frameworks using the direct award provisions within the frameworks, existing BSO PaLS frameworks for equipment and, where no pre-existing arrangements existed, using the urgency provisions contained in the Public Contracts Regulations 2015 to make direct awards without competition.

48. Prior to the pandemic BSO PaLS operated a "pull" system for products stored in it's warehouses, that is to say staff created a requisition on the electronic ordering system known as eProc. This request was approved by a line manager and electronically submitted into BSO PaLS warehouse management system where it was picked by staff, marshalled for delivery to the requestor and delivered based on a pre-planned delivery cycle allocated for that requestor's ward or department. The process cycle is typically 3 days from submission to delivery but is dependent on cycles allocated to each ward or department for example high activity departments such as theatres may have a daily cycle of delivery whereas a ward may have a weekly cycle. This system continued during the very earliest stages of the pandemic until on 23rd March 2020 when BSO PaLS introduced a demand management approach which used a "push" system whereby available stock of PPE and Covid impacted items was allocated to HSC bodies and "pushed" to them on a daily basis. As I have previously stated, this system was underpinned by daily meetings with HSC bodies to assess their requirements and agree the allocation of available stocks. This system operated outside the BSO PaLS warehouse management software system and removed the delivery cycles previously in operation for effected products allowing goods to be delivered the afternoon of the daily meeting. The software stock balances were adjusted manually to ensure an accurate picture of stock levels was maintained.

49. The introduction of the "push" system was initiated by BSO PaLS as it had become evident that the "pull" system was resulting in an inequitable supply of PPE, facilitating hoarding and preventing Trusts in prioritising how and where PPE was deployed. This change was introduced to the wider HSC system following a meeting between BSO PaLS Assistant Director, Head of Logistics and the Chief Pharmaceutical Officer (CPO) DOH on the 20th March 2020. Following the meeting

the CPO wrote to HSC bodies on 23rd March 2020 (copy provided in KB/6 INQ000120711) and directed them on those changes to supply arrangements necessary to operate effectively in a climate of disrupted supply. In order to support the effective operation of the "push" system each Trust agreed to consider a product area and determine which products were essential in meeting the challenge presented by Covid. The PPE Supply Chain Cell (operational) reviewed and agreed these products and BSO PaLS locked the products down on the eProc system making them invisible to HSC staff thus preventing disruption to the "push" system. Over time as supply stabilised the allocation arrangements were able to be removed and, due to software system constraints, a pre-printed order form was completed by Trusts daily and submitted to BSO PaLS for fulfilment with delivery arrangements continuing to Trust PPE receipt and distribution locations.

50. In order to make the "push" system operate it was necessary for Trusts to stand up PPE receipt and distribution points which later became PPE stores at a local level and I would wish to pay tribute to the efforts Trusts made to work with BSO PaLS in this regard. In order for these arrangements to work successfully it was necessary for Trusts to implement rudimentary stock control systems and to take on the distribution of PPE and Covid impacted products from their newly established PPE stores to frontline staff and in due course to provide a service to their independent sector partners for care homes and domiciliary care providers from stocks supplied to them by BSO PaLS.

51. BSO and BSO PaLS worked with HSC bodies to develop a formula for allocation of available PPE stock. Initially this formula was based on the prior use by HSC Trusts of the BSO PaLS warehouses and this was introduced towards the end of March 2020 however by 10th April 2020 it became clear that this was not reflective of the needs of different Trusts who were experiencing different needs relating to their population. Subsequently, Northern Trust proposed a capitation-based approach i.e. allocation based on the percentage of population located within each Trust area which was agreed and implemented from on or about 15th April 2020. However, a specific derogation for the allocation of FFP3 masks was made which saw these masks allocated based on the ICU bed state in each Trust. Apportionment was further adjusted from the 26th June 2020 once the Reasonable Worst Case Scenario modelling became available. Arrangements for allocation to the Northern Ireland Ambulance Service (NIAS) had to be considered differently as none of the previously described approaches were appropriate therefore to ensure NIAS had sufficient

supply of level 2 PPE, in particular FFP3 masks, a percentage allocation (10%) was top sliced from available FFP3 stock to accommodate their needs. This top slice meant that for products subject to demand management, NIAS received a percentage allocation of total available stock with the net remainder allocated to HSC Trusts based initially on use of BSO PaLS warehouse and then on capitation / ICU occupancy. All arrangements were considered and agreed by all HSC Trusts prior to implementation.

52. Previously in my statement I made mention of the directions to BSO PaLS to extend their services to other bodies not normally serviced by them. These requests were made by DOH and covered instructions to extend supply of PPE to include supply to the Independent Healthcare providers e.g. residential and nursing homes and domiciliary care providers, GP surgeries, community pharmacies and dental practices (BSO PaLS supplied early established dental hubs but were unable to supply to dental practices directly on an ongoing basis due to the significant volume of FFP3 masks required by this sector and DoH made alternative arrangements). This extension of BSO PaLS service beyond normal levels required engagement with 3rd party contractors to provide distribution services and an obvious increase in volumes of PPE that had to be sourced and procured by BSO PaLS.

53. One of the most challenging aspects for BSO PaLS in responding to the pandemic was the unavailability of modelling to facilitate demand planning. In order to properly inform the Inquiry, it is necessary for my statement to cover some points that precede the 1st March 2020. To my knowledge BSO PaLS were not involved in any pre-pandemic modelling nor were they provided with extreme surge or worst-case scenarios prior to the pandemic. As a member of Silver Command BSO co-opted representation from BSO PaLS to Silver Command on 24th January 2020. On 31 January 2020 DHSC commenced a WN-Covid Supply Chain Cell series of meetings. At this first meeting it was identified that "RWC modelling" (reasonable worst case) was being worked up by NHS England and PHE at the time to trigger PIPP "just in time" in time supply. At subsequent meetings requests were made by members for visibility of modelling to enable demand planning to take place by Devolved Administrations but this was not forthcoming through this group.

54. On 17th February 2020, BSO PaLS accessed guidance published by European Centre for Disease Control (ECDC) which set out the PPE items required per case

and raised this matter with the BSO Director of Operations identifying the need for estimated case numbers to enable accurate demand planning. Throughout this period demand modelling was being requested through the national WN-Covid Supply Cell and none was forthcoming.

55. On 27th March 2020, BSO received information in respect of modelling via NI HSC Silver Command which set out modelling for hospital-based care across 3 scenarios. Over the weekend of 28th March BSO worked with colleagues in Department of Health, Public Health Agency and Health and Social Care Board to develop initial demand planning figures which were then used to predict short term future demand more accurately.

56. Following publication of revised guidance by Public Health England, PHA worked with BSO colleagues to undertake a further estimate of PPE requirements on 10 April 2020 as the revised guidance extended PPE use to community-based settings. This explored the level of demand across a range of service areas specifically acute, community and home care. This work was further developed into a Regional PPE Modelling Framework involving all six HSC Trusts based on NHS England modelling assumptions for PPE.

57. A modelling cell was later established chaired by PHA Director of Nursing with BSO membership through the Director of Operations from which further modelling emerged following updates in PHE guidance. This was separate from the NI Covid-19 Modelling Group which was chaired by the Chief Scientific Adviser. Over time BSO membership of the modelling cell changed to BSO PaLS Head of Goods and Services Procurement who was a key member of BSO PaLS Senior Covid team. On 7th July 2020, following completion of detailed modelling through the modelling cell, a "reasonable worst case scenario" (RWCS) model was released which was used to inform demand planning from that point, this model recommended an additional 20% buffer above modelled demand. It is my understanding that this RWCS was based on the requirements for PPE generated based on business as usual throughput of patients continuing alongside the treatment of Covid patients.

58. In parallel during May 2020 BSO PaLS developed a PPE Supply Chain Strategy and a copy of this strategy is provided as evidence KB/9 INQ000446232). This strategy,

which was agreed by all HSC bodies and approved in June 2020, proposed a stockholding of PPE of 12 weeks with a further 12 week stockpile. Figures to inform the stockholding and stockpile were taken from the Modelling Cell's Reasonable Worst Case Scenario (RWCS) plus 20% recommendations.

59. Following publication of the RWCS model, the Modelling Cell led by PHA were joined by a specialist from N.I. Strategic Investment Board who commenced developing a RWCS2 model. This second model was approved by DOH and adopted by BSO PaLS from 1st July 2021 (copy of Surge Forecast v Demand Report dated 01072021 provided in evidence KB/10 INQ000446223) includes amendments made to the Surge Forecast v Demand Report to show a comparison between each modelling versions RWCS, RWCS2, 2019 pre-covid demand and quarter 1 2020 demand (visible in columns B, C, E and F of the "Surge Forecast V Demand" worksheet). This new RWCS2 model did not change the BSO PaLS PPE Supply Chain Strategy but did impact the stockholding and stockpile figures by lowering the target stockholding and stockpile volumes required.

60. The UK Covid Inquiry will be aware that Northern Ireland followed the national guidance on the use of PPE that was developed and maintained by Public Health England. BSO PaLS did not contribute directly to the development of that guidance nor to any changes to the guidance during the period covered by my statement. Following a temporary change to WHO Guidance, BSO PaLS was asked to provide a view on more widespread use of FFP3 masks by HSC staff in December 2021 in particular the use of FFP3 masks in clinical areas instead of Type 2R facemasks. In responding BSO PaLS clearly set out the position as they understood it to be, which was that FFP3 masks were to be used in high-risk areas and when performing aerosol generating procedures, along with the challenges of meeting increased demand and seeking direction from DOH on a number of matters. BSO PaLS advice was that any change in guidance which had a significant increase in the demand for FFP3 masks was likely to result in reduced availability of FFP3 masks. Guidance was later amended to provide for wider use of FFP3 masks by staff where ventilation of high-risk areas was poor. This change did not have a significant impact on the availability of FFP3 masks as it occurred in a limited number of Trust locations.

61. Whilst BSO PaLS did not contribute to development of national guidance they were involved in some key matters locally. As I have mentioned previously in my statement BSO PaLS were instrumental in the development and design of a Product Review

Protocol and a copy of this has been provided as evidence (see KB/8 INQ000325674). This protocol prevented the purchase and supply of PPE products that were not fit for purpose and operated informally from May 2020 but was not formalised into a document until July 2020. As data was becoming available on the trends of PPE consumption between Trusts, BSO PaLS provided data to Trusts through the PPE Supply Chain Cell (operational) in order to influence appropriate use of PPE. This was done to maximise the PPE available to all HSC bodies and prevent hoarding occurring.

62. Whilst sourcing of PPE products was extremely challenging during the pandemic, BSO PaLS had fewer problems with the sourcing of medical devices for use by HSC bodies. In general, BSO PaLS were able to rely on existing sources for supply using either current or previous contractors for those products. Dedicated supply chains were not established for these devices and the sourcing of the products was handled following normal previously established protocols for ordering of goods and/or re-sourcing of goods where contractors were unable to supply. BSO PaLS conducts it's procurement activity based on "category management" and as such has buyers dedicated to particular categories or types of products. This lent itself to handling any supply chain challenges for these devices that did arise.

63. During March 2020, following a Covid-19 Surge Planning Surge Workshop on 5th March 2020, BSO PaLS worked with the Critical Care Network Northern Ireland (CCaNNI) to identify a range of invasive and non-invasive ventilation equipment and other critical care equipment, most of which were ordered during March 2020 and delivered between April and September 2020 with a small number of residual items not delivered until 2021. BSO PaLS did not have a role in co-ordinating the ventilators and associated equipment procured nationally and delivered to Northern Ireland. This was handled directly by DOH in liaison with CCaNNI. It was not necessary to set up dedicated supply chains for these products.

64. BSO PaLS did provide support to HSC Trusts in the establishment of Nightingale Hospitals by procuring such equipment as was required. These procurements in most cases used pre-existing contract arrangements including framework agreements awarded by NHS Supply Chain and BSO PaLS. No competitions were carried out across these frameworks but direct award provisions within the frameworks or as provided for within the Public Contracts Regulations 2015 were followed. In a small number of cases non-framework suppliers were used on a direct

award basis. It was not necessary to set up dedicated supply chains for these products.

65. I will now turn to more specific issues experienced with supply of PPE and covid impacted products however prior to doing so I think it would be useful to provide some background context. From 2018 BSO PaLS had been involved in preparing for the UK's exit from the European Union. I have already referred to this elsewhere in my statement and will take this opportunity to provide a little more detail. The assumption for this planning was a "hard exit" which it was considered might have an adverse impact on the flow of goods into the UK and more particularly into Northern Ireland. BSO PaLS was responsible for considering the requirements for goods (with the exception of pharmaceutical products). A list of products held in BSO PaLS warehouse that constituted products critical to maintaining services was identified. Alongside that a further list of products purchased regularly by HSC Trusts direct from suppliers was supplied to those organisations to enable them to decide if those products were critical to maintaining services. Once these products had been identified, BSO PaLS raised the levels of stock of critical products in our warehouses to 12 weeks stockholding, whereas normal levels were 4 weeks, and advised HSC Trusts to take similar action for those direct supply products they considered critical and again information was provided to HSC Trusts to assist them in this regard. Subsequently by January 2020 BSO PaLS and HSC Trusts were carrying stock levels for products critical to maintaining services of 12 weeks. This created a buffer at the outset of the pandemic which provided some protection against disruption to supply during it's early stages.

66. Furthermore, as I have previously alluded to in my statement, BSO PaLS' procurement teams, usually operating on a "category management" basis, carried out a rapid restructure in March 2020 to create PPE specific product teams to focus resources into procuring specific PPE and covid impacted products. This had a positive impact on the efficient sourcing of products as the staff concerned focussed on a small number of products, quickly becoming familiar with things like product specifications and product standards. Teams sourced products from existing and previous suppliers, cold contact "offers" and through a call for local manufacturers. This product team approach was particularly important in helping to deal with the high volume of offers which materialised following national "calls" for specific products. These "cold contacts" were maintained on a central list which detailed name, contact, products offered along with further relevant information. These lists

were then accessed by PPE product teams when sourcing products. In total BSO PaLS received approximately 2000 offers of PPE and covid related products between February 2020 and July 2020. In healthcare in Northern Ireland we did not operate a "VIP Lane" for such offers which were dealt with in the order in which they were received with offers for particular products being prioritised where those products were in short supply or where the product brand was previously in use in Northern Ireland so would be familiar to frontline workers.

67. The greatest difficulties experienced by HSC in sourcing and securing PPE and other products used in the management and treatment of patients during the pandemic (covid impacted products) occurred during the period March 2020 to May 2021. However, beyond September 2020 they remained challenging for the supply of FFP3 masks, and to a lesser extent face visors, against the RWCS modelling with all other items having stabilised by then. A list of these products is provided as evidence along with sample PPE Surge vs Demand reports (items INQ000446227, INQ000446224, INQ000446225 and INQ000446226 respectively). **KB/5, 2, 3 & 4**

68. During the period covered by my statement, BSO PaLS did not suffer stockouts of PPE products and to my knowledge HSC bodies had adequate stocks of suitable PPE throughout that period. We were able to manage shortages in supply by managing deployment of PIPP stocks in order to bridge gaps in supply rather than release the PIPP stockpile en-masse at the commencement of the pandemic. This approach proved very effective. It is important to note that at times approval to release stock from the PIPP stockpile was slow in coming though that was not the case in every instance. It is not clear to us why these delays occurred from time to time rather than consistently. Whilst BSO PaLS did not experience stockouts of products there were instances where individual brands, models or designs of products could not be supplied for example the preferred model of FFP3 mask for Northern Ireland was a 3M 1895 mask which was quickly unavailable (due to supplier ceasing production of this model) and this necessitated Trusts carrying out fit testing of frontline staff in high risk areas for alternative models and brands which I believe may have damaged the confidence of some frontline staff in the security of supply of FFP3 masks. Whilst we received no formal communication on the impact of changes in FFP3 models on staff confidence I am aware that anecdotal information was communicated to BSO PaLS by members of the PPE Supply Chain Group (operational). We also experienced a reluctance to use Type 2R masks of an "ear-

loop" design. HSC staff had not previously used such a design prior to Covid, preferring a "tie-back" fixing. Tie-back masks were simply not available in the marketplace as ear-loop is a quicker, easier and less expensive fixing to manufacture.

69. I am unable to advise the Inquiry if the supply of PPE or it's adequacy had an impact, either positive or negative, on the quality of care provided to patients by HSC Trusts and I am not aware that any significant matter of this nature was raised with BSO formally over the period of my statement. I think It would be appropriate to ask other HSC bodies directly if the PPE supplied had a negative impact on patient care.

70. Supply pressures were greatly relieved when the contract with China Resources for Type 2R masks and Gloves was completed with delivery between 9th July 2020 and 1st December 2020 providing sufficient stock to bridge until local manufacture of Type 2R masks could come online and the supply of gloves from Malaysia and China stabilised.

71. The supply of FFP3 masks proved particularly difficult until October 2020 when BSO PaLS was able to access stocks of 3M masks in volume through DHSC followed by locally manufactured mask, "Denpro", becoming available in December 2020 with high percentage pass rates on fit-testing. These two aspects raised confidence in the secure supply of FFP3 masks from that point onwards.

72. Other challenges existed in the supply of eye-protection as these items had to be rapidly sourced and procured. Fortunately, a local window blind company was able to pivot their business to manufacture visors at volume and secure supply became available from early April 2020. Indeed, the development of local Northern Ireland manufacturers for FFP3 masks, Type2R masks and Visors for eye protection made a significant difference in securing PPE supply. These successes were the result of BSO PaLS engaging directly with companies willing to pivot their businesses to manufacture PPE at volume and this proved significant in ensuring availability of suitable PPE to frontline workers.

73. Finally, with regard to the ongoing sourcing of PPE, BSO PaLS established a "Dynamic Purchasing System" (DPS) in June 2020 for the supply of PPE and a range of associated products in order to provide a route to procure these products

compliant with the Public Contracts Regulations 2015 and reduce the HSC's reliance on direct award contracts without competition.

74. In considering instances when products deployed were considered to be not fit for purpose, we experienced issues with three particular product types. Type 2 R facemasks, Gowns and Eye Protection. Early versions of Type 2R masks purchased from NHS Wales proved unacceptable when put into use and were withdrawn. I am not aware of these same products being withdrawn in Wales. These masks were branded DSBJ and were initially approved by the IPC group for use on 19th May 2020 but then approval was withdrawn on 20th May 2020 following representation from a Trust. DSBJ masks were then withdrawn from use across HSC and returned to BSO PaLS by Trusts. The second product subject to withdrawal was protective eyewear supplied as part of the PIPP emergency planning stockpile and through mutual aid from England and Wales. Following an issue raised nationally these products were found to fail to conform with the prevailing standards and were withdrawn from use. There were instances where products may have proven unacceptable in some areas but acceptable in others and such issues were managed by directing the issue of those products according to where they were found to be acceptable. The third product was gowns deployed from the PIPP stockpile and also purchased from NHS Wales which were found to be ill-fitting and were rejected by users. These products were withdrawn from use. There were also occasional issues which did not necessitate withdrawal but created an inconvenience for the end user for example packaging and perforation of tear off products.

75. In considering the wider disruption to supply of non-PPE products needed to support the care of patients, concerns emerged during March 2020 regarding the supply of Medical Gases both in bulk and in bottled form. BSO PaLS engaged with the HSC contractor who provided an assurance on continuity of supply and subsequently HSC bodies did not suffer a breakdown in supply of medical gases to individual organisations.

76. There were a small number of other areas of significant supply disruption experienced in the early stages of the period in question. The first of these was the supply of diagnostic testing products and laboratory consumables (swabs and universal containers) required to carry out testing of patients suspected to have Covid. BSO PaLS laboratory procurement team engaged with colleagues in England and with the Northern Ireland laboratory contractors in an effort to maintain a supply

of these products. This was helped by Northern Ireland's regional contract for laboratory systems and tests with a single prime contractor who was able to secure product for NI. Later in the pandemic period (from December 2020 to February 2021), in line with all of the healthcare systems in the UK, there was a problem with the supply of needles of particular sizes specifically those used to vaccinate against Covid. This problem was experienced across the UK healthcare systems and BSO PaLS worked closely with colleagues in England, Scotland and Wales as well as suppliers in an effort to ensure continuity of supply wherever possible.

77. The general process followed by BSO PaLS upon notification of a potential problem was a pre-cautionary withdrawal from use pending investigation of the product. If the product proved fit for purpose following investigation it was re-introduced into the supply chain. If it proved not to be fit for purpose, then it remained withdrawn from use in HSC.

78. I have mentioned previously in my statement issues that arose with Type 2R facemasks and protective eyewear which resulted in the withdrawal of the effected products. In the case of the Type 2R facemasks, the issue related to fit of the masks on staff and though the products had been accepted in other jurisdictions they were withdrawn from use across HSC bodies as a precaution. The previously mentioned problem with protective eyewear arose from a change in the standards applicable to the products which applied when they were bought as part of the PIPP emergency planning stockpile but had changed by the time the product was being put into use. This was a matter dealt with at a national level between DHSC and the Health and Safety Executive and BSO PaLS co-ordinated the withdrawal and return of the effected products on behalf of HSC in Northern Ireland.

79. It is our view that the Product Review Protocol drawn up by BSO PaLS, and provided as evidence KB/8 INQ000325674), was successful in ensuring that the vast majority of PPE procured by BSO PaLS on behalf of HSC bodies was fit for purpose and was not fake or bogus. This is borne out by the high number of products which were rejected during the review process and the high acceptability of products which were passed fit by that process.

80. In Northern Ireland there was very limited use of re-useable PPE, I understand this was largely due to the operational difficulties of disinfecting of the products after use and the reluctance of staff to use such products in those circumstances.

Furthermore, the availability of re-useable PPE was no better than that of disposable PPE. Whilst a group was established to consider the potential introduction of re-useable PPE, and BSO PaLS was a member of this group, ultimately this was not pursued. I am not aware of any instances of re-use of disposable PPE and BSO PaLS did not provide any advice to HSC bodies on re-use of disposables.

81. Feedback from staff on the acceptability of PPE put into use was provided to BSO PALS through the PPE Supply Cell (operational) as this group met daily. This enabled prompt action to resolve any issues emerging and with the use of the Product Review Protocol helped minimise any potential for health and safety or industrial relations problems arising. In addition, following a Rapid Audit of PPE commissioned by DOH and carried out in April 2020, a specific email address was created on the DOH email system feeding through to the DOH Chief Nursing Officer's team. BSO PaLS was not consulted nor involved in the establishment of this route to raise issues. An example of such feedback was the withdrawal of DSBJ Type 2R masks purchased from NHS Wales. Feedback from staff was that they presented a poor fit and following testing by the IPC PPE group were withdrawn from use. Fortunately, once the Product Review Protocol was operational such instances disappeared.

82. In addition to responding to any matters raised through this medium BSO PaLS also joined with the PHA and Infection Prevention Control Cell in meeting with Trade Unions from time to time. This was to keep them appraised on any developments regarding availability of PPE and any changes which might be likely to be raised with them by their members. It is the view of BSO PaLS senior management team that this engagement was very beneficial in addressing potential concerns particularly regarding changes to FFP3 masks.

Other matters

83. To meet the demands for PPE of not only HSC bodies, who were BSO PaLS pre-covid "customers", but the additional volumes required to meet demands of an extended set of health care "customers" including independent healthcare providers, GP surgeries, community pharmacies and optometrists, along with the dynamic marketplace which existed for PPE, changes in how BSO PaLS sourced PPE products were necessary. For the benefit of the Inquiry, I would like to set out the key changes and provide the timescales involved in their introduction, in some instances

the timing may predate the period covered by my statement but I think it is important for the Inquiry to have sight of those actions.

84. In February 2020 BSO PaLS recognised the difficulties likely to be presented in securing supply and made use of the urgency provisions contained within the Public Contracts Regulations 2015 to cover emergency situations. Prior to commencing this, legal advice was sought. On 18th March 2020 Cabinet Office published formal guidance, through PPN 01/20, on the use of these urgency provisions which underpinned BSO PaLS decision in February 2020. To avoid delays in decisions to award contracts without competition it was agreed by DoH Permanent Secretary that due to the exceptional situation normal approval processes for entering into a Direct Award Contract (DAC) be amended accordingly. It is our view that this early move to use urgency procedures within the Public Contracts Regulations 2015 enabled BSO PaLS to move quickly to secure product prior to March 2020.

85. As I have previously mentioned in my statement BSO PaLS restructured their procurement teams to dedicate resources to focus on specific items of PPE and covid impacted products by creating product specific teams, this action was taken on 31st March 2020. These teams understood the nature of the products they were buying, specifications and standards albeit they had to gain that knowledge quickly following their establishment. By creating these teams, we were able to focus our efforts on sourcing products using existing contractors, former contractors, cold contacts and local manufacturers pivoting their businesses to meet new demands. These teams were supported by processes designed to help them secure only those products that were fit for purpose.

86. These processes included the introduction of the Product Review Protocol which drew on the expertise in MOIC and the IPC cell to support assessing the compliance and suitability of products being considered for purchase. This protocol is provided as evidence **KB/8** INQ000325674).

87. BSO PaLS also had to adapt to a changing marketplace which saw purchasing of PPE not through normal channels such as local or national distributors but dealing directly with companies closer to the manufacturing source in China and in doing so develop a working knowledge of the requirements to purchase and export from China to Northern Ireland. BSO PaLS were supported in this endeavour by colleagues in CPD and OFMDFM.

88. Working directly with local manufacturers to develop new products and to facilitate access to suitable expertise was also a change for BSO PaLS who were more familiar with procuring established products rather than supporting local manufacturers to develop a capability to produce those products. They were aided in this work by Invest Northern Ireland.

89. Turning to learning that we have taken from our experience during the pandemic, it is vitally important that we do not lose the opportunity which the Inquiry presents to share what I believe made a difference to the supply of PPE, medical devices and equipment in Northern Ireland.

90. I believe it would be important to ensure that in emergency planning at a national level each devolved administration should include representation from their local supply chain experts. Additionally, any national or locally based emergency planning exercises should include provision for significant supply chain disruption as a factor to be considered in responding to a pandemic or national emergency.

91. Inclusion of a Product Review Protocol in any future planning arrangements to assure products purchased meet all relevant standards or certifications, are to specification and include user testing to support frontline staff confidence in the clinical suitability and availability of PPE they are expected to use.

92. Locally I believe it is important that we document the approach adopted in a "playbook" to inform future pandemic responses. This playbook should cover the use of a "push system", how it might operate, rapid development of locally based resources to support such a system and changes to sourcing practices and procurement structures that might be necessary to respond to a severely disrupted supply chain. I believe other healthcare systems might learn from our experience and response. Formalising "Cells" within the wider emergency planning process and suggest any necessary sub-cell structures so that there is a clear picture of the structures which may be necessary in providing a response to any future pandemic.

93. My final point on learning is a more general one. Up until the Covid pandemic the UK, in common with many other Western nations, relied heavily on low cost imports from the far east supplied through stable supply chains. The pandemic has shown the fragility of this reliance, I therefore think it is important that we take more notice of the

supply chains aligned to the products we consume and for those critical products consider how the healthcare system mitigates against breakdowns in those supply chains for whatever reason they might occur.

Statement of Truth

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

Signed: Personal Data

Dated: 17th May 2024