



INTERNAL AUDIT DIVISION

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Audit of the support provided by the Department of Operational Support to supply chain management during the COVID-19 pandemic

While overall coordination and governance of supply management during the pandemic was effective, the Department needed to conduct a lessons learned exercise from the COVID-19 response and improve data used to make strategic decisions

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Audit of the support provided by the Department of Operational Support to supply chain management during the COVID-19 pandemic

EXECUTIVE SUMMARY

The Office of Internal Oversight Services (OIOS) conducted an audit of the support provided by the Department of Operational Support (DOS) to supply chain management during the coronavirus disease (COVID-19) pandemic. The objective of the audit was to assess the effectiveness and efficiency of DOS support to Secretariat entities to maintain the supply chain and assist in the prevention and containment of the virus and the sustainment of operations during the COVID-19 pandemic. The audit covered the period from January 2020 to November 2021. The audit addressed two main audit questions:

- a) To what extent did OSCM support entities in obtaining requirements to assist in the prevention and containment of the virus and the sustainment of operations during the COVID-19 pandemic?
- b) How effective were the overall coordination and governance of supply chain management during the COVID-19 pandemic?

DOS provided effective support to entities in obtaining requirements to respond to the COVID-19 pandemic and its strategic decisions ensured timely availability of required goods and services. However, OSCM business continuity plans did not provide practical details on maintaining the supply chain in emergency situations through inclusion of information such as available response options for different types of crisis scenarios, coordination mechanisms that should be established and the respective roles and responsibilities of the main players in responding to the crisis. Also, although information to support decision-making was sufficient, some critical elements were missing or inaccurate.

OIOS made two recommendations. To address issues identified in the audit, DOS needed to:

- Conduct a lessons learned exercise from the COVID-19 response and include them in business processes and guidance to entities, to strengthen agility and emergency preparedness in supply chain management; and
- Provide guidance to entities to improve accuracy and integrity of supply chain-related data.

DOS accepted the recommendations and is yet to initiate action to implement them. Actions required to close the recommendations are indicated in Annex I.

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Audit of the support provided by the Department of Operational Support to supply chain management during the COVID-19 pandemic

I. BACKGROUND

1. The Office of Internal Oversight Services (OIOS) conducted an audit of the support provided by the Department of Operational Support to supply chain management during the COVID-19 pandemic.
2. The COVID-19 pandemic brought changes and disruptions, on a global scale, to the transportation and delivery of goods, among others, due to: a) stay-at-home orders; b) a smaller workforce; c) social distancing requirements; d) the grounding of most cargo and passenger flights; and e) increased border controls/closures and customs regulations. There was a sharp surge in demand and product shortages, particularly in medical supplies and equipment, including personal protective equipment (PPE), medical ventilators, COVID-19 testing and sample collection kits and disinfectants.
3. The objective of the Secretariat-wide response to the COVID-19 pandemic was to support the prevention and containment of the virus and the sustainment of operations. Some of these efforts were led by the Office of Supply Chain Management (OSCM) in DOS, which fully integrates the logistics and procurement function to provide entities in the Secretariat with a seamless end-to-end supply chain service. The Office encompasses the Logistics Division (LD), the Procurement Division (PD), the Enabling and Outreach Service (EOS) and the Uniformed Capabilities Support Division (UCSD). These divisions and service, in addition to the United Nations Global Service Centre (UNGSC) in Brindisi, Italy, provide critical supply chain support. They also play a critical enabling function and second line of defense role by providing guidance, capacity development, risk management and monitoring for the successful implementation of supply chain initiatives to achieve the intended benefits.
4. DOS began its response as early as January 2020 by: a) providing guidance to field missions on early identification of needs and stock replenishment to mitigate the impacts of border closures; b) providing guidance and training to entities that do not regularly require procurement support; c) assessing the impact on supplies sourced from countries that were most affected at the beginning of the pandemic; d) assessing system and other contracts; and e) opening lines of communication with existing contractors, especially life support suppliers, to foresee and address possible interruptions. Also, the use of air cargo was increased as transportation and delivery of goods were disrupted globally.
5. Support to supply chain management during the pandemic included using existing and newly established coordination and communication mechanisms to identify and manage supply chain issues across the Secretariat. In addition, the following important strategic decisions/actions were taken to help ensure timely availability of goods and services required: a) consolidation of demand plans and centralization of sourcing of goods and services; b) activation of emergency procurement procedures (EPP); and c) use of strategic deployment stock (SDS) and the related funding as authorized by the Secretary-General.
6. EOS and the Field Support Group on COVID-19 collected and analyzed data and developed reports to support decision-making and monitoring at all levels. Also, DOS used a number of mechanisms to monitor and address supply chain management issues, including: a) pre-audit reviews of actions taken during the COVID-19 crisis; b) submission of reports on EPP cases to senior management and the Headquarters Committee on Contracts (HCC) for review; and c) monitoring and reporting on key performance indicators (KPI).

7. In addition, OSCM supported two United Nations System-wide initiatives: a) the COVID-19 Medevac Task Force¹; and b) the COVID-19 Vaccination Programme².

8. Comments provided by DOS are incorporated in italics.

II. AUDIT OBJECTIVE, SCOPE AND METHODOLOGY

9. The objective of the audit was to assess effectiveness and efficiency of DOS support to Secretariat entities to maintain the supply chain and assist in the prevention and containment of the virus and the sustainment of operations during the COVID-19 pandemic. The audit addressed two main audit questions:

- a) To what extent did OSCM support entities in obtaining requirements to assist in the prevention and containment of the virus and the sustainment of operations during the COVID-19 pandemic?
- b) How effective were the overall coordination and governance of supply chain management during the COVID-19 pandemic?

10. This audit was included in the 2021 risk-based work plan of OIOS due to the financial, operational and safety risks related to the supply chain management function of the United Nations Secretariat.

11. OIOS conducted this audit from September 2021 to June 2022. The audit covered the period from January 2020 to November 2021. Based on an activity-level risk assessment, the audit covered the following higher and medium risk areas: a) governance/coordination structures supporting the Secretariat-wide supply chain during the COVID-19 pandemic; b) sufficiency, accuracy, reliability and timeliness of information for decision-making; c) monitoring; d) procurement, logistics (including medical evacuation arrangements) and support and reimbursement to military and police contingents; and e) sourcing and delivery of vaccines.

12. The audit methodology included: (a) interviews with key personnel in OSCM, and b) review of procedures, data for the entire Secretariat, reports and other relevant documentation. The audit team also conducted four focus group sessions with groups of 7 to 11 key staff involved in managing COVID-19 supply chain requirements at three peacekeeping missions³ and one special political mission⁴. Focus groups were also conducted with one to two supply chain management staff at each of the following: a) Economic Commission for Latin America and the Caribbean (ECLAC); b) Office for the Coordination of Humanitarian Affairs; and c) Development Coordination Office. The discussions covered DOS': a) communication and coordination; b) responsiveness to issues raised; c) impact of certain strategic decisions; d) guidance; and e) sourcing and delivery of goods.

13. The audit was conducted in accordance with the International Standards for the Professional Practice of Internal Auditing.

¹ The COVID-19 Medevac Task Force provided support in areas where medical facilities were not readily available to system-wide staff, military, police and peacekeeping troops, contractors and non-staff personnel, staff of partner international non-governmental organizations and their eligible dependents.

² The COVID-19 Vaccination Programme's objective is to deliver and administer vaccines to locations where there is no national vaccination programme or where United Nations personnel might not have ready access to a vaccine.

³ United Nations Multidimensional Integrated Stabilization Mission in the Central African Republic, United Nations Multidimensional Integrated Stabilization Mission in Mali, and United Nations Mission in South Sudan.

⁴ United Nations Assistance Mission in Somalia.

III. AUDIT RESULTS

A. To what extent did OSCM support entities in obtaining requirements to assist in the prevention and containment of the virus and the sustainment of operations during the COVID-19 pandemic?

Support to entities in obtaining requirements to respond to the COVID-19 pandemic was effective

14. Overall, focus group participants indicated Secretariat entities received the required goods and services when needed to respond to the COVID-19 pandemic and that DOS provided sufficient and effective support, particularly in the following areas: a) procurement of medical supplies and equipment; b) access to COVID-19 medical evacuation (medevac) and medical facilities; and c) provision and distribution of vaccines

15. DOS took immediate and effective actions to address challenges in the supply of required goods and services to respond to the COVID-19 pandemic and sustain operations:

16. **Development of requirements:** An initial 90-day demand plan for PPE, ventilators and oxygen concentrators was developed. OSCM obtained information on inventory balances and expected demand for medical consumables from entities as this information is not tracked in Umoja. OSCM also reviewed other requirements and identified items that were deemed critical. The demand plans were developed using different Excel spreadsheets that were not centrally managed, and this is discussed later in the report.

17. OSCM reviewed the specification, quality and quantity of medical supplies and equipment requested by entities to assess validity and accuracy of requests. For example, one mission requested 10,000 test kits but one polymerase chain reaction (PCR) machine. As the PCR machines only processed one test per hour, these tests would extend beyond one year even if the machine was run continuously. Therefore, OSCM adjusted the quantity. Two focus groups noted that this practice was very effective, particularly regarding technical specifications of medical equipment such as ventilators.

18. Also, as there were changes to usual operations, special consideration was given to the following, among others: a) suspension and reactivation of troop movement; b) quarantine and isolation facilities; c) disposal of hazardous waste; and d) special delivery and custom requirements for blood supply. UCSD developed reports to support and inform the development of demand plans, such as: a) reports on actual versus scheduled troop movements and rotations; and b) statistics on troops including confirmed COVID-19 cases, mortality and quarantine cases.

19. **Procurement:** LD, along with UNGSC, determined how to source and deliver required goods and services, based on the results of PD procurement actions. As demand often exceeded supply, PD worked to find multiple sources for goods, while LD conducted technical evaluations and UNGSC immediately raised purchase orders to secure availability.

20. To further expedite the procurement of goods and services, OSCM issued an updated Procurement Manual on 30 June 2020 to include the following provisions on EPP: a) electronic bid opening procedures; b) expedited vendor registration process (i.e., Chief of EOS may approve special registrations in lieu of the HCC); c) increased frequency in reporting EPP cases to the Assistant Secretary General (ASG) of OSCM; and d) expanding EPP to include procurement within the delegated authority of all heads of entities, regardless of the strategic nature of the requirement, where justified. OSCM staff indicated these amendments proved to be effective in expediting procurement.

21. As indicated in Table 1, from March 2020 to November 2021, Secretariat entities procured 93 per cent of medical gowns, 85 per cent of oxygen concentrators and 59 per cent of rapid test kits from system and other contracts established by OSCM. They were also able to source medical supplies and equipment through contracts established by other United Nations system organizations.

Table 1: Source of medical supplies procured for United Nations Secretariat from March 2020 to November 2021

Medical supply items	Share of Supply Source (in per cent)		
	System and other contracts established by OSCM	Local and regional contracts	Contracts through cooperation with United Nations system organizations
Gowns	93	7	0
Oxygen concentrator	85	14	1
Rapid tests	59	11	30
Face masks	25	67	8
Gloves	1	95	4

Source: Power BI Report by EOS on COVID-19 PPE purchase activity

22. **Handling, storage and transportation:** Focus groups indicated there was a substantial amount of communication and coordination between the entities and DOS to facilitate the timely delivery of goods. LD developed a deployment plan (i.e., timeline and approach to delivery) for goods, while UNGSC facilitated distribution and shipping (e.g., the cold chain required to deliver vaccines), when goods were processed as SDS.

23. During the pandemic, the use of air cargo increased as transportation and delivery of goods was disrupted globally. Within two months after the declaration of the pandemic, UNGSC scheduled more than 40 shipments to field entities worth approximately \$3.7 million in May 2020 alone and another 14 shipments in June 2020 worth approximately \$1.4 million. A total of approximately \$8 million in goods were distributed in 2020 through 131 shipments, containing 857,000 units of medical supplies and equipment. Significant resources were used to order, store, receive, unpack and repack goods.

24. Many additional actions were taken to help mitigate transportation disruptions, prevent delays in delivery, and to ensure the effective use of air assets. For example, the Air Transport Service (ATS) developed the following to support effective decision-making on the use of air assets: a) reports on troop rotations, flight schedules, special flights, etc.; b) the Country Air Space Limitation Tracker Tool; c) guidelines to disinfect cargoes and handle them safely; and d) made available air transport service guides from the International Civil Aviation Organization, International Air Transport Association, and the World Health Organization (WHO).

25. **Uniformed capabilities support:** UCSD took a number of actions to help ensure continuous processing of entitlements to troop and police contributing countries (T/PCCs), negotiate memorandums of understanding (MOUs) with T/PCCs, and safeguard the safety of troops. According to the Division, this included: a) determining the appropriate entitlements for uniformed personnel in exceptional circumstances (e.g., personnel in-transit) and on how to proceed without delivery of equipment required under MOUs due to the pandemic; b) co-leading a working group with the Office of Military Affairs to develop policies on the safe rotation of troops during the pandemic, including quarantine guidelines; and c) developing guidance on remote asset verification.

26. The Division indicated that by December 2020, 42,000 uniformed personnel had been rotated, repatriated or newly deployed since movements resumed in July 2020. During this period, overdue movements were reduced from 19 units to only 3 units in December 2020. Focus groups indicated there were no significant issues in this area. In addition, the Division continued to provide support to General Assembly committees, convene the triennial Contingent-Owned Equipment (COE) Working Group in 2020, publish the COE manual and prepare for the quadrennial survey on reimbursements conducted virtually in 2021.

27. **Other support activities:** The following support was provided to entities to help prevent and contain the virus and sustain operations during the pandemic: a) development of guidance on the handling of remains and on the development of quarantine facilities and isolation wards (in coordination with Division of Healthcare Management and Occupational Safety and Health); b) development of new commercial contracts to support management of morbidities; c) ensured availability of construction material and engineering items to support quarantining and social distancing; and d) re-designed shared accommodations, developed modulization programmes and standardization for longer use of these facilities.

28. **Support to COVID-19 Task Force:** OSCM led the COVID-19 Medevac Task Force to provide medical evacuation services, including access to medical facilities, to over 643,000 United Nations staff and their dependents, including 224,000 Secretariat staff and their dependents, in areas where medical facilities are not readily available. According to the Power BI COVID-19 Medevac Tracking Report maintained by the Task Force, 354 medevac cases were completed from May 2020 to May 2022. The focus groups reported receiving sufficient medevac support.

29. In addition, OSCM, through ATS, assisted in contracting 5 guaranteed air ambulances (3 covering north and west of central Africa and 2 covering east and south of central Africa) and 13 standby air ambulances. Five contracts for guaranteed air assets were established between August 2020 and November 2021 to support the COVID-19 medevac effort, while 3 standby air assets arrangements were established before the COVID-19 pandemic, and the remaining 10 were established during the reporting period. ATS took the following initiatives to ensure the availability of air assets:

- a) Led the development of a guide on safe patient transfer in United Nations contracted air assets;
- b) Developed standard operating procedures on United Nations System-Wide COVID-19 Medical Evacuations and Technical Working Arrangement with the World Food Programme (WFP);
- c) Maintained a real-time situation report (posted regularly on SharePoint), on the status of aircraft, air crew, host nation policies and restrictions to support decision-making; and,
- d) Assisted in streamlining the technical criteria for the registration of flight service vendors.

30. The Strategic Air Operations Center in UNGSC provided 24/7 support to the COVID-19 Medevac Task Force. It established the COVID-19 Medevac Air Ambulance Cell, leading and coordinating all medical evacuations jointly with WFP.

31. **COVID-19 Vaccination Programme:** Approximately 10 months after the pandemic was declared, the United Nations COVID-19 Vaccination Programme was established to deliver and administer vaccines to locations where there was no national vaccination programme or where personnel of 32 United Nations System entities did not have ready access to a vaccine. DOS led the programme and supported efforts to source, transport and administer COVID-19 vaccines. OSCM established purchase agreements for vaccines as early as January 2021, only days after the availability of the vaccine was first announced. According to the Power BI Report on the United Nations System-Wide COVID-19 Vaccination, in Phase 1 of the Programme (i.e., April to August 2021 deliveries), 300,000 vaccine doses were delivered to 66 countries, including 193,000 within the 30 days of raising the purchase order. Phase 2 of the Programme began in

August 2021. By February 2022, approximately 101,000 doses (out of 144,000) had been delivered to 34 countries.

32. Focus groups indicated the distribution of COVID-19 vaccines was timely; however, one entity indicated that there were issues regarding cold chain handling requirements that had not been planned. The entity expressed concern and immediate action was taken by OSCM, with only a two-day delay in delivery.

B. How effective were the overall coordination and governance of supply chain management during the COVID-19 pandemic?

DOS needed to develop comprehensive business continuity plans in preparation for future crises and to address identified weaknesses

33. OSCM implemented their business continuity plan when the pandemic was declared. However, it was a high-level document that did not provide practical details on how various processes would be undertaken during a crisis to ensure delivery of the identified essential and time-critical business services (i.e., ensuring the Secretariat's capability to meet its procurement needs and providing operational support for critical global and field operations). Although guidance from the Department of Management Strategy, Policy and Compliance was that business continuity plans should address specific situations, the continuity strategies developed by OSCM were limited to telecommuting and devolution to UNGSC. There was therefore a missed opportunity to prepare in advance and specify details for effective and efficient support to the supply chain, including: a) available response options for different types of crisis scenarios (global/local, long/short duration, nature of crisis (political/public health), etc.), b) coordination mechanisms, c) respective roles and responsibilities, d) potential options for emergency funding, e) mechanisms for cooperation with other United Nations entities, f) performance indicators and mechanisms to monitor them, and g) incorporating lessons learned from previous and current emergencies.

34. OSCM commented that it was improving its capability to predict and react to crises through the establishment of the OSCM Supply Chain Situational Awareness/Early Warning and Crisis Management mechanism and integrating scenario planning in the business process for supply chain planning. OSCM also participated in scenario planning training in June 2022 and is mainstreaming methodologies to develop appropriate response options for different crisis scenarios. However, consideration of options for emergency funding and mechanisms to cooperate with other United Nations entities needed to be dealt with at a higher level in the Organization. OIOS is of the view that it is the responsibility of DOS to highlight these issues for consideration at the appropriate level.

35. OIOS identified the following areas that need to be addressed in preparation for future crises and included in comprehensive business continuity plans.

36. **Centrally procured items:** While the Secretary-General's decision to use SDS as a sourcing option to entities allowed for an expedited response and quicker availability of goods and services, this use of SDS was not in line with its established objectives and required formalization. SDS was originally established as part of a strategic reserve for peacekeeping operations to rapidly deploy troops⁵. However, the latest report of the Secretary-General on supply chain activities in the United Nations Secretariat (A/76/613) states that SDS has two primary functions: a) stock for use in crises; and b) to serve as a revolving fund to enable the Secretariat to act quickly to purchase essential goods on behalf of multiple entities with replenishment through charge-back. This report indicates that a new concept of SDS is under development and will cover the following: a) mission start-up and support; b) disaster support; c) public health crises;

⁵ Report of the Secretary-General on the concept of strategic deployment stocks and its implementation (A/56/870)

and d) improved global asset management. The General Assembly has deferred consideration of the report to its seventy-seventh session. The United Nations Logistics Base at Brindisi also submitted a revised and expanded concept of SDS in its budget for 2022/23 (A/76/730).

37. From 1 January 2020 to 20 January 2022, procurement of medical items totaling \$16 million were funded from SDS with \$12 million recovered from entities and \$4 million of items remaining in SDS. As entities have the autonomy and authority to decide on their stock levels, some have refused to accept purchased items. For example, 150,000 anti-body test kits were purchased in April 2020, for approximately \$1.2 million. As of November 2021, 34,140 remain in stock, totaling approximately \$273,000. Entities did not always use SDS as the first choice and default option, as required, before considering other procurement sources. UNGSC re-emphasized this requirement in March 2020 and published an e-catalogue of SDS on its website to facilitate information on availability and characteristics of SDS goods and services. OIOS will review this issue further during an audit of the management of SDS planned for 2023.

38. **Assessment of impact of strategic decisions:** The decision to centralize procurement did not consider the extent to which entities' existing supply chains were impacted and the value of the procurement. For example, on 18 November 2021, ECLAC requested local procurement authority for medical supplies valued around \$8,000. The Medical Support Section (MSS) approved the request timely and indicated that should these items be required again, there was no further need to seek additional approval as they are standard items. However, the requirement for additional approval was unnecessary given the ability for ECLAC to effectively procure these items locally. Furthermore, procurement through local and regional contracts during the period January 2020 to October 2021 was on average 140 days faster than procurement from system and other contracts. Centralizing procurement without considering the risks may limit access to goods and services at lower prices and faster delivery. OSCM commented that MSS is a technical section that does not approve missions' requests. However, a memorandum from ASG OSCM dated 30 June 2021 to all Heads of Administrations of Secretariat entities required them to seek approval from the Chief MSS for the procurement of new goods and services specifically associated with the pandemic response, including requirements for medical equipment, pharmaceuticals and consumables. Entities were required to seek approval of MSS for any additional local procurement measure initiated before 31 January 2022. DOS commented that this was a temporary measure during COVID-19 pandemic.

39. **Safety stock:** Although, there were no safety stock metrics established for different crisis scenarios, focus groups indicated that missions had utilized remaining stock of PPE from the Ebola outbreak to help bridge the gap in requirements at the start of the pandemic. Comprehensive business continuity plan should include information regarding the need to consider the feasibility of establishing safety stock of certain critical items and OSCM should provide guidance in this regard.

40. **Coordination mechanisms:** Coordination to support the supply chain response was effective but terms of reference for established mechanisms were not developed. In addition to the Management Client Board (MCB) that was already in existence, the following mechanisms were used to facilitate coordination and communication:

- a) The OSCM Task Force, which facilitated coordination between planners, requisitioners, buyers and shippers and provided information to senior management.
- b) The Field Support Group on COVID-19,⁶ established an avenue whereby entities may raise concerns and issues regarding the response to the pandemic to the United Nations Headquarters-New York.

⁶ The Field Support Group on COVID-19, established in March 2020, is led by the Directors of the Division of Special Activities, LD and the Coordination and Shared Services and Coordinator for the Departments of Political and Peacekeeping Affairs (DPPA) and of Peace Operations (DPO).

- c) Virtual DOS and OSCM townhall meetings, which began in March 2020 and provided information and responses to questions from stakeholders. These meetings were recorded and posted on United Nations Stream.
- d) Integrated business planning meetings between OSCM, UNGSC and the supported entities continued to facilitate implementation of the supply chain plans and to address unplanned requirements, risks and issues during the implementation of the plans.

41. Additionally, DOS provided the United Nations COVID-19 Supply Chain Task Force⁷ with information and technical advice in their contracting efforts and valuable market research. Also, OSCM focal points were made available to entities, and focus groups stated that they provided essential around-the-clock support. Both the newly established OSCM Task Force and core members of the Field Support Group met daily at the start of the pandemic, but there were no terms of reference for either of these groups and issues raised were not tracked. Nonetheless, according to all focus groups, supply chain challenges raised were addressed in a timely manner and there was continuous communication. Since some amount of coordination would be required to respond to any crisis, planning for coordination structures that are complementary to each other with draft terms of reference and a mechanism for tracking progress on issues raised should be incorporated into business processes and guidance on emergency preparedness.

42. **Internal communication mechanisms:** DOS launched a dedicated SharePoint folder in April 2020 to share guidelines and relevant information with DOS senior management, and supported entities on: a) critical supplies, b) medical support, c) air transportation, d) troops and police, and e) reference documents. The folder also included information on COVID-19, townhalls, external communications and key updates, templates, and staff engagement (e.g., innovations).

43. However, communication of some strategic decisions was inconsistent and, at times, contradictory. For example, within a space of two weeks, entities were instructed by the Acting ASG that sourcing medical supplies and equipment would be centralized by DOS while at the same time the Under-Secretary-General DOS sent a memo increasing entities' threshold for these strategic goods and services and encouraging them to use exigency measures to procure items without formal methods of solicitation. In addition, in communications from MSS, entities were encouraged to submit their own purchase orders through a Global Systems Contract and seek local purchasing opportunities. It is critical that once a strategic decision is taken, it is clearly and consistently communicated to all stakeholders to increase effectiveness. Mechanisms to ensure clear and consistent communication during times of crisis should be incorporated into business processes and guidance to entities.

(1) DOS should conduct a lessons learned exercise from the COVID-19 response and include the lessons in business processes and guidance to entities, to strengthen agility and emergency preparedness in supply chain management.

DOS accepted recommendation 1 and stated that it would take necessary action to implement the recommendation.

Strategic decisions to ensure timely availability of required goods and services were effective

44. Focus groups sessions conducted with peacekeeping and special political missions indicated that the strategic decisions taken in response to the COVID-19 pandemic produced effective results and that the support provided by DOS was proactive, creative, and flexible. The following important strategic decisions were taken to help ensure the timely availability of goods and services required: a) collection of entity

⁷ The United Nations COVID-19 Supply Chain Task Force co-chaired by the WHO and the WFP was established to provide countries with essential supplies needed for their COVID-19 response.

demand plans and centralization of sourcing of goods and services; b) activation of EPP; and c) use of SDS and the related funding as authorized by the Secretary-General. These decisions were made in the context of: a) a sharp surge in demand of most consumer products, particularly in medical consumables and supplies; b) the continuous injection of new solutions into the market, which had yet to be properly tested; and c) need for an abundance of caution for the health of United Nations personnel and host nations populations.

45. PD requested approval for the activation of special delegation for emergencies from the ASG, OSCM, in line with the requirements of the Procurement Manual, for the period of March 2020 to April 2021. EPP allowed the United Nations to use simplified processes to facilitate a rapid response. OSCM monitored efficiency gains that resulted from the use of the EPP and developed a KPI on solicitation timelines. OIOS reviewed supporting documents for 8 out of 83 cases valued at \$23.2 million (27 per cent) out of a total \$84 million procured under EPP and concluded that the activation of EPP resulted in improved efficiency. As indicated in Table 3, the average solicitation timeline was 30.5 days, a reduction of 142 days for the cases reviewed.

Table 3: Solicitation timeline comparison between EPP cases sampled and average formal solicitation timelines for goods and services in similar categories in 2020

Category of goods and services	EPP case description	Area	EPP case amount \$	Solicitation timeline (in days)	
				EPP case	2020 average
Health services	Establishment of medical facilities in Latin America	COVID-19 Medevac Task Force	1,125,286	20	222
Health services	Establishment of medical facilities in Latin America	COVID-19 Medevac Task Force	1,470,000	74	222
Medical and dental supplies and equipment	ICU equipment to double the capacity of medical facilities under COE	OSCM internal	1,125,286	below 15	168
	PCR machines and test kits in support of Peacekeeping Missions	OSCM internal	1,546,740	below 15	168
Healthcare	COVID-19 Vaccines	COVID-19 Vaccination Programme	1,200,000	below 15	112
Healthcare	COVID-19 Vaccines	COVID-19 Vaccination Programme	1,800,000	below 15	112
Air transportation services	Establishment of a guaranteed air ambulance service the East Africa region	COVID-19 Medevac Task Force	11,025,630	60	188
Air transportation services	Air ambulance services in support of the United Nations global operations with guarantee of aircraft availability	COVID-19 Medevac Task Force	3,195,000	30	188
Average no. days				30.5	172.5
Reduction in average no. days				142	

Source: EPP Report of Procurement for COVID-19 and Power BI Report on Supply Chain Performance on Upstream Reliability and Responsiveness

Although information to support decision-making was sufficient, there was a need to improve data accuracy and integrity

46. Overall, information on supply chain management was sufficient to support decision-making. For example, EOS developed several Power BI dashboards from Umoja data on: a) fuel and rations inventory levels based on mission and vendor provided information; b) PPE purchase activity, including status of orders and receipts, suppliers, locations, monthly orders, delivery timelines and combined stock and purchasing levels; c) medical evacuations of United Nations personnel worldwide, including individuals covered, progress, aviation assets available and high-risk duty stations; and d) status of vaccine deliveries. Focus groups indicated information provided was sufficient, particularly the vaccine and medevac dashboards and weekly reports on fuel and rations inventory levels.

47. In addition, the Field Support Group on COVID-19 prepared a number of reports for the senior management of DOS, Department of Peace Operations and Department of Political and Peacebuilding Affairs, including: a) weekly situation reports by mission comprising statistics on staff well-being, medical, supply chain, mandate, security and rotation and movement of T/PCCs; and b) daily field reports by mission comprising statistics on case/death counts, personnel quarantined, quarantine capacity, risk by country, location of level 2 hospitals, status of supplies, etc.

48. However, at the start of the pandemic, some important information was either unavailable, slow and/or in different formats making them a challenge to use. This was due to the end-to-end supply chain process not being fully integrated in Umoja requiring workarounds, which impacted the quality and timeliness of information for decision-making and monitoring. For example, there was no ability to track actual procurement against demand plans. A manually prepared analysis would require significant effort to capture purchase orders, track inventory and logistics (i.e., movement and storage) and verify shipping details, increasing the risk of inefficiencies and inaccurate data.

49. OIOS analysis in Table 4 details procurement quantities for select medical supplies and equipment that significantly differed from those detailed in the supporting demand plans provided. However, without further data, OIOS was unable to determine whether these quantities were appropriate.

Table 4: Comparative analysis between demand for critical medical supplies and equipment and actual procurement from January 2020 - September 2021 (in number of units)

Type of medical supplies and equipment	Number of units	
	Demand	Procurement
Masks	427,476	6,551,436
Gowns	586,914	608,066
Gloves	227,889	2,938,063
Face shields	276,826	1,005,203
Oxygen concentrators	239	406

Source: UNGSC Consolidated plan & Umoja data

50. As included in the report of the Secretary-General on supply chain activities (A/76/613), the implementation of the Umoja Extension 2 solution is expected to improve supply chain management in the areas of forecasting, planning, and improving visibility across functional areas. The Umoja Coordination Services, OSCM indicated that to fully realize these capabilities, data needs to be accurate and complete.

51. OIOS also identified that 9 per cent of purchase orders from January 2020 to September 2021 had missing information that may result in inaccurate analyses. As indicated in Table 4, data entry errors pertained to: a) missing information on methods of solicitation, b) missing product identification numbers, and c) potentially duplicate vendor accounts. Although purchase orders (POs) were processed as exceptions to formal methods of solicitation (i.e., requests for quotation (RFQ) and low value acquisition (LVA)), no reference to the Financial Rule was provided in Umoja. Without this notation, analyses of exceptions in procurement may be inaccurate. Missing product identification numbers (IDs) may result in inaccurate balances of available inventory. EOS indicated that vendor accounts were under review to address duplications.

Table 4: Erroneous data entry in Umoja from January 2020 - September 2021

Deficient input data	No. of POs	Total amount \$ millions
Purchase orders with no assigned or referenced Financial Rule	5,266	25.53
Purchase orders line items without product IDs and purchase orders with no plant description ⁸	1,435	257.74
Purchase orders above respective RFQ and LVA thresholds	127	6.00
Purchase orders charged to vendors with potentially multiple vendor accounts in Umoja	223	3.77
Total purchase orders with input deficiencies	7,051	293.04
Total purchase orders in Umoja	78,183	4,973.68
Per cent purchase orders with input deficiencies to total	9%	6%

Source: Umoja data

(2) OSCM should emphasize to all entities the importance of accurate supply chain-related data for decision-making, monitoring and reporting and provide guidance on measures entities should take to improve data accuracy and integrity.

OSCM accepted recommendation 2.

While there were effective mechanisms to monitor supply chain operations, there was a need to strengthen monitoring of procurement activities

52. DOS used a number of mechanisms to monitor and address issues identified in the various supply chain management functional areas, including but not limited to the following:

53. **DOS pre-audit reviews:** In 2020, DOS used four OIOS staff on assignment for three months, guided and supported by the Audit Response and Boards of Inquiry Section in DOS, to pre-audit actions taken during the COVID-19 crisis. According to the terms of reference, the reviews were to assess emergency procurement measures, healthcare management and occupational safety and medical responses to COVID-19. These reviews were effective in identifying a number of important action points and best practices to manage risks and implement corrective actions to address control deficiencies.

54. **Monitoring use of EPP:** Controls were in place to effectively monitor the use of EPP during the period. PD monitored all procurement conducted under EPP and reported them to the ASG, OSCM and Chairperson, HCC biweekly. From March 2020 to October 2021, 35 EPP cases with not-to-exceed values

⁸ Plant description is noted in the purchase order and represents where the goods should be delivered (i.e., location of Secretariat entity beneficiary or expected recipient of the merchandise).

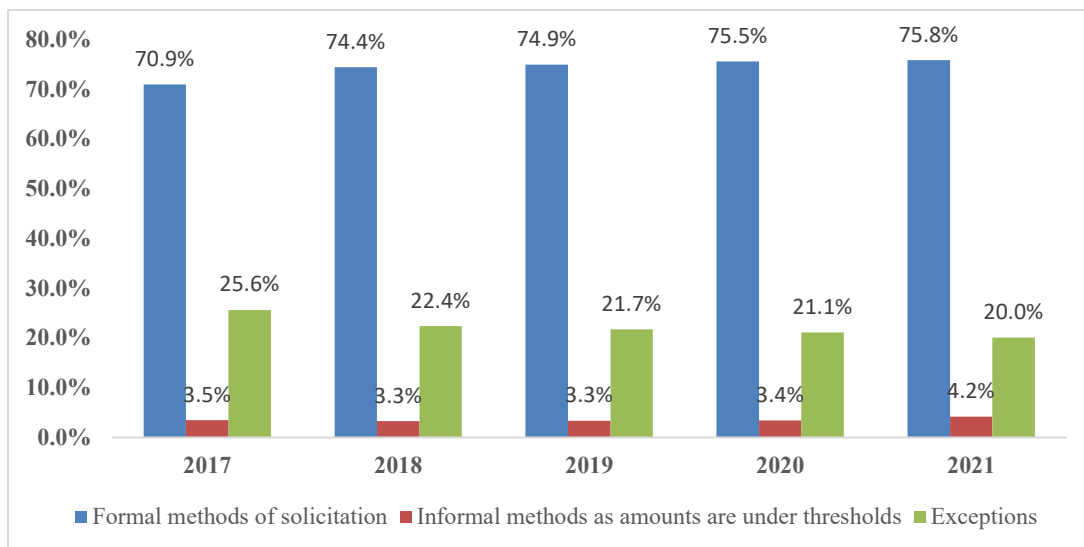
totaling \$71 million required submission to the HCC for review on an ex post facto basis. These submissions pertained to goods and services relating to: a) air transportation; b) facilities and construction; and c) communication and technology. At the time of the audit, three cases related to vaccines (totaling approximately \$5.4 million) were pending submission as PD was modifying the contract to significantly reduce the ordered quantities.

55. OIOS reviewed HCC minutes for 15 of the EPP submissions and noted that HCC had recommended additional action by PD for five of them. At the time of the audit, one action was completed, one was in progress, and one was delayed due to competing priorities. However, no evidence was provided on the two remaining cases, for which HCC had recommended that PD provide ASG, OSCM with an explanation of the basis on which the use of EPP was justified.

56. **Performance indicators:** Beginning March 2019, DOS implemented the Supply Chain Performance Management Framework, which includes monitoring and reporting KPIs related to goods purchased by Secretariat entities in supply chain performance reports. The KPIs focus on: a) reliability; b) responsiveness; and c) asset efficiency. Monitoring may be done by contract type, client entity, categorization of goods and by quarter using a Power BI Dashboard. Forty-two KPIs are under development and implementation by EOS.

57. As indicated in Chart 1, there has been a gradual reduction of exceptions to formal methods of solicitation from 26 per cent in 2017 to 20 per cent in 2021. It should be noted that there was an increase of thresholds for formal and informal methods of solicitation in 2019 and 2020⁹ and the new Delegation of Authority Framework was implemented in 2019.

Chart 1: Proportion of annual procurement (using PO amounts) by solicitation method



Source: Umoja data

58. However, OSCM had not established monitoring controls for: a) the potential split of purchase orders to avoid formal methods of solicitation in the procurement process; b) significant unit price fluctuations; and c) compliance with instructions regarding strategic procurement decisions. OIOS identified the following.

⁹ Threshold for request for proposal and invitation to bid were increased in June 2020 from \$50,000 to \$150,000. Request for quotation threshold was increased from \$10,000 to \$50,000.

59. **Potential split purchases:** OIOS analysis of Umoja data from 1 January 2020 to 30 September 2021 identified 1,739 purchase orders¹⁰ totaling \$9.5 million that were potentially split and issued to the same vendors to keep the procurement value within the limit of \$10,000 stipulated for LVAs, thus avoiding RFQs. Also, there were 51 purchase orders¹⁰ totaling \$2.3 million that were potentially split to keep the procurement value within RFQ threshold of \$10,000 to \$150,000.

60. **Unit price fluctuations:** OSCM did not monitor unit prices to ensure costs were optimal and reflect market conditions. For example, there were significant price fluctuations for face masks and thermometers over the period from March 2020 to September 2021. While the majority of the procurement of face masks occurred in the first 12 months of the pandemic, when price volatility was expected, higher volatility was noted after this period from local suppliers. Although prices from system and other contracts had trended down from a high of \$7.07 per unit in March 2020 to its regular price of \$0.30 by September 2020, they remained high in some places, up to 300 times higher than regular prices even by June 2021, when production of these items had been ramped up to meet increased demand.

61. In addition, entities sourced thermometers using local and regional sources for up to \$300 per unit, which was seven times more than prices from system and other contracts. As with face masks, prices from system and other contracts for thermometers trended down from \$40.61 in April 2020 to \$31.58 in January 2021. However, some entities continued to purchase thermometers at higher prices in 2021. While there may be differences in brand and/or quality, particularly in a time of emergency, outlier prices may warrant OSCM review.

62. **Compliance with instructions regarding strategic procurement decisions:** The implementation of the strategic decision to centralize procurement of medical supplies and equipment was not monitored. Entities may have continued to source goods and services locally against instructions from OSCM which may result in unfavorable terms, including price and quality. As indicated in Table 5, the value of procurement of all medical supplies and equipment through local and regional contracts increased from 28 per cent to 42 per cent from 6 July 2020 to 30 September 2021.

Table 5: Impact of centralized procurement of all medical supplies and equipment

Contract description	Timing of procurement					
	1 March to 6 July 2020 memo			6 July 2020 memo to 30 September 2021		
	No. of POs	Value \$ millions	Percentage	No. of POs	Value \$ millions	Percentage
System and other contracts established by OSCM	313	10.89	65%	126	5.26	50%
Local and regional contracts	405	4.72	28%	687	4.33	42%
Contracts through cooperation within United Nations System entities	110	1.07	7%	103	0.86	8%
Total	828	16.68	100%	916	10.45	100%

Source: Power BI Report by EOS on COVID-19 PPE Purchase Activity

63. High-level monitoring needs to be performed over procurement activities to identify issues such as split purchases, wide price fluctuations and compliance with strategic decisions such as the centralization of procurement during a crisis. OSCM emphasized that they were not required to monitor procurement activities of other entities as they were not the second line of defense for the procurement process.

¹⁰ Potential split purchases were identified using the following criteria - purchase orders: a) valued under \$150,000; b) with no reference to contract numbers; and c) to the same vendor within three months of each other for RFQs and four weeks of each other for LVAs.

64. OIOS notes that in his report on supply chain activities in the United Nations Secretariat (A/76/613), the Secretary-General describes the progress recorded by OSCM “towards ensuring a nimble, responsive and responsible supply chain function that properly supports all the activities of the Organization by ensuring the availability of the right goods and services, at the right place, the right time and the right cost, for effective and efficient mandate delivery by the client entities of the Secretariat, while ensuring transparency and accountability, increasing cooperation within the United Nations system, and using innovation and leveraging technology to streamline processes, manage risk and provide responsible solutions.” The activities described are second line of defense activities. According to The Institute of Internal Auditor’s three lines model¹¹, the second line “provides complementary expertise, support, monitoring, and challenge related to the management of risk, including the development, implementation, and continuous improvement of risk management practices (including internal control) at a process, systems, and entity level.” However, OIOS does not make a recommendation on this issue as it plans to conduct an audit of the operation of the second line of defense in the Secretariat in the near future.

IV. ACKNOWLEDGEMENT

65. OIOS wishes to express its appreciation to the management and staff of DOS for the assistance and cooperation extended to the auditors during this assignment.

Internal Audit Division
Office of Internal Oversight Services

¹¹ <https://www.theiia.org/globalassets/documents/resources/the-iias-three-lines-model-an-update-of-the-three-lines-of-defense-july-2020/three-lines-model-updated-english.pdf>

STATUS OF AUDIT RECOMMENDATIONS

Audit of the support provided by the Department of Operational Support to supply chain management during the COVID-19 pandemic

Rec. no.	Recommendation	Critical ¹² / Important ¹³	C/ O ¹⁴	Actions needed to close recommendation	Implementation date ¹⁵
1	DOS should conduct a lessons learned exercise from the COVID-19 response and include the lessons in business processes and guidance to entities, to strengthen agility and emergency preparedness in supply chain management.	Important	O	Receipt of the documented lessons learned and guidance provided to entities to strengthen agility and emergency preparedness for supply chain.	31 March 2024
2	OSCM should emphasize to all entities the importance of accurate supply chain-related data for decision-making, monitoring and reporting and provide guidance on measures entities should take to improve data accuracy and integrity.	Important	O	Receipt of guidance provided to entities to improve accuracy and integrity of supply chain-related data.	31 March 2024

¹² Critical recommendations address those risk issues that require immediate management attention. Failure to take action could have a critical or significant adverse impact on the Organization.

¹³ Important recommendations address those risk issues that require timely management attention. Failure to take action could have a high or moderate adverse impact on the Organization.

¹⁴ Please note the value C denotes closed recommendations whereas O refers to open recommendations.

¹⁵ Date provided by DOS in response to recommendations.

APPENDIX I

Management Response

TO: Ms. Muriette Lawrence-Hume, Chief, New York Audit Service
A: Internal Audit Division, OIOS

DATE: 15 November 2022

REFERENCE: DOS-2022-04191

CLASSIFICATION: Confidential

THROUGH:
S/C DE:

FROM: Atul Khare, Under-Secretary-General
DE: for Operational Support



SUBJECT: **Draft report on an audit of the support provided by the Department of Operational Support**
OBJET: **to supply chain management during the COVID-19 pandemic (Assignment No. AH2021/619/02)**

1. I refer to your memorandum, dated 19 September 2022, regarding the above-mentioned draft report. As requested, please find below, and in Appendix I, our comments on the findings and recommendations contained in the report.

Paragraph 29

2. The text in the first and second sentences of paragraph 29 is factually inaccurate. The Department of Operational Support (DOS) wishes to clarify that the guaranteed air ambulance service contracts were signed and awarded, but the aircraft were never positioned, and no services were provided under the agreement. A few months later, upon confirmation from the Medevac Task Force, the agreement was terminated. DOS, therefore, requests that the text be reworded to read: *“In addition, OSCM, through ATS, assisted in contracting ~~40~~ 5 guaranteed air ambulances (8-3 covering north and west of central Africa and 2 covering east and south of central Africa) and ~~16~~ 13 standby air ambulances. ~~Four~~ Five contracts for guaranteed air assets were established between August 2020 and ~~March~~ November 2021 to support the COVID-19 medevac effort, while ~~most~~ three standby air assets arrangements ~~had been established prior to the COVID-19 pandemic (with a February 2022 expiration date)~~ were established before the COVID-19 pandemic, and the remaining 10 were established during the reporting period.”*

Paragraph 33

3. Of the actions referred in the ultimate sentence of paragraph 33 of the draft report, DOS reiterates that only the actions in (a), (b) and (c) are within the purview of the Office of Supply Chain Management (OSCM) in DOS, while the role of other entities regarding items (d) and (e) would need to be agreed at the Secretariat level. It should be noted that the availability of emergency funding is not within the purview of OSCM. The mechanisms for cooperation with other United Nations entities would also need to be coordinated at a higher level for the overall response to emergency.

Footnote 5

4. DOS reiterates that the examples listed in footnote 5 relate to the Secretariat Business Continuity Plan and is not within the scope of supply chain management.

Paragraph 34

5. In addition to our comments in the draft report, OSCM participated in scenario planning training in June 2022 and is mainstreaming the methodologies learned therein to develop appropriate response options for different crisis scenarios. In the annual OSCM Business Guidance for Supply Chain Planning since 2020, OSCM has included guidance on responding to the pandemic to be considered and integrated into local and global supply chain plans. The content in this Guidance is provided in detail by business area and category. In this regard, OSCM will designate the respective roles and responsibilities.

Paragraph 38

6. DOS reiterates its comments that the Medical Support Section, as a technical section, does not approve missions' requests, but rather provides technical support and guidance. DOS, therefore, requests paragraph 38 to be amended accordingly.

Paragraph 39

7. DOS reiterates its comments that the findings in paragraph 39 of the draft report goes beyond the mandate of OSCM at least for the following reasons: i) establishment of safety stock falls within the purview of each entity within their own delegation of authority based on their unique *modus operandi*; ii) establishing centralized safety stock will require a comprehensive analysis of all types of emergencies, including political and public health, amongst other, where the central authority to identify requirements will go beyond DOS depending on the nature of the emergency; and, iii) establishing safety stock will require resources for sourcing, maintaining, repair and maintenance, and replenishment, for which OSCM does not have any authority, except for strategic deployment stocks (SDS) managed through the United Nations Logistics Base (UNLB) at Brindisi, Italy.

Paragraph 41

8. With regards to the ultimate sentence of paragraph 41, DOS wishes to emphasize that a comprehensive business continuity plan is beyond the scope of supply chain management.

Table 3

9. DOS wishes to clarify that the Emergency Procurement Procedures (EPP) case amount for air ambulance services in the last row of table 3 was **\$3,195,000**, not \$3,870,000. The EPP case amount of \$3,195,000 was the Not to Exceed (NTE) value of the initial award for the purposes of calculating the solicitation timeline, without considering the amendments to the initial award of contract. Subsequently, the Contract PD/C0116/20 was extended **four times** increasing the NTE amount to \$6,390,000.
10. Thank you for the opportunity to comment on the draft report. DOS stands ready to provide any other information that might be required.

cc: Fatoumata Ndiaye
AnneMarie Van Den Berg
Jeffrey Lin

Management Response

Audit of the support provided by the Department of Operational Support to supply chain management during the COVID-19 pandemic

Rec. no.	Recommendation	Critical ¹ / Important ²	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
1	DOS should conduct a lessons learned exercise from COVID 19 response and include the lessons into business processes and guidance to entities to strengthen agility and emergency preparedness for supply chain.	Important	Yes	Acting ASG/OSCM	First quarter of 2024	DOS will take the necessary action to implement the recommendation.
2	OSCM should emphasize to all entities the importance of accurate supply chain-related data for decision-making, monitoring and reporting and provide guidance on measures entities should take to improve data accuracy and integrity.	Important	Yes	Acting ASG/OSCM	First quarter of 2024	DOS comments are reflected in the draft report.

¹ Critical recommendations address those risk issues that require immediate management attention. Failure to take action could have a critical or significant adverse impact on the Organization.

² Important recommendations address those risk issues that require timely management attention. Failure to take action could have a high or moderate adverse impact on the Organization.