



INTERNAL AUDIT DIVISION

REPORT 2017/044

Audit of medical services in the United Nations Assistance Mission in Iraq

Management of medical supplies and consumables needed to be improved to minimize losses due to expiry, and mass casualty plans needed to be regularly tested

6 June 2017

Assignment No. AP2016/812/04

Audit of medical services in the United Nations Assistance Mission for Iraq

EXECUTIVE SUMMARY

The objective of the audit was to assess the adequacy and effectiveness of governance, risk management and control processes over the provision of medical services in the United Nations Assistance Mission for Iraq (UNAMI). The audit covered the period from 1 January 2015 to 31 December 2016 and included a review of health services provided, management of medical supplies and consumables, and preparation and testing of the mass casualty plan.

UNAMI provided adequate medical services to staff, established preventive medical measures and awareness programmes, recovered cost of medical services provided to non-UNAMI staff, properly disposed of medical waste; and established procedures for casualty/medical evacuations. However, UNAMI needed to minimize losses due to expiry of medical supplies and consumables, and periodically test the effectiveness of its mass casualty incident plan.

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

- Improve the management of medical supplies and consumables to reduce the number and value of stocks being destroyed; and
- Plan and conduct live exercises regularly at all its locations to ensure the effectiveness of the mass casualty incident plan as well as readiness to implement it.

UNAMI accepted the second recommendation but did not accept the first one on improving the management of medical supplies and consumables, which was made to reduce wastage of resources due to the high value of items needing to be destroyed as they expired in storage. OIOS closed the recommendation based on UNAMI's acceptance of the residual risks. This unaccepted recommendation may be reported to the General Assembly in the OIOS annual report.

CONTENTS

	<i>Page</i>
I. BACKGROUND	1
II. AUDIT OBJECTIVE, SCOPE AND METHODOLOGY	1-2
III. OVERALL CONCLUSION	2
IV. AUDIT RESULTS	2-6
A. Provision of health services	2-4
B. Medical supplies and consumables	4-5
C. Mass casualty incident plan	6
V. ACKNOWLEDGEMENT	6
 ANNEX I Status of audit recommendations	
 APPENDIX I Management response	

Audit of medical services in the United Nations Assistance Mission for Iraq

I. BACKGROUND

1. The Office of Internal Oversight Services (OIOS) conducted an audit of medical services in United Nations Assistance Mission for Iraq (UNAMI).
2. The UNAMI Medical Services Section is responsible for the health, medical care and well-being of civilian personnel and United Nations Guard Units, and provides medical services to staff of United Nations agencies, funds and programmes in the Mission area under a “fee-for-service” agreement. The Section also coordinates medical and casualty evacuations both within and outside the Mission area and plans responses to medical contingencies.
3. The delivery of medical services is governed by the Departments of Peacekeeping Operations and Field Support (DPKO/DFS) Medical Support Manual for United Nations Field Missions. The Medical Services Division (MSD) in the Department of Management at United Nations Headquarters provides overall policy guidance and oversight.
4. Medical services in UNAMI are provided through three Level I clinics located in Baghdad, Erbil and Kirkuk, which provide primary health care and immediate life-saving and resuscitation services. In addition, UNAMI outsourced the provision of Level II medical services (advanced life support surgery), Level III (primary and specialized surgery) and Level IV (rehabilitation and recovery) to private hospitals in Baghdad, Erbil and Amman, respectively.
5. The Section is headed by a Chief Medical Officer (CMO) at the P-4 level, supported by three medical officers at the P-3 level, three nurses and an administrative assistant at the Field Service level, and two nurses and a laboratory technician at the local level. The CMO reports to the Deputy Chief of Mission Support.
6. The budgets for medical services for 2015 and 2016 were \$2.4 million and \$2.2 million, respectively, including provisions for medical evacuations, hospitalization of military personnel, acquisition of medical supplies and staffing costs.
7. Comments provided by UNAMI are incorporated in italics.

II. AUDIT OBJECTIVE, SCOPE AND METHODOLOGY

8. The objective of the audit was to assess the adequacy and effectiveness of governance, risk management and control processes over medical services in UNAMI.
9. This audit was included in the 2016 risk-based work plan of OIOS due to risks of UNAMI not providing adequate medical services to promote staff health and well-being, productivity and workplace safety.
10. OIOS conducted this audit from November 2016 to March 2017. The audit covered the period from 1 January 2015 to 31 December 2016. Based on an activity-level risk assessment, the audit covered higher and medium risk areas relating to preventive medical measures, medical waste disposal, cost

recovery of medical services provided to non-UNAMI staff, maintenance of medical equipment, management of medical supplies and consumables, and preparedness for casualty/medical evacuations.

11. The audit methodology included: (a) interviews of key personnel, (b) reviews of relevant documentation, (c) analytical reviews of data, (d) sample testing of data using a random sampling approach.

III. OVERALL CONCLUSION

12. UNAMI provided adequate medical services to staff; established preventive medical measures an awareness and prevention programme related to the human immunodeficiency virus and acquired immunodeficiency syndrome (HIV/AIDS); recovered cost of medical services from United Nations agencies, funds and programmes; managed and properly disposed of medical waste; and established adequate procedures for casualty/medical evacuations. However, UNAMI needed to: (a) improve the management of medical supplies and consumable to minimize losses due to expiry; and (b) periodically conduct live exercises to test the effectiveness of its mass casualty incident plan and Mission's preparedness to respond in the event of an emergency.

IV. AUDIT RESULTS

A. Provision of health services

Staff had adequate access to medical services

13. The DPKO/DFS Medical Support Manual requires missions to ensure that staff have access to adequate medical facilities and emergency medical treatment.

14. UNAMI established three level I clinics located in Baghdad, Erbil and Kirkuk to provide primary health care and immediate resuscitation services, in line with the Mission's medical support plan. In addition, the Mission outsourced the provision of higher level and emergency medical services to facilities in Iraq and Jordan for staff requiring specialized medical care. A review of all four agreements with hospitals in the Mission area and Jordan indicated that there were adequate contractual arrangements to provide health services to the staff. During the audit period, UNAMI successfully dealt with eight casualty/medical evacuations of personnel. The Section conducted a client satisfaction survey in November 2016 on the quality of medical services provided to staff members. Of the 833 staff invited, 78 completed the survey; and the results indicated that 84 per cent were satisfied with medical services at UNAMI clinics. OIOS concluded that UNAMI personnel had adequate access to medical facilities.

Preventive medical measures were implemented

15. The DPKO/DFS Medical Support Manual requires the CMO to implement preventive medical measures, including health campaigns and promoting workplace safety.

16. The Medical Service Section developed and disseminated information on preventive medicine and conducted health care campaigns on alcohol abuse, the Zika virus, heat stroke, computer vision syndrome, cholera precautionary measures, effects of passive smoking and prostate cancer to Mission staff through e-mails, posters and handouts. The Section also provided briefings on medical services available in the Mission and other relevant medical information during induction training of newly recruited staff; and provided first aid training at the Kuwait Joint Support Office. Seasonal flu vaccines

were provided to staff. OIOS concluded that the Mission implemented adequate preventive health measures in line with the Section's work plan for 2015-2016.

HIV/AIDS awareness and prevention programme was implemented

17. Security Council resolution 1308 (2000) highlights the risk of peacekeepers contracting or spreading HIV while deployed in missions and requires DPKO to provide comprehensive awareness programmes for personnel. Security Council resolution 1983 (2011) requires the Secretary-General to ensure the implementation of HIV/AIDS awareness and prevention programmes for United Nations missions.

18. The Medical Service Section assigned a focal point for HIV/AIDS. The focal point provided sensitization and awareness training to all 62 new civilian staff that arrived in the Mission area during the audit period and placed pamphlets in the Level 1 clinics to educate staff members. In addition, the Mission deployed 15 post-exposure prophylaxis emergency medical treatment kits at six locations in Iraq and Kuwait to prevent infection after a possible exposure to HIV; provided male and female condoms, and voluntary counselling and testing services. In 2016, the Mission implemented a tracking mechanism to ensure that staff complete the online mandatory course on HIV/AIDS that was introduced by DPKO/DFS in 2016. A report from the Mission Integrated Training Center indicated that as of 30 April 2017, some 401 of 879 Mission staff members had completed the mandatory courses and UNAMI was following up to ensure that other staff complete training. OIOS concluded that UNAMI had implemented the HIV/AIDS awareness and prevention programme as intended in Security Council resolutions and was tracking completion of the online training.

Costs of medical services provided under "fee-for-service" agreement were recovered

19. The DPKO/DFS Medical Support Manual provides that medical services be integrated and made available to all members of the Mission and United Nations agencies, funds and programmes on a "fee-for-service" arrangement.

20. The Medical Services Section provided medical care to staff of United Nations agencies, funds and programmes present in the Mission area based on established agreements, stipulating the tariffs for basic consultation, drugs, medical support services and administrative fees. The Section communicated details of recoverable cost of medical services to the Finance Section on a monthly basis for recovery. A review of staff treatment reports and accounts receivable indicated that the Section provided medical services to 917 non-UNAMI staff between 1 January 2015 and 31 December 2016 and the entire cost of services valued at \$38,316 was recovered by February 2017. OIOS concluded that adequate controls were in place to ensure the timely recovery of cost of medical services provided to United Nations agencies, funds and programmes.

Medical waste and expired medicines were disposed of in accordance with environmental policy

21. The DPKO/DFS Environmental Policy for Field Missions and Medical Support Manual require the proper management of medical waste and expired drugs, including disposal by burial or incineration in accordance with internationally accepted procedures.

22. A review of disposal certificates and discussion with the CMO indicated that expired drugs were removed from the main pharmacy stores and kept separately while awaiting disposal. Medical waste and sharps were also stored separately in prescribed containers. These were disposed of through incineration after obtaining required approvals in the presence of representatives from the Property Disposal Unit and

Property Control and Inspection Unit. OIOS concluded that the Mission complied with environmental requirements in the disposal of the expired drugs and medical waste.

Adequate mechanisms were implemented for casualty/medical evacuations

23. The DPKO/DFS Medical Support Manual requires the CMO to treat and rehabilitate sick or injured personnel and coordinate their casualty/medical evacuations to the nearest medical facility. The Chief of Mission Support is required to approve evacuations within the mission area in consultation with the CMO, while MSD is required to approve those outside the mission area.

24. The Mission developed and implemented guidelines on casualty/medical evacuations. UNAMI had three adequately equipped ambulances for evacuation purposes (two fully armored and one soft-skinned) in the main Baghdad compound and one each at the other three locations. UNAMI also successfully conducted two medical evacuations and six casualty evacuations during the audit period. Evacuations out of the Mission were approved by MSD and those within the Mission were approved by the Chief of Mission Support in consultation with the CMO. OIOS concluded that the Mission had adequate procedures to handle casualty/medical evacuations.

Maintenance procedures for medical equipment were introduced

25. The DPKO/DFS Medical Support Manual provides guidelines for equipping Level I clinics and laboratories. The DPKO/DFS Medical Equipment Guidelines require periodic maintenance and calibration of medical equipment in accordance with manufacturers' specifications.

26. The Level I clinic and medical laboratory in Baghdad were well equipped for medical diagnosis, in line with guidance provided in the Manual. However, UNAMI did not maintain and calibrate annually medical equipment, such as defibrillators and patient monitors as provided for in the manufacturers' manuals. Discussion with the CMO indicated that this was due to lack of local expertise. During the audit period, a laboratory technician was trained in Germany in November 2016 on maintenance, calibration, troubleshooting and repair of medical equipment. Subsequent to the audit, the Section introduced a new maintenance checklist indicating generic inspection criteria for all equipment, with instructions to comply with specific manufacturers' maintenance guidelines. In light of the action taken by UNAMI, OIOS did not make a recommendation on this issue.

B. Medical supplies and consumables

Need to minimize losses due to expiry of medical supplies and consumables

27. The Medical Support Manual requires effective stock management and rotation, as well as monitoring of medical logistics to achieve efficiency and cost effectiveness, while the United Nations Financial Regulations and Rules require effective, efficient and economic use of resources. In May 2014, the Logistics Support Division required all missions to report quarterly to the Medical Support Section (MSS) a list of all medical supplies with less than six months shelf life that are not likely to be consumed before expiry.

28. During the audit period, disposals of medical supplies and consumables that expired between 2009 and 2016 amounted to \$605,287. The value that expired in 2015 and 2016 was \$319,673. This was significant in comparison with the 2016 budgeted amount for these items of \$250,000. The relatively high value of expired items indicated a need to improve controls as indicated below:

(a) The Mission did not fully implement the 2013 OIOS recommendation to improve inventory management of medical supplies by tracking and ensuring optimal stock holding of medicine, and did not regularly monitor expiry dates.

(b) Acquisition planning was not comprehensive because the Mission did not establish minimum re-order levels taking into consideration inter alia, medical needs of the targeted population, consumption patterns and procurement lead times. CMOs relied on their judgment to determine timing and quantities to be re-ordered instead of using historical data and Mission requirements; and

(c) The Section did not submit quarterly reports to MSS on supplies with less than six months shelf life that were not likely to be consumed before expiry and hence, missed the opportunity to rotate the medicines within or outside the Mission area prior to expiry. The CMO stated that he was not aware of the reporting requirement.

29. As a result, the risk of stock obsolescence was not effectively mitigated. The CMO advised that some stocks of life-saving drugs needed to be maintained, but he was unable to specifically identify the quantity and cost of such expired life-saving drugs. OIOS concluded that there was a need to improve medical inventory management and establish procedures to minimize losses due to expiry, while maintaining adequate levels of life-saving drugs to meet emergency requirements.

(1) UNAMI should take action to improve the management of medical supplies and consumables to reduce the number and value of stocks destroyed. This should include proper acquisition planning, monitoring expiry dates and submitting quarterly reports of medical supplies about to expire to the Medical Support Section to facilitate rotation.

UNAMI did not accept recommendation 1 and stated that the Mission already had a procedure to monitor levels of stocks and their expiry dates through monthly stocktaking under the close supervision of the medical officer. OIOS review of the inventory management procedures over medical supplies and consumables noted that there were inadequate, and due to this, a high value of items, estimated at almost \$320,000, needed to be disposed of as they were allowed to expire in storage. This unaccepted recommendation will be closed in OIOS database and may be reported to the General Assembly indicating management's acceptance of residual risks.

Stockpile of expired medicine for treatment of avian influenza needed to be addressed

30. The DPKO/DFS Medical Support Manual requires missions to provide vaccinations for new or emerging infections encountered in a mission area, including treatment for avian influenza. In 2005, the United Nations introduced a contingency plan for a timely, consistent and coordinated response in the event of an avian influenza pandemic to minimize the impact of such a pandemic on mission staff and their dependents.

31. OIOS noted that the UNAMI Medical Services Section was holding 18,970 capsules of an antiviral medicine, which had expired between October 2009 and March 2011, with an estimated value of \$46,000 as at 20 February 2017. According to the United Nations Medical Director, sampling of the stocks in 2015 established, with the manufacturer's assistance, that all specimens were still suitable for use, including those past the inscribed expiry date and those stored under the most adverse conditions imaginable. The guidance in the influenza pandemic plan, which states that the stocks should be retained but labelled as only for use under the Medical Director's authority, remained current and acceptable. A second sampling of the stocks was being arranged and MSD would issue further guidance in due course if necessary. Therefore, OIOS did not make a recommendation on this issue at this time.

C. Mass casualty incident plan

Mass casualty incident plans were prepared but needed to be tested

32. The DPKO/DFS Medical Support Manual requires the CMO to prepare the medical component of the mass casualty incident plan. The plan stipulates a need for quarterly rehearsal at regional level to ensure readiness.

33. The Medical Services Section prepared the medical component of the Mass Casualty Incident Management Plan as part of the country security plans for 2015 and 2016. The Mission deployed mass casualty incident boxes, aero emergency defibrillators, stretchers and first aid kits at all its premises. UNAMI conducted a live exercise of the plan in May 2013 in Baghdad and a desk review in October 2016. However, no live exercises were scheduled to test the adequacy and effectiveness of the plan and ensure readiness of key participants since 2013. The Mission stated that this was due to the country's restrictive security situation. However, OIOS considered that it was feasible to conduct live exercises within UNAMI's well-secured premises in Baghdad, Kirkuk and Erbil.

34. Inadequate live testing of the mass casualty incident plan may affect the Mission's ability to effectively respond to medical emergencies.

(2) UNAMI should plan and conduct live exercises regularly at all its locations to ensure the effectiveness of the mass casualty incident plan as well as readiness to implement it.

UNAMI accepted recommendation 2 and stated that the Mission was in the process of preparing to conduct real-time mass casualty exercises at all its locations, with the first set scheduled during the months of April to August 2017. Recommendation 2 remains open pending receipt of evidence that real-time mass casualty exercises have been conducted.

V. ACKNOWLEDGEMENT

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

(Signed) Eleanor T. Burns
Director, Internal Audit Division
Office of Internal Oversight Services

STATUS OF AUDIT RECOMMENDATIONS

Audit of medical services in the United Nations Assistance Mission for Iraq

Rec. no.	Recommendation	Critical ¹ / Important ²	C/ O ³	Actions needed to close recommendation	Implementation date ⁴
1	UNAMI should take action to improve the management of medical supplies and consumables to reduce the number and value of stocks destroyed. This should include proper acquisition planning, monitoring expiry dates and submitting quarterly reports of medical supplies about to expire to the Medical Support Section to facilitate rotation.	Important	C	UNAMI accepted the risk of non-implementation of this recommendation.	30 June 2017
2	UNAMI should plan and conduct live exercises regularly at all its locations to ensure the effectiveness of the mass casualty incident plan as well as readiness to implement it.	Important	O	Provision of evidence that real-time mass casualty exercises have been conducted.	1 September 2017

¹ Critical recommendations address critical and/or pervasive deficiencies in governance, risk management or control processes, such that reasonable assurance cannot be provided with regard to the achievement of control and/or business objectives under review.

² Important recommendations address important (but not critical or pervasive) deficiencies in governance, risk management or control processes, such that reasonable assurance may be at risk regarding the achievement of control and/or business objectives under review.

³ C = closed, O = open

⁴ Date provided by UNAMI in response to recommendations.

APPENDIX I

Management Response



United Nations Assistance Mission for Iraq (UNAMI)

بعثة الأمم المتحدة لمساعدة العراق (يونامي)

Telephone No. +1 917 36 73614 / +39 0831 05 2600.

Fax: unami-mars@un.org

Date: 25 May 2017
Ref.: CMS-017/015

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

From: Mr. Maqbool Mohammad
Chief Mission Support
United Nations Assistance Mission for Iraq

Subject: UNAMI Management Response to the Audit of Medical Services in the United Nations Assistance Mission for Iraq (Assignment No. AP2016/812/04)

1. I refer to your letter dated 17 May 2017 on the above-mentioned audit report of medical services in UNAMI in respect to not accepted recommendation # 1.
2. UNAMI does recognize the omission not sending quarterly reports to MSS, but it does not change the nature of that recommendation and UNAMI's previous response.
3. Please find attached UNAMI Management Response including rationale for the recommendation # 1 not accepted.
4. Kindly note that the target date for the accepted recommendation # 2 has been changed to 01 September 2017.
5. I take this opportunity to thank you for the positive collaboration and guidance.

cc: Mr. Saeed Ahmed, Deputy Chief Mission Support a.i, UNAMI
Dr. Ghazi Alkhirisheh, Chief Medical Officer, UNAMI
Mr. Ferdinand Schafler, Audit Focal Point, UNAMI
Mr. Zulfiqar Gill, OIC Resident Audit Office Kuwait, Internal Audit Division, OIOS
Ms. Cynthia Avena-Castillo, Professional Practices Section, Internal Audit Division, OIOS

Management Response

Audit of medical services in United Nations Assistance Mission for Iraq

Rec. no.	Recommendation	Critical ¹ / Important ²	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
1	UNAMI should take action to improve the management of medical supplies and consumables to reduce the number and value of stocks destroyed. This should include proper acquisition planning, monitoring expiry dates and submitting quarterly reports of medical supplies about to expire to the Medical Support Section to facilitate rotation.	Important	No	Dr. Ghazi Alkhirisheh, Chief Medical Officer UNAMI	N/A	<p>UNAMI does maintain already strong records of quantity of all medicines and consumables, including those expired and approved for incineration.</p> <p>The value of medicines and consumables is clearly reflected in the respective purchase orders. UNAMI is of the opinion that by maintaining separate records of value of expired medicines and consumables will not have any added value, as it will not have any effects on the date of expiry to minimize the amount of incinerated medicines and consumables.</p> <p>UNAMI has already in place procedure to monitor the level of stocks and their expiry date by monthly stocking taking under the close supervision of the medical officer.</p> <p>UNAMI is accepting the rationales for accepting the associated risks.</p>

¹ Critical recommendations address critical and/or pervasive deficiencies in governance, risk management or control processes, such that reasonable assurance cannot be provided with regard to the achievement of control and/or business objectives under review.

² Important recommendations address important (but not critical or pervasive) deficiencies in governance, risk management or control processes, such that reasonable assurance may be at risk regarding the achievement of control and/or business objectives under review.

Management Response

Audit of medical services in United Nations Assistance Mission for Iraq

Rec. no.	Recommendation	Critical ¹ / Important ²	Accepted? (Yes/No)	Title of responsible individual	Implementation date	Client comments
2	UNAMI should plan and conduct live exercises regularly at all its locations to ensure effectiveness of the mass casualty incident plan as well as readiness to implement it.	Important	Yes	Dr. Ghazi Alkhirisheh, Chief Medical Officer UNAMI	01 September 2017	<p>UNAMI Medical Section, in collaboration with HoO/AOs and SSI, is in the process of planning a real-time Mass Casualty exercise in all locations which will materialize during the months of April to August 2017.</p> <p>Mass Casualty Incident Plan will be reviewed and updated in the following locations listed by priority:</p> <ol style="list-style-type: none"> 1. UNAMI HQ Baghdad 2. Tamimi Compound Baghdad 3. Forward Support Base Baghdad 4. RMSO Kirkuk 5. RMSO Erbil 6. Basra Office 7. Kuwait Office