

Office of Internal Oversight Services

## **INTERNAL AUDIT DIVISION**

# **AUDIT REPORT**

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## **Provision of medical services in UNMIS**

**UNMIS medical support structure needs to be adjusted for a more optimal and cost-effective use of medical resources, which could result in savings to the Organization of approximately \$7 million**

**16 January 2009**

**Assignment No. AP2008/632/11**

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United Nations  Nations Unies

INTEROFFICE MEMORANDUM

MEMORANDUM INTERIEUR

OFFICE OF INTERNAL OVERSIGHT SERVICES · BUREAU DES SERVICES DE CONTRÔLE INTERNE  
INTERNAL AUDIT DIVISION · DIVISION DE L'AUDIT INTERNE

TO: Mr. Ashraf Jehangir Qazi  
A: Special Representative of the Secretary-General  
United Nations Mission in the Sudan

DATE: 16 January 2009

REFERENCE: IAD: 09- 02123

FROM: Fatoumata Ndiaye, Officer-in-Charge  
DE: Internal Audit Division, OIOS

SUBJECT: Assignment No. AP2008/632/11 – Audit of the provision of medical services in UNMIS  
OBJET:

1. I am pleased to present the report on the above-mentioned audit.
2. Based on your comments, all recommendations will remain open in the OIOS recommendations database. In order for us to close the recommendations, we request that you provide us with the additional information as discussed in the text of the report and also summarized in Annex 1.
3. Your response indicated that you did not accept recommendation 1. In OIOS' opinion however, this recommendation seeks to address a significant risk area. We are therefore reiterating it and requesting that you reconsider your initial response based on the additional information provided in the report.
4. Please note that OIOS will report on the progress made to implement its recommendations, particularly those designated as high risk (i.e., recommendations 1, 2, 3, 6 and 7 in its annual report to the General Assembly and semi-annual report to the Secretary-General.

cc: Mr. Kiplin Perkins, Director of Mission Support, UNMIS  
Ms. Heather Landon, Chief, Administrative Services, UNMIS  
Lt. Col. Dr. Pingchu Xie, Force Medical Officer, UNMIS  
Dr. Diallo Abdoulaye Fadi, Officer-In-Charge, Medical Services Section, UNMIS  
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Mr. Seth Adza, Audit Response Team, Department of Field Support  
Mr. Byung-Kun Min, Programme Officer, OIOS

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## INTERNAL AUDIT DIVISION

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### **FUNCTION**

*“The Office shall, in accordance with the relevant provisions of the Financial Regulations and Rules of the United Nations examine, review and appraise the use of financial resources of the United Nations in order to guarantee the implementation of programmes and legislative mandates, ascertain compliance of programme managers with the financial and administrative regulations and rules, as well as with the approved recommendations of external oversight bodies, undertake management audits, reviews and surveys to improve the structure of the Organization and its responsiveness to the requirements of programmes and legislative mandates, and monitor the effectiveness of the systems of internal control of the Organization” (General Assembly Resolution 48/218 B).*

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## **EXECUTIVE SUMMARY**

### **Provision of medical services in UNMIS**

The Office of Internal Oversight Services (OIOS) conducted an audit of the provision of medical services in the United Nations Mission in the Sudan (UNMIS). The overall objective of the audit was to assess the adequacy and effectiveness of internal controls relating to the provision of medical services. The audit was conducted in accordance with the International Standards for the Professional Practice of Internal Auditing.

OIOS found the medical support services in UNMIS to be generally adequate. However, the Mission could save approximately \$7 million if the current medical support structure is reconfigured so that medical services are optimized. For example, there were up to eight medical facilities in one compound shared by several military contingents and civilian personnel. Other findings included:

- Provision of medical support services to UN agencies without budgetary contributions from the agencies, which could overstretch UNMIS' medical capacities and resources;
- Outdated medical support manual;
- Need for a training plan for all UNMIS medical personnel; and
- Need for a disease prevention and health promotion system.

OIOS made 10 recommendations to address the issues identified during the audit.

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## I. INTRODUCTION

1. The Office of Internal Oversight Services (OIOS) conducted an audit of the provision of medical services in the United Nations Mission in the Sudan (UNMIS). The audit was conducted in accordance with the International Standards for the Professional Practice of Internal Auditing.

2. For the financial year 2008/09, the UNMIS medical support structure and resources are set up to provide medical services to 14,385 United Nations personnel located across six sectors within the Mission's area of operations. The Medical Section is headed by the Chief Medical Officer who works in collaboration with the Chief Force Medical Officer.

**Table 1: Approved resources for medical support**

Financial year	Approved budget (in \$ million)	Approved staffing (including paramedics)	Estimated no. of UN personnel to be served
2006/2007	11.3	20	15,434
2007/2008	11.6	22	15,325
2008/2009	10.5	22	14,385

3. Tables 2 and 3 show the number of medical facilities available in and out of the Mission.

**Table 2: Medical facilities in UNMIS**

Type of facility	No.	COE/UNOE*	Capacity requirement (No. to be served)	
			Each facility	Total
Level 1 Clinic (excluding Darfur)	9	UNOE	700	6,300
Level 1 Hospital	26	COE	700	18,200
Level 2 Hospital	4	COE	1,000	4,000
Level 3 Hospital	1	COE	5,000	5,000
Aero Medical Evacuation Teams (AMET)	6	COE	--	--
Forward Medical Teams (FMT)	18	COE	150	2,700
<b>Total</b>	<b>64</b>			

\*UNOE = UN-owned equipment; COE = Contingent-owned equipment

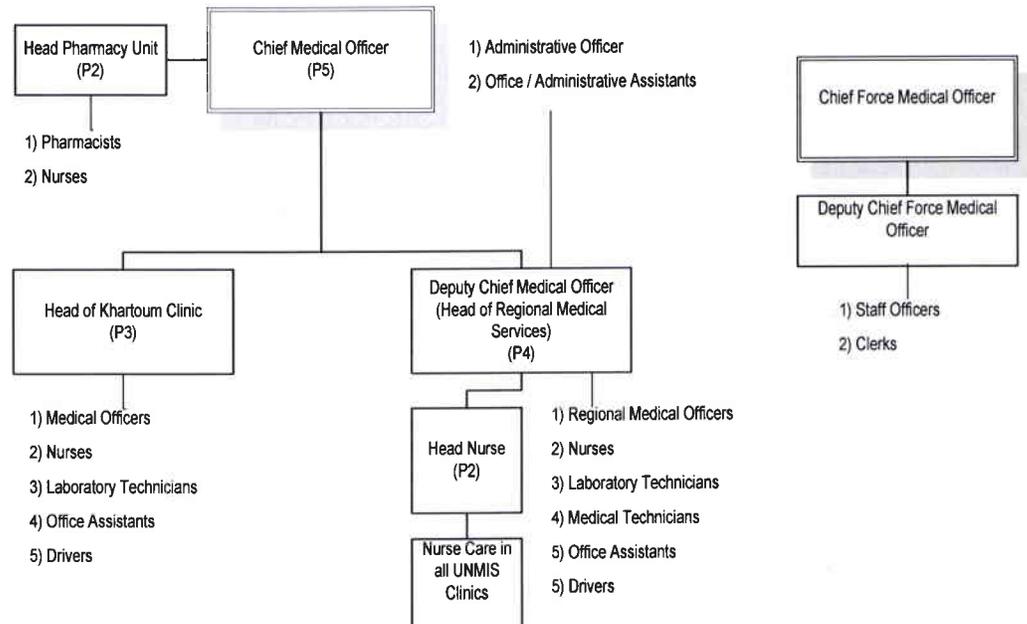
**Table 3: Contracted medical facilities**

Type of facility	No.	Location
Level 3 Hospital	2	Sudan (Khartoum)
Level 4 Hospital	2	Kenya (Nairobi)
<b>Total</b>	<b>4</b>	

4. Treatment at Level 1 medical facilities is free of charge for all UN personnel. Any treatment at Level 2 hospitals and above is subject to payment conditions, depending on personnel category and medical facilities visited.

5. Figure 1 shows the structure of the medical service in the Mission.

Fig. 1: Organization of the UNMIS Medical Service



6. Comments made by UNMIS are shown in *italics*.

## II. AUDIT OBJECTIVES

7. The main objectives of the audit were to: assess the adequacy and effectiveness of internal controls relating to the provision of medical services. Specifically, the audit aimed to determine whether:

- (a) The Mission had adequate resources and facilities to enable them to provide effective medical support to UN personnel in the Mission; and
- (b) Medical support services provided meet the performance requirements stated in the Medical Support Manual for Peacekeeping Operations and other relevant medical guidelines established for peacekeeping missions.

## III. AUDIT SCOPE AND METHODOLOGY

8. The audit covered the period from July 2006 to June 2008 and included reviews of medical policies and guidelines and other relevant documentation such as budgets, contracts, etc.

9. Other audit activities included a client satisfaction survey with respect to quality of medical facilities provided by the Mission, interviews with key medical officers including air evacuation and management personnel, physical

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inspections of medical facilities, equipment and supplies, and other audit procedures deemed necessary under the circumstances.

10. The following areas were not covered in this audit:

- (a) Staff medical insurance coverage and claims;
- (b) Disposal of medical waste and preventive measures related to the environment, which have been covered under a separate OIOS audit of management of waste disposal and environmental protection activities (AP2008/632/13);
- (c) Reimbursement to Troop Contributing Countries (TCCs) for medical equipment/services; and
- (d) Management of medical supplies which has been covered under a prior OIOS audit of management of expendable assets (AP2007/632/05).

## **IV. AUDIT FINDINGS AND RECOMMENDATIONS**

### **A. Medical support structure**

11. Although chapter 3 of the COE Manual provides that each TCC must deploy with medical capacities, chapters 4.01 and 4.02 A of the Medical Support Manual for Peacekeeping Operations, 1999, provide for the “integration of UN medical infrastructure and systems, to maximize utilization of medical resources in a cost-effective manner” and that “although not absolute, the extent of medical support is largely determined by the strength of a peacekeeping force. The number and location of medical units also depends on the overall deployment plan for the force, in terms of both time and space”.

12. The current medical support structure does not allow for an optimal and cost-effective use of medical resources and capacities within UNMIS. The structure is inclined toward compliance with the COE Manual despite the co-location of troops in a single compound. This situation has, for example, resulted in the establishment of up to seven COE and one UN hospitals in one compound, including one higher level hospital, as detailed in Annex 2. COE Level 1 hospitals have a self-sustaining capacity of between 63 and 983 personnel. UNMIS has a total of 42 UNOE and COE hospitals with a total capacity of approximately 30,000 personnel at a cost of approximately \$25 million per annum as indicated in Table 4. UNMIS has also contracted four private hospitals to provide higher level support, bringing the total medical support cost to approximately \$27 million per annum.

**Table 4: UNMIS Medical Support Structure**

Location	Level and No. of hospitals		Operating cost UNOE & Contingent reimbursement	Capacity		Deployment (uniform & civilians)
				Total requirement		
				Medical Support Manual	MOU / Plan	
Sector I - Juba	Level 1	6	\$1,489,402	4,200	2,132	2,358
	Level 2	1	2,073,296	1,000	1,701	
Sector II - Wau	Level 1	6	1,476,404	4,200	3,523	2,192
	Level 2	1	2,001,886	1,000	1,580	
Sector III - Malakal	Level 1	6	1,542,413	4,200	2,256	2,000
	Level 2	1	2,058,078	1,000	1,876	
Sector IV - Kadugli	Level 1	7	1,571,179	4,900	2,454	1,945
	Level 3	1	6,345,847	5,000	8,130	
Sector V - Ed Damazin	Level 1	7	1,484,135	4,200	2,065	1,759
	Level 2	1	2,129,691	1,000	1,500	
Sector VI - Abyei	Level 1	2	1,115,138	1,400	1,076	611
Log Base - El Obeid	Level 1	1	993,112	700	700	498
Mission Headquarters	Level 1	2	1,056,799	1,400	978	1,874
<b>Sub-total</b>		<b>42</b>	<b>25,337,380</b>	<b>34,200</b>	<b>29,971</b>	<b>13,237</b>
Contracted hospitals	Level 3 & 4	4	1,539,592			<b>Approved budget = 14,385</b>
<b>Total medical support cost</b>			<b>\$26,876,972</b>			

13. OIOS' review of medical support costs (in Table 5 below and Annex 3), suggests the need for the reorganization and rationalization of medical support in each Sector Headquarters (SHQ) and the Mission Headquarters (MHQ), resulting in a possible savings to the Organization of approximately \$7 million per annum.

**Table 5: OIOS cost benefit analysis of rationalized medical support**

Location	Capacity		Suggested structure		Estimated savings	
	Requirement	Deployment	Hospitals	(A) Revised cost	(B) Current cost	B - A
Sector I - Juba	5,200	2,358	Level 2	\$2,251,711	\$3,562,698	\$1,310,987
Sector II - Wau	5,200	2,192	Level 2	2,168,081	3,478,290	1,310,210
Sector III - Malakal	5,200	2,000	Level 2	2,091,751	3,600,491	1,508,740
Sector IV - Kadugli	9,900	1,945	Level 3	6,345,847	7,917,026	1,571,179
Sector V - Ed Damazin	5,200	1,759	Level 2	2,200,026	3,613,826	1,413,801
Sector VI - Abyei	1,400	611	Level 1	185,843	1,115,138	929,295
Log Base - El Obeid	700	498	Level 1	993,112	993,112	0
Mission Headquarters	1,400	1,874	Level 2	2,091,751	1,056,799	(1,034,952)
<b>Total</b>	<b>34,200</b>	<b>13,237</b>		<b>\$18,328,120</b>	<b>\$25,337,380</b>	<b>\$7,009,260</b>

Cost for Level 2 at Mission Headquarters is based on TCC operation, and could be higher if operated by a civilian team. All TCC hospitals should have capability to deploy Forward Medical Teams for the team sites.

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## Recommendation 1

**(1) The UNMIS Division of Mission Support should, in collaboration with the Medical Support Division and the Logistics Support Division at UN Headquarters, restructure its medical support system to ensure optimal and cost-effective utilization of medical resources, which could result in a possible savings of approximately \$7 million.**

14. UNMIS did not accept recommendation 1 and stated that the functions and capacities of the different formed medical units (Levels 1, 2, 3, FMTs and AMETs) are discreet and complementary to each other. The existence of a Level 2 hospital and a Level 1 clinic are not mutually exclusive. In Juba Sector I for example, the Mission has three Level 1 clinics and one Level 2 hospital. Each of the Level 1 clinics supports different military formed units from different countries, with different rotation schedules, that perform different functions in the Mission. OIOS acknowledges the Mission's response but would like to point out that, in accordance with relevant guidelines, the medical capacities/resources could still be optimized to provide for the most cost-effective and efficient use of resources. Therefore, OIOS will keep recommendation 1 open pending reconsideration by the Mission of its initial response to the recommendation. OIOS strongly encourages the Mission to conduct a thorough analysis of how existing medical capacities in one location can be combined and hence optimized.

### **B. Medical services provided to UN agencies**

15. The approved budget for medical support in UNMIS assumes that medical services would be provided to the authorized peacekeeping force consisting of 14,385 personnel. UNMIS medical service operates independently from the UN Country Team and does not have any agreement with UN agencies for medical support.

16. UNMIS medical facilities in the regions provide medical support to 20 UN agencies (as illustrated in Table 6). This support is provided within the UNMIS budget without any contribution from the UN agencies.

**Table 6: UN agency and NGO personnel treated at UNMIS facilities**

Month	Patients treated at UNMIS Facilities			Total
	Out Patient		In Patient	
	UN agency	NGO/Other	Agency/NGO/Other	
Jun-07	554	602	4	1,160
Jul-07	736	819	5	1,560
Aug-07	639	726	11	1,376
Sep-07	485	668	8	1,161
Oct-07	494	480	11	985
Nov-07	471	489	11	971
Dec-07	349	629	8	986
Jan-08	305	195	3	503

Month	Patients treated at UNMIS Facilities			Total
	Out Patient		In Patient	
	UN agency	NGO/Other	Agency/NGO/Other	
Feb-08	186	172	1	359
Mar-08	159	175	3	337
Apr-08	553	321	10	884
May-08	208	226	2	436
<b>TOTAL</b>	<b>5,139</b>	<b>5,502</b>	<b>77</b>	<b>10,718</b>

17. While UNMIS is capable of providing emergency care, its medical capacity has not been set up to provide full medical support to approximately 10,000 personnel of the UN agencies.

#### **Recommendation 2**

(2) The UNMIS Division of Mission Support should compute the cost of medical services provided to the UN agencies, and in collaboration with the Medical Support Division at UN Headquarters, arrange with them the modalities of providing medical services to their staff and modalities for either the reimbursement of the costs of medical services provided or the allocation of a portion of their budget to UNMIS.

18. UNMIS accepted recommendation 2 and stated that it will approach the UN Country Team to contribute resources (human and material) to UNMIS. An MOU on sharing medical services with UN agencies is under discussion. Recommendation 2 remains open pending confirmation that the agreement with the UN Country Team has been finalized and implemented.

#### **C. Outdated medical manual**

19. Some TCCs have gone beyond the UN requirements to provide quality healthcare, by providing necessary equipment for improved diagnosis and treatment that is not required for the level of facility, at no cost to the UN. Such equipment include ultrasound machine at Level 2 hospitals; and Nebulizer, Accucheck Glucometer and immuno-chromatographic test (ICT) for malaria at Forward Medical Team facilities. Such developments in medical technology have not been reflected in the Manual, which was last updated in 1999. It would therefore be a good practice to factor these developments in the Medical Support Manual and other relevant agreements and policies to ensure standardized quality of medical care.

#### **Recommendation 3**

(3) The UNMIS Division of Mission Support should bring to the attention of the Medical Support Division at UN Headquarters the additional equipment provided by Troop Contributing Countries for improved diagnosis and

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**treatment, with a view to updating the Medical Support Manual and Memorandum of Agreement with Troop Contributing Countries.**

20. *UNMIS accepted recommendation 3 and stated that the Medical Support Division advised that this issue was discussed in Brindisi at the annual medical conference in September 2008. The conference agreed unanimously that a review and an update of the existing UN Medical Support Manual is overdue. Recommendation 3 remains open pending receipt of the revised UN Medical Support Manual.*

**D. Other issues**

Comprehensive standard operating procedures

21. Chapter 10.02 of the Medical Support Manual provides for the preparation of medical support Standard Operating Procedures (SOPs). While the UNMIS Medical Support Service has developed SOPs, there is no comprehensive document containing all related documents, and some medical personnel were not fully aware of the provisions of the SOPs, nor did they have it handy.

**Recommendation 4**

**(4) The UNMIS Division of Mission Support should compile all standard operating procedures (SOPs) into a one comprehensive set of SOPs for medical services and ensure that this is disseminated to all medical personnel.**

22. *UNMIS accepted recommendation 4 and stated that it already has a medical SOP, which was distributed in the form of CDs to all the TCC medical facilities during the last Mission Medical Conference held in April 2008 in Khartoum. The Mission agreed to update and expand this document and make it available to all medical personnel in the mission. Recommendation 4 remains open pending confirmation that the updated SOPs have been distributed to all medical personnel in the Mission.*

Training requirements for medical and non-medical personnel

23. The Mission has complied with most of the training requirements provided in Chapter 11 of the Medical Support Manual, and is improving its training programme on first aid for all peacekeeping personnel. Plans are underway to equip all Mission personnel with first aid kits. At the time of fieldwork completion, the Mission had procured 687 such kits and a purchase order had been issued for another 1,438 kits. It would be a good practice to combine issue of these kits with mandatory first aid training.

24. Mandatory training is also lacking on continuing medical education on core medical skills for paramedics and doctors. While some civilian medical personnel participate in annual training workshops, there is a need to develop a

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training plan and programme covering all medical personnel in accordance with the training requirements provided by the Medical Support Manual.

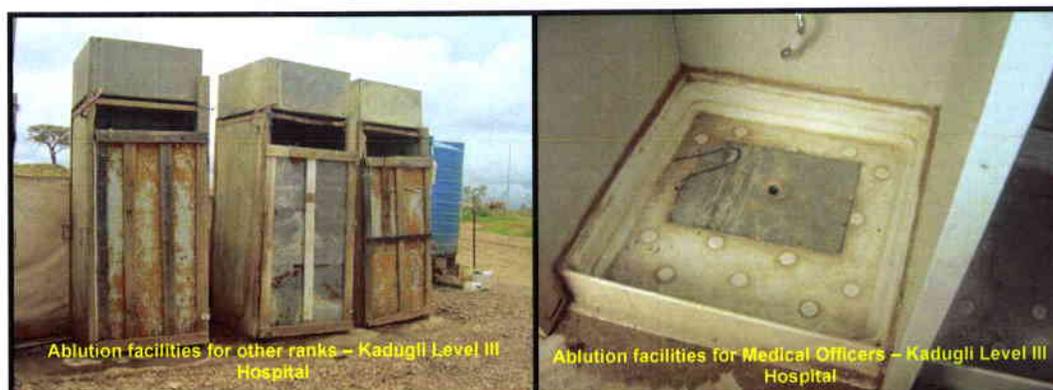
#### **Recommendation 5**

**(5) The UNMIS Division of Mission Support should develop a training plan for all UNMIS medical personnel, including military medical personnel, in accordance with the guidance provided in the Medical Support Manual for Peacekeeping Operations, which should cover mandatory continuing medical education on core medical skills.**

25. *UNMIS accepted recommendation 5 and stated that its medical section will develop a comprehensive training schedule for all mission medical staff to be reflected in the 2010/11 budget. Recommendation 5 remains open pending receipt of the training schedule.*

#### Support provided to military hospitals

26. OIOS' physical inspection of military hospitals found that the Mission had provided most of the required support, with a few exceptions such as the ablution facilities for other ranks of medical personnel in the Kadugli Level 3 hospital, resulting in improvisation by the contingents without ensuring proper



sanitation, such as an open septic hole. This has been covered in detail under a separate OIOS audit of environment management activities and waste disposal.

27. Improvements are also needed for the containerized accommodation at the same facility. OIOS observed water leaking from the roofs of the operating room, dining room, accommodation of medical personnel and office of the Commanding Medical Officer. The bathrooms are also in a deteriorated state and lacked running water due to a breakdown of the water pump. The TCC has already advised the Mission of this situation in June and July 2008. Similar ablution conditions were noted in the Juba Level 2 hospital and the Yei Forward Medical Team (FMT). The Mission is in the process of improving the accommodation and sanitary conditions at the Yei FMT.



28. Another area requiring improvement is the timely refilling of oxygen tanks which is critical for anesthesia and the intensive care unit. Delays of up to three months were noted in the refilling of oxygen tanks at the Kadugli Level 3 hospital.

#### **Recommendation 6**

**(6) The UNMIS Division of Mission Support should immediately conduct a physical inspection of all military hospitals in the Mission and address any health hazards and risks.**

29. *UNMIS accepted recommendation 6 and stated that its Field Medical Officer will form a team to visit the five military hospitals in theatre. Recommendation 6 remains open pending confirmation that a physical inspection has been conducted for all military hospitals and that any health hazards and risks have been addressed.*

#### Follow-up visits to military hospitals by civilian doctors

30. The Mission has prepared SOPs for collaboration between the military and civilian medical personnel, requiring civilian doctors to conduct follow-up visits for patients referred to military hospitals without interfering with the clinical management of such patients. OIOS however noted that this is not being enforced in some facilities, thereby necessitating the re-issue of instructions. No recommendation is made, but the Mission's attention is drawn to the need to enforce follow-up visits by civilian doctors.

#### Contracts with private hospitals

31. UNMIS has engaged four private hospitals (two Level 3 in Khartoum and two Level 4 in Nairobi) to provide higher level medical support for peacekeeping personnel. The not-to-exceed (NTE) amounts totaling \$2.2 million for the period from December 2004 to June 2010 are to cover the cost of treatment for serious illness of UNMIS personnel that do not subscribe to the UN medical insurance system. These include uniformed personnel who otherwise obtain services from military hospitals. The NTE also covers work-related injuries and entry medical examinations. OIOS found that two contractors have

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not signed the agreements, i.e., the Sahiroon Hospital for the period ending June 2008 and the Aga Khan Hospital for the period ending January 2009. In addition, the contract with the Sahiroon Hospital has not been renewed beyond June 2008. During the audit, the Procurement Section brought the issue of pending signatures to the attention of the Medical Section. The audit also noted that payments to these facilities (including those without valid contracts) have exceeded the total NTE amount by approximately \$900,000 suggesting the need for close contract monitoring.

#### **Recommendation 7**

**(7) The UNMIS Division of Mission Support should regularly monitor the not-to-exceed amounts and validity of contracts with private hospitals to ensure that the not-to-exceed amounts are not exceeded and that the contracts are up-to-date.**

32. *UNMIS accepted recommendation 7 and stated that its Medical Section, in conjunction with the Procurement Section, will set up a monitoring mechanism to take care of this task. Recommendation 7 remains open pending confirmation that the monitoring mechanism is in place and current contracts are valid.*

#### Effectiveness of disease prevention and health promotion programmes

33. Broadcasts by the Mission on malaria and other diseases prevention in August and September 2007 appear to have triggered a high rate of response toward obtaining prophylaxis and vaccination (9,015 in FY 2007/08). While the number of malaria cases treated is high (4,338 verified cases and 2,180 presumptive cases), the Mission has only experienced one fatality. This shows that current control measures and treatment are to some extent effective, though the following improvement measures could add value:

(a) Adequate stocking of mandatory and recommended vaccinations – all staff are expected to obtain mandatory vaccination prior to arrival in the Mission. However, the absence of a checking mechanism by the recruiting office to ensure immunization prior to travel has resulted in staff arriving in the Mission without the required immunization. This necessitates the stocking of mandatory and recommended vaccines including Hepatitis A, B and C, Meningitis Typhoid, Diphtheria, Rabies, Polio and Yellow Fever, which was lacking in some facilities.

(b) Improved vector control measures suited to the environment – overall vector control is the responsibility of the General Services Section. The Mission has taken control measures such as installation of insect screens in the windows of some office accommodation and in the regions; filling of water pools; grass management, except in the noted case of the Juba Tomping camp which had very tall grass at the time of the audit (which was also the malaria season). This is attributed to the lack of a heavy duty grass cutter/mowing machine for grounds maintenance of such a large compound. The audit also observed large

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packs of up to 30 stray dogs in the parking lot of the Mission Headquarters. While no cases of attacks or rabies have been reported, this remains a risk.

(c) Improved frequency and broad coverage of health promotion and education broadcasts to all UNMIS personnel – no broadcasts were issued on malaria prevention in 2008. Other problematic tropical diseases such as upper respiratory illnesses (5,765 cases treated in fiscal year 2007/08) and amoebiasis (842 cases treated in fiscal year 2007/08) also need to be addressed in educational broadcasts to all Mission personnel.

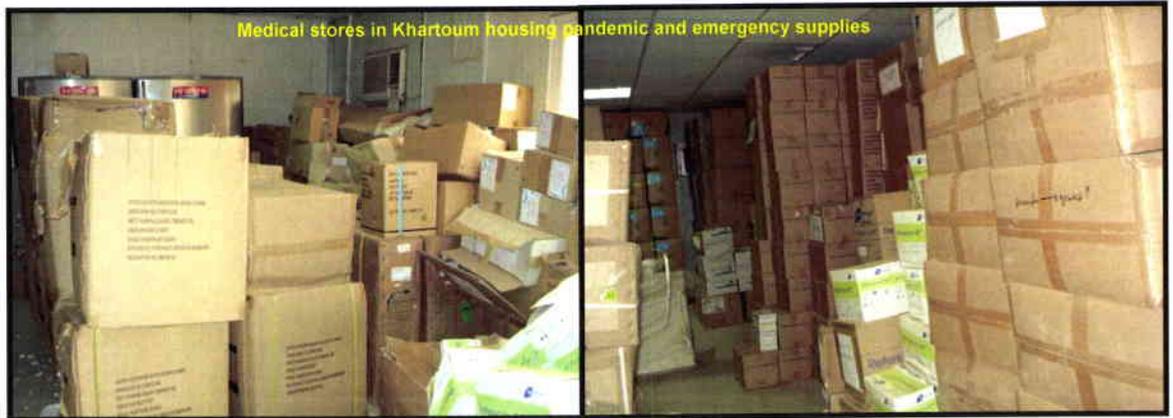
#### **Recommendation 8**

**(8) The UNMIS Division of Mission Support should establish a disease prevention and health promotion system that includes adequate stocking of mandatory and recommended vaccinations, appropriate vector control measures that are relevant to each operational environment and health education/information campaign through broadcasts to all UNMIS personnel.**

34. *UNMIS accepted recommendation 8 and stated that its Environmental Health Cell, though inadequately staffed, has been very active in public health advocacy programmes like the dissemination of health information through regular broadcast, first aid training for Mission personnel, collection of medical intelligence from the regions, monitoring and control of epidemic outbreaks, provision of medical support to GSS in vector control initiatives, environmental health assessment tasks, and the very successful Know Your Client programme by which medical staff visit the team sites on a regular basis to conduct health education and environmental health assessment.* Recommendation 8 remains open pending confirmation that the Mission has an adequate stock of mandatory and recommended vaccinations and receipt of documentation showing that health education has been provided on the tropical diseases mentioned in paragraph 33 (c).

#### Storage of emergency medical supplies

35. In response to a prior OIOS audit of compliance with pandemic planning and preparedness guidelines at UNMIS (AP2006/632/11), a draft plan has been prepared for the UN Country Team, indicating the necessary supplies and stocking levels. OIOS verified the Mission's overall pandemic stocks as well as physical inspection at selected facilities and found that the Mission has begun stocking the required supplies, but has yet to complete the exercise. However, in the event of an emergency, it would be difficult to obtain required supplies from the medical stores. The Mission does not have a dedicated storage for emergency supplies, resulting in consolidation of emergency and regular supplies and equipment in the same crowded space that is difficult to organize. There is a need for the Mission to segregate ordinary medical supplies from emergency stores and ensure proper organization and staffing of the storage facilities.



### Recommendation 9

**(9) The UNMIS Division of Mission Support should allocate a dedicated store for emergency medical supplies and equipment, and ensure proper organization and staffing of the storage facility.**

36. *UNMIS accepted recommendation 9 and stated that the Space Allocation Committee will determine the space during its next meeting. Recommendation 9 remains open pending confirmation that a dedicated store for emergency medical supplies and equipment has been allocated.*

#### Adequacy of medical equipment

37. A physical inspection conducted by OIOS found that generally the medical facilities were well equipped with military hospitals bringing additional equipment beyond the requirements of the Medical Support Manual. Some minor exceptions requiring improvement were however noted in the UNMIS Level 1 hospitals and the Yei FMT as indicated in Table 7. OIOS noted that this equipment was available in the Central Medical Stores in Khartoum. No recommendation is made, but the Mission's attention is requested to ensure the medical facilities are fully equipped to provide required services.

**Table 7: Medical equipment required in sampled UNMIS hospitals**

Missing equipment	Facility
<b>EMERGENCY ROOM MEDICAL EQUIPMENT</b>	
Electric/portable ventilator	Juba UNMIS Level 1 and Yei FMT
Defibrillator	Yei FMT
Intubation set	Juba UNMIS Level 1
Oxygen concentrator	Khartoum UNMIS Level 1
Chest-tube set	
Catheterization sets	
Nebulizer	Juba and Kadugli UNMIS Level 1

Missing equipment	Facility
<b>LABORATORY AND STERILIZATION SET</b>	
Microscope set	Kadugli UNMIS Level 1
Glucometer	
Urinalysis kit/urine dipstick	
Sterilization set (chemical)	Khartoum UNMIS Level 1
Autoclave portable	Kadugli UNMIS Level 1

#### Management of patient files

38. The Medical Section has a manual patient file management system, which is not properly organized to enable easy retrieval of medical records. OIOS reviewed 50 sample patient files in Khartoum, Juba and Kadugli UNMIS Level 1 facilities. Twelve of these files could not be located.

39. Chapter 9.01 of the Medical Support Manual requires all personnel to submit their health records to the medical authorities within the Mission. This should include a summary of significant medical history, current treatment (if any), known allergies, blood grouping and an updated international certificate of vaccination. OIOS review of sample files showed that while there were cases where some medical history existed, there was no standardized way of recording this across the visited facilities to ensure complete coverage of the required information. In addition, only Kadugli Level 1 had clearly indicated the blood grouping in all reviewed files. Of the 50 files reviewed, only one contained a certificate of vaccination. There is a need for the Mission to establish an organized and consistent system for ensuring complete medical history for UNMIS personnel.

#### **Recommendation 10**

**(10) The UNMIS Division of Mission Support should establish an organized filing system for the medical records of UNMIS personnel to allow for an easy file retrieval and management and ensure complete medical history of all UNMIS personnel.**

40. *UNMIS accepted recommendation 10 and stated that its medical section will work toward improving its filing system for patients' medical records. Recommendation 10 remains open pending confirmation that an improved filing system that ensures complete medical history of all UNMIS personnel is in place.*

#### Client satisfaction survey

41. OIOS conducted an online survey to determine the level of client satisfaction with UNMIS medical support and identify areas that need improvement. The feedback received has been incorporated in other audit tests conducted and has been addressed in the context of this report. OIOS would however like to draw the Mission's attention to the independent analysis of the survey results in Table 8, which indicate the specific areas of improvement

required. No recommendation is made, but the Mission's attention is drawn to the need for regular conduct of client satisfaction surveys to enable determination of effectiveness of services provided.

**Table 8: Analysis of OIOS survey on client satisfaction with UNMIS medical services**

Category	Rating (%)		Sample of salient comments received from UNMIS Personnel
<b>UNMIS hospitals (UNOE and COE) - 136 responses</b>			
Respect for patient privacy	Excellent	36%	(a) Evaluation in waiting room / open area (b) Visitors in the room during doctor's examination
	Adequate	54%	
	Poor	10%	
General Handling of patients	Excellent	32%	(a) Unprofessional doctors (smoking in waiting room) and national staff (b) Inefficiency / lack of timeliness in clinics (c) Lack of directions for further consultations (d) Inadequate explanations on diagnosis (e) Language barrier
	Adequate	55%	
	Poor	13%	
Unable to obtain treatment in facility due to unavailability of:	Equipment	11%	(a) Lack of laboratory, echo-cardio, MRI, dental, high level tests, malaria test, eye treatment, ENT, X-ray (b) Unavailability of lab technician (c) Limitations due to charges to Mission (d) Lack of anti fungal creams (e) No treatment after 3:30 p.m. (f) Lack of specialist (gynecology, ophthalmology) (g) National staff not referred to level 2 for operation
	Medicine	20%	
	24/7 Service	5%	
	Other services not available	23%	
	Referred to other facility to obtain lacking services	33%	
Received Expired drugs		1%	(a) Panadol, other pain killers/antibiotics, flagyl (b) Unknown expiry as medication is received in clear plastic
Unsuccessful in obtaining immunization		13%	The following vaccinations not available at time of visit: (a) Meningitis (b) Hepatitis (c) Yellow fever (d) Typhoid (e) Mosquito repellent (f) Vaccination not available for national staff
Medical file missing	Once	7%	No comments made
	Twice	3%	
	Thrice and more	0%	

Category	Rating (%)		Sample of salient comments received from UNMIS Personnel
<b>Contracted hospitals – 24 responses</b>			
Treatment not effective		33%	(a) Inadequate diagnosis (b) Inaccurate PSA results (c) Recurring pain
General Handling of patients	Excellent	8%	(a) Poor management (b) Lack of timeliness / inefficiency (c) Focused on charges rather than treatment
	Adequate	58%	
	Poor	25%	
Sanitary conditions in the Ward	Excellent	13%	(a) Ward - dirty room, beddings, bathroom (b) Electricity and water cuts (c) Over-crowding
	Adequate	42%	

Category	Rating (%)		Sample of salient comments received from UNMIS Personnel
	Poor	25%	(d) Operating theatre not well equipped / clean and patients are asked to purchase tools required for operation
Medical care for IN Patients	Excellent	13%	(a) Delays (b) No nurse bell
	Adequate Poor	42% 8%	(c) Language barrier (d) No bedside meal table (must bring a colleague to provide nursing services)

## V. ACKNOWLEDGEMENT

42. We wish to express our appreciation to the Management and staff of UNMIS for the assistance and cooperation extended to the auditors during this assignment.

## STATUS OF AUDIT RECOMMENDATIONS

Recom. no.	Recommendation	Risk category	Risk rating	C/O <sup>1</sup>	Actions needed to close recommendation	Implementation date <sup>2</sup>
1	The UNMIS Division of Mission Support should, in collaboration with the Medical Support Division and the Logistics Support Division at UN Headquarters, restructure its medical support system to ensure optimal and cost-effective utilization of medical resources, which could result in a possible savings of approximately \$7 million.	Strategy	High	O	Further review of the UNMIS medical set-up and the impact of higher level hospitals (Level 2) on the structure of co-located units.	
2	The UNMIS Division of Mission Support should compute the cost of medical services provided to the UN agencies, and in collaboration with the Medical Support Division at UN Headquarters, arrange with them the modalities of providing medical services to their staff and modalities for either the reimbursement of the costs of medical services provided or the allocation of a portion of their budget to UNMIS.	Strategy	High	O	Confirmation that the agreement with the UN Country Team has been finalized and implemented.	December 2009
3	The UNMIS Division of Mission Support should bring to the attention of the Medical Support Division at UN Headquarters the additional equipment provided by Troop Contributing Countries for improved diagnosis and treatment, with a view to updating the Medical Support Manual and Memorandum of Agreement with Troop Contributing Countries.	Governance	High	O	Receipt of the revised UN Medical Support Manual.	According to UN Headquarters MSS and ASD.
4	The UNMIS Division of Mission Support should compile all standard operating procedures (SOPs) into a one comprehensive set of SOPs for medical	Governance	Medium	O	Confirmation that the updated SOPs have been availed to all medical personnel in the Mission.	November 2009

Recom. no.	Recommendation	Risk category	Risk rating	C/O <sub>1</sub>	Actions needed to close recommendation	Implementation date <sup>2</sup>
5	services and ensure that this is disseminated to all medical personnel. The UNMIS Division of Mission Support should develop a training plan for all UNMIS medical personnel, including military medical personnel, in accordance with the guidance provided in the Medical Support Manual for Peacekeeping Operations, which should cover mandatory continuing medical education on core medical skills.	Human resources	Medium	O	Receipt of the training schedule.	November 2009
6	The UNMIS Division of Mission Support should immediately conduct a physical inspection of all military hospitals in the Mission and address any health hazards and risks.	Operational	High	O	Confirmation that a physical inspection has been conducted for all military hospitals and any health hazards and risks have been addressed.	June 2009
7	The UNMIS Division of Mission Support should regularly monitor the not-to-exceed amounts and validity of contracts with private hospitals to ensure that the not-to-exceed amounts are not exceeded and that the contracts are up-to-date.	Compliance	High	O	Confirmation that the monitoring mechanism is in place and current contracts are valid.	Should be 'on-going' by June 2009
8	The UNMIS Division of Mission Support should establish a disease prevention and health promotion system that includes adequate stocking of mandatory and recommended vaccinations, appropriate vector control measures that are relevant to each operational environment and health education/information campaign through broadcasts to all UNMIS personnel.	Operational	Medium	O	Confirmation that the Mission has an adequate stock of mandatory and recommended vaccinations and receipt of documentary evidence that health education has been provided on the tropical diseases mentioned in paragraph 24 (c).	
9	The UNMIS Division of Mission Support should allocate a dedicated store for emergency medical supplies and equipment, and ensure proper organization and staffing of the storage facility.	Operational	Medium	O	Confirmation that a dedicated store for emergency medical supplies and equipment has been allocated.	March 2009

Recom. no.	Recommendation	Risk category	Risk rating	C/O <sup>1</sup>	Actions needed to close recommendation	Implementation date <sup>2</sup>
10	The UNMIS Division of Mission Support should establish an organized filing system for the medical records of UNMIS personnel to allow for an easy file retrieval and management and ensure complete medical history of all UNMIS personnel.	Information resources	Medium	O	Confirmation that an improved filing system that ensures complete medical history of all UNMIS personnel is in place.	July 2009

<sup>1</sup> C = closed, O = open

<sup>2</sup> Date provided by UNMIS in response to recommendations