PERFORMANCE AUDIT REPORT

MINISTRY OF HEALTH AND SOCIAL WELFARE

STORAGE AND DISTRIBUTION OF DRUGS BY CENTRAL MEDICAL STORE

June 2018

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List of Acronyms

CMS	Central Medical Store
DMS	Divisional Medical Store
DOSH&SW	Department of State for Health & Social Welfare
DOHS	Directorate of Health Services
EFSTH	Edward Francis Small Teaching Hospital
GoTG	Government of The Gambia
LMIS	Logistic Management Information System
MOH&SW	Ministry of Health and Social Welfare
MOU	Memorandum of Understanding
NPS	National Pharmaceuticals Services
NGO	Non-Governmental Organization
NAO	National Audit Office
OIC	Officer in Charge
RCH	Reproductive Child Health
RHD	Regional Health Directorate
RHT	Regional Health Team
RMS	Regional Medical Store
SOP	Standard Operating Procedures
SDG	Sustainable Development Goal
UNICEF	United Nation Child Fund
UNDP	United Nation Development Programme
WHO	World Health Organization
WB	World Bank

Foreword

The Central Medical Stores (CMS) is a unit under the Ministry of Health and Social Welfare charged with the responsibility of the storage and distribution of drugs procured by the Government of The Gambia. The Ministry has setup a procurement team, which include personnel of CMS to provide technical advice on type and quantity of drugs to be procured.

The unit is also responsible for engagement with international partners and donors of health commodities; they are responsible for preparing and sending list of the drugs needed by the country on yearly basis and receipt, storage and distribution of drugs to health facilities.

The unit is also responsible for receiving or rejecting on behalf of the government, unsolicited medical donation by philanthropists and local donor agencies, based on the drug donation guidelines.

As the unit responsible for ensuring that drugs are accessible and available in the public health facilities across the country, the Central Medical Stores monitors and supervises the distribution activities of the divisional medical stores, the storage activities of all the hospitals and health centres to ensure that the inventory management system is functioning properly and to avoid interruption in medical supplies.

Conclusion

There are very significant gaps in the storage, management and distribution of drugs which needed to be closed to ensure the availability of appropriate drugs at the points of delivery at all times. The poor management of drugs leading to reduced potency could cause unforeseen medical problems with costly consequences for the country.

There is a general lack of supervision of storage facilities and distribution network to ensure and effective and efficient drug supply network.

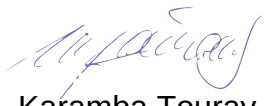
The CMS could not demonstrate that it has effective control over the storage and distribution of drugs.

There is a very good chance that expired drugs could be reintroduced into the system as drug destruction guidelines are not followed.

We have made recommendations to help improve the receipt, storage, management and distribution of drugs at the CMS and divisional, hospital and other health facilities.

My office intends to carry out a follow – up at an appropriate time in future regarding actions taken in relation to the recommendations in this report.

I would like to thank my staff who undertook this audit. I would also like to thank the staff of the Ministry of Health & Social Welfare, CMS and Divisional Health Centres for the assistance offered to my staff during the period of the audit.



Karamba Touray
Auditor General

EXECUTIVE SUMMARY

Background

About 85%[1] of the population of the Gambia, mostly those in middle-income bracket and below, rely on public health facilities. As such, the provision of quality health service which includes availability of essential medicines is of great importance to the Gambian People.

The importance of availability of drugs to the wellbeing of Gambian citizens cannot be over emphasized as it is critical towards the attainment of positive health outcomes in the Gambia. As part of the Ministry's endeavours to strengthen the health sector of the Gambia, the sustainable development goals (SDG 3) was localized and adopted in November 2015 with the aim of ensuring healthy lives and promotion of wellbeing for all.

The provision of quality health care has been one of the heartbeats of the Gambia government over the years; as a result, a significant percentage of the health budget is directed towards the procurement of medicines which is also complemented by donor funded drugs that consist of more than 60%[2] of the drugs used in public health facilities.

Motivation

During the period under review, the government of the Gambia and its international partners (Global fund, UNFPA, UNICEF, World Bank etc.) have made momentous efforts and developments to improve the health sector to which the availability of essential medicines is key.

The health sector is the second largest sector in the Gambia attracting more than 5%[3] of the national budget every year. Significant amount of this is invested in the procurement of essential medicines. Furthermore, review of the health budget and medicines from donor agencies revealed that over GMD 797 million has been injected in the procurement of essential medicine during the period under review (2014, 2015, 2016, and 2017).

[1] Reported by the World Bank in 2013.
[2] Meeting minutes with the management of CMS dated 13th July 2017
[3] As per the budget allocation : ***see Appendix a***

In the strive to increase the availability of drugs in public health facilities, National Pharmaceuticals Service (NPS) which contained Central Medical Store was established as a directorate under the MOH&SW in 2015 to spearhead the supply chain management of pharmaceuticals in the Gambia in collaboration with regional or divisional medical stores and the health facilities.

However, despite all these efforts and developments, the availability of essential medicines in public health facilities is still a challenge and as a result there has been a public outcry[4] regarding the shortages of drugs in public health facilities which have prompted some citizens to utilize private hospitals and pharmacies where they are charged exorbitantly to have access to better health care services. The average citizens who cannot afford medicines/ drugs from private health facilities do suffer from serious health complications which sometimes lead to loss of lives.

As such, the audit was geared towards assessing the efficiency and effectiveness with which the MoH&SW (through CMS) is storing and distributing drugs to the health facilities and also to investigate the causes of the unavailability of drugs in the health facilities.

Key findings:

In general, the audit revealed that, the availability of essential medicines in the public health facilities is hindered to a large extent by the weakness in the collaboration of the key players of the supply chain management, weak inventory control systems, and non-pharmacy personnel managing the drugs.

Lack of collaboration between the key players of the supply chain management.

- Collaboration and coordination between the three key players (CMS, DMS and health facilities) was lacking greatly as efforts of the players are not synchronized and each player appears to be operating independently.
- There is no platform whereby all the key players of the supply chain management will be invited on a regular basis to discuss strategies, tactics and challenges of the supply chain management.

[4] http://thepoint.gm/africa/gambia/article/shortage-of-medicines-soon-be-history

Non-pharmacy personnel managing drugs and drug stores at the level of the health facilities

- The drug stores and pharmaceuticals are managed by nurses who have little or no training in the management of pharmaceuticals.
- There is no segregation of duties and the management of the drugs are hindered as it is secondary to the duties of the nurses.

Weaknesses in the provision of technical support to the health facilities.

Irregular supervisions and monitoring at the level of CMS

- Activities of some health facilities have not been supervised and monitored for more than three years.
- There are no formal feedbacks or reports documenting the discrepancies found during supervision and action points in bridging those gaps.

Absence of guidelines at the level of the health facilities

- Guidelines/Manuals and regulations relating to storage and distribution of pharmaceuticals are not made available at the DMSs and health facilities,
- Poor circulation system of guidelines and regulations to DMSs and health facilities.

Weaknesses in the inventory control system of drugs

- Some of the drugs received by the health centres are not accounted for in tally cards i.e. are not added to drugs/stock on hand.
- In some health centres drugs were tampered (stolen) from the shelves and instead of following the protocols of accounting for the missing drugs, the drugs were recorded in tally cards and other records as if it was consumed in the system.

Destruction of expired and unusable drugs

The central medical store has not conducted drug destruction exercise for over five years and as a result expired drugs were found in health facilities stored within the useable drugs.

Weakness in the distribution channel from the DMS to the health centres

There are delays in the distribution of drugs to the health centres from the regional/divisional store as a result of the unavailability of distributing trucks at the level DMS.

Conclusion

a) CMS has failed in the provision of a structured platform where it would have been more relevant in supporting the other key players as well as monitor the progress of the supply chain management. This has hindered better performance and the realisation of essential goal of having drugs available at the health facilities at all times

b) Management of drug stores by non-pharmacist has exposed the drugs to risk of pilferages and misappropriations as they are managed by the same individuals who are supposed to monitor the drug stores at the level of the health facilities.

c) It has been concluded with the evidence that, CMS failed to regularly supervise the health facilities, as seen in the findings that some health facilities have not been visited for years. The supply chain management at the level of the health facilities lacks a vigilant external eye (CMS) looking at their operations (storage and distribution). This in general puts the entire supply chain management at risk as the system depends on the functionality of all the players, thus the supervisions were supposed to confirm and ensure that all the players are functional and that the goal of availing drugs to the citizens are met.

d) It was concluded that the controls that are in place for the accountability of drugs are weak, as revealed through interviews that the drugs got missing from the shelves and were accounted in the tally cards as if they were consumed in the system and as revealed by the spot checks that drugs are received without being accounted for in tally cards. This creates access for pilferages and mismanagement of drugs/medicines.

e) Absence of destruction of drugs at CMS for over 8 years has forced the health facilities to store the expired drugs within useable drugs. This may affect the drugs as well as the officers handling the drugs as they inhale chemicals that are inimical

to human health. Moreover, these expired drugs may be circulated in the system and could cause serious health complications.

f) It was clear that ambulances are used for the collection of supplies from the DMS/RMS, as a result the timely deliveries of medical supplies are affected as the ambulances are used for other activities of the health facilities. It was also concluded that this poses serious risk to patience, as referrals may be eminent whiles the ambulance is away to collect medical supplies.

Recommendation

a) CMS in collaboration with the MOH&SW should consider creating a platform or a forum where all the key players will be involved in the planning and execution of the supply chain management with the leadership of the central medical store, and to ensure that strategies are developed to tackle pertinent issues and strengthened the system. CMS must ensure that lessons are drawn for improvement and those measures are put in place will seek to ensure that drugs are readily available at the health facilities for the wellbeing of the citizens.

b) The MOH&SW in collaboration with CMS should consider providing continuous on the job training for the staff handlings drugs but should also consider recruiting more pharmacy personnel to be posted in health centres, this improve the management of drugs, ensuring that drugs are provided with the necessary management techniques. Furthermore, the MOH&SW through the regional health directorate should reaffirm the condition of the stores being managed by the OIC alone to protect the medicines/drugs from pilferages and mismanagement.

c) For the functionality of the supply chain management, CMS should endeavour to be regular (quarterly) on the supervisions of the health facilities across the country, as the exclusion of any health facility affects the services delivered to the citizens accessing that particular health facility. The guidelines developed at the of CMS should to made available in all the health facilities and should be ensured that they are adhered to

d) The management of CMS should ensure that proper accountability measures are put in place to see to it that the access of pilferage is eliminated. Spot checks and

other accountability tests should be conducted during unannounced visits and if discrepancies are found it must be addressed scrupulously. The consumption data submitted by the health facilities should be verified to ascertain whether it matches the consumption pattern of that particular health facility as this ensures that drugs are not diverted and recorded as if it was consumed in the system.

e) The Ministry should facilitate the destruction of the expired drugs at CMS combined with all the other expired drugs at the health facilities. They should consider adopting the best practice of destroying expired drugs in every two years.

f) The management of CMS, DMS and the Ministry should consider using the pickups that are at the disposals of the RHDs to deliver supplies as the audit revealed that there are pickups in road worthy conditions available in all the RHDs. In other to be effective and efficient, the RHD/DMS should consider supplying the health facilities on a monthly basis instead of bi-monthly, as they go on trekking (supervisions) the supplies of the health centres could be taken along.

CHAPTER 1: INTRODUCTION

1.1 Background of the audit

The Ministry of Health and Social Welfare (MOH&SW) was established by the constitution of the Gambia in 1965. It is responsible for the development and implementation of health programs, policies, strategies, and plans through its directorates with the objective of providing quality health care services to the citizens of the Gambia. As part of the Ministry's endeavours to strengthen the health sector of the Gambia, the sustainable development goals (SDG 3) was localized and adopted in November 2015 with the aim of ensuring healthy lives and promotion of wellbeing for all.

Among other things, the availability of essential medicines is critical to provide quality health care service. Significant percentage of the health sector budget is directed towards the procurement of medicines annually. The efforts of the Ministry in the provision of uninterrupted medical supplies is complemented by donors like WHO, UNICEF, UNFPA, and Global-fund who contributes more than 60% of the drugs/medicines in the supply chain management of the Gambia.

However, shortages of drugs in public health facilities has been a major concern for the MOH&SW since 2012[5] and this has been attributed to insufficient budget allocation and weak logistic system in the National Health Policy 2012 – 2020. This is still an on-going concern as a result of which we deem it necessary to conduct an audit in the storage and distribution of drugs by central medical store (CMS).

CMS is the unit tasked with the responsibility of availing drugs to the citizens of the Gambia via hospitals and health centres. CMS collaborates with the divisional / regional medical stores and the health facilities to ensure that the supply chain management functions smoothly and to ensure that the drugs are reaching the patients as required.

The unit is now under the National Pharmaceuticals Services (NPS) which was under the Directorate of Health Services at the Ministry of Health and Social Welfare (MOH&SW) until 2015 when the NPS became a Directorate on its own. It was established through [6] reforms in the health sector in 1975, with the aim of improving the accessibility of drugs in public health facilities in the Gambia and complementing the significant objective of the Ministry.

[5] National Health Policy 2012 - 2020
[6] Interview with the Director of CMS 11th July,2017

As mentioned above, the availability of drugs is paramount in the health sector of the Gambia as majority of the Gambian people depend on the drugs/medicines from the public health facilities as drugs from private clinics or pharmacies are not affordable.

1.2 Audit Objectives

The objective of the audit is to assess whether the central medical store is efficiently and effectively storing and distributing drugs to the health facilities and to assess the controls that are in place to protect the drugs.

1.3 Audit question

The audit questions are designed to inform the audit objective.

1.3.1 Overall audit question

To what extent are drugs effectively and efficiently stored and distributed to the health facilities.

1.3.2 Specific audit question

- To what extent are the officers handling the drugs qualified/trained
- To what extent are regulations and guidelines available in the supply chain management
- What control measures (inventory and internal) are put in place to protect the drugs
- To what extent are transportation means available for the timely deliveries of drugs
- To what extend are the other key players of the supply chain management coordinated to ensure that there are no breaks in the supply chain management

1.4 Assessment Criteria

The storage and distribution (the supply chain management of public pharmaceutical) was assessed against the mandate of CMS coupled with the policies and regulations guiding the storage and distribution activities. See ***appendix B*** for the criteria used.

Sources of Assessment Criteria

- Standard Operating Procedures (SOP)
- WHO Guideline on the storage and distribution of drugs
- Interview with the management of CMS

- The Gambia National Drug Policy

1.4 Motivation

About 85%[7] of the Gambian population, mostly those in the middle-income bracket and below, rely on public health facilities. As such, the provision of quality health service which includes the availability of essential medicines is of great importance.

Moreover, the provision of quality health care has been one of the heartbeats of the Gambia government over the years, as a result of which the health sector attracts more than 5% of the budget allocation every year and is the second largest sector. The activities of the health sector are geared towards the provision of quality health care service delivery, which is accessible, affordable and reliable to the entire population, as such the availability of drugs in all health facilities is a key contributor to the attainment of quality health care services in the Gambia.

In the strive to increase the reliability and availability of essential medicines in public health facilities, numerous government documents like National Health Policies, Strategies, Sustainable Develop Goals (SDG 3) and others have been adopted, all of which emphasized and highlighted the management of pharmaceuticals as one of the key areas of the health sector.

In addition, review of the Health budget revealed that during the period under review (2014, 2015, 2016 and 2017) the Ministry allocated up to GMD315 million for the procurement and management of drugs/medicines. In addition to that the Ministry also received donor funded drugs from partners like WHO, UNICEF, UNFPA and Global Fund amounting to GMD482, 280,604.4.

However, despite all these efforts and developments, the availability of essential medicines in public health facilities is still a challenge and as a result there has been a public outcry regarding the shortages of drugs in public health facilities which have prompted some citizens to utilize private hospitals and pharmacies where they are charged exorbitantly[8]. This has led to serious health complications and loss of lives for some citizens who could not have afforded medicines /drugs from private health facilities.

[7] Reported by the World Bank in 2013.
[8] http://thepoint.gm/africa/gambia/article/shortage-of-medicines-soon-be-history

CHAPTER 2: DESIGN OF THE AUDIT

2.1 Audit Scope

The audit covered the Storage and Distribution of Drugs by the Central Medical Store and extended to the 7 DMS 4 hospitals and 26 health centres across the country[9]. It covered the period January 2014 to December 2017

2.2 Audit Methodology

We conducted interviews, site visits (physical verification) and carried out documentary reviews to be able to understand the storage and distribution (supply chain) system put in place by the Central Medical Store. A survey was also conducted to verify the public outcry regarding the shortages of drugs in the public health facilities. Spot checks of drugs supplied and quantity received between the DMS and health centres was also conducted. Researches were also conducted from the internet and other published books to obtain information regarding international standards and regulations pertaining to drug storage and distribution[10].

2.2.1 Document review

We reviewed international and national documents related to storage and distribution of drugs. The purpose of reviewing such documents was to facilitate a sound understanding of the managerial system, standards, regulations and other guidelines used to meet the objectives of quality storage and uninterrupted distribution of medical commodities. Details of the documents review and purpose of reviewing is shown in ***Appendix d***.

2.2.2. Interview/Discussions

We held discussions with seventy-one (71) staff at the Central Medical Store, Divisional/Regional Medical Stores, and Health facilities visited. These interviews and discussions were conducted at all the seven (7) divisional/regional stores, six (4) hospitals out of six (6) and twenty (20) health centres out of fifty-one (51). A random sampling method was used in the selection of hospitals and health centres that were

[9] See ***Appendix c*** for facilities that the audit covered

[10] Websites of WHO and UNICEF (Documents like Guide to good storage practices for pharmaceuticals by WHO, 2003 and Storage Guideline Dec 2003 by UNICEF were retrieved)

visited, the random sampling was conducted in a manner that each health facility had an equal chance of being selected from each region. This was done to eliminate bias selections.

The interviews and discussions were geared towards understanding the supply chain management from the inception to the delivery points and to also ascertain whether the activities of supply chain management are uniform across the country.

Table 1**:** Showing the statistics of the staff discussions held.

Designation	**Institution**	**No. of staff discussions held with**
Permanent Secretary	Ministry of Health and Social Welfare	1
Deputy Permanent Secretary	Ministry of Health and Social Welfare	1
Director of Pharmaceutical Services	Central Medical Store	1
Deputy Director of Pharmaceutical Services	Central Medical Store	1
Logistic Manager	Central Medical Store	1
Logistic Management Information System (LMIS) Manager	Central Medical Store	1
Pharmacist / Store Keepers	Central Medical Store	3
Pharmacist, Public health officers, Store keepers, Administrators	***Divisional / Divisional stores*** Essau, Farafenni, Bansang, Mansakonko, Brikama, Basse and Kanifing	21
Pharmacist, Store keepers, officers in charge, nurses	***Health Centres***: Albreda, Kerewan, Njaba Kunda, Chamen, Janjanbureh, Basse, Yorobawol, Fatoto, Koina ,Dankunku ,Kiaf ,Kiang Karantaba ,Sintet , Brikama ,Gunjur , Fajikunda , Sallykenye, and Brufut,	28
Pharmacist / Store Keepers	***Hospitals:*** Farefenni , Bwiam , EFSTH , Serre-Kunda	13
Total		**71**

2.2.3 Site Visit (physical verification)

We visited the main store of the Central Medical Store at kotu where the supply chain begins and we also visited Four (4) hospitals that receive supplies directly from the central medical store. All the seven (7) Divisional Medical Stores and twenty (20) health centres to obtain first-hand information on how drugs are stored and handled at the level of the health facilities. ***See Appendix c*** for health facilities visited.

2.2.4 Survey

A Survey was conducted at the level of the health facilities to ascertain first-hand information regarding the public outcry on the shortages of drugs in public health facilities. Seven (7) health facilities were randomly selected across all the regions, and at least five patients were selected in each of the selected health facilities.

At that point, the team was stationed at the pharmacies of the health facilities where we had access to the prescription pads of patients to ascertain the percentage of the patients that went home without all the drugs that were prescribed to them. After the case study exercise at the level of the health facilities, the unavailable drugs were highlighted and bought to the attention of central medical store and the regional/divisional medical stores to find out why they were not available at the level of the health facilities. ***See Appendix E*** for result of the survey.

2.2.5 Spot Checks/Inspections on the accountability of drug supplies

Spots checks were conducted between the DMS and the health centres, the audit team selected seven (7) essential drugs from the essential drug list and selected ten (10) health centres across all the regions to ascertained whether the quantity that was supplied from the DMS tallies with the amount that was received and accounted for at the level of the health facilities. This was done to determine whether the quantity of drugs supplied to the health centres are actually accounted for. See ***Appendix F*** for result of the spot check.

CHAPTER 3: DESCRIPTION OF THE AUDIT AREA

3.1 Background of the Auditee

The Ministry of Health and Social Welfare (MOH&SW) was established by the 1965 constitution of the Gambia. The Ministry is responsible for the provision of health care delivery to the people of The Gambia and this involves the planning, implementation, monitoring, and performance assessment of health programs and services. The functions and activities of the Ministry are carried out by various directorates. As such the National Pharmaceuticals Services is the directorate under the MOH&SW that handles the supply chain management of pharmaceuticals in the public sector. The directorate is headed by a Director who is responsible of the day to day operations of the unit and reports directly to the Permanent Secretary at the Ministry of Health and Social Welfare (MOH&SW).[11]

The Central Medical Store is the unit under the directorate of pharmaceuticals responsible of the management of pharmaceuticals. CMS through the drug quantification exercise and the LMIS determines the quantity of medicines that is needed for consumption in the public sector on a yearly basis and submits it to the MoH&SW who decides on the final procurement list based on the available budget.
As the leader and coordinator of the supply chain management, CMS is also in charge of developing guidelines and regulations for the supply chain management for the guidance of the players in the system.

Furthermore, CMS is also responsible for the supervision and monitoring of the other players of the supply chain management (DMS and Health facilities). It is mandated to render technical advice on the storage and distribution of medical products and also guarantees that the availability of safe and efficacious drugs.

Central medical store is also responsible for corresponding with international donors of health commodities in the health sector; they are in charge with preparing and sending list of the drugs needed (the difference that the Ministry's budget can't cover) by the country on a yearly basis as requested by donor partners. The unit is further tasked with the responsibilities of receiving the requested drugs for storage and distribution to health facilities.

Furthermore, central medical store on a limited basis also receives donations from philanthropists and local donor agencies on behalf of the country. They are responsible

[11] See organizational structure of the MOH&SW in ***Appendix H***

for approving what drugs to be received or rejected based on the drug donation guidelines.

In a nutshell, the primary responsibility of the central medical store is to ensure that drugs are accessible and available in the public health facilities across the country at all times and as such monitoring and supervisions is a key function of CMS in ensuring that there are no interruptions in the supply chain management.

3.1.1 Vision[12]

The vision of the MOH&SW is to provide quality and affordable Health Services for all by 2020 of which the services of CMS are meant to complement.

3.1.2 Mission[13]

The mission of the MOH&SW is to promote and protect the health of the population through the equitable provision of quality health care

3.1.3 Specific Objectives of the Central Medical Store[14]

- To ensure available and affordable essential medicines that are safe, efficacious and of the required quality
- To ensure availability of consumption data on medicines and other medical products
- To increase access to quality pharmaceutical, laboratory, radiology and blood transfusion services to all by 2020
- To improve infrastructure and logistics requirements of the public health system for quality health care delivery

3.1.4 The activities carried out by the Central Medical Store (CMS) [15]

The Central Medical Store carries out the following activities

- Participate in the procurement process of drugs;

[12] National Health Strategy and Plan 2014 - 2020
[13] National Health Strategy and Plan 2014 - 2020
[14] National Health Strategy and Plan 2014 - 2020 and National Health Policy 2012 - 2020
[15] Standard Operating Procedures (SOP) Section1 Page1

- Receive drugs on behalf of the Ministry of Health and Social Welfare and stored them in accordance with the Gambia Standard Operating Procedures on drug storage and distribution and the international storage regulation by WHO.
- Supervise and monitors the entire supply chain.
- Ensure uninterrupted distribution of all medical commodities in the public health sector thereby ensuring that the entire population can have access to health commodities.
- Policy formulation and implementation in the health sector thus rendering technical advice to the players of the supply chain management and Ministry at large.

3.1.5 The Organizational Structure of the Central Medical Store

The diagram attached shows the overall management structure of the Central Medical Store (CMS) in the Gambia. See ***Appendix H.***

3.1.6 Central Medical Store Funding

The Central Medical Store is under the National Pharmaceutical Service (NPS) which is a Directorate under the MOH&SW. Therefore, the activities of the central medical store are being funded by MOH&SW through the NPS. During the period under review, the budget allocations for drugs amounted to D315, 000,000 (three hundred and fifteen million dalasi) as detailed in the table below.

Discussion with the Management of CMS revealed that the majority of the drugs consumed in the Gambia are from international donor partners like UNICEF, UNDP, Global Fund, WHO and World bank which sum up to D482, 280,604.4 (Four hundred and eighty-two million, two hundred and eighty thousand, six hundred and four dalasi, forty bututs) .This figure also excludes the unsolicited donations from philanthropists and other local organizations, as the worth of these drugs are not declared by the donors.

Table 2: showing budget allocations for drugs and values of donated drugs during the period under review[16]

Year / Source	2014 (D)	2015 (D)	2016 (D)	2017 (D)	Grand Total (D)
Government contribution	40,000,000	75,000,000	100,000,000	100,000,000	
Donor contribution	131,765,637.6	109,800,321.2	123,933,057.6	116,781,588	482,280,604.4
Total	**171,765,637.6**	**174,800,321.2**	**223,933,057.6**	**216,781,588**	**797,280,604.4**

The above table shows that the budget allocations for drug procurement has been increasing yearly during the period under review and shows the donor contribution towards increasing the availability of drugs in the public health facilities. The increase in the budget allocations are as a result of the increasing consumption as the population increased over time.

3.2 Systems and Process Description

3.2.1 Roles and Responsibilities of Key Players

Table 3: Showing stakeholders and their responsibilities

No	Stake Holders (Institution)	Responsibilities
1	MOH&SW	Responsible for overseeing the activities of the central medical store
2	Divisional Medical Stores/ Regional Medical Store	• Request and store drugs to be distributed to health centres within their various regions. • Distribute drugs to health centres • Supervise and monitor the storage systems of health centres • Receive unsolicited donations on behave of the health centres within their regions • Keep track of the consumption data of health centres within their various regions via the LMIS

[16] Source: Budget allocations by the MOFEA

3	Hospitals and Health centres	• Request drugs as at when needed • Store drugs in line with SOP • Dispense drugs to the patience • Keep records of drugs received and dispensed
4	International Donor Partners (Global Fund, UNICEF, UNDP, UNFPA, WHO, World Bank etc)	• Donation of drugs • Analysing consumption trend • Intervention on health emergency areas
5	Philanthropist and local donor agencies	• Donation of drugs and other health equipment
6	NGO organizations	• Donation of drugs

3.2.2 Process Description (Storage and Distribution by Central Medical Store)

The Ministry of Health and Social Welfare is responsible for the procurement of drugs and other medical products or commodities on behalf of the Government of the Gambia. A committee at the Ministry decides on the medical items to be procured through single sourcing until in April 2017 when the new government directed the Ministry to procure drugs based on international competitive bidding. Apart from the drugs procured by the MOH&SW, CMS also receives donated drugs and other medical items from international donor partners and philanthropist on behalf of the Gambia government.

All the medical supplies are received, sorted and stored by CMS for onwards distribution to the DMS' and health facilities. The processes and procedures are discussed below in details.

(a) Storage

When the drugs arrive in the country, it is received by the Logistic Manager and his team, who confirms the stock of drugs received to ensure that the ordered drugs are received in the right quantities and in useable conditions. This is done by offloading and displaying the received drugs at the check in bay where all supplies are verified by the logistic manager and his team through visual verification and physical counting to confirm that the ordered items are received accordingly.

Once the supplies are verified and confirmed, they are sorted out into their various storage requirements as different drugs require different handling and temperatures of storage (e.g. freezing, low or room temperatures) as prescribed by manufacturers. The sorted drugs (new inventories) are then recorded into the Tally cards and other stock keeping records and further inputted in the Logistic Management Information system (LMIS) to keep track of the medical supplies within the system.

There are four (4) types of stores at the Central Medical Store namely check in bay, dry store, cool room and freezing store for storing of the variety of drugs they receive. These stores are designed to meet the storage requirement of the drugs stored in them. The sorted drugs recorded in tally cards and LMIS are then packed in their various stores. In each of these stores, drugs are placed either on palettes or on shelves. Each of the stores is headed by a pharmacy technician who is responsible for the up keep of his/ her store and managing the inventories.

Drugs received at the Divisional Medical Stores, Hospitals, and Health Centers are recorded on tally cards. These tally cards are updated each time stock is received or issued out and at the level of the health centres the data entry clerks records the consumption data and send it to the DMS to be inputted in the LMIS.

As opposed to CMS' different types of stores for different types of drugs, the DMS' and health facilities are only availed with one general store for all the medical items. However, these stores are provided with air conditioners and fans to ensure that the drugs are not kept in a humid environment and the drugs that need to be kept cool or frozen are provided with fridges and freezers to ensure that their efficacies and potencies are not compromised.

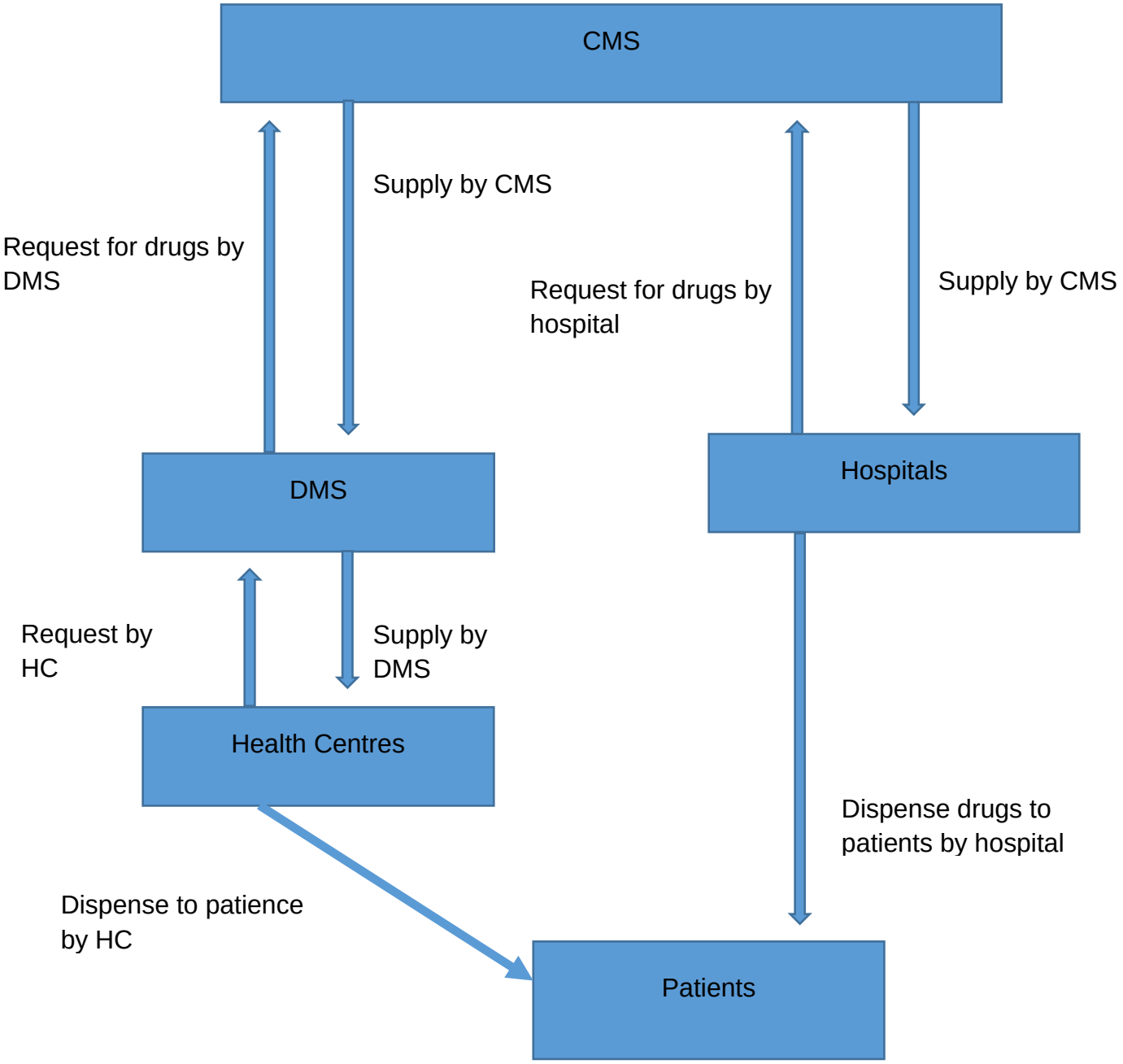
(b) Distribution

The distribution of the drugs to their final destination is another integral function of the central medical store. For the purpose of decentralization, the MOH&SW established drug stores at the level of the regional health directorates, as such the central medical store supplies the divisional/regional medical store and hospitals on a four-monthly basis and the DMS will also supply health centres on a bi-monthly basis. It is worth knowing that once the drugs are supplied to the DMS, the regional health directorate takes ownership of the supplies and therefore are responsible for the management of the drugs and ensures that the drugs get to the health centres accordingly. The

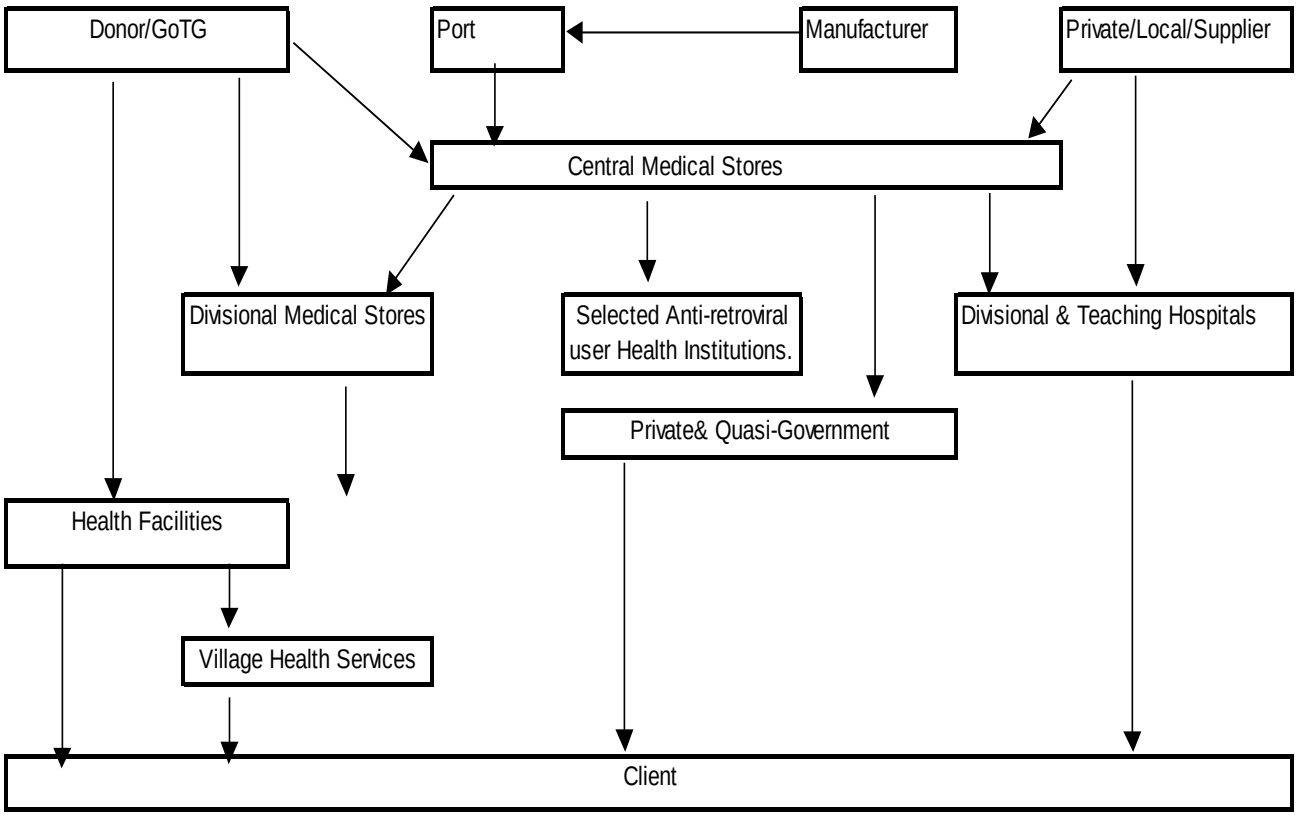
mandate of CMS regarding the management of the drugs ends when the supplies are delivered to the DMS but their supervision and monitoring responsibilities of ensuring that the drugs are managed accordingly and that drugs reaches to the citizens continues.

This process of distributing drugs only applies to the drugs procured by GoTG and the solicited donated drugs from international partners, the donations from philanthropist and other local organizations are taken directly to health facilities by the donors and CMS has no control over those drugs. The four-monthly supplies are delivered by CMS to DMS and hospitals. However supplementary supplies are collected by the requesting facility, this is similar in the case of the supplies to the health centres as they would use the ambulances of the health centre to collect supplies at any point in time. A diagram is drawn below to illustrate the supply chain management.[17]

[17] Source: Discussion with management of CMS


CMS
Supply by CMS
Request for drugs by DMS
Request for drugs by hospital
Supply by CMS
DMS
Hospitals
Request by HC
Supply by DMS
Health Centres
Dispense drugs to patients by hospital
Dispense to patience by HC
Patients

Picture: 1 showing the flow chart of drugs from the port to the patients[18]



[18] source: Standard operating procedures on drug storage and distribution 2010

CHAPTER 4: FINDINGS

This chapter highlights the findings that came to our attention during the course of the audit exercise.

4.1 Lack of Collaboration between the key players of the supply chain management.

The Supply Chain Management of the National Pharmaceutical Service consists of three key players, which are: CMS, DMS and the Health Facilities (Hospitals and Health Centres) and as such, For the supply chain management to function effectively, all the players involved must be willing to execute their duties accordingly as the weakness or failure of any of the players affects the whole system[19]*.*

During the audit, we noticed that the collaboration between these players was lacking greatly as-their efforts were not synchronized. CMS was unable to provide us with evidence of meetings with other players neither where we provided with evidence of formal feedbacks given to the players after supervisions and monitoring of the supply chain management.

A similar situation was unveiled at the level of the DMS, as reports of monthly supervisions and monitoring of the DMS are not shared with CMS which deprives CMS the opportunity to render technical support in the areas that the health centres are not performing. In this regard, we noted that there is no platform which is available for all the key players to converge and discuss challenges, strategies, tactics and ways in strengthening the supply chain management.

The management of CMS claimed that verbal feedbacks and supports are given to other key players of the supply chain on a quarterly basis but the feedbacks given are not usually implemented and same issues that affect the supply chain continue reoccurring. We were unable to substantiate these claims as nothing regarding this was documented.

Consequently, the supply chain management is weakened as a result of the poor collaboration between the players, as there are lapses and challenges faced by the supply chain management that could have been resolved if the collaboration between

[19] Discussions with the Management of CMS dated 16/03/18

the players were on-going. On the other hand, it limits the capacity of CMS in the area of rendering technical support as they are sometimes unaware of the challenges faced by other key players in making the drugs available to the end users.

Conclusion

CMS has failed in the provision of a structured platform where it would have been more relevant in supporting the other key players as well as monitor the progress of the supply chain management. This has hindered performance and the realisation of essential goal of having drugs available at the health facilities at all times

Recommendation

CMS in collaboration with the MOH&SW should consider creating a platform or a forum where all the key players will be involved in the planning and execution of the supply chain management with the leadership of the central medical store, and to ensure that strategies are developed to tackle pertinent issues and strengthened the system. CMS must ensure that lessons are drawn for improvement and those measures are put in place will seek to ensure that drugs are readily available at the health facilities for the wellbeing of the citizens.

CMS must ensure that written feeds back are provided to the centre or health facilities visited and/or supervised and monitored by the CMS and the DMS. This will serve as reference and guideline for implementation by the respective institution. This further creates follow up trail and ease monitoring.

The Regional Health Directorate should also provide CMS with the stock management information to enable the relevant adjustments to be made in LMIS data. This ensures that accurate data is kept at all times. DMS should report immediately the irregularities found at the facilities to CMS for corrective measures and appropriate technical advices and the way forward.

Management Response

There is a coordination platform, the Public Health Procurement and Supply Chain Management Committee (PHPSCCM) and the National Quantification Committee (NQC) both created in 2017.

Creating a more effective and efficient coordination platform requires:

1. *Commitment from both the MOH, CMS and major stakeholder (UNICEF, UNFPA, USAID etc)*
2. *Strengthening the NPS in terms of major stakeholders such as UNICEF, UNFPA involving NPS during their supply planning, and allowing NPS to develop a consolidated supply plan for easy monitoring and follow-up*

As part of the monitoring supervision, NPS administers a checklist that looks at various aspects of store management, including what is being done well and what needs improvement. A copy of this is always given to the facilities visited, in addition to the verbal feedback.

Auditor's Comments

It was revealed to the audit team in a meeting with the management of NPS that, at the time of the audit, there were on-going efforts to establish committees at the level of the Ministry which would involve senior officers from the Ministry, CMS, DMS and the health facilities. This is where strategies, tactics and concerns of the supply chain management would be discussed and resolved. However, this committee (s) were not functional at the time of the audit as there were no evidence of these platforms. We reiterate that as a result of the sensitivity of the supply chain system, it is crucial that all the players are on-board and on the same wave-length as the failure of any of the key players affects the entire system. The Ministry in collaboration with CMS should ensure that these platforms are established and functional.

4.2 Non-pharmacy personnel managing drugs and drug stores at the level of the health facilities

Discussions with the management of CMS revealed that, best practices would recommend that the pharmaceuticals are managed by officers with pharmacy backgrounds.

It's also amplified by the Gambia National Drug Policy page 2 section 1.2, *which states that: The Ministry of Health will train sufficient numbers of pharmacists, pharmacy technicians, pharmacy assistants and other relevant staff to ensure the effective functioning of the pharmaceutical services.*

It was revealed during the audit that 26 out of 51 health centres were without pharmacy personnel. The drug stores are managed by nurses whose primary responsibility is to attend and diagnose patients. In the 26 health centres that are without pharmacy personnel, the responsibility of drugs is shifted to any officer that is on duty, subjecting the accountability of the drugs to more than one individual.

The management of CMS revealed that capacity in the pharmacy system is one of the hindrances of the supply chain management and as a result of which the drugs are managed by officers that are not specialized in the field of pharmaceuticals. They further revealed that, a significant number of the nurses are given short trainings in the management of pharmaceuticals. However, it is not reasonable to believe that a short and infrequent training in the management of pharmaceuticals would ensure that drugs are managed accordingly.

Consequently, the management of the drugs and drug stores are lacking as they are managed by unqualified officers in the pharmaceutical field. Furthermore, this poses risk to the accountability and security of the drugs as the responsibility of the drugs is shifted to any officer/staff on duty, as such creates access for drugs to be pilfered and diverted elsewhere without being traced. ***See Appendix I*** for the distribution of pharmacy personnel in the health facilities.

Conclusion

CMS in collaboration with the MoH&SW has failed to provide the health facilities with qualified and required pharmacy personnel for management of the drugs. The trainings provided to the nurses handling the drugs are insufficient and infrequent to ensure that the drugs are managed accordingly.

Recommendation

The MOH&SW in collaboration with CMS should consider providing continuous on the job training for the staff handlings drugs but should also consider recruiting more pharmacy personnel to be posted in health centres, this improve the management of drugs, ensuring that drugs are provided with the necessary management techniques.

To address the immediate issue of accountability and to protect the medicines/drugs from pilferages and mismanagement, the MOH&SW through the regional health directorate should reaffirm the condition of the stores being managed by the OIC alone,

whereby the OICs will be the one responsible for store and therefore becomes accountable. This will enforce accountability and minimize the risk to pilferages. In ensuring the implementation of this vital store practices, strict disciplinary measures must be attached.

Management Response

"Pharmacy Background" is a very broad term. Within the supply chain, there are many players as there are many roles. There is therefore a need to differentiate professional responsibilities and basic supply chain responsibilities. For example, store management can be done by non-pharmaceutical personnel

Provision of qualified pharmacy personnel is not the responsibility of CMS or the National Pharmaceutical Services, rather it is the responsibility of the government through its education institutions. The National Pharmaceutical Services, together with partners do provide annual training on management of medicines, targeting those that will be managing the drugs at facilities as well stores.
In settings where there are insufficient numbers of trained pharmaceutical personnel task-Shifting may bridge the gap.

The Officer in Charge of a health facility has the responsibility of the overall functioning of that facility, including the pharmacy store. The responsibility is therefore not shifted to any officer on duty. Furthermore, whether there are trained pharmaceutical staff or not, health facilities are run on a shift basis, seven days a week, meaning it is inevitable for someone else other than the OIC to have access to the medicines. It is important to highlight pilferage or theft or medicines has nothing to do with whether the staff handling the medicines is trained or not, but rather the commitment and comportment, over which CMS has little control.

CMS however takes pilferage very seriously and deals with guilty staff accordingly and would like to highlight that it is not the norm, but rather few and far between. It is important to note that though nurses have other responsibilities, most are in fact performing very well with regards to supplies management

It is part of the National Medicines Policy to train Pharmacy Personnel. However, this may cannot be immediate given that training a pharmacist takes nothing less than 4 years and the domestic university does not train pharmacists.

The Ministry of Health and partners, through the implementation by National Pharmaceutical Services is currently training 20 Pharmacy technicians. Five pharmacist are being trained by the Government of the Gambia, through the Ministry of Health.

Auditor's comment

Section 3 of Chapter 45 of Managing Drug Store by WHO, dealing with Managing Access to Medicines and Health Technologies summarises that the nurses are responsible for monitoring the effect of drugs whiles the pharmacist is responsible for the storage and distribution of drugs (Management of the pharmacy), as such it is not reasonable to ensure that nurses would perform well in the management of pharmaceuticals as they are not sufficiently trained in the area and are also task with responsibilities in their areas. This is revealed by the audit as it was noticed that some key pharmacy protocols were neglected.

To strengthen the importance of pharmacies to be managed by the pharmacy personnel (pharmacist, pharmacy technician) only and in the case of the health centres in the Gambia, the officer in charge, WHO has recommended for "*An emergency after-hours drug room or large cabinet can also be effective. This container can be stocked with the type and amount of drugs the facility is expected to need that night. This system eliminates many unnecessary trips to the pharmacy. In either case, procedures must be developed to carefully document who enters the pharmacy and what drugs are removed. These records should be available to the pharmacist for review when the pharmacy reopens[20]".* It is worth noting that this is proving that it is extremely important for pharmacies to be managed by pharmacist and it's even recommending that the nurses should have limited access to the pharmacy. We acknowledge that it is not the responsibility of CMS to recruit pharmacists in the system; however, as the coordinator of the supply chain management, it is the responsibility of CMS to ensure that the drugs are managed by the right people as such they need to liaise with the MOH&SW to ensure that the qualified staffs are recruited.

[20] WHO , Hospital and Healthcare Security (Sixth Edition), 2015

4.3 Lapses in the provision of technical support to the health facilities.

CMS is responsible for supervising and providing technical support to the health facilities regarding the management of pharmaceuticals[21].

4.3.1 Irregular supervisions and monitoring at the level of CMS

National drugs policy section 2.5.2 *requires that National Pharmaceutical Services to carry out regular checks on the quality of stored drugs in the public and private sectors at all levels to ensure that they have not deteriorated under the storage conditions prevailing at each location.*

In addition, according to the Director of CMS, officials of the CMS are supposed to visit all the DMS, Hospitals and Health Centres across the country on a quarterly basis for supervision and monitoring.

The audit team noted lapses in the supervision and monitoring of the supply chain management as CMS was not conducting the supervision and monitoring functions as required. There were health facilities that were not visited for more than three years, it was difficult to establish the last time CMS visited some health facilities in the absence of evidence of their visits. However, officers in charge of the health facilities revealed that occasionally CMS will visit them if there are health programs to be implemented but it is rare for CMS to visit them purposely for supervision and monitoring of drug stores.

CMS claimed that some of the health centres are not visited quarterly because priorities are given to health centres with history of irregularities and health centres with high urgency/need for improvement. CMS further revealed that some of the health centres like Kiang Karantaba, Dankunku and Chamen are not visited frequently as a result of the poor road network and distance. However, all the health facilities are included in the budget for the quarterly visits and are also included in the activity plans of CMS on a yearly basis.

The mandate of supervising and monitoring does not exclude any public health facility, as the exclusion of any could lead to undesired outcomes in the supply chain management. The irregular supervisions and monitoring on the part of CMS has led to the occurrence of numerous discrepancies that affects the availability of drugs as these

[21] Discussions with management of CMS and MoH&SW

discrepancies could have been corrected if the supervisions were regular. ***See Appendix j*** for highlight of common discrepancies and last CMS visits to the health facilities.

Management Response

NPS recognises that ALL patients have equal rights to healthcare.

It is important to rectify that management at NPS did not state that "officials of the CMS visit all the DMS, Hospitals and Health Centres across the country on a quarterly basis for supervision and monitoring". Rather the management lamented the unfeasibility of being able to see all facilities at each visit. The monitoring and supervision visit budget (supported by partners) only caters for five days each quarter. It is impossible to see all health facilities within those five days. Priority is therefore given to those facilities that are high consumers i.e centres that consume almost 80% of supplies.

It is equally important to note that there are various factors (insufficient budgetary allocations, procurement bureaucracies, etc) leading to stock out of drugs, least of which is supervision trips

Auditor's comment

During the audit team's meeting with the management of CMS it was revealed that CMS is tasked with the responsibility of overseeing and monitoring the storage and distribution of drugs in the DMS and health facilities and such as CMS is supposed to conduct supervisory visits to all the health facilities on a quarterly basis, however we acknowledged CMS' claims of being constrained financially to visit all the health facilities as indicated in the findings.

We reiterate the need to visit these health centers or facilities regularly as visiting of these facilities will not only ensure that drugs supplies are received at the centers on time but also ensure that storage and other medical related issues, including complaints are handled and resolved in a timely manner. In addition, these boost staff morals and prevent or help to curb store malpractices. Conversely, this motivates storage malpractices as staff do not expect the CMS for inspection.

As mentioned in the response that CMS recognizes that all patients have equal rights to healthcare, therefore in the absence of these visits, it would be reasonably difficult for

CMS to ensure that this is achieved as some of the centers are not visited for more than a year.

4.3.2 Absence of guidelines at the level of the health facilities

CMS, being the coordinator of the supply chain management, is also responsible for developing and availing guidelines, policies and regulations regarding drug storage & distribution to the rest of the key players.[22]

It is also amplified by the *National Drug Policy section 2.5.4 which states that in order to encourage the correct maintenance and organisation of drug stores throughout the country, the Ministry of Health will maintain up-to-date stores procedures manual containing practical guidelines on the required procedures for all drug storekeepers.*

The availability of the guidelines, regulations and policies at the level of the health facilities plays a significant role in the supply chain management of drugs as they ensure that drugs are managed accordingly. The provision of these documents is part of the technical support and guidance rendered by CMS.

We noted during the audit that guidelines, policies and regulations in the management of pharmaceuticals were developed by the NPS in collaboration with the MoH&SW but were not circulated or made available to all the health facilities for their utilization. These guidelines were only found at the head office of the CMS and two other facilities (Basse Medical Store and Serekunda Hospital).

The Management of CMS attributed the absence of these guidelines at the health facilities to the weak circulation system in place. According to them, the mechanism (emails) that is in place for disseminating these guidelines is not effective. The management of CMS further claimed that most of the officers responsible for the drug stores are trained on the SOP and most of the anomalies found in drug stores are not as a result of the absence of guidelines but as a result of the attitudes of some of the officers involve in the management of pharmaceuticals. Furthermore, the deputy permanent secretary (technical) of MOH&SW revealed that on many occasions the guidelines, regulations and policies were printed and sent to the health facilities but in most cases these copies are personalized by officers of the health facilities when they

[22] Meeting with CMS management dated 15/01/18
And Meeting with the DPS of the MOH&SW dated 11/01/18

are transferred to other health facilities. This is an indication of lack of proper handing over by moving officers from one health facility to another as stipulated in the financial regulation[23].

The guidelines, regulations and policies were supposed to ensure good store practices and ensure that standards are maintained, as a result of their absence there were poor storage practices (drugs placed on the floor, tally cards not updated etc) that affected the entire supply chain management, the accountability of the drugs are also compromised as there is nothing statutory that could be used to hold officers accountable if the drugs are managed otherwise. More importantly, it has hindered the proper management of the unsolicited donated drugs as the guideline ensuring that the donations are beneficial are not made available to the health facilities.

Conclusion

It has been concluded with the evidence obtained during the audit that, CMS has failed to regularly supervise the health facilities, as seen in the findings that some health facilities have not been visited for years. The supply chain management at the level of the health facilities lacks a vigilant external eye (CMS) looking at their operations (storage and distribution). This in general puts the entire supply chain management at risk as the system depends on the functionality of all the players, thus the supervisions were supposed to confirm and ensure that all the players are functional and that the goal of availing drugs to the citizens are met.

Furthermore, it was revealed that the central medical store has adopted numerous policies, guidelines, and regulations for the effective and efficient functioning of the pharmaceutical system. However, the exposure of these documents to officers handling the medical supplies is lacking greatly. The absence of manuals guiding the operations of the officers in one way or another affects the productivity of the service delivered to the citizens as far as the medical supplies are concerns.

Recommendation

For the functionality of the supply chain management, CMS should endeavour to be regular on the supervisions of the health facilities across the country, as the exclusion of any health facility affects the services delivered to the citizens accessing that particular

[23] Financial regulation 2016, section 66,

health facility. The quarterly supervisions schedules should be maintained to ensure that CMS is aware of what is happening in the stores of the health facilities at all times, and reports from the monthly supervisions of the RHT should be shared with CMS on a monthly basis. CMS should be cautious about the essentiality of this function, as the citizens, the government and other key player depends highly on CMS for the control of the supply chain management.

Furthermore, the central medical store should consider assessing the circulation system of these guidelines as it is proven to be ineffective. To increase accessibility and coverage, documents could be uploaded on the MOH&SW website; a database could also be created whereby all the medical personnel would be emailed these guidelines, hard copies could also be printed and sent to each and every health facility accompanied with controls to avoid officers personalizing these manuals.

Management Response

Management wished there were resources to print and disseminate as many copies as possible, however this is not the case. Management therefore has to do the best they can with what is available.

As explained to the audit team, the mere presence of the hard copy of a document at a health facility does not equal, reading and acting upon by the staff concerned.

Auditor's comment

We agree with CMS that resources are scares and as such there is need for strategic utilization of the available resources. However, it important that these guidelines are made available to the health facilities, since it serves as reference materials to staff in-charge of these drugs, drugs stores or pharmacies especially those that are not frequently visited by the CMS. Some of the storage anomalies may be as a result of staff acting without being conversant to these guidelines.

In addition , we concur with CMS that it is one thing to have the guidelines available at the level of the health facilities and another thing to have officers to read them and implement, but we would like to believe that the first step towards ensuring that the drugs are managed accordingly is by providing the health facilities with these manuals and regulations which may as well serve as a criteria or benchmark to measure the

performance of the health facilities and put them on track as far as the management of pharmaceuticals are concerned.

4.4 Weaknesses in the inventory control systems of the health facilities

4.4.1 Unaccounted drugs at the health centre level

The Gambia standard operating procedure on drug storage and distribution page 25 section 7(Update Stock keeping records) states that.

- *Update the Tally Card for each product received and stored.*
- *Write the quantity received in the Received column, add it to the previous balance, and bring the balance up to date.*

During our spot check exercise, it was noted that there were drugs received by health facilities from CMS/DMS which were not recorded or accounted for in their various tally cards. This was noticed by comparing supplies received from CMS/DMS to tally card recording in drugs stores of these facilities. Furthermore, we noted there were instances, were drugs supplies from DMS to the health centres were not fully accounted for or recorded by these Centres (understated). When drugs are not accounted or fully recorded, there is no indication that they are neither received at the facilities nor were they subsequently dispensed to the patents.

The management of CMS reiterate that efforts have been made to ensure that the protocols of recording and accounting for the drugs are adhered to; they also revealed that things of this nature were brought to the attention of the RHD who has the mandate to take disciplinary actions but the same problems are still occurring. However, no correspondence was submitted to us regarding these claims.

Consequently, the unaccountability of drugs received by health centres creates the accessibility for drugs to be diverted for personal use instead of being dispensed to patients; this in turn creates shortages of drugs in the health facilities as the drugs are not accounted for and therefore difficult to monitor the movements of these drugs. This also affects the consumption data submitted to CMS for the drug quantification which is used in the procurement of drugs, thus, the entry of inaccurate data may lead to under or over projections of drugs for the subsequent year. See appendix f for highlights of unaccounted drugs in the sampled health facilities.

Management Response

Management is very surprised that there was not mention of the inventory control at CMS and RMS' as these two levels of warehouses store about 80% of the supplies. At both these levels, there are both manual and electronic inventory management tools. In addition, inventory is performed bi-annually at CMS and quarterly at RMS'

The medicines are not necessarily delivered on the day of supply. It is therefore normal to have a difference in the date of supply and receipt.Isolated cases where there is a slight difference in the quantity supplied and quantity accounted for will not make significant difference to the annual quantification and subsequent procurement of drugs.

Auditor's Comment

We acknowledge the inventory control systems (channel software and other hard copy tools) that are functioning effectively at the level of CMS and DMS. However, it is significant to look at the supply chain management holistically as a system, the installation of strong inventory control systems at the level of CMS and DMS only guarantees that there is a proper inventory control systems at those levels and if not extended to the health facilities there is a high risk that the whole system would be affected as a result of the weak inventory control systems at the lower level (health facilities).

Although the inventory system at the level of the CMS and DMS are reasonably effective but the control system at the level of the health centres are weak as there are cases of unaccounted drugs, tally cards not updated etc. Therefore, we reiterate that CMS in collaboration with MoH&SW should endeavour to strengthen the inventory control systems at the level of the health facilities.

4.4.2 Cases of drugs missing from the shelves

The Standard Operating Procedures in Job Aid table states that *"missing products or empty boxes found may indicate pilferage, removed by an upper level, or removal by a donor for testing. Notify upper level of missing stock".*

During an interview and spot check in Gunjur health centre, we found out that drugs have been missing from the shelves on numerous occasions as claimed by the officer in

charge of Gunjur health centre. As a result, the audit team further investigated to establish how the missing drugs were accounted for and it was revealed that drugs were just subtracted from the balance on the tally cards as if it was being consumed in the system. This revealed that there are serious lapses as the protocols are not observed duly.

The officer in charge of Gunjur health centre claimed that when she took over the drug store in Gunjur health centre the store was insecure and everyone had access to it and as a result, drugs were always missing from the shelves. She claimed that this issue and other administrative issues were reported to the regional health directorate in Brikama, however, no evidence was produce to the audit team to substantiate these claims. The audit team escalated the matter to the Brikama regional health directorate who claimed they had no knowledge regarding the occurrence of these issues claimed by the officer in charge of Gunjur health centre.

This creates access for pilferages and mismanagement of drugs. If drugs could be tampered and recorded as if it was consumed in the system then the tendency for drugs to be diverted elsewhere and deducted from the tally card is very high.

Conclusion

The audit revealed that controls that are in place for the accountability of drugs is weak, as it was revealed through interviews that the drugs were missing from the shelves and were accounted in the tally cards as if they were consumed in the system. It was also revealed that in some instances the quantity of drugs received are not accounted in the tally cards; this increases the risk of drugs being loss through pilferage thus resulting to waste of resources and patients being affected by the unavailability of drugs.

Recommendation

The management of CMS should ensure that proper accountability measures are put in place to see to it that the access of pilferage is eliminated. Spot checks and other accountability tests should be conducted during unannounced visits and if discrepancies are found it must be addressed scrupulously. The consumption data submitted by the health facilities should be verified and compared with the consumption patterns of the health facilities and if there are huge variances, investigations should be mounted to establish the causes. This will discourage the manipulation of data and drugs diverted elsewhere. The unaccountability of drugs cannot be taken lightly, as significant amounts

of monies are invested into them and more importantly the lives of citizens depends highly on these drugs.

Management Response

Accountability is a collective responsibility which lies on every personnel responsible for supply management

The regional level is better placed to ensuring that supply management personnel at the facility level are accountable for their roles and responsibilities

Auditor's Comment

Ensuring the accountability of drugs at the level of the health facilities cannot be placed under the responsibility of the DMS alone, CMS in collaboration with the relevant authorities (MoHSW and DMS) are supposed to ensure that there are strong inventory control mechanisms or measures at the level of the health facilities that would ensures that drugs are accounted for accordingly and are traceable.

CMS needs to proactively oversee and ensure that the mechanisms in place are being effective in the protection of the medicines/drugs; otherwise it should be reported to the Ministry for actions to be taken in bridging the gap.

4.5 Destruction of expired and unusable drugs

Discussions with officials of CMS revealed that international best practices would require expired drugs to be destroyed in every two years.

The system of the supply chain management requires all expired and unserviceable drugs to be returned to the central medical store for destruction, as the chemicals that expired drugs emits may affect the useable drugs around them.

During the audit, we came across a lot of expired drugs in health facilities. Some of these were kept in separate stores but majority of them were kept within useable drugs in health facilities. We were told expired drugs are no longer sent to CMS because of inadequate space to store the expired drugs at CMS. This is because the destruction of expired drugs has not been conducted by CMS for more than seven years.

A case in point is in EFSTH in Banjul - expired drugs were found occupying about half of the store where serviceable drugs are also being kept. Furthermore, the expired drugs store located in CMS is already filled up and consequently drugs and other medical products were thrown outside the store.

The Director of the central medical stores revealed that, ideally destruction should be done bi-annually but that has not been the case. He also claimed that he had been following up with the MoH&SW as the destruction exercise has been included in their annual activity plans but the funds were never released for the exercise to be conducted. We have seen evidence of this claim in only one correspondence dated 18 April 2017.

The procrastinating of the destructions of the expired drugs at the central level affects the health facilities to some extent. Expired drugs were kept in the same store with the useable drugs which may emit chemicals that are could affect the potencies of the drugs. Furthermore, the security of the expired drugs is questioned as they are thrown outside the stores being accessible to anyone, thus this creates easy access for the drugs to be circulated in the system.

Picture: 2 Picture showing expired drugs compiled at the Central Medical Store and Serre-kunda Hospital

Pictures taken 16/08/201

Picture: 3 Showing expired drugs compiled on the shelve at Edward Francis Teaching Hospital in Banjul and Kanifing

***Picture taken* 08/08/2017**

Picture taken 07/08/201

Conclusion

The audit revealed that destruction of drugs at CMS has not been done since 2010 and as a result the health facilities are forced to store the expired drugs within useable drugs. This affects the drugs as well as the officers handling the drugs as they inhale chemicals that are inimical to human health. Moreover, these expired drugs may be circulated in the system and could cause serious health complications.

Recommendation

The Ministry should facilitate the destruction of the expired drugs at CMS combined with all the other expired drugs at the health facilities. They should consider adopting the best practice of destroying expired drugs in every two years.

Management Response

NPS would like to reiterate that the expired drugs do not emit any fumes that can be inhaled by the staff and cause harm, nor do they emit any kind of radioactive material that may harm other drugs in the vicinity. This point was made clear to the auditing team during their visit.

Management would like to point out that there is no procrastination in regards to the destruction of the expired drugs. The expired medicines do take up valuable space and as such it is in no way favourable to the CMS to have them within the store.

As explicitly explained to the audit team, destruction of expired items is a strenuous exercise with a heavy financial burden. It cannot merely be performed by the NPS but involves participation from external bodies, including the National Audit Office. There were no "claims" made as to the efforts made by CMS to secure funds for the destruction, the audit team were purview to the correspondences made to the MoH in such effect.

As highlighted by the visual references the expired drugs are segregated from the useable stock and removed from the computer system so that one cannot actual "pick" items concerned. The audit team was purview to the inventory software and was able to verify this.

At hospital level (EFSTH, Bansang) hospital management have the aptitude and were able to destroy their expired drugs, management can confirm.

Auditor's Comment

According to the management response, the expired drugs at the stores of CMS does not only occupy valuable space but further affects the DMS and health centres as they are unable to return anymore expired drugs as a result of which the expired drugs of most the health centres are stored within the useable ones. Again looking at the system as one, the expired drugs at the central level and DMS may be protected but the same cannot be said for the health facilities as expired drugs were found on the shelves together with useable drugs.

We acknowledged that CMS has written to the Ministry requesting for the destruction of the expired drugs as noted in the finding, however the Ministry never wrote back to that effect nor were we provided with documentary evidence showing CMS' follow ups about this issue. We have also been shown the budget prepared by NPS for the destruction of drugs which we were told the Ministry never released. CMS needs to make more efforts in engaging the Ministry to approve and conduct this exercise; it can as well be brought to the attention of the international donors during their need assessment exercise as this has a negative impact on the supply chain in general.

4.6 Weakness in the distribution channel at the level of the DMS

The SOP page 9, dealing with overview of responsibilities by level states that:

"The RMS should deliver health commodities to the Health Facilities"

In addition, discussions with the management[24] of CMS reveal that:

"Ideally supplies are supposed to be delivered from the DMS to health centres".

The storage and distribution of drugs is one of the primary responsibilities of the regional health directorate, they take ownership of the drugs once the drugs are supplied from CMS. They are expected to ensure that the drugs are stored and distributed to the health centres in their various regions.

The audit revealed that the mechanism that is in place for the distribution of drugs from the RMS/DMS to the health facilities affects the flow of drugs to a large extent. As stated in the SOP, drugs are supposed to be delivered to the health centres by the DMS/RMS but instead the health centres uses their ambulances to collect supplies from the DMS/RMS. It is worth noting that all government designated health centres are

[24] Management discussion dated 9th September, 2017.

provided with an ambulance and these ambulances are used for referrals (transferring patients with serious health complications to hospitals) and reproductive child health (RCH) activities. In most cases the health centres are situated in places that are many kilometers away from the RMS and as such supplies are usually collected when there are referrals in areas where the DMS' are located. It was revealed that in some cases supplies will be ready at the DMS/RMS awaiting collections but the health centres can only make it when the ambulances are on referrals or when they are not occupied with RCH.

During our visits to the health centers a situation was witnessed in Yerrobawol where the ambulance was on route to collect supplies from Basse medical store, the ambulance was already in Basse when it was called back to collect a patient that was badly in need of medical attention, at that point the collection of supplies was halted and it took the ambulance an hour and a half to get to Yerrobawol and another hour to get the patient to Basse major health centre as the distance between Yerrobawol and Basse is about 14km. In this case supply of drugs were delayed and the life of the patient was also at risk as the ambulance was away when it was critically needed to transport the patient. This affects a lot of health centres and in some cases the health centres are more than 50KM from the DMS, and it would be extremely risky if the ambulance is needed whiles it is at the DMS collecting supplies, as the lives of the patients are put at stake as a result of the usage of the ambulance to collect supplies.

The officials of CMS and the RMS claimed that they are aware of the menace that the use of the ambulance to collect medical supplies poses to the supply chain management and to the health implications attached but the use of the ambulance to collect supplies from the DMS/RMS is a result of the unavailability of distributing trucks at the level of the RMS. The DMS/RMS are not provided with vehicles capable of delivering the bi-monthly supplies of the health centres. However, we noted that there were mini-trucks (pickups) at the disposal of all the RMS and all of them were in road worthy conditions.

The usage of the ambulance to collect medical supplies from the RMS affects the timely delivery of supplies to the health facilities as the collection of supplies is affected by the other activities of the health centre, this in turn creates a temporal shortage of drugs in public health centres. A case in point is in Yerrobawol where the ambulance is used for RCH in most days of the week and was unable to collect the supplies that were due and as result of that, some drugs were available at the Basse medical store but are

unavailable in Yerrobawol health centre. More significantly, the use of the ambulance to collect supplies poses risks of serious health complication if there are emergency cases, although some health centres reach out to nearby health facilities to rescue them if there are emergency cases but some health centres are far from each other, especially the health centres in the provinces.

Conclusion

It was clear during the audit that the use of the ambulance for the collection of medical supplies affects the timely deliveries of supplies to the health centres. The ambulances are used for multiple purposes and in most cases, are unable to be used to collect supplies on time; the ambulance has to be free of other primary duties (referrals and RCH) before it could be used to submit the requisition book and collect supplies on another day. If an alternative arrangement is not made to deliver medical supplies to the health facilities, supplies will always be delayed causing stock outs as well as risk the lives of patients that are in need of urgent medical treatments.

Recommendation

The management of CMS, DMS and the Ministry should consider using the pickups that are at the disposals of the RHDs to deliver supplies as the audit revealed that there are pickups in road worthy conditions available in all the RHDs. This will facilitate that drugs get to the health centres on time and will also prevent the risk of putting the lives of patients on the line. To be more effective and efficient, the DMS should consider supplying the health facilities on a monthly basis instead of bi-monthly, as they go on trekking (supervisions) the supplies of the health centres could be taken along.

Management Response

The decision to use ambulance for collection of medicines (or not), thought difficult one is not to be made by NPS. Nor does the NPS have the responsibility of providing distribution vehicles to the regions. The Regional Health Directorates are independent of the NPS.

Auditor's Comment

We agree with the management response that it is not the responsibility of CMS to provide the DMS with distribution trucks as that is approved at the level of the

MoH&SW. However, as the coordinator of the supply chain management, It is worth noting that it is part of the most important goals/objective of CMS that drugs are delivered to the service delivery points on time, as such it should be of interest to CMS that the delivery mechanisms at the level of the DMS supports optimum delivery services to prevent stock outs.

We would like to echo that it is the responsibility of CMS to liaise with the Ministry, DMS and health facilities to strategize on the most appropriate option that would ensure that drugs are delivered on time. CMS we believe as mandated by the Ministry to coordinate and supervise the supply chain management, is also privileged with the opportunity to render technical advice to MoH&SW regarding the functioning of the system. As a result CMS should be able to advice the ministry if the current delivery mechanism is ineffective as the usage of the ambulances for the collection of supplies is not the most ideal way as it delays supplies as well as risk the lives of the citizens in times of emergencies.

Appendices

Appendix a: Showing budget allocations

Computation of the amounts and percentages allocated to Ministry of Health & Social Welfare from the National Budget and the amounts allocated for the procurement of drugs (2014 – 2016).

Years	Total National Approved Budget (GMD)	Total budget approved for the MOH&SW (GMD)	Percentage of the MOH&SW budget from the national Budget (%)
2014	13,856,349,137.44	684,768,861	5.0%
2015	13,534,888,760.5	728,244,293	5.4%
2016	18,459,013,807	1,103,379,050	5.9%
2017	20,141,636,099	1,831,768,949	9.1%

Years	Total budget approved for the MOH&SW (GMD)	Funds allocated for the procurement of drugs (GMD)	Percentage allocated for the procurement of drugs from the funds allocated to MOH&SW
2014	684,768,861	40,000,000	5.9%
2015	728,244,293	75,000,000	10.3%
2016	1,103,379,050	100,000,000	9.6%
2017	1,831,768,949	100,000,000	5.5%

Appendix b: Showing the Audit Criteria and sources

Assessment Criteria	Source Of Criteria
The Supply Chain Management of the National Pharmaceutical Service consists of three key players, which are: CMS, DMS and the Health Facilities (Hospitals and Health Centres) and as such, For the supply chain management to function effectively, all the players involved must be willing to execute their duties accordingly as the weakness or failure of any of the players affects the whole system	Gambia Standard Operating Procedures
Discussions with the management of CMS revealed that, best practices would recommend that the pharmaceuticals are managed by officers with pharmacy backgrounds. It's also amplified by the Gambia National Drug Policy page 2 section 1.2, which states that: *The Ministry of Health will train sufficient numbers of pharmacists, pharmacy technicians, pharmacy assistants and other relevant staff to ensure the effective functioning of the pharmaceutical services.*	• Interview and Discussion with the Management of the Audit Entity • National Drug Policy
National drugs policy section 2.5.2 *requires that National Pharmaceutical Services to carry out regular checks on the quality of stored drugs in the public and private sectors at all levels to ensure that they have not deteriorated under the storage conditions prevailing at each location.* *In addition, according to the Director of CMS, officials of the CMS visit all the DMS, Hospitals and Health Centres across the country on a quarterly basis for supervision and monitoring.*	• National Drug Policy • Interview and Discussion with Management of the Audited Entity
CMS, being the coordinator of the supply chain management, is also responsible for developing and availing guidelines, policies and regulations regarding drug storage & distribution to the rest of the key players.[25] It is also amplified by the *National Drug Policy section 2.5.4 which states that In order to encourage the correct maintenance and organisation of drug stores throughout the country, the Ministry of Health will maintain an up-to-date stores procedures manual containing practical guidelines on the required procedures for all drug storekeepers*	• Standard Operating Procedures • National Drug Policy

[25] Meeting with CMS management dated 15/01/18

The Gambia standard operating procedure on drug storage and distribution page 25 section 7(Update Stock keeping records) states that. • *Update the Tally Card for each product received and stored.* • *Write the quantity received in the Received column, add it to the previous balance, and bring the balance up to date.*	The Gambia Standard Operating Procedures
The Standard Operating Procedures in Job Aid table states that missing products or empty boxes found. May indicate pilferage, remove by an upper level, or removal by a donor for testing. Notify upper level of missing stock.	The Gambia Standard Operating Procedures
.Discussions with officials of CMS revealed that international best practices would require expired drugs to be destroyed in every two years.	Interview and Discussion with Management of the Audited Entity
The SOP page 9, dealing with overview of responsibilities by level states that: *"the RMS should deliver health commodities to the Health Facilities"* In addition, discussions with the management[26] of CMS and DPS of the MOH&SW dated 11/01/18reveal that: *"Ideally supplies are supposed to be delivered from the DMS to health centres".*	• The Gambia Standard Operating Procedures • Interview and Discussion with the Management of the Audited Entity

Appendix c: Showing health facilities visited

Name of Health Facilities Visited	Regions of the Health Facilities Visited
Central Medical Store	Western Region 1
SerreKunda Hospital	Western Region 1
Edward Francis Small Teaching Hospital	Banjul
Farafenni General Hospital	North Bank Region
Bansang Hospital	Central River Region
Kanifing Divisional Medical Store	Western Region 1
Brikama Divisional Medical Store	Western Region 2
Farafenni Divisional Medical Store	North Bank Region
Bansang Divisional Medical Store	Central River Region
Mansankonko Divisional Medical Store	Lower River Region
Essau Divisional Medical Store	North Bank Region
Basse Divisional Medical Store	Upper River Region
Albreda Minor Health Centre	North Bank Region
Njaba Kunda Minor Health Centre	North Bank Region
Salikenni Minor Health Centre	North Bank Region
Kerewan Minor Health Centre	North Bank Region
Janjangbureh Minor Health Centre	Central River Region
Chamen Minor Health Centre	Central River Region
Dankunku Minor Health Centre	Central River Region
Kiang karantaba Minor Health Centre	Lower River Region
Jiffarong Minor Health Centre	Lower River Region
Kaiaf Minor Health Centre	Lower River Region
Yorobawol Minor Health Centre	Upper River Region
Fatoto Minor Health Centre	Upper River Region
Koina Minor Health Centre	Upper River Region
Sintet Minor Health Centre	Western Region 2
Gunjur Minor Health Centre	Western Region 2
Brufut Minor Health Centre	Western Region 1
Brikamaba Minor Health Centre	Central River Region
Basse Major Health Centre	Upper River Region
Faji Kunda Major Health Centre	Western Region 1
Kwnella Minor Health Centre	Lower River Region

Appendix d: Showing documents reviewed by the audit team and purpose of review

No	Documents reviewed by the audit team	Purpose for review
1	Medicine Policy of 2007	To be able ascertain the establishment of CMS
2	Standard Operating Procedures (SOP) of Logistics Management of Public Sector Health Commodities in the Gambia (April 2004)	To be able to understand the process required for commodity management at the central and divisional medical stores to the service delivery point as the SOP guides the operations of CMS.
3	Health Policy 2012-2020	To ascertain the targets, priorities and achievements of the MOH&SW
4	Memorandum of Understanding (MOU) between MOH&SW and Non-Governmental Organisation (NGO) Hospitals	To understand the basis of which CMS/DMS supplies Drugs to NGO and private clinics. Whether it interrupts the supplies to public health facilities
5	Reports[27]	To obtain how supervisions and trainings were conducted. What findings were found and what measures were taken.
6	Storage Guidelines of Essential Medicine and other Health Commodities by United Nations Child Fund (UNICEF) In Collaboration with World Health Organization (WHO), December 2003.	To understand the guideline stipulated by international bodies like WHO and UNICEF
7	Guide to good storage practices for pharmaceuticals by WHO, 2003	To understand the process of storage stipulated by WHO
8	Budget Speeches	To be enlighten about the budget allocations of the MOH&SW and also to understand the current developments in the health sector.
9	National Development Plans	To be enlighten about the government plans towards the health sector
10	National Drug Donations Guideline 2010	To understand the guidelines that is in place for the acceptance and management of donated drugs.
11	Activity plans of CMS	To ascertain whether supervisions to

[27] **Store visits and inspections report**
- **Report on workshops and training**
- **Reports on feedbacks given to health facilities by DMS**
- **Reports on health surveys**
- **Quarterly reports of CMS**

		health facilities were planned and whether the plans were executed
12	2015-2016 PAC PEC Report	To determine the parliamentarians agendas towards the health sector
13	The Gambia Ministry of Health & Social Welfare Facts and Figures	To know the health indicators and strategies put in place,
14	Primary Health Care Revitalization plan Dec 2017	To be enlighten about the plans that are in place to revitalize the supply chain management of the Gambia
15	The Gambia Health Compact 2014 - 2022	To establish the plans of the partners of the Gambia in relation to health care service
16	Reports on the Sustainable Development Goals	To be enlighten about the achievements of adopting the SDG3 on the health sector of the Gambia.

Appendix e: Showing result of the survey

Name of health facilities	No of patients sampled	No of patients going home with all essential medicines	No of Patients going home without all essential medicines	Remarks
Brikama Health Centre	10	6	4	60% of the patients sampled went home without all the drugs prescribed to them
Sinteet Health Centre	5	0	5	All the patients sampled went home with all prescribed drugs
Basse Health Centre	10	9	1	90% of the patients sampled went home without all the drugs prescribed to them
Fatoto Health Centre	6	3	3	50 of the patients sampled went home without all the drugs prescribed to them
Serre-Kunda Hospital	10	7	3	70% of the patients sampled went home without all the drugs prescribed to them
Farafenni Hospital	5	0	5	None of the patient sampled went home with the prescript drugs
Njaba Kunda Health Facility	2	2	0	All the patients sampled went home with all prescribed drugs
Total	**48**	**27**	**21**	44% of the totalled sampled patients went home without the prescribed drugs

Appendix f: Showing result of the spot check

Name of H/C	Name of Drug	QTY Supplied by DMS	QTY Received by H/C	Remarks
Gunjur Health Centre	Artemether Lumefantrine 20/120mg (12 tabs)	02/11/16 30 Sachets	02/11/16 30 Sachets	Tally
	Artemether Lumefantrine 20/120mg (18 tabs)	02/11/16 60 Sachets	02/11/16 60 Sachets	Tally
	Artesunate			Have not been in use in the facility for a long time now
	Paracetamol 100mg tab			Have not in use in the facility for a long time now
	Dextrose 50% vial	2/01/2018 20 vials	07/06/17 20 vials	Date of supply does not tally with date of receipt
	Diazepam 5mg/2ml (amp)	08/08/17 10 ampules	08/10/17 10 ampules	Tally
	Promethazine Hcl 25mg injectable	08/08/17 10 ampules	08/08/17 10 ampules	Tally
Albreda Minor Health Centre	Artemether Lumefantrine 20/120mg (12 tabs) 24/05/16	1 box	1 box	Tally
	Oxytocine 17/01/18	50ampules	50 ampules	Tally
	Artesunate 16mg powder injection 26/10/17	10 ampules	10 ampules	Tally
	Paracetamol 100mg tab 17/1/18	10 tins	10 tins	Tally
	Dextrose 50% vial 17/1/18	5 vials/bottles	5 bottles	Tally

	Diazepam 5mg/2ml (amp) 20/04/17	10ampules	10 ampules	Tally
	Promethazine Hcl 25mg tab 30/06/17	10amples	10 ampules	Tally
Chamen Minor Health Centre	Artemether Lumefantrine 20/120mg (12 tabs) 20/7/17	60 sachets 17/5/17	30 sachets	Doesn't tally and different dates were recorded for this last supply.
	Artemether Lumefantrine 20/120mg (18 tabs) 28/11/17	60 Sachets	60 Sachets	Tally
	Artesunate 17/7/17	50 boxes	50 boxes	Tally
	Paracetamol 100mg tab	28/11/17 1tin	The tally card for this drug could not be located at chamen.	Tally card was not provided for this drug
	Dextrose 50% vial	26/09/17 10 ampules	The tally card for this drug could not be located at chamen.	Tally card was not provided for this drug
	Diazepam 5mg/2ml (amp) 1	7/07/17 20 ampules	26/09/17 10 ampules	Doesn't tally and different dates were recorded for this last supply.
	Promethazine Hcl 25mg tab	1 tin 17/05/17	The tally card for this drug could not be located at chamen.	Tally card was not provided by the HC for this drug to be verified
Janjangbureh Minor Health Centre	Artemether Lumefantrine 20/120mg (12 tabs) 26/10/16		2 boxes	Could not be verified, no tally card was found for 2016 at the DMS

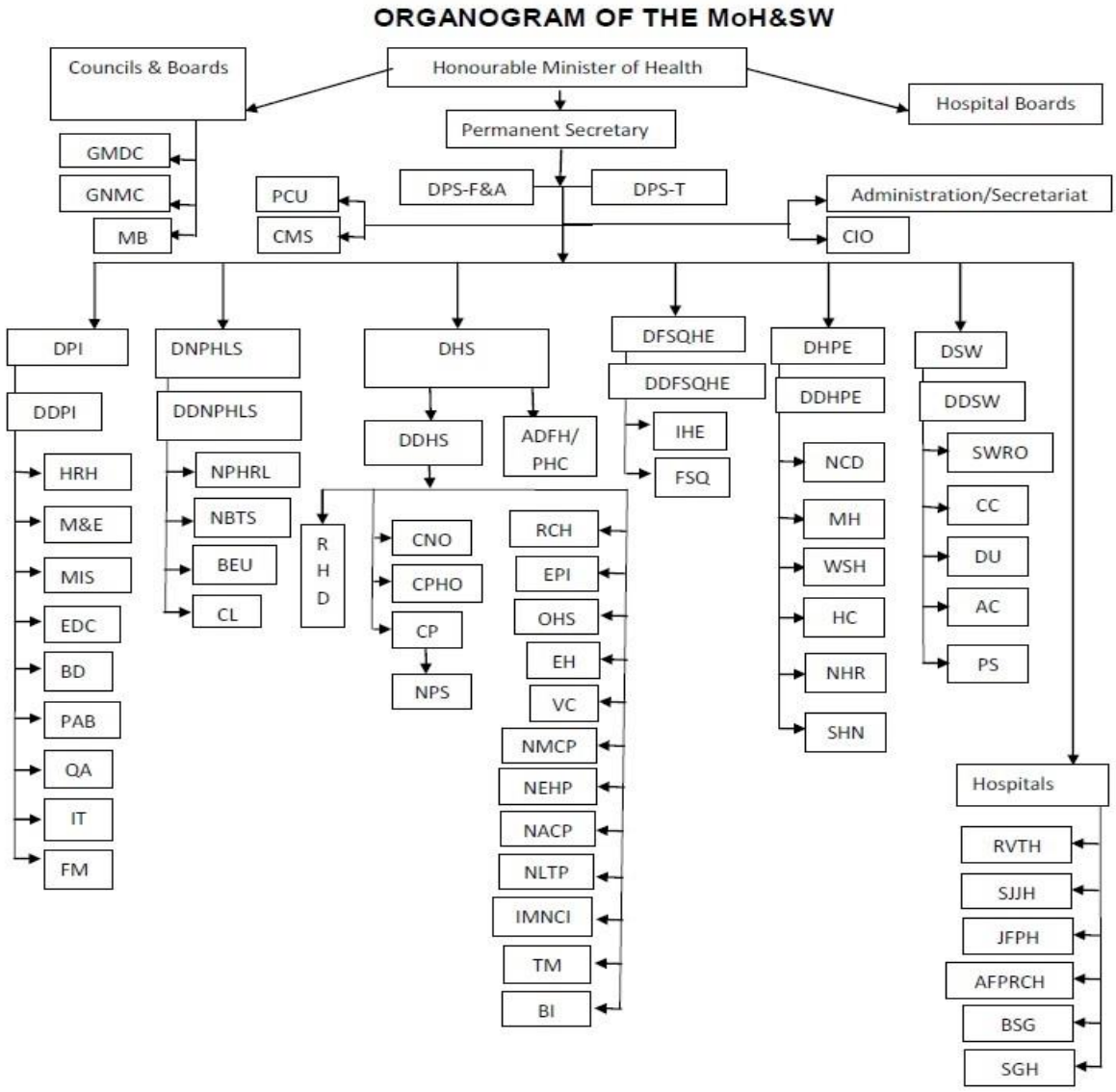
	Artemether Lumefantrine 20/120mg (18 tabs) 27/9/17	2 boxes	2 boxes	Tally
	Artesunate/ Quinine tab 14/10/16		1 tin	Could not be verified no tally card was provided for 2016 at DMS
	Paracetamol 100mg tab 7/11/17	1 tin	1 tin	Tally
	Dextrose 50% vial 07/12/17	10 ampules	10 ampules	Tally
	Diazepam 5mg/2ml (amp) 07/12/17	20 ampules	20 ampules	Tally
	Promethazine Hcl 25mg tab 13/07/17	1 tin 24/5/17	1 tin	Tally
Kaiaf	Artemether Lumefantrine 20/120mg (12 tabs)	12/10/17 60 sachets	13/10/17 60 Sachets	Tally
	Artemether Lumefantrine 20/120mg (18 tabs)	06/11/17 60 sachets	13/10/17 60 sachets	Doesn't tally, last supply was not entered in the tally card but seen on CRB
	Artesunate	31/05/17 15 vials	5/5/17 25 vials	Different date was entered as last supply and different quantity was entered
	Paracetamol 100mg tab	06/11/17 2tins	05/11/17 2tins	Tally
	Dextrose 50% vial	06/11/17 20 vials	05/11/17 20 vial	Tally

	Diazepam 5mg/2ml (amp)	27/12/17 20 ampules	27/12/17 10 ampules	Tally
	Promethazine Hcl 25mg tab	Whole of last year kaiaf was not given	Bought from Rbf funds	Tally
Kerewan HC	Artemether Lumefantrine 20/120mg (12 tabs) 24/11/17	20 sachets	5 sachets	15 sachets was not accounted by the health facility
	Artemether Lumefantrine 20/120mg (18 tabs) 9/10/17	1 box	1 box	Tally
	Artesunate 21/04/17	10 vials	10 vials	Tally
	Paracetamol 100mg tab 9/10/17			Tally
	Dextrose 50% vial 16/01/18	20 vials	20 vials	Tally
	Diazepam 5mg/2ml (amp) 16/01/18	10 ampules	10 ampules	Tally
	Promethazine Hcl 25mg tab			Has not been supplied in a while.
Kiang karantaba	Artemether Lumefantrine 20/120mg (12 tabs)	5/11/17 60 sachets	27/10/17 60 sachets	Different dates but same supply
	Artemether Lumefantrine 20/120mg (18 tabs)	05/11/17 30 sachets	27/10/17 30 sachets	Different dates but same supply
	Artesunate	31/05/17 15 vials	15 vials was on shelve but tally card was not seen	This could not be confirmed as there was no tally card provided for the drug
	Paracetamol 100mg tab	02/09/17 5 tins	07/11/17 1 tin	4 tins of 1000 PCM was not accounted for

	Dextrose 50% vial	18/12/17 20 vials	7/11/17 40 vials	Different dates and different supplies. Last supply was not accounted for
	Diazepam 5mg/2ml (amp)	18/12/17 20ampules	18/12/17 20ampules	Tally
	Promethazine Hcl 25mg tab	19/03/17 1tin	13/03/17 1tin	Tally
Koina Health Centre	Artemether Lumefantrine 20/120mg (12 tabs)	4/11/17 120 Sachets	05/11/17 120 sachets	Tally
	Artemether Lumefantrine 20/120mg (18 tabs)	5/11/17 120 sachets	5/11/17 120 sachets	Tally
	Artesunate			Not in use
	Paracetamol 100mg tab			Not supplied in a while
	Dextrose 50% vial	18/8/17 30 vials	11/12/17 20 vials	Differences dates and different supply, the last supply was not accounted
	Diazepam 5mg/2ml (amp)	4/11/17 30 ampules	5/11/17 30amples	Tally
	Promethazine Hcl 25mg tab			Not supplied in a while
Yerro Bowl	Artemether Lumefantrine 20/120mg (12 tabs)	20/11/16 120 sac	20/11/16 120sachets	Tally
	Artemether Lumefantrine 20/120mg (18 tabs)	20/10/17 120 sachets	20/10/2017 120sachets	tally
	Artesunate	12/05/17 50 ampules	09/02/17 50 ampules	Last supply for the DMS was not accounted for by HC
	Paracetamol 100mg tab	30/05/17 2 tins	01/06/17 2 Tins	Tally

	Dextrose 50% vial	14/12/17 20 ampules	10/10/17 50 ampules	Last supply for the DMS was not accounted for by HC
	Diazepam 5mg/2ml (amp)	14/12/17 10 ampules	2/11/17 30 ampules	Last supply for the DMS was not accounted for by HC
	Promethazine Hcl 25mg tab	20/04/17 1tin	09/02/17 1 Tin	Last supply for the DMS was not accounted for by HC

Appendix g: Showing the organizational structure of the MOH&SW

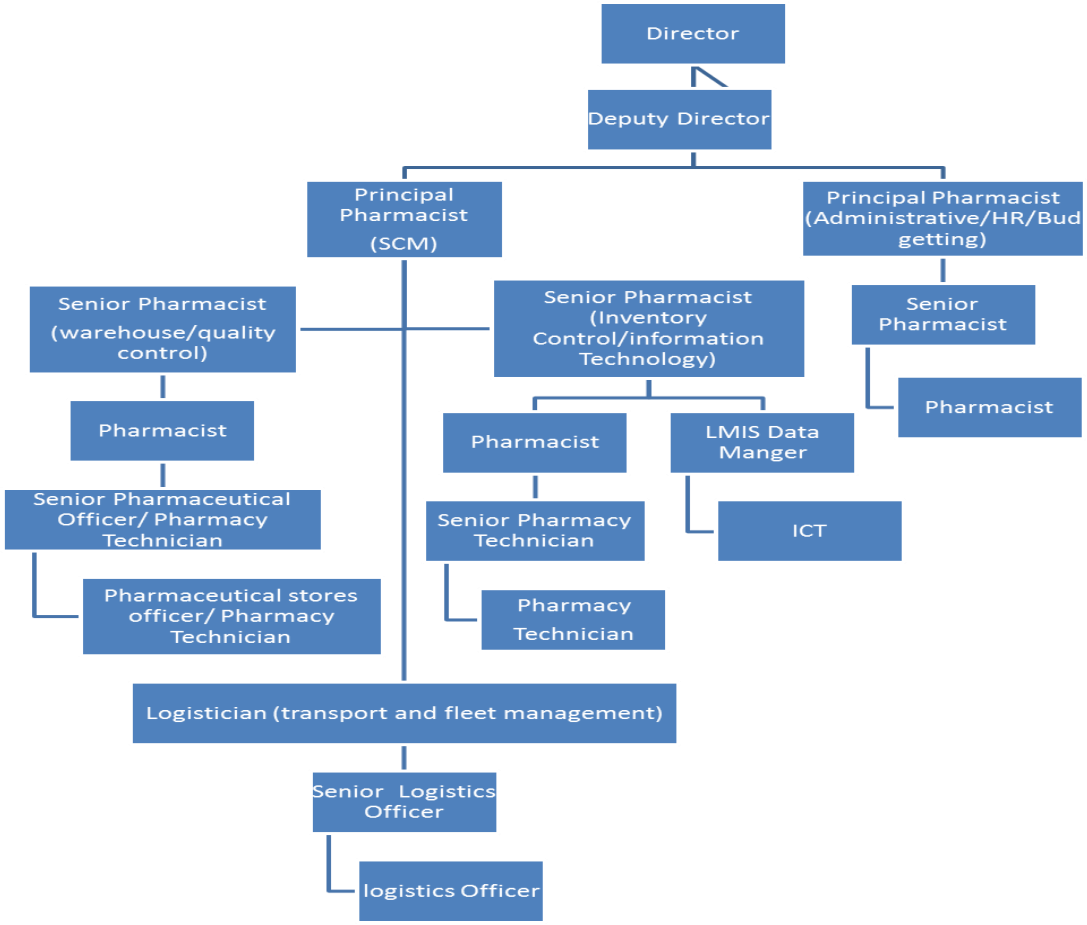


The acronyms in the organogram of the Ministry of Health & Social Welfare

AFPRCH	Armed Forces Provisional Ruling Council Hospital
BD	Board of Directors
BI	Bamako Initiative
CP	Chief Pharmacy
CPHO	Chief Public Health Officer
CNO	Chief Nursing Officer
DPI	Directorate of Planning and Information
DDPI	Deputy Directorate of Planning and Information
DDHS	Deputy Director of Health Services
DHPE	Directorate Health Promoting Education
DSW	Directorate of Social Welfare
DDSW	Deputy Director of Social Welfare
EDC	Epidemiology for Disease Control
EH	Environmental Health
EPI	Expanded Programme on Immunization
FSQ	Food Safety Quality
FM	Financial Management
GMDC	Gambia medical Dental Council
GNMC	Gambia Nursing Midwife Council
HC	Health Centre
HRH	Human Resources for Health
IT	Information Technology
JFPH	Jammeh Foundation for Peace Hospital
MB	Medical Board
ME	Monitoring and Evaluation

MIS	Management Information System
MH	Medical and Health
NMCP	National Malaria Control Programme
NEHP	National Eye Health Programme
NACP	National Aids Control Programme
NLTP	National Leprosy Tuberculous Programme
NPS	National Pharmaceutical Services
NCD	Non Communicable Diseases
PAB	Public Account Board
PCU	Project Coordinating Unit
PHC	Primary Health Care
PS	Permanent Secretary
QA	Quality Assurance
RCH	Reproductive Child Health
SJGH	Sulayman Junkung General Hospital
TM	Traditional Medicine VC Vector Contro

Appendix h: Showing the organizational structure of the Central Medical Store



Appendix i: Distribution of Pharmacist, Pharmacy Technician and Pharmacy Assistants in drug stores and health facilities.

Keynote[28]

Name	Explanation
Pharmacist	Top of the pharmacy cadre, Graduated BSC (4yrs)
Pharmacy technicians	Second in line, Graduated diploma (3yrs)
Pharmacy assistance	Also known as dispensing assistance, diploma (1yr)

Name of Health Facility	Number of pharmacist	Number of pharmacy technicians	Number of pharmacy assistance
Central Medical Store	3	1	6
Kanifing Divisional Store	0	1	0
Brikama Divisional Store	0	1	0
Essau Divisional Store	0	1	0
Farafenni Divisional Store	0	1	1
Mansakonko Divisional Store	0	0	1
Bansang Divisional Store	0	1	1
Basse Divisional Store	0	1	0
Edward Francis Small Teaching Hospital	2	6	0

[28] Source: Meeting with the Management of CMS dated 29/03/18

Serekunda Hospital	1	0	4
JFPH	0	1	2
AFPRC Hospital	0	0	3
Bwiame Hospital	0	1	0
Farafenni Hospital	0	1	1
Bansang Hospital	0	1	3
Fajikunda Major Health Centre	0	0	4
Brikama Major Health Centre	0	0	3
Basse Major Health Center	0	0	2
Soma Major Health Centre	0	0	1
Kuntaur	0	0	1
Kudang Health Centre	0	0	0
Brikamaba Health Centre	0	0	1
Janjangbureh Health Centre	0	0	0
Bansang Reproductive child health	0	0	0
Sami Karantaba Health Centre	0	0	0
Chamen Health Centre	0	0	0
Kaur Health Centre	0	0	1
Jiffarong Health Centre	0	0	0
Pakaliba Health Centre	0	0	0
Kaiaf Health Centre	0	0	0
Kiang Karantaba Health Centre	0	0	0
Kwinella Health Centre	0	0	0
Bureng Health Centre	0	0	0
Diabugu Health Centre	0	0	0
Baja Kunda Health Centre	0	0	0
Yorobawol Health Centre	0	0	0

Foday Kunda Health Centre	0	0	0
Koina Health Centre	0	0	0
Garawol Health Centre	0	0	0
Fatoto Health Centre	0	0	0
Gambisara Health Centre	0	0	0
Leman Street	0	0	0
Polyclinic	0	0	0
Bakau Health Centre	0	0	0
Serekunda Health Centre	0	1	1
Brufut Health Centre	0	0	1
Banjulinding Health Centre	0	0	1
Sukuta Health Centre	0	0	1
Gunjur Health Centre	0	0	0
Kafuta Health Centre	0	0	0
Sintet Health Centre	0	0	0
Farato Health Centre	0	0	0

Appendix j: Highlighting common discrepancies at the level of the health facilities and the last visits of CMS to the health facilities

i.

Criteria	Condition	Health facilities where this is found during our visit	Implication
SOP page 62 "Pallets should be used to keep products off floors, where they will be less susceptible to pest, water and dirt damage. Pallets should be stacked away from walls and far enough apart to allow one to walk completely around each pallet".	Drug boxes and other consumables are placed on the floor instead of on pallets.	Essau Medical store, Kerewan Health Centre, Bansang Hospital, Soma Health Centre, Kwenilla Health Centre and Edward Francis Small Teaching Hospital	• Exposed to dirt, moisture, water, termites and other insects • Affects the potencies and efficacies of the drugs as they get cake.
SOP page 25 section 7(Update Stock keeping records) states that. *"Update the Tally Card for each*	Updating of tally cards is another vital area that the health facilities are failing to adhere to. The tally card is a tool used to	70% of the health facilities visited	• There is high tendency that the reorder level will be missed, causing stock outs in the health facilities.

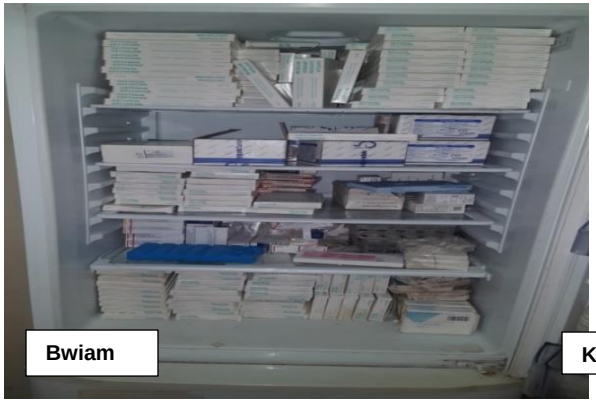
product received and stored".	account for supplies received and issued, as well as to determine the reorder level of medical supplies. Tally cards were not utilized by seventy percent (70%)[29] of the health facilities visited.		
"Store health commodities in a dry, well lit, and well ventilated storeroom—out of direct sunlight. If the store gets hot, the heat may cause some of the commodity supplies to spoil (i.e., decrease shelf life).	Some drugs/vaccines that were supposed to be kept in fridges or in a temperature above room temperature were found on shelves subjected to very humid conditions and these drugs were dispensed to patients. E.g. oxytocine	Kerewan Health Centre, Kiang Karantaba Health Centre, Yerrobawol Health Centres and Kaiaf Health Centre	• Drugs if not stored in the required storage condition begin to lose their potencies and become unserviceable.

[29] Total number of health facilities visited compared to the health facilities that are not regularly updating tally cards

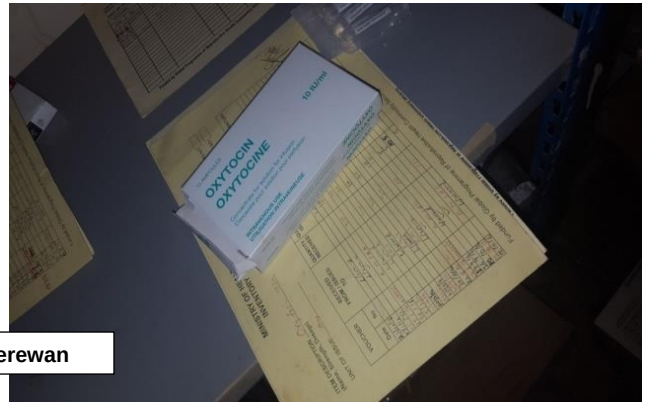
Solicited ad unsolicited drugs are supposed to be managed in the same manner	Unsolicited drugs were managed differently. Records of the donations were not kept, tally cards were not provided for the drugs and the drugs were not recorded in the LMIS.	Across the board	• The risk that the drugs will be pilfered is high as records are not kept. • Drugs are used in the system without being recorded in the LMIS, this understates the consumption data

Picture: 4 showing drug boxes/cartons placed on the floor at Kuntaur Major Health Centre

Picture: 5 *showing oxytocin stored in a refrigerator and on the shelf in Bwiam hospital and Kerewan health centre respectively.*



Picture taken 19/08/17



Picture taken 11/08/17

Picture: 6 Showing Donated drugs by philanthropist (Not provided with tally cards and not accounted for) Soma health centre

Picture taken 11/08/2017

ii.

Health Facilities	Last time CMS visited(supervision & Monitoring)
Serre-Kunda Hospital	August, 2017
EFSTH	August, 2017
Kiang Karantaba Health Centre	2014
Dankunku Health Centre	Early 2017
Chamen Health Centre	July 2017
Koina Health Centre	2017
Fatoto Health Centre	2015
Gunjur Health Centre	January 2017
Kerewan Health Centre	November 2017
Albreda Health Centre	July 2017
Sinteet Health Centre	2012
Yerro bawol Health Centre	The predecessor of the current OIC was called regarding the last time CMS visited; he claimed it was in 2014.
Njabaa Kunda Health Centre	November 2017
Brufut Health Centre	August, 2017
Basse Health Centre	January, 2017
Jangjangbureh Health Centre	November 2017
Kaiaf Health Centre	No records were found showing CMS' last visit but CMS claimed they visited in August 2017.
Brikama Health Centre	Early 2017, the exact date was not recorded by the OIC as he mentioned it was not an official visit by CMS

Appendix K: Showing the list of public health centres in the Gambia

Regions	Major Health Centre	Minor Health Centre
WHR1	Fajikunda	Leman Street
		Polyclinic
		Bakau
		Serekunda
		Brufut
		Banjulinding
		Sukuta
WHR2	Brikama	Gunjur
		Kafuta
		Sintet
		Farato
URR	Basse Major Health Center	Gambisara H/C
		Fatoto H/C
		Garawol H/C
		Koina H/C
		Foday Kunda H/C
		Baja Kunda H/C
		Yorobawol H/C
		Diabugu H/C
LRR	Soma Major H/C	Bureng
		Kwinella
		Kiang Karantaba
		Kaiaf
		Jiffarong

		Pakaliba
CRR	Kuntaur	Kaur
		Chamen
		Sami Karantaba
		Bansang Rch
		Janjangbureh
		Brikamaba
		Kudang
		Dankunku
NBWR	Essau	kuntair
		Albreda
		Kerr Cherno
		Nema kunku
		Fass n.Choi
NBER		Njaba Kunda
		Salikenni
		Illiassa
		Sara Kunda
		Ngayen Sanjal
		Kerewan
		Farafenni
Total	**6**	**45**