Memorandum on the Republic of Sierra Leone's Programme Audit report

The attached Gavi audit report sets out the conclusions of the programme audit of Gavi's support to the Government of Sierra Leone's Expanded Programme on Immunisation (EPI), as managed by the Ministry of Health and Sanitation.

The audit was conducted in September 2018 and the period under review was from 1 January 2015 to 31 December 2017. The scope of the audit covered the Health Systems Strengthening grant, two Vaccine Introduction Grants, the Ebola recovery grant, and select vaccine and data management processes. As all of Gavi's cash grants to Sierra Leone were initially disbursed through the Alliance partners, the audit was limited to those Gavi funds which were re-channelled back through government systems. The final audit report was issued to the Ministry of Health on 16 July 2019.

The audit report's Executive Summary (pages 4 and 5) sets out the key conclusions, details of which are set out in the body of the report. These included:

1) There is an overall rating of Unsatisfactory which means that: " Internal controls and risk management practices were either not established or not functioning well. The majority of issues identified were high risk. Hence, the overall programme's objectives are not likely to be achieved."

2) Fourteen issues were identified, which related to grant oversight and governance, ineffective programme management, financial and budgetary management, procurement and vaccine and supply chain management.

3) Key findings were that:

    a. Governance mechanism were ineffective. The respective health sector committees did not sufficiently engaged in addressing various EPI matters and there was inadequate oversight, since neither the internal nor the external audit functions reviewed Gavi-funded activities;

    b. The role of the EPI Technical Coordination Committee was inadequate and there were gaps in the EPI's institutional capacity. This resulted in inadequate planning for the execution of the 2015 measles campaign. Also, significant data anomalies were identified between the administrative coverage reported for pentavalent over a three-year period, as compared to the quantity of vaccines available;

    c. There were inadequate controls over financial management systems resulting in questioned expenditures of US$ 789,303 due to missing, inadequate or irregular supporting documentation;

    d. There were weaknesses in the management of vaccines due to staff skill gaps , resulting in inaccurate records and non-compliance with vaccine handling guidelines and standard operating procedures; and

    e. A flawed contracting process for a construction and rehabilitation contract totalling US$ 29,630.

The results of the programme audit have been discussed and agreed with the Ministry of Health and Sanitation, with a commitment to remediate the identified issues. In a letter to Gavi dated 13 November 2019, the Ministry of Health and Sanitation accepted the audit findings and committed to reimburse US$ 789,303 over a three-year period starting in 2021 and ending in December 2023.

The Gavi Secretariat continues to work with the Ministry of Health to ensure the above commitments are met.

Geneva, 9 November 2020

THE REPUBLIC OF SIERRA LEONE

Gavi Secretariat, Geneva, Switzerland

(Hereafter, Gavi)

Final Programme Audit Report – 16 July 2019

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1. Executive Summary

1.1. Audit findings by section

1.2. Overall Audit Opinion

The audit team assessed the Ministry of Health and Sanitation's management of Gavi's support during the audit period as **unsatisfactory**, which means, "Internal controls and risk management practices were either not established or not functioning well. The majority of issues identified were high risk. Hence, the overall Programme's objectives are not likely to be achieved."

So as to address the risks associated with the findings, the audit team raised 21 recommendations, of which 12 (57%) were rated as of critical, and need to be addressed by implementing remedial measures according to the action plan.

* The audit ratings attributed to each section of this report, the level of risk assigned to each audit finding and the level of priority for each recommendation, are defined in Annex 1 of this report.

1.3. Executive summary

The audit findings covering the various aspects for how Gavi's funds and vaccine support were managed and used, between January 2015 and December 2017, are summarised below. Between 2014 and 2016, following the Ebola Virus outbreak, the national health infrastructure was weakened, resulting in significantly delaying on the delivery of all health services and programmes, including immunisation. ***Prior Gavi Audit***

In 2014, Gavi conducted an audit of its cash support to the Sierra Leone's Ministry of Health and Sanitation (MOHS). The audit identified significant internal controls weaknesses in the financial management and expenditure controls of the MOHS. The audit found unsettled advances issued to District Health Management Team (DHMT), unjustified bank withdrawals, overpriced procurement, diversion of programme assets and forged documentation. In November 2014, the MOHS repaid US $ 523,303 to Gavi for the misuse that was identified by the audit. Consequently, since 2015, cash disbursements have been made through Gavi Alliance partners, UNICEF and WHO.

Grant oversight and Governance

The national immunisation programme did not have an effective governance mechanism which was responsible for providing the necessary continuity and assurance over the EPI programme's performance and management of Gavi-grants.

Equally, the respective health sector committees did not adequately engage and address various EPI matters, in accordance with their function and terms of reference. These committees' meetings were held sporadically, and without any proper follow-up or monitoring of prior action points.

There was no external audit of Gavi funded activities and similarly the MOHS' Internal Audit function did not include the programmes' activities in its scope.

Programme Management

There were gaps in the EPI's institutional capacity, adversely affecting its operations. There were no EPI specific job descriptions for the immunisation team of 24 people, consisting of 10 national and 14 sub-national level staff, and individuals lacked clarity on their responsibilities and accountabilities. In addition, the resourcing of the EPI team was significantly supplemented by a large cadre of volunteers.

The role of the EPI's Technical Coordination Committee (TCC) was inadequate as meetings were held without an agenda, minutes were not formalised and there was no evidence that resulting action points were approved. The impact of this Committee was also limited, as more than two thirds of action points from various assessments were not addressed.

There were shortcomings in both the planning and the implementation of the 2015 measles campaign. There was no evidence of district-level microplanning or engagement with the DHMT taking place. Social mobilisation activities were implemented late and a significant proportion of the target group was unaware about the campaign. Monitoring and supervision during the campaign was patchy and inconsistent. Supervisors were handpicked without any objective criteria and there was no evidence that these individuals were properly inducted.

A significant data anomaly was identified between the pentavalent administrative coverage rates reported by the districts, which were inconsistent when compared with the lesser quantity of vaccine actually available, as supplied by the central stores.

Budgetary Financial Management

The MOHS/EPI's financial management processes, controls and systems were ineffective and the accounting for the use of Gavi funds was inadequate, with no Gavi-specific accounting ledgers being maintained. All EPI funds (including Gavi's) were comingled a single bank account, however donors' funds were not reconciled, and remaining fund balances for each grant were not known.

The EPI Finance Officer lacked the necessary capability to manage funds, and the Directorate of Financial Resources failed to provide any support or mentoring to EPI on its Financial Management responsibilities.

Programme budgets and work plans for immunisation funding were prepared without inputs from the DHMT; and these plans were finalized without involving MOHS' finance/accounting unit. There was no budgetary analysis and Gavi's funds were not timely absorbed.

As a result, the Audit Team questioned expenditures totalling USD 789,303 due to missing or inadequate supporting documentation, see Table 1 and Table 2 for details. More than three quarters of these expenditures questioned by the Audit Team related to the funds transferred by UNICEF directly to the DHMT.

Procurement

The award of a USD 29,630 contract for the construction and rehabilitation of vaccine stores was flawed as the MOHS' in-house engineer was not involved in the tender assessment and the evaluation committee lacked the necessary technical competency. During construction, the Integrated Health Projects Administration Unit (IHPAU) did not undertake the required site supervision and monitoring visits. As a consequence, the contract was terminated early, and the civil works are still incomplete.

Vaccine Supply Chain

The supply chain processes did not accurately capture and record vaccine movements on a timely basis, and handling practices of the vaccines did not comply with guidelines. Based on Audit Team's visits to five District Vaccine Store (DVS) and 13 Peripheral Health Units (PHUs), consistent gaps were noted in the storage, handling, stock management, distribution, and recording of both vaccine temperatures and wastage.

Shortcomings were due to gaps in staffs' skills and competencies at the central and sub-national level, their poor awareness and understanding of Standard Operating Procedures, their use of data

tools, as well as the EPI's failure to implement various recommendations to improve the supply chain.

Moreover, earliest expired first out (EEFO) principles were not consistently applied and the clearance of vaccines from Freetown airport was frequently delayed. During the three-year audit period, Gavi-supported vaccines totalling USD 144,198 shelf expired (77%) or were written-off (23%).

1.4. Financial consequences of audit findings

Table 1: Summary of Expenditures questioned by the Audit Team, by grant in USD:

Grant	Amount tested	Total grant Expenditures	Amount questioned	% questioned of total grant expenditures
VIG – Measles 2nd dose	29,167	183,774	8,720	5%
Ebola Recovery Plan – EPI strengthening	1,367,722	1,663,838	400,706	24%
Ebola Recovery Plan – measles campaign	607,878	614,298	379,877	62%
Total	**2,004,767**	**2,461,910**	**789,304**	**32%**

Table 2: Summary of these same questioned expenditures, by category in USD:

Category of questioned expenditures	Amount questioned	% of total Amount tested	Details (report reference)
Unsupported expenditure	180,059	9%	4.3.2
Inadequately supported expenditure	451,318	23%	4.3.2
Irregular expenditure	156,282	8%	4.3.2
Ineligible expenditure	1,645	-	4.3.2
Total expenditure questioned	**789,304**	**39%**	

Table 3: Summary of shelf-expired and written-off vaccines at the central level, in USD:

Category	Amount questioned	Details (report reference)
Pentavalent vaccine shelf-expired – 31 Aug 2017	111,287	4.5.1
Vaccines written-off without justification	32,911	4.5.1
Total	**144,198**	

2. Scope and Objectives

2.1. Scope

Since 2001, Gavi has provided a total of USD 64.1 million, both in vaccine support and cash grant. A Partnership Framework Agreement was signed by the Ministry of Health, the Ministry of Finance and Gavi on 31 October 2013.

Between January 2015 and December 2017 ("the audit period"), Gavi resources totalling USD 21,425,073 were disbursed in benefit of the Republic of Sierra Leone, both as cash grants totalling USD 4,558,098 and as funds to procure vaccines and supplies totalling USD 16,866,975. According to tripartite agreements between MOHS, Gavi and alliance partners, Gavi disbursed USD 4,171,779 and USD 386,319 to MOHS through UNICEF and WHO respectively. During the audit period, Gavi did not disburse any funds directly to the MOHS.

The audit covered Gavi's support provided to the country during the audit period, including resources both at the central level as well as the sub-national level, see details in Table 4 and Table 5).

In addition, and in accordance with the "single audit principle" established by the United Nations including Gavi's core partners, any Gavi's funds which were disbursed to the partners for direct execution (for example to procure equipment on behalf of the Government) are excluded from the audit scope. As a consequence, a total of USD 2,133,950 was excluded from the audit scope, see Table 4 for details.

Table 4: Funds within and excluded from the audit scope[1], in USD:

Description	UNICEF	WHO	Total
Included in the Audit Scope - Total disbursed by the Alliance Partners to EPI Central, Health Education, IHPAU & DHMT, as of 31 Dec 2017.	2,063,102	361,046	**2,424,148**
Excluded from the Audit Scope - Total funds spent directly by the Alliance Partners and/or fund balances with the Alliance Partners as of 31 Dec 2017.	2,108,677	25,273	**2,133,950**
Total disbursed by Gavi - cash grants	4,171,779	386,319	4,558,098

[1] Actual amounts as recorded in UNICEF's and WHO's accounting records.

Table 5: Gavi support as of December 2017, in USD:

Cash grants	2001-2014	2015	2016	2017	Total
Ebola EPI recovery plan – UNICEF	-	3,433,054	-		3,433,054
Ebola EPI recovery plan – WHO	-	877,145	-	(490,826)	386,319
VIG IPV - UNICEF	-	180,000	-	-	180,000
VIG Measles Rubella – UNICEF	-	209,000	-	-	209,000
HSS – UNICEF	-	-	-	349,725	349,725
Past cash grants	4,380,387	-	-	-	4,380,387
Sub-total cash grants	4,380,387	4,699,199	-	(141,101)	8,938,485

Vaccines	2001-2014	2015	2016	2017	Total
Pentavalent	14,671,040	1,824,125	342,689	609,041	**17,446,895**
Pneumococcal	19,637,431	3,311,077	1,535,050	3,086,236	**27,569,795**
Inactivated Polio	-	155,401	(131,801)	84,761	**108,361**
Yellow Fever	2,120,874	480,481	18,149	612,102	**3,231,606**
Measles		131,457	173,047	(8,705)	**295,799**
Rotavirus	1,458,459	1,238,046	913,719	1,061,641	**4,671,865**
Injection Safety Devices	-	-	128,546	-	**128,546**
Human papillomavirus demo	341,390	-	(159,861)	-	**181,529**
CCEOP	-	-	-	1,301,914	**1,301,914**
INS	272,660	-	-	-	**272,660**
Sub-total vaccines	38,501,855	7,140,587	2,819,538	6,746,990	55,208,969

TOTAL	42,882,242	11,839,786	2,819,538	6,605,889	64,147,454

*The period prior to January 2015 is excluded from the scope of the Gavi Programme Audit

2.2. Audit objectives

In line with the respective programme agreements and with Gavi's Transparency and Accountability Policy, all countries that receive Gavi's support are periodically subject to programme audit, for which the primary objective is to provide reasonable assurance that the resources were used for intended purposes in accordance with the Gavi agreed terms and conditions, and that resources were applied to the designated objectives.

As a result, the audit team assessed the relevance and reliability of the internal control systems relative to: the accuracy and integrity of the books and records, management and operational information; the effectiveness of operations; the physical security of assets and resources; and compliance with national procedures and regulations.

The team also reviewed the various processes and programme management arrangements governing Gavi's support (vaccines and cash grants) for which the respective entities were responsible, so as to: assess the existence and functioning of the key processes; undertake substantive tests of a sample of programme expenditures ; and review the vaccine supply chain management effectiveness and efficiency.

2.3. Conduct of the audit engagement

In September 2018, the Gavi Audit Team reviewed expenditures incurred by the central EPI and MOHS' Health Education Division, the latter which had received funds from UNICEF. In addition, and at the request of the Audit Team, the MOHS deployed its Internal Audit function to supplement the Team's work, by assisting in the review of additional expenditures across the 14 districts which received Gavi-funds from the central EPI or directly from UNICEF and WHO. Having validated the work done by the Internal Audit unit, the Audit Team incorporated their findings within Section 4 of this report.

The Gavi Audit Team also conducted a vaccine supply chain review which covered the Central Vaccine Stores (CVS), five District Vaccine Stores (DVS) and 13 Peripheral Health Units (PHU). See Table 13 in Annex 4 for the list of sites visited by the Audit Team.

In March 2019, the Ministry of Health and Sanitation requested that the Audit Team return to review additional documentation which they believed would support the expenditures questioned in the draft report. As a result, Gavi exceptionally agreed to return in May 2019 to undertake a review of documentation presented, which the MOHS had indicated was available. The results of this follow-up review are consolidated within the overall audit report findings.

2.4. Exchange rates

Expenditures were incurred in Sierra Leonean Leones (SLL), which, for reporting purposes, have been converted to the United States Dollar (USD) at a rate of USD 1 to SLL 5,508 based on the average exchange rate during 2015-2017, per the Central Bank of Sierra Leone.

3. Background

3.1. Introduction

Sierra Leone is a constitutional republic with a population of 6.9 million people. It composed of four regions: the Northern, Southern, Eastern Provinces and the Western Area. These regions are subdivided into sixteen districts and 149 chiefdoms. Freetown, the capital city and the seat of government, is in the Western Area Urban District.

3.2. National entities involved in the executing and managing Gavi's funds

At the national level, the MOHS maintains policy setting, planning, coordination, and management functions, while service delivery is devolved to the district level. The MOHS has coordination structures that link the national level to the district and community levels through the DHMT. There are 1,271 health facilities (both national Peripheral Health Units and private health facilities) providing immunization services in the country. The human resource measure of health professional density is reported at two doctors, nurses and midwives per 10,000 people, a rating that is below the WHO recommendation of 23.4.[2]

The Ebola Virus outbreak in May 2014, damaged the already weak national health infrastructure and halted delivery of all health services and programmes, including immunisation. The Vaccine Preventable Diseases' surveillance systems became virtually non-functional leading to under reporting.[3]

The MOHS is divided into the administrative and technical wings. The Administrative wing is headed by the Permanent Secretary, whereas the Technical wing is headed by the Chief Medical Officer (CMO). Under the CMO, there are 10 directorates which include Reproductive and Child Health (RCH). The Child Health/EPI is headed by a manager and is one of the three technical programmes within the RCH directorate. The EPI executes activities including those supported by Gavi-funds.

[2] Source: http://www.who.int/hrh/fig_density.pdf?ua=1, accessed 7 November 2018.

[3] According to 2016 measles post campaign survey report.

4. Audit Findings

4.1. Grant Oversight and Governance

4.1.1. Absence of an EPI oversight mechanism

Description	Recommendation 1 - Critical
Most Gavi-supported countries have an Inter-agency Coordination Committee (ICC) specifically designated with the responsibility for strengthening and provide oversight over the national immunisation programme. However, no such oversight mechanism exists in Sierra Leone. Instead two high-level committees, namely the Health Sector Coordinating Committee (HSCC) and Health Sector Steering Group (HSSG), were put in place to provide oversight and coordination on all health-related matters. The HSCC chaired by the Minister of Health, is the highest decision-making body on all health sector activities in the country. The HSSG, chaired by MOHS' Chief Medical Officer is a technical coordination group that: coordinates the work of health sector technical partners; reviews and integrates proposals from its working groups; and makes recommendations to the HSCC for decision making. The Audit Team reviewed the Terms of Reference (TOR) and meeting minutes for both committees and noted that meetings were held only sporadically and that there was no evidence of follow up on the points agreed during the meetings. Per its TORs, the HSSG was supposed to meet every two weeks, but failed to meet in 2015, met once in 2016 and twice in 2017. Similarly, for the HSCC which was supposed to meet quarterly, there was no record of meetings in 2015, it met twice in 2016 and there was no evidence of any meetings in 2017. All of the minutes provided to the Audit Team were not signed, finalised or formally approved, and they did not include a list of participants. Furthermore, both committees did not have standing agenda regarding key immunisation components including coverage data, the cold chain function (including progress on Effective Vaccine Management), programmatic performance, or vaccine shipments. As a result, the Audit Team could not determine what impact if any these committees had on the EPI programme, nor what oversight was obtained, if any.	The MOHS should, in consultation with the in-country partners and Gavi Secretariat, establish an effective oversight body for the EPI. Management comments There is a Technical Coordination Committee which provides oversight of the EPI program. The committee was not effective owing to certain challenges. However, the Committee will be strengthened to include top management of the MoHS. The program will work to put in place an ICC within the shortest possible time.

Risk / Impact / Implications	Responsibilities	Deadline / Timetable
There is a risk that critical issues and challenges within the EPI may not be addressed in an efficient and effective manner where required governance committees are not functional. Examples of such issues are included in sections 4.2 and 4.3 of this report.	The CH/EPI Program Manager	April 2019

4.1.2. No external and internal audit of Gavi supported activities

Description

Since 2015, Gavi's funds were managed on behalf of the MOHS by UNICEF (USD 4,171,779) and WHO (USD 386,319). As a result, during the period 2015 to 2017, the overall level of Gavi's cash disbursed to the immunisation programme (i) by UNICEF totalled USD 2,063,102 (SLL 11,499,282,097), both at a national and sub-national level; and (ii) by WHO totalled USD 361,046 (SLL 2,102,423,500) – to the central-level only. As a consequence, during the same period, total expenditures reported by the respective MOHS entities concerned (Central EPI, Districts, HED and IHPAU) totalled USD 2,461,687[4] (SLL 13,558,970,597).

Table 6: The breakdown of transfers under all Gavi-cash grants is as follows (Jan 2015 – Dec 2017):[5]

Entities receiving funds from the Alliance Partners	Amount SLL	Amount USD
Unicef to EPI central	3,817,863,350	636,765
Unicef to districts directly	4,659,287,203	955,706
Unicef to Health Education division directly	761,512,000	127,452
Unicef to IHPAU directly	2,260,619,544	343,179
Total funds disbursed by Unicef	**11,499,282,097**	2,063,102
WHO EPI central	2,102,423,500	361,046
Grand Total (WHO and Unicef)	**13,601,705,597**	2,424,148

The 2015 tripartite agreement between Gavi, UNICEF and MOHS, stipulates that UNICEF's responsibility for routine financial audits is according to its internal and external audit procedures. The in-country UNICEF staff clarified that they commission such financial audits only when UNICEF's funding to a partner exceeds USD 50,000 per year. However, since the UNICEF office treats each DHMT as an individual partner, the fact that approximately 39% Gavi's funds were disaggregated and disbursed by UNICEF directly to each DHMT, this typically resulted in the annual amount received by each district being less than US$ 50,000, and as such did not require a financial audit.

The supreme audit institution of Sierra Leone, Audit Service Sierra Leone (ASSL), has a mandate to audit the MOHS, but it did not include Gavi funded activities in its scope. This because Gavi's funds did not pass through the central MOHS' financial management systems and were therefore not included in the ASSL's scope. Consequently, the ASSL did not conduct any external audits of Gavi funded activities for 2015, 2016 and 2017.

Similarly, the MOHS own internal audit function did not include any Gavi funded programme activities within its scope for 2016 and 2017, with its last review have been done in 2015.

Recommendation 2 - Critical

The MOHS, in discussion with Gavi Country Support Team and the ASSL, is recommended to:

- Consider including Gavi funded activities in the scope of the ASSL starting with the 2017 fiscal year;
- Create a specific budget line in the Gavi programme of activities, for the cost of external audits; and
- Ensure in future, that regular internal audits are conducted on Gavi funded programme activities.

Management comments

Gavi funds are now channelled through the MoHS financial system and therefore fall within the mandate of ASSL.

The Internal Audit team of the MoHS lacks support to conduct regular internal audits on GAVI activities. A budget line can be created to support internal audit and controls mechanisms.

[4] The total MOHS expenditure for this period is marginally higher than the total disbursements from WHO and UNICEF due to the effect of different applicable FOREX. The funds transferred by WHO and UNICEF's in local currency equivalent was based on the actual exchange rate at the time of disbursement. Whereas, the MOH entities reported the expenditures in SLL converted back using an average FOREX rate for reporting purposes of USD1=SLL5,508.

[5] The USD and SLL amounts managed and disbursed by UNICEF and WHO, are based on the actual amounts recorded in their respective accounting records.

Risk / Impact / Implications	Responsibility	Responsibility
In the absence of internal and external audits, budgetary, financial management, procurement and programmatic management challenges and issues may not be identified and addressed. The lack of regular audits undermines risk deterrence and does not facilitate an appropriate level of assurance for the stewardship and performance of Gavi-supported activities.	CH/EPI Program Manager	Quarter 2, 2019

4.2. Programme Management

4.2.1. The EPI team lacks capacity and accountability

Description

Vacant positions

The central EPI unit was under-resourced as some key managerial and technical areas necessary to deliver an effective EPI programme were not filled. At the time of our audit in June 2018, two established key positions (the National Cold Chain Officer and National Operations Officer) at the central EPI were still vacant.

The EPI Manager indicated that human resource capacity constraints also adversely affected disease surveillance and response, planning and policy, financial planning, performance management, and coordination with both the in-country partners and other MOHS departments.

Reliance on volunteers/ unsalaried health workers

Although there has not been a formal EPI human resources need-assessment, the EPI Manager indicated that it has been determined that an EPI resource of 84 positions is necessary to successful implement the programme at subnational level. However, at the time of the audit in June 2018, only 14 of these positions were on government payroll, with the remaining positions being held by unknown number of volunteers. The 2016 MOHS' report on Human Resources for Health Country Profile highlighted a protracted shortage of health professionals and the existence of a significant number of unsalaried health workers across the country. The report noted that out of a

Recommendation 3 - Critical

The Audit Team recommends that the MOHS, in consultation with the in-country alliance partners:

- Assess the human resource needs for the EPI programmes and create and recruit positions for these vacancies;
- For all EPI positions, a suitable reporting structure should be established with clearly defined roles, responsibilities and accountabilities for each role; and
- Establish and implement a training curriculum for new and old immunisation personnel to ensure that all staff and incumbent individuals have the necessary skills.

Recommendation 4 – Essential

The MOHS should include appropriate representatives from the EPI management team in existing recruitment processes, to ensure that candidates with the right skills and competencies are selected, interviewed and recruited.

total active workforce of 19,030[6] health workers, the Government of Sierra Leone only employs 9,910, with the remaining 9,120 workers being employed on an unsalaried, less than formal basis.

From the Audit Team's visits to select sites across the country, it was noted that the immunisation programme largely dependent on volunteers and unsalaried individuals for the repair of cold chain equipment, and the maintenance and management of cold rooms.

Central Level – Lack of job description and accountability

The MOHS' 2004 National Operational Handbook for Primary Health Care has generic job descriptions for MOHS staff such as Program managers and District M&E Officers. However, within EPI, there were no detailed job descriptions for the nationwide EPI team of 24 individuals, at both the national (10) and sub-national level (14). As a consequence, the team's roles, responsibilities and accountabilities were not clearly set out. Also, the EPI departmental organisational structure was not properly established, as the EPI Manager did not receive any regular reports or updates from the subnational level or from the team managing the CVS, and conversely there was no formal procedure for the central-level EPI to report itself on key issues back up to the MOHS Management.

Inadequate skills and experience at national and Sub-national level

A team of five staff (EPI Logistician – team leader, Assistant Logistician, Pharmacist and two Cold-room Attendants) managed the new national level CVS. It was noted that the EPI logistician, who was responsible for technical areas such as vaccine forecasting and the management of vaccine stock records, did not have a formal qualification in supply chain management.

Similarly, the 2016 Effective Vaccine Management (EVM) review of the EPI team conducted at sub-national level noted that new recruits often lacked proper training and orientation, and that the cohort of prior recruits urgently needed refresher training to update their knowledge. At the time of the audit in June 2018, none of the recommendations from the EVM implementation plan related to staff training had been implemented and the EPI had not put any training or capacity building plans in place as had been recommended.

The Audit Team also noted that several district level roles, including the Finance Officer, Logistic officer and Cold Chain Operators had not yet received any training. Only select District Operation Officers were trained in 2016. See Table 20 and Table 21 in Annex 4 for details.

Lack of involvement of the EPI team in the recruitment process

The Human Resource Directorate (HRD) and its posting committee make staffing decisions on HR policy and appointments, without directly consulting with the EPI team. This was a concern, as according to the EPI Manager and Gavi alliance partners, there were shortcomings with most of the recent recruits who lacked specific EPI expertise, requiring considerable investment in retraining. Thus, per the existing MOHS' recruitment practices, the EPI Manager is in practice obligated to accept those individuals who are recruited by the MOHS' HRD, regardless of their skills and experience.

Management Comments

The audit recommendation is noted.

In the GAVI HSS/PSR grant, there is provision for incentives for solar technicians, district operations officers in all districts, and vaccinators in six poor performing districts. As a result, the Districts have recruited two solar technicians per district who will be responsible for both preventive and corrective maintenance of all vaccine solar refrigerators across the country. In addition, there is also provision for two District Operations Officers per district for comprehensive vaccine management at district level.

The incentives for the vaccinators in the six poor performing districts will reduce over- reliance on volunteers.

An independent human resource supply chain capacity assessment was conducted with support from UNICEF in November 2018. The findings will be presented to the MoHS to inform future recruitment processes.

Job descriptions will be developed by the program in consultation with the HRH of the MoHS. In addition, there are plans by the MoHS to update the PHC handbook to include job descriptions for all MoHS staff.

Risk / Impact / Implications	Responsibilities	Responsibilities
Unclear roles and responsibilities limit the accountability for the EPI team. Without the necessary skills and competencies, the EPI team's ability to manage the programme may be severely compromised.	CH/EPI Program Manager	Quarter 3, 2019

[6] Excluding Community Health Workers (CHWs), Traditional Birth Attendants (TBAs) and Traditional Healers who are not part of the Sierra Leone Civil Service.

4.2.2. Ineffective Technical Coordination Committee

Description

The EPI's Technical Coordination Committee (TCC) discusses and provide technical assistance to the EPI in matters related to the programme(s). The committee, chaired by the Director of Reproductive and child Health (DRCH) or by the EPI manager in his absence, consists of EPI team members and technical representatives from the donors and alliance partners (WHO and UNICEF). The EPI team provides secretarial support to the TCC and was responsible for: summoning meetings; drafting meeting minutes; and circulating and filing the approved minutes. The TCC participants employed by the MOHS also receive a per diem for their participation.

From its review of the TCC function the Audit Team noted the following weaknesses:

- The EPI had not yet developed Terms of Reference for the TCC;
- There was no participation of DHMTs in the discussions, which was considered a missed opportunity for them to elevate and provide insight on subnational issues;
- Most of the TCC minutes did not give rise to any action points. There was no follow-up on prior issues from earlier meetings. E.g. there were only action points arising from one of two meetings held in 2015.
- The Audit Team did not see evidence of circulation and finalisation of the TCC minutes;
- The TCC meetings did not have a standing agenda on items such as workplan implementation, EPI performance indicators, vaccine stock levels, immunization coverage, condition of cold chain equipment, and status of implementation of recommendations from various assessments;
- There was no protocol for escalating critical proposals from the TCC meeting to a higher level within the MOHS or to decision-making bodies such as HSSC/HSSG.
- The TCC was unable to address the weaknesses identified by 2016 EVM assessment; 34 out of 60 recommendations from the EVM assessment report have not been implemented.

Recommendation 5 - Critical

It is recommended that the MOHS/EPI develops a comprehensive TORs for the TCC, with clear requirements for the committee's membership, quorum, and items to include on a standing agenda, expectations for secretarial support and identification of the various channels for escalating the TCC's key proposals and recommendations.

Management Comments

The audit recommendations are noted, and management will act accordingly.

Risk / Impact / Implications	Responsibility	Responsibility
If the TCC does not provide a suitable forum to discuss and address issues, the performance of the immunisation programme might be impeded.	CH/EPI Program Manager	Quarter 2, 2019

4.2.3. Unsatisfactory implementation of the measles campaign

Description

In August 2015, Gavi disbursed USD 1,075,526 to the country through UNICEF to support the nationwide measles campaign. Thereafter in November 2015, UNICEF reported a total expenditure of USD 1,074,386. The campaign was executed soon after the end of Ebola outbreak and was integrated with a Polio Campaign, increasing the degree of complexity and coordination required. Different service delivery sites were established for Polio (oral) and measles (injection) vaccination.

The Audit Team identified several weaknesses during the various stages of the measles campaign e.g.:

- Pre-campaign activities not conducted- The EPI did not prepare micro-plans for the campaign at both national and district levels as required per the WHO Field Guide. The EPI manager commented that micro-plans developed in April 2014, prior to the outbreak, were updated for the June 2015 measles campaign. However, these revised micro-plans were not available on file for review. Also, there was no evidence of discussion or participation by the DHMT as part of the planning prior to the campaign start.
- Ineffective advocacy and social mobilisation- Social mobilisation activities only began one month before the campaign, which is contrary to the WHO guide that recommends commencement of social mobilization at least six months prior. Moreover, the social mobilisation plan was unclear as to the audience, message, and strategy for reaching targets groups in hard-to-reach areas. The Audit Team was also not provided with evidence of social mobilisation activities such as minutes or reports of advocacy meetings at national and district levels, although the overall measles campaign report asserted that such meetings and stakeholder informative sessions actually did take place.
- Ineffective monitoring and supervision- No objective criteria for the selection of supervisors at national and sub-national levels existed, and these were not documented. There was no evidence that the individuals assigned with a supervisory role were trained or oriented on the requisite skills and activities required to conduct supportive supervision. Similarly, supervisors at both the national and sub-national levels did not complete the required monitoring and supervision checklists and reports.
- Sub-optimal management of the Adverse Effects Following Immunisation (AEFI) process - The MOHS/EPI was unable to provide the Audit Team with the completed AEFI forms for review.

Refer to Annex 5 for criteria used by the Audit Team for assessing the implementation of the measles campaign.

Recommendation 6 - Essential

For the future campaigns, the MOHS/EPI is recommended to:

- Ensure that WHO's guide on micro-planning is adhered to by developing micro-plans and social mobilisation plans through the nation-wide stakeholder consultative process;
- Ensure that the budgetary allocation to the districts is based on their respective micro-plans;
- Establish and document objective criteria for the selection of appropriate campaign participants, including health workers and supervisors; and
- Ensure that the supervisory checklists; supervision and AEFI reports are completed as required.

Management Comments

The audit recommendations are noted.

Pre-campaign activities not conducted:

As a result of the exigency of the activity (a preventative post-Ebola campaign) at the time), the EPI team and partners requested districts to update their district 2014 micro plans for the campaign. The program is now undertaking micro planning for MR in December 2018 and RI in January 2019.

Ineffective advocacy and social mobilisation

This recommendation is noted. There was insufficient time for a six-month social mobilization activity as the period between the disbursement of funds and the planned date for the campaign was too short. Going forward, management will act accordingly.

Ineffective monitoring and supervision

National supervisors are selected based on criteria including the following:

- Must be trained and qualified healthcare workers (Community Health Officers, Nurses, with experience in SIA (campaign) trainings of vaccinators, and,
- Experience in conducting/participation in MoHS Integrated Supportive Supervision to districts.

Going forward the MoHS will document these criteria among others for reference

Sub-optimal management of the Adverse Effects Following Immunisation (AEFI) process:

The recommendation is noted. The MoHS now has in place an AEFI committee at national level with focal points in each district.

Risk / Impact / Implications	Responsibilities	Deadline/ Timetable
Non-compliance with the WHO recommended Guide on immunisation campaign activities risks not reaching the target population. The subsequent measles outbreak in August 2015 in the districts of Kono and Western Urban, which had the lowest coverage (WHO report) in the 2015 measles campaign, exemplifies the risk of not complying with the WHO Field Guide procedures. There is a 5% difference in coverage rate between official data (93%) and a post campaign Survey (88%) conducted by a WHO consultant (supported by personnel from WHO, EPI, CDC and UNICEF). This was attributed to an underestimation of the district target population, a result of using outdated micro-plans rather than developing revised micro-plans for the campaign.	The CH/EPI Program Manager	Quarter 2, 2019

4.2.4. Administrative coverage data quality anomalies – pentavalent

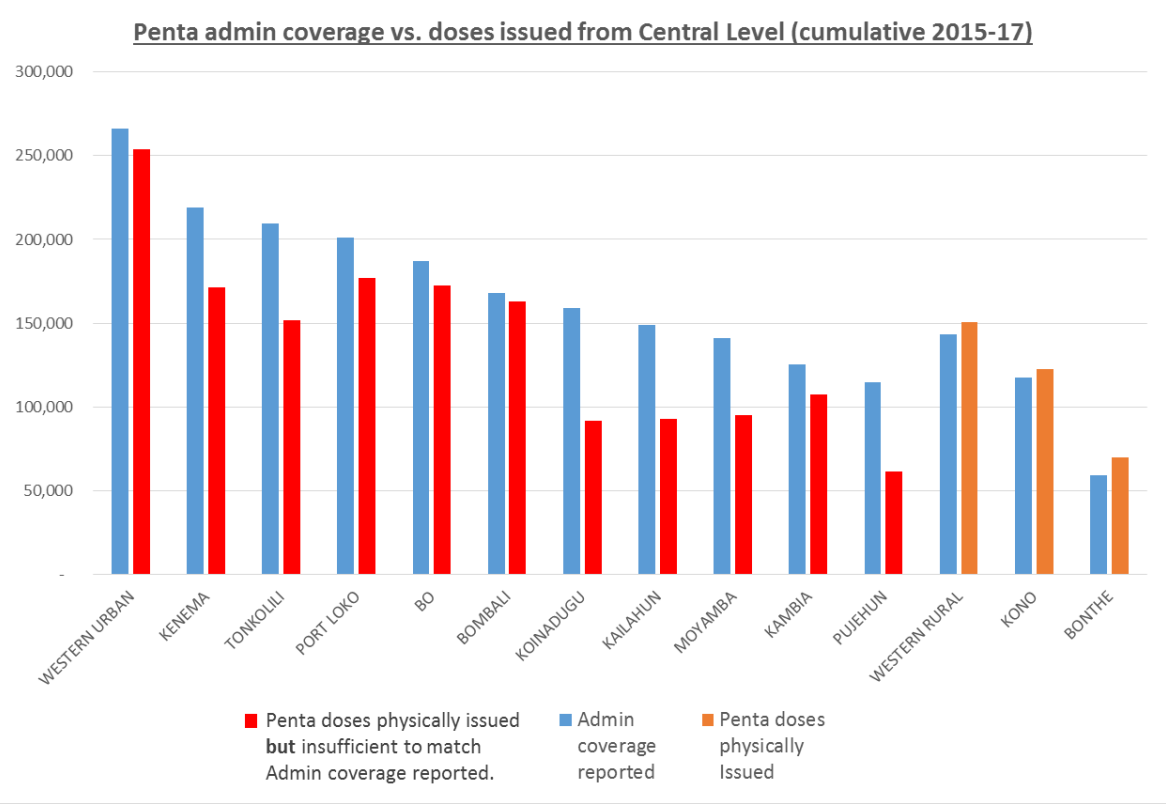
Description

Article 8.1 (d) of Partnership Framework Agreement (PFA) between the MOHS and Gavi, indicates that the government represents to Gavi that all information that it provides to Gavi: "including its applications, reports, supporting documentation, and other related operational and financial information/reports, is accurate and correct as of the date of the provision of such information."

The Audit Team compared the administrative immunisation coverage reported by the country to the total volume of pentavalent issued by the CVS to the three-year period, 2015–2017. This analysis, as illustrated in Table 5 below, showed that for this primary vaccine supported by Gavi, there were significant data anomalies in the official DTP-Hib-Hep data reported, that:

- There were data inconsistencies across 11 out of 14 districts in respect to the number of children reported as vaccinated, compared to the volume of pentavalent issued by the CVS, and consistently across all major districts the administrative immunisation coverage exceeded the number of doses physically available.
- The Team questioned the quality of administrative data, as reported to Gavi via the Performance Framework.
- Moreover, the Audit Team did not adjust its analysis to account for the country's stated vaccine wastage rates, even though this factor would only exacerbate further the unexplained gap between the elevated administrative coverage rates, in contrast to the lesser quantities of vaccine supplied.

Table 7: Incoherent Penta coverage data – comparison of districts' total vaccine doses received against total children reported vaccinated



Recommendation 7 - Critical

The MOHS is recommended to undertake data quality assessment studies to determine where errors are accumulating in its data collection systems, so as to follow-up on the data anomalies identified, including examining processes of administrative data collection, to ensure that these accurately capture the necessary immunisation data.

In addition (and in part based upon the result of these studies), suitable data quality processes should be put in place to ensure that immunisation data recorded in the national tools and systems are credible and validated.

Management Comments

The critical recommendation is noted. The MoHS has noted data quality issues and is taking measures to improve its data quality by scaling up training of M&Es at both national and national levels as well as primary data collectors. The data harmonization meetings (With DPPI, EPI, Malaria, and Nutrition) will be held more regularly to identify and address data discrepancies. The districts will also be encouraged to review and analyse data before forwarding to the national level. Feedback will be provided to the districts on data quality issues on a regularly basis.

Risk / Impact / Implications	Responsibilities	Deadline/ Timetable
The unexplained inconsistencies in the administrative coverage data, which are reported as official country estimates to WUENIC and placed in the public domain, could have the following adverse consequences of: • Non-compliance with the terms of the Partnership Framework Agreement and inaccurate reporting in the Performance Framework; and • Undermining the level of confidence in administrate immunization data.	The CH/EPI Program Manager	Quarter 2, 2019

4.3. Budgetary and Financial Management

4.3.1. Ineffective financial management structure and processes

Description

Insufficient personnel available to account for Gavi-provided grants

The EPI's Finance Officer was responsible for managing all donor funds, including Gavi. The Audit Team determined that this officer did not have the necessary skills to maintain proper accounting records and prepare the required financial reports. No Gavi accounting ledger was maintained, and as a consequence the Audit Team was forced to reconstitute primary accounting records, including collecting financial information relating to the overall disbursements from UNICEF and WHO.

The EPI management did not review financial reports summarising Gavi-funded activities, to ensure that the expenditures incurred were in line with the approved budget and work plan.

Similarly, during the period Jan 2015 – Dec 2017, there was no evidence of supervision of the EPI Finance Officer by the MOHS Directorate of Financial Resources as required. Thus, it appeared that there was no review of the Finance Officer's outputs, including the expenditures' supporting documentation, bank account reconciliation and the accuracy and timeliness of financial reports.

Non-compliance with financial management guidelines and the grant agreement

According to Gavi's financial requirements, expenditures should comply with national regulations, and accounts and records (including supporting documents) should establish and verify accurately these expenses. However, the Audit Team identified several incidents of non-compliance, namely:

Advance Imprest – The national Financial management Regulations (2007) require an imprest system for advances. Such imprest systems ensure that advances are duly tracked and liquidated after validation of supporting documentation, for example training attendance registers, signed attendance/ payment sheets and supervision reports. However, the EPI Finance Officer did not maintain an imprest ledger and instead erroneously recorded all advance payments as expenditure.

Gavi-funds comingled with other funds – The MOHS deposited all donor funding received by the EPI into a single bank account. The Audit Team noted that all bank charges on the account were charged to Gavi's account and not shared proportionately across all donor funds. As a result, USD 13,636 (SLL 75,105,498) was exclusively attributed to bank charges and paid out of Gavi-grants.

Recommendation 8 - Critical

It is recommended that the MOHS put in place a team of competent accounting staff with responsibility for managing EPI funds (including Gavi grant funds). Where necessary, this team should be provided with suitable training, including technical skills such as book keeping, accounting and financial management analytics.

Thereupon proper accounting books and records should be maintained, ensuring that as a minimum that adequate and sufficient supporting documentation is attached to all transactions, and that systems and processes comply with national financial management regulations.

Recommendation 9 - Essential

The MOHS should ensure that Gavi funds are maintained in a dedicated bank account, or where commingled with other funds, that fund-wise bank reconciliations be routinely undertaken, with the necessary apportionment of bank charges and interest income.

Management Comments

The Ministry of Finance has instituted a Treasury Single account (TSA) at the Bank of Sierra Leone (Central Bank) for which no bank charges will be incurred.

In addition, management is working on modalities to open separate accounts strictly for GAVI grants. This will be further discussed with the senior management of the MoHS. However, a separate bank account for Gavi funds will not exclude the deduction of normal bank charges which are not provided for in the activity budget.

Risk / Impact / Implications	Responsibilities	Deadline/ Timetable
Inadequate financial management institutional arrangements not in accordance with both national regulations as well as the donor's needs, compromises the credibility of records and expenditures.	CH/EPI Program Manager	Quarter 2, 2019

4.3.2. Expenditures – unsupported, inadequately supported or irregular

Description

Article 19 and 20 of Annex 2 of Performance Framework Agreement signed between Gavi and the government of Sierra Leone, represented by its Ministry of Health and Ministry of Finance in October 2013 stipulates that: the Government shall use Gavi-provided cash grants solely to fund Programme Activities; and the Government shall ensure that all expenses relating to the use or application of funds are properly evidenced with supporting documentation sufficient to permit GAVI to verify such expenses.

In 2015, Gavi provided Ebola EPI Recovery grant of USD 4,310,199 to the MOHS via UNICEF (USD 3,433,054) and WHO (USD 877,145). In 2017, WHO returned USD 490,826 of unused funds to Gavi. As of December 2017, the grant was used by the MOHS to carry out EPI strengthening activities (USD 1,663,838) and a nationwide measles campaign in 2015 (USD 614,298).

For the measles campaign, the EPI team did not prepare adequate budgets and failed to demonstrate the basis for how it allocated funds, in contrast to the recommended approach of disbursing according to a micro-planning process. See section 4.2.3 for details. The use of the Ebola Recovery grant funds was not transparently recorded, as the DHMT and the EPI central office did not undertake any budgetary analysis or prepare Budget vs Actual reports. Instead the justification and accountabilities submitted in support of the campaign expenditures were limited to those reports required by UNICEF and WHO, including the FACE/ DFC forms and the activity reports associated. The Audit Team noted that there was no evidence of any budgetary or financial control of these funds disbursed and reported.

The programme audit team tested USD 2,004,767 of the total expenditure incurred by the EPI from the total funds received from WHO and UNICEF. Based on the Audit Team's review of the underlying supporting documentation (including both the campaign and other activities), the Team determined that 39% of the expenditures reviewed were questionable due to an absence of documentation or irregular and ineligible attributes.

Table 8 - Summary of expenditure questioned by the Audit Team in USD

Grant	Tested	Unsupported	Inadequately supported	Ineligible	Irregular	Total questioned
VIG-measles second dose	29,167	1,606	4,235	-	2,879	8,720
Ebola Recovery- EPI strengthening	1,367,722	96,265	205,137	1,645	97,660	400,706
Ebola Recovery (measles campaign)	607,878	82,188	241,946	-	55,743	379,877
Total	**2,004,767**	**180,059**	**451,318**	**1,645**	**156,282**	**789,304**
Relative % share of questioned items	*N/A*	*23%*	*57%*	-	*20%*	*100%*

Recommendation 10 – Critical

In future, it is recommended that the EPI financial function be charged with the responsibility of ensuring that:

- payment vouchers are reviewed, validated and approved by the appropriate authorities; and
- all expenditures are adequately supported using documents like signed and dated minutes of meetings, attendance sheets, payment schedules for allowances and per diems, third party receipts and invoices, acknowledgement forms and activity reports before submission to the appropriate agent or reviewer.

See Recommendation 2 for issues related to Internal audit
See Recommendation 8 for issues related to the Finance function.

Unsupported expenditure

Expenditures totalling USD 180,059 were not supported with any documentation. These were mainly advances issued to the DHMT for allowance payments for trainings which were not supported by multiple elements including: signed and dated attendance sheets, payment schedules for allowances and per diems, third party receipts or invoices, acknowledgement forms or activity reports. Majority of these payments were disbursed to DHMT via the EPI Central team, or directly to the DHMT by UNICEF.

The EPI central and the DHMT were required to justify their expenditures to UNICEF on a quarterly basis, by certifying the use of funds using a Funding Authorization and Certificate of Expenditure (FACE) form, prior to the receipt of subsequent funds from UNICEF. However, during the audit, the EPI programme at the central and subnational level could not provide supporting documents for the expenditures for which they had already certified to UNICEF as liquidated.

Inadequately supported expenditure

Expenditures totalling USD 451,318 were inadequately supported, of which USD 261,589 relate to expenditure incurred by the central EPI in relation to June 2015 measles campaign. Most of the expenditures in this category related to:

- Payment for various events for which pre-approved participants list were unavailable and no relevant activity report were prepared;
- Purchase of mobile recharges for which list of beneficiaries were unavailable;
- Unavailability of registers showing details such as beneficiaries and vehicle registration numbers for distribution of fuel; and
- Payment vouchers not approved by appropriate authority.

Overall, due to the unavailability of the above-mentioned support documents, the Audit Team was unable to establish if the individuals that benefitted were actually selected, entitled and involved in the immunisation activities.

Irregular expenditure

Expenditures totalling USD 156,282 were considered irregular. These expenses mainly related to:

- Trainings related expenditure such as refreshments, attendance sheets or payment sheets where the support document was dated earlier than the time the activity actually took place;
- Attendance sheets containing signatures which lacked credibility, including signatures for different individuals which were signed in the same handwriting or by the same individual;
- Historic payments incurred prior to approval of the activities.

See Annex 2 for detailed definitions of the above classifications.

Management Comments

Unsupported expenditure/Inadequately supported expenditure

Funds disbursed directly from the EPI Central team to DHMTs for which documents were not available at the time of the audit are now available for review/inspection.
Funds disbursed by UNICEF directly to DHMTs are liquidated for directly to UNICEF by the districts.
Going forward, your recommendations will be fully implemented.

Irregular expenditure

Dates for campaigns including related activities such as trainings, distribution of commodities including vaccines are determined and made public before the completion of processing of funds. This invariably leads to pre-financing issues when funds are unavailable at the time the activities are due. This is something the MoHS is working to forestall. The MoHS will work to implement your recommendations.

Risk / Impact / Implications	Responsibilities	Deadline/ Timetable
Insufficient or ineffective financial or internal controls governing expenditures, compromises the MOHS' ability to ensure that the Gavi-grants were used for intended purpose and in accordance with the terms of the 2013 Partnership Framework Agreement, Annex 2, articles 19 and 20.	CH/EPI Program Manager	Quarter 2, 2019

4.4. Procurement

4.4.1. Unsatisfactory construction and rehabilitation cold-rooms

Description	Recommendation 11 - Essential We recommend that the MOHS conduct an independent assessment of the work done to date and take necessary action to complete the work. Recommendation 12 -Essential In future, the MOHS or its Programme Implementing Unit is recommended to involve appropriate technical expertise when evaluating and selecting contractors for complex projects. Thereafter, all contract awards should be adequately monitored to ensure that delays and other weaknesses are identified and addressed in a timely manner.
The Audit Team reviewed the procurement for the construction and rehabilitation of District Vaccine Stores, a process that was managed by the MOHS' Integrated Health Projects Administration Unit (IHPAU), a unit responsible for supporting implementation of activities funded by a range of donors. The following gaps were noted: • The IHPAU in-house engineer was not involved in the tender evaluation process. IHPAU's Joint Financial Management Manual required the members of the evaluation committee to have necessary skills which correspond to the value and complexity of the procurement; • A single contractor was selected for the work in four sites located at four different districts within an allotted period of one month. The works were scheduled to be undertaken during rainy season which created additional difficulty in completing the work; and • IHPAU did not conduct any routine supervision of the project, as required. The final outcome of the contract was that the contractor was unable to complete the work and IHPAU terminated the contract on 7 May 2018 (nine months after the completion deadline) with the works only at 85% completion. Approximately USD 16,000 (SLL 123,200,460) of the USD 29,630 contract was paid.	Management Comments The MoHS will comply with the recommendations above.

Risk / Impact / Implications	Responsibilities	Deadline/ Timetable
Failure to include the appropriate technical expertise, as well lapses in not ensuring adequate contract selection and supervision, may result in resources being wasted or projects not being completed on time.	CH/EPI Program Manager	Quarter 2, 2019

4.5. Vaccine Supply Management

4.5.1. Controls for vaccine wastage, expiration and write-offs were inadequate

Description

Article 20.1 of Annex 2 of 2013 Performance Framework Agreement stipulates that the Government shall ensure that there is no misuse or waste of, or corrupt, illegal or fraudulent activities involving the funds and vaccines and related supplies.

There was no evidence that vaccine expirations and write-offs were reviewed and approved before destruction. Reasons for write-offs were not documented or credible. The EPI Manager and the Central Vaccine Stores (CVS) Logisticians were unable to provide any certificate of destruction of the stocks by an appropriate authority in the country. Examples noted by the Team include:

- 153,500 doses (equiv. USD 111,287) f pentavalent, batch # 124P5053 noted as shelf-expired on 31 August 2017 (CVS).
- 14,110 (equiv. USD 3,739) doses of measles vaccine were reported as 'breakages' (CVS); and
- 356,200 (equiv. USD 29,173) Auto-disable 0.5 ml syringes were recorded as 'breakages' (CVS).

See Table 16 in Annex 4 for details.

Potential expiries estimation

Using the 2018 routine monthly consumption, the Audit Team anticipated additional expirations of measles vaccines as of July 2018. These estimates refer to the near-expiry vaccines yet to be distributed from the districts to the next subsidiary level in the supply chain as follows: 7,620 doses at Port Loko DVS; and 3,270 doses at Western Rural DVS.

Overstock/under-stock of vaccines

The Audit Team conducted a physical count of vaccines on 14 June 2018 at the CVS and noted high levels of Pentavalent, Rotavirus and Pneumococcal vaccines equivalent to approximately 8-11 months' supply of vaccine, exceeding the maximum CVS stock level of 6 months. See Table 14 in Annex 4 .

The Audit Team also noted irregular stock levels at four out of the five DVS, which under-stocked some vaccines below the set minimum stock level of one month. In contrast the DVS in Port Loko was overstocked with Measles vaccine above the three months which is a maximum established stock level. See Table 15 in Annex 4

Recommendation 13 - Critical

It is recommended that additional process controls be implemented to ensure that all vaccine write-offs are reviewed and approved by a person independent of the stores management team. Reasons for write-off should be documented and destruction certificates filed for reference and audit.

Recommendation 14 - Critical

The MOHS is recommended to perform a periodic physical count of the vaccine inventories (for example at least twice a year). These stock takes should include pertinent details such as expiry dates, batch numbers, VVM status, product descriptions, and the number of doses. Documents used at national and subnational levels should be reviewed and approved by the EPI Manager and evidence filed. Results of the stock counts should be used to :

- Identify and investigate differences between stock records (SMT, manual records) and actual stock
- Identify potential expiries for redistribution; and
- Adjust vaccine supply plans to manage stock levels (over/under stocking) and minimise wastage.

Management Comments

The program in future will ensure that all write-offs will be approved by the program manager and disposal will be done in collaboration with the Pharmacy Board of Sierra Leone and other relevant stakeholders with appropriate documentations.

The program will work to extend the use of the SMT at the district level. This will ensure the visibility of vaccine stocks at the district level and reduce on vaccine expiration

Risk / Impact / Implications	Responsibilities	Responsibilities
Unwarranted wastage, in the form of shelf-expiration or unaccounted vaccines when due to mismanagement, poor record keeping or weak systems, are a poor use of scarce resources.	CH/EPI Program Manager	Quarter 1, 2019

4.5.2. Unreliable vaccine stock records

Description

Variance between actual stock holdings and running balance per stock records

The Audit Team's physical stock count at the DVS and PHU identified unexplained variances for the pneumococcal-13, rotavirus, measles and pentavalent vaccines. The variance was found at all five DVS and 4 out of 13 PHU visited by the Audit Team. The remaining nine PHU visited either did not have stock ledgers or the records were not updated with current balances. See Table 20 in Annex 3.

Absence of stock records

Standard Operating Procedures requires that proper stock records be maintained. However, the Audit Team found that there were no stock registers to record receipts issues and balances of vaccines at one DVS and Western Rural District had only recently begun maintaining stock records during 2018. Similarly, three out of 13 facilities visited did not have stock registers for vaccine inventory management.

Open vial vaccine wastage is not recorded

Although the MOHS developed Procedures for recording open vial vaccine wastage, 12 out of 13 PHUs, visited did not record their wastage. Thus, vaccine wastage rate at the sub-national level was unknown.

Discrepancies between SMT data and VAR

- The Audit Team compared the SMT maintained at the CVS with Vaccine Arrival Report[7] (VAR) and found that the SMT was inaccurate. The SMT did not include 266,600 dosage of pentavalent vaccine, 150,700 dosage of measles vaccines, and 146,300 vials of diluent for measles, for details see Table 17 in Annex 3. This was due to the CVS stock records being incomplete for Dec 2015.
- The Audit Team also found discrepancy between the expiry dates recorded in the VAR and the SMT. The VAR is reviewed at multiple levels while the SMT is not reviewed or validated. For details, see Table 18 in Annex 3. There were also errors in the batch numbers and expiration dates erroneously recorded in SMT in 2015 and 2016, compared to the physical vaccines in store.

Recommendation 15 - Critical

The EPI team is recommended to:

- conduct periodic stock count, refer to Recommendation 14 for details;
- undertake regular monitoring and supervision across the subnational levels in order to timely identify weaknesses in stock records, recommend improvements and monitor progress; and
- Record all vaccine movements, at all levels in a timely manner. These should be referenced to confirmed issues and receipts.

Recommendation 16 – Critical

The MOHS is recommended to monitor vaccine wastage at all levels. DHMT and PHU staff should be trained on procedures and requirements for reporting vaccine wastages.

Management Comments

The District Operations Officers have been further trained and empowered to conduct regular stock count and vaccine/wastage monitoring at PHU level and document.

Risk / Impact / Implications	Responsibilities	Deadline/ Timetable
Absence of reliable vaccine stock records compromises the MOHS' ability to: ensure that the vaccines are continuously available at the PHU and mitigate potential vaccine expiration, wastage, stock outs and noncompliance with EEFO principles.	CH/EPI Program Manager	Quarter 1, 2019

[7] VAR is a tool developed by UNICEF to record details of vaccine shipments as soon as they arrive in the country with a purpose identifying any inadequacies in the shipments. The report is filled by UNICEF staff ratified by the Store Manager or the EPI Manager and forwarded to UNICEF within three days of vaccine arrival.

4.5.3. Inconsistencies in immunisation data tools

Description	Recommendation 17 - Essential The MOHS, in consultation with the WHO, is recommended to train its EPI staff in the DHMTs on the use and management of the DVDMT and/or other suitable data reporting tools. Recommendation 18 - Essential The EPI, in consultation with the WHO, is recommended to develop an annual monitoring and supervision plan which should include monthly quality reviews of immunisation coverage reported by the DHMT and measures to address differences noted.
The Audit Team noted inconsistency between the number of children immunised as reported in the HF-2 forms and the number of vaccine dosages used as per the vaccine stock registers at 3 out of 13 PHU visited. The comparison was done for the month of June 2017. In all cases, the reported number of immunised children was higher, for details see Table 23 in Annex 3. Health staff attributed these data anomalies to the incomplete records on vaccine wastage, expiration and errors in the recording of receipts, issuances and the running balance of their stock records. In addition, the Audit Team found that key data collection tools were not being used as required. For example, data in the DVDMT[8] system used at Kenema DVS was corrupted and therefore did not provide immunisation data in 2018. Similarly, at Port Loko DVS, DVDMT was not updated with statistics of children immunised with rotavirus vaccine since January 2018.	Management Comments The CH/EPI program has already trained DOOs, District M&E Officers, on DVDMT and also introduced to DHIS2 training.

Risk / Impact / Implications	Responsibilities	Deadline/ Timetable
Absence of reliable vaccine stock records compromises the MOHS' ability to: ensure that the vaccines are continuously available at the PHU and mitigate potential vaccine expiration, wastage, stock outs and noncompliance with EEFO principles.	CH/EPI Manager	Ongoing

[8]The EPI programme in Sierra Leone relied on the District Vaccination Data Management Tool (DVDMT) to report its national immunisation coverage. The DVDMT is an excel based tool, which is intended to capture immunisation and vaccine stock data.

4.5.4. Non-compliance with the basic vaccine management requirements

Description

Vaccine temperature not monitored

Standard Operating Procedures require the monitoring and recording of the vaccines temperature throughout the supply chain, including during transportation. However, the Audit Team found that:

- Vaccine temperatures were not monitored during distribution cycles from the CVS to the DVS and from the DVS to the PHUs.
- 2 out of 5 DVS and 6 out of 13 PHUs visited by the Audit Team, could not evidence that they monitored temperatures. Some staff attributed this lapse to the expiry of fridge tags (FT-2), lack of staff training on how to read the FT-2 and complete temperature monitoring charts.
- 3 out of 13 PHUs visited by the Audit Team did not have functional fridge tags. The fridge tags had expired at the end of 2017 and the central EPI had not replaced them at the time of our visit in June 2018. The FT-2 usually has a life of two years after the first installation. See Table 20 and Table 21 in Annex 3.

Infrequent monitoring and supervision by the central EPI and the limited personnel capacity at the subnational level has resulted in delayed identification and remediation of such gaps.

Non-compliance with Earliest Expiry First out (EEFO) Principles

The CVS did not consistently comply with the principles of "Earliest Expiry First Out" (EEFO). The Audit Team noted distribution of vaccine batches with later expiry at all sites visited, while the CVS still held vaccines with earlier expiry dates.

For example, as recorded in the SMT, the CVS issued 6,000 doses of measles vaccine with an October 2018 expiration to Moyamba district on 14 February 2018. Thereafter on 22 February 2018, the CVS issued 3,270 doses of an earlier expiring measles batch, expiring in July 2018 to Western Rural district.

Stock count not performed periodically

Operating Procedures require that stock counts be conducted at the end of every month to determine the number of vaccines doses to reorder in conjunction with the monitoring of vaccine usage. However, there was no evidence of such stock counts were done at all five DVS and 13 PHUs visited by the Audit Team. Similarly, physical counts were not carried out on a monthly basis at the CVS.

Used vaccine and syringe wastage not properly disposed

Operating Procedures stipulate that the management of waste at the PHUs is a responsibility of respective DHMT. Each PHUs must have a detail written procedure and appointment of a trained individual for waste management. However, the Audit Team noted absence of written procedures, any records of vaccine wastages, and no evidence of disposal of vaccine wastages or syringes at all 5 districts and 13 PHUs visited. At one of the facilities Newton Community Health centre in Western Rural district, the Audit Team found that the waste was deposited in an open hole in the ground.

Recommendation 19 - Critical

The MOHS is recommended to ensure that temperature monitoring devices are provided to all the vaccine stores and ensure that the staff are well trained (Recommendation 4 for training) see on the temperature monitoring processes.

Recommendation 20 - Essential

The MOHS is recommended to ensure that vaccines at all levels are :

- issued according to the EEFO principles (Critical);
- managed in an environmentally safe manner, including disposals; and
- checked for potential expiration using stock counts to validate

Recommendation

Refer to Recommendation 14 on stock count.

Management Comments

Temperature monitoring devices have already been procured and are due to arrive in country in first quarter 2019. The devices will be installed as soon as they arrive. The current cold chain equipment procured under the CCEOP come in with in-built temperature monitoring systems.

Risk / Impact / Implications	Responsibilities	Deadline/ Timetable
Failure to store vaccines within the recommended temperature range reduces vaccine potency, resulting in inadequate immune responses in patients and poor protection against diseases. Temperature monitoring also helps to identify problems with cold chain equipment as they arise. Noncompliance with the principles of EEFO puts vaccines at risk of shelf-expiring or wastage. In the absence of regular physical stock counts, errors in the primary stock records may not be detected and investigated in a timely manner.	CH/EPI	Ongoing

4.5.5. Delays in custom clearance of the vaccines and immunisation supplies

Description

The Government of the Republic of Sierra Leone designated the "Sierra Leone National Shipping Company", a national clearing agent, to be responsible for clearing all EPI shipments. Service arrangements indicate that the agent should complete the clearance process, expedition and transportation of the vaccines to the CVS within a maximum delay of 72 hours. However, over the period 2015 to 2017, the Audit Team identified 18 cases where the vaccine shipments remained at the airport for periods ranging in excess of 6 – 16 days. See Table 22 in Annex 3 for details. Although a commercial cold room facility was on offer for rent at the airport since 2015, the EPI only availed itself of this service, on one occasion in April 2018 to secure Pneumococcal-13 vaccine for a 25-day period.

Similarly, a generator procured for EPI programme which arrived in September 2016, was inexplicably held in the customs at the airport until November 2017.

Recommendation 21 - Desirable

The EPI is recommended to work alongside UNICEF to improve the pre-alert process (currently 10 working days) and ensure timely processing by the clearing agent. The cold room storage at the airport should be used for unanticipated delays in clearance.

Management Comments

Your recommendation is noted. Going forward, pre-alerts will be required 30 days prior to vaccine arrival. This will allow sufficient time to process documentation for speedy clearing

Risk / Impact / Implications

Delays in clearance of vaccines at the port may lead to vaccine wastage, interruption in the implementation of the programmatic activities, including potential stock outs, and may result in the additional costs due to unnecessary demurrage charges to the MOHS.

Responsibilities

CH/EPI Program Manager

Responsibilities

Quarter 1, 2019

Annexes

Annex 1 – Definitions: opinion, audit rating and prioritisation

A. DEFINITIONS OF AUDIT OPINION

The audit team ascribes an audit rating for each area/section reviewed, and the summation of these audit ratings underpins the overall audit opinion. The audit ratings and overall opinion are ranked according to the following scale:

- **Satisfactory** – Internal controls and risk management practices were adequately established and functioning well. No high-risk areas were identified. Overall, the entity's objectives are likely to be achieved.
- **Partially Satisfactory –** Internal controls and risk management practices were generally established and functioning but needed improvement. One or more high- and medium-risk areas were identified that may affect the achievement of the entity's objectives.
- **Unsatisfactory** – Internal controls and risk management practices were either not established or not functioning well. The majority of issues identified were high risk. Hence, the overall entity's objectives are not likely to be achieved.

B. RISK LEVEL FROM AUDIT FINDINGS

The audit ratings and the overall opinion, as defined in Section A above, are derived from the Gavi audit team's judgement, as based on the number and severity of audit findings identified for each theme / section. The assessment of the level of risk corresponding to each audit report, broadly correlates to a cross-referencing for the likelihood and potential impact of each risk (whether financial, operational and / or other). The level of risk is expressed in accordance to the scale below.

The prioritisation of the recommendations included in this report includes proposed deadlines for completion as discussed with the Ministry of Health, and an indication of how soon the recommendation should implemented. The urgency and priority for addressing recommendations is rated using the following three-point scale, as follows: Critical – Essential – Desirable.

- **Desirable**
- **Essential**
- **Critical**

C. PRIORITISATION OF THE RECOMMENDATIONS

Each recommendation in this report incorporates a deadline/ timetable for implementation, as agreed with the MOHS. The prioritisation of the recommendations is determined according to three levels of urgency:

- **Critical**: Immediate action is required to ensure that the programme is not exposed to material risks or significant incidents. If no action is taken, this could have major consequences that could affect the overall activities, impact or outcomes of the programme;
- **Essential**: Corrective plan of action / or remediation steps are required in accordance to best practice, starting no later than 6 months after finalising this audit report. Failure to take action could have significant consequences, affecting important aspects of the programme activities or results; and;
- **Desirable:** Corrective action should be considered within a year of finalising this audit report. Not implementing the action could delay or weaken programme activities or results.

Annex 2 – Classification of expenditures

Adequately supported

Expenditures validated based on convincing evidence (evidence that is sufficient, adequate, relevant and reliable) obtained by the auditors during the carrying out of their mission on the ground.

Inadequately supported

Expenditures for which a key element or several essential aspects of the supporting documentation are missing, such as:

- *Purchases*: This is expenditure for which one or more of the essential items of documentary evidence required by the country's regulations on procurement are missing such as procurement plan, tender committee review, request for quotation, invoice, contract, purchase order, delivery note for goods and equipment, pro-forma invoice, the final invoice, etc.; and
- *Programme activity:* This is expenditure where essential documentation justifying the payment is missing. This includes but is not limited to travel without a travel authorisation, lack of a technical report or an activity report showing completion of the task, signed list by participants. Lack of the same documents to support liquidation of advances/floats given for meetings/trainings/workshops etc.

Inadequately supported expenditures should be classified into 3 non-exclusive sub-categories (an expenditure may belong to more than one of these subcategories):

a) Expenditures which do not comply with the prescribed rules and regulations (e.g. Gavi national regulations, legal agreements, policies and procedures, etc.);
b) Expenditures with incomplete and / or non-reliable elements within the supporting documentation (e.g. missing date, signature, letterhead, etc.);
c) Expenditures that do not consist of original documents or are photocopies.

Irregular expenditures

This includes any deliberate or unintentional act of commission or omission relating to:

a) The use or presentation of documents which are inaccurate, incomplete/falsified/inconsistent resulting in the undue use or payment of Gavi provided funds for activities, or the undue, withholding of monies from funds granted by Gavi; and
b) Misappropriation of funds to purposes other than those for which they were granted.

Ineligible expenditures

Expenditures that do not comply with the country's programme/grant proposal approved by Gavi or with the intended purpose and relevant approved work plans and budgets.

Unsupported expenditures

Expenditures for which no supporting documentation was available, and for which no other credible evidence was provided.

Annex 3– Questionable expenditures as determined by the audit team

1. Kenema District					
Year	**Activity**	**Unsupported**	**Inadequately supported**	**Irregular**	**Audit Comments**
2015	Measles Polio (UNICEF)	-	365,428,750		Documents presented are photocopies; Receipt No. tampered with; top up distribution list has no phone numbers; payment sheet for coordination submitted signed by DMO for DSA at a high rate of SLL - 150,000 per day; refreshments receipt of SLL - 4,488,750 with tampered dates; receipt for refreshments of SLL - 44,540,000 with tampered dates; photocopied payment sheets with no record of specific chiefdom being paid; no contact details for participants and no attendance lists for training; SLL - 73,650,000; photocopied payment sheet for vaccinators during implementation; no contact details and no attendance register; SLL - 176,760,000; photocopied payment sheet for vaccinators; SLL - 54,960,000
2016	Vaccination distribution	-	3,000,000		Documents presented are photocopies; No vaccine distribution list/schedule with signature confirmation by the recipients of the vaccines seen
2016	Outreach and Defaulters	-	-	27,225,000	• Participant sheets have been tampered with; Evidence that the sheets were signed by the participants twice – when there were no dates on the worksheets; Evidence that the sheets were signed by the authorizing officer without any date being on the sheet; Effectively two sets of duplicate supporting documentation were prepared for March 2016 – once signed and dated in March 2016 and once dated June 2016; • Also, participants' signatures frequently do not match (or where falsified by a single person)
2016	Outreach	-	-	10,072,500	• Participant sheets have been tampered with; Evidence that the sheets were signed by the participants twice – when there were no dates on the worksheets; Evidence that the sheets were signed by the authorizing officer without any date being on the sheet; Effectively two sets of duplicate supporting documentation were prepared for March 2016 – once signed and dated in March 2016 and once dated June 2016; • Also, participants' signatures frequently do not match (or where falsified by a single person)
2016	Supportive Supervision 1st Trench	1,687,500	2,423,077		Photocopied documents PVs seen; no activity report seen; and no list fuel beneficiaries provided;
2016	WHO In-Charges Meeting	-	-	55,230,000	• Participant sheets have been tampered with; Evidence that the sheets were signed by the participants twice – when there were no dates on the worksheets; Evidence that the sheets were signed by the authorizing officer without any date being on the sheet; Effectively two sets of duplicate supporting documentation were prepared for March 2016 – once signed and dated in March 2016 and once dated June 2016; • Also, participants' signatures frequently do not match (or where falsified by a single person)

1. Kenema District					
Year	**Activity**	**Unsupported**	**Inadequately supported**	**Irregular**	**Audit Comments**
2016	Red Approach	-	39,607,269		Photocopied documents provided;
2016	Supportive 2nd Trench	-	-	4,110,577	Documents presented are photocopies and dates are tampered with
2016	MSD Data collective	-	13,475,000		There is no activity report.
2017	UNICEF OUTREACH	27,225,000	21,780,000		No fuel receipts presented; Consolidated report seen for Quarter 4; but details in the report are for Quarter 3; we cannot confirm the actual and relevant data for this expenditure
	Vaccine Distribution	-	3,000,000		Documents presented are photocopies; No vaccine distribution list/schedule with signature confirmation by the recipients of the vaccines seen;
	Vaccine Distribution	-	3,000,000		Documents presented are photocopies; No vaccine distribution list/schedule with signature confirmation by the recipients of the vaccines seen;
	UNICEF Defaulter Tracing	-	18,150,000		Activity report attached only relates to one month and shows no details of any defaulters traced in the quarter
	UNICEF Defaulter Tracing	-	18,150,000		Activity report attached only relates to one month and shows no details of any defaulters traced in the quarter
	UNICEF OUTREACH	27,225,000	21,780,000		No fuel receipts presented; No activity report seen
	WHO Coordination Meeting	-	-	52,110,000	NRA tax certificate seen; documents presented original and minutes also attached but dates have been tampered with throughout the six months
	UNICEF OUTREACH	27,225,000	21,780,000		No fuel receipts presented; No activity report seen
	UNICEF Defaulter Tracing	-	18,150,000		The activity report attached only relates to one month and shows no details of any defaulters traced in the quarter.
	Total - SLL	**83,362,500**	**549,724,096**	**148,748,077**	
	Total USD @ 1USD = 5,508SLL	**15,135**	**99,805**	**27,006**	

2. Kono District					
Year	**Activity**	**Unsupported**	**Inadequately Supported**	**Irregular**	**Audit Comments**
2015	Measles Polio (UNICEF)	-	230,128,750	-	The receipt for coordination does not have a serial number. - SLL 2,000,000; date on receipt is June whereas top up sheet was signed in May; Fuel receipt not serially numbered; date on fuel receipts later than the date of distribution of the fuel; SLL - 3,933,750; No evidence of tax paid; no evidence of following procurement procedures for procurement of refreshments; no attendance sheets for trainings; no training reports; only one report attached; does not indicate number of people trained; venue/locations; no attendance registers for vaccinators during the campaign.
2016	UNICEF Vaccine Distribution	-	3,000,000	-	No evidence of deliveries made in terms of completed delivery notes acknowledged by recipients of vaccines;
	UNICEF Outreach & Defaulter	19,800,000	28,590,000	-	No fuel receipts provided for fuel amounting to SLL 19,800,000; individuals signed for the fuel but presented no receipts; also no basis of giving a flat rate of fuel of SLL - 225,000 for all PHUs; activity report seen; however no outreach plan seen; the activity report indicates that a maximum of 384 people were reached in a month in all 88 PHUs that were paid for 4 outreaches per month; this means a maximum of 5 cases were addressed per PHU per month; since we have no activity reports from each PHU we cannot confirm whether this activity took place and whether the results reported are accurate.
	RED Approach Cascade in districts	-	-	8,079,769	Refreshment and hall hire receipts attached are not serially numbered; SLL - 6,000,000 and SLL - 1,000,000; receipts for Printing & stationery also not serially numbered; SLL - 295,769; and SLL - 484,000; Fuel receipt tampered with SLL - 300,000.
2017	UNICEF Outreach	-	35,640,000	-	No outreach plan, approved list of outreach officers and outreach report.
	UNICEF Defaulter Tracing	-	13,200,000	-	No approved list of defaulter tracers and activity report.
	UNICEF Outreach	20,040,000	-	-	Amount could not be traced to the relevant support documents
	UNICEF Defaulter Tracing	-	13,200,000	-	No approved list of defaulter tracers and activity report.
	Total - SLL	**39,840,000**	**323,758,750**	**8,079,769**	
	Total - USD @ 1USD = 5,508SLL	**7,233**	**58,780**	**1,467**	

3. Pujehun District					
Year	**Activity**	**Unsupported**	**Inadequately supported**	**Irregular**	**Audit Comments**
	UNICEF Outreach & Defaulter			36,727,500	No fuel register for fuel distributed amounting to SLL 9,337,500.00 and no approved participants list.
	UNICEF Outreach		6,007,500		No outreach plan, no activity report and no approved list of outreach personnel
	Supportive Supervision		7,110,577		No report and approved list of participants
	WHO Coordination Meeting	34,170,000			There was no approved list of participants amounting to SLL 24,900,000, An amount of (LE 8,300,000) was not accounted for. All payments were made in cash and were paid by none financial staff. Payment documents were not prepared by the finance officer and were not approved by the DMO.
	RED Approach Cascade in districts		6,100,000		No approved list of participants amounting to SLL 25,984,269, the procurement of Hall Rental and Tea Break SLL 6,100,000 was not competitive and there are no business documents from the vendor, payment done by cash and not cheque and paid by a staff outside of the finance/accounting function, no evidence of the payment of withholding tax amounting to SLL 335,500
	Supportive Supervision		7,110,577		No approved list of supervisors and activity report
	MSD Data Collection	1,575,000			No liquidation made and no supporting documents seen for the expenditure
2017	UNICEF Outreach		31,185,000		No outreach plan, no activity report and no approved list of outreach personnel
	Vaccine Distribution		3,000,000		No fuel distribution list and approved distributors list
	Vaccine Distribution		3,000,000		No fuel distribution list and approved distributors list
	UNICEF Defaulter Tracing	5,448,750	6,101,250		No fuel register for the distribution of fuel amounting to SLL 5,448,750, no approved payment voucher, no participant register, no activity report, withholding tax of SLL 247,500 was not deducted from a boat rental of SLL 4,500,000.00
	UNICEF Outreach	8,718,000	22,467,000		No fuel register for the distribution of fuel amounting to SLL 8,718,000, no approved payment voucher, no participant register, no activity report
	WHO Coordination Meeting		34,170,000		No minutes of meetings, attendance list, and approved list of supervisors.
	UNICEF Outreach		31,185,000		No approved list of participants and no outreach report
	Total - SLL	**49,911,750**	**157,436,904**	**36,727,500**	
	Total - USD @ 1USD = 5,508SLL	**9,062**	**28,583**	**6,668**	

4. Kailahun District					
Year	**Activity**	**Unsupported**	**Inadequately Supported**	**Irregular**	**Audit Comments**
2016	Measles Polio (UNICEF)	5,933,750	8,150,000	216,750,000	Payment of allowances to participants is not supported by an approved list from the DMO and payments are made by a staff outside of the finance/accounting function, no fuel register/ fuel distribution list amounting to SLL 3,933,750, all payments to third parties are done by cash instead of cheque, procurement process for two separate refreshment amounting to SLL 31,955,000 are not competitive and there are no business documents from the vendors
	UNICEF Vaccine Distribution		3,000,000		No fuel register or fuel chits for the vaccine distribution
2016	UNICEF Outreach & Defaulter	10,012,500	29,370,000		No approved list of participants from the DMO and payment of allowances to participants are authorized by the DMO to be paid by the DOO instead of the Finance Officer, no fuel register and physical cash amounting to SLL 10,012,500 was paid directly to participants for fuel instead of fuel chit, procurement process for refreshment amounting to SLL 3,375,000 was not competitive and there were no business documents from the vendor, no evidence of payment of withholding tax amounting to SLL 1,614,625 for refreshment.
2016	Supportive Supervision		1,687,500		No fuel distribution fuel register or fuel chits for fuel to DHMT Supervisors SLL 1,687,500, No approval list of participants and payment approved by the DMO to be paid by the DSA instead of the finance officer
2016	RED Approach Cascade in districts		27,526,269		Unapproved payment vouchers, no beneficiary/participant contact on the payment voucher, no approved payment register
2016	Supportive Supervision				Unapproved payment vouchers, no beneficiary/participant contact on the payment voucher, no approved payment register
2016	MSD Data Collection		9,475,000		Unapproved payment vouchers, no beneficiary/participant contact on the payment voucher, no approved payment register
2017	UNICEF Outreach	18,225,000	14,580,000		Physical cash amounting to SLL 18,225,000 was given to PHU Staff instead of fuel chit, unapproved payment vouchers, no beneficiary/participant contact on the payment voucher, no approved payment register
2017	Vaccine Distribution		3,000,000		No fuel register or fuel chits for the vaccine distribution
			3,000,000		
2017	UNICEF Defaulter Tracing		12,150,000		No approved list for the payment of allowance to participants for the three set of payments, Payment vouchers not approved by the DMO and not prepared by the finance officer
			12,150,000		
2017	UNICEF Outreach	18,225,000	14,580,000		Physical cash amounting to SLL 18,225,000 was given to PHU Staff instead of fuel chit, unapproved payment vouchers, no beneficiary/participant contact on the payment voucher, no approved payment register
2017	UNICEF Outreach	18,225,000	14,580,000		No approved list of participants and payment voucher not approved by the DMO or prepared by the finance officer, No fuel receipt from the fuel station but an amount of SLL 18,225,000 paid cash to PHU participants, No fuel register and fuel chits
2017	UNICEF Defaulter Tracing		12,150,000		No approved list for the payment of allowance to participants for the three set of payments, Payment vouchers not approved by the DMO and not prepared by the finance officer
Total - SLL		**70,621,250**	**165,398,769**	**216,750,000**	
Total USD @ 1USD =5,508SLL		**12,822**	**30,029**	**39,352**	

5. Moyamba District				
Date	**Activity**	**Unsupported**	**Inadequately supported**	**Audit Comments**
2015	Measles Polio (UNICEF)	36,163,750	182,280,000	There is no receipt for fuel for distribution amounting to SL 5,103,750. There are no activity reports for supervisors, DHT trainings, Vaccinator trainings and overall campaign report. The payment sheets are not approved by the DMO and there are no attendance lists for all trainings. The payment sheets do not have actual dates for payment. Only indicate month and year. There are no liquidation documents for DHMT training amounting to SLL 3,600,000 and Vaccinators trainings amounting to SLL 25,460,000. There is no liquidation for district coordination money amounting to SLL 2,000,000.
2016	Vaccination distribution	3,000,000		No liquidation documents for the distribution of vaccine. The documents presented during the follow up review were prepared retrospectively after the June 2018 audit.
2016	Supportive Supervision 1st Trench		7,110,577	Fuel cost do not have list or details of beneficiaries. Only freshly prepared fuel distribution lists were provided for review during the follow up mission. The beneficiary lists do not have contact details of beneficiaries and there is no activity report attached.
2016	Red Approach		7,800,000	The procurement process for hall rental amounting to SLL 1,000,000 not competitive and no business documents from the vendor. The procurement process for tea break amounting to SLL 6,600,000 is not competitive 6,600,000, no business documents from the vendor. There are 3 pro-forma invoices provided during the follow up review had been prepared retrospectively. for example, the Proforma from Mum &Dad restaurant was pre-printed 2018 but changed to 2016 using a pen! All documents do not have invoice numbers.
2017	Outreach	22,275,000		SLL 22,275,000 fuel component has no approved detail list of beneficiaries, fuel ledger, and no approved list of outreach officers and no contact numbers on PV.
2017	Vaccine Distribution	3,000,000		No liquidation documents for the distribution of vaccine. The documents presented during the follow up review were prepared retrospectively after the June 2018 audit.
2017	Vaccine Distribution	3,000,000		No liquidation documents for the distribution of vaccine. The documents presented during the follow up review were prepared retrospectively after the June 2018 audit.
2017	Defaulter Tracing		14,850,000	No approved list of mobilizers, no contact numbers of mobilizers on PV and payment sheet. No activity reports.
2017	Defaulter Tracing		14,850,000	No approved list of mobilizers, no contact numbers of mobilizers on PV and payment sheet. No activity reports.
2017	Outreach	22,275,000	17,820,000	Fuel costing SLL 22,275,000 was paid in cash to mobilizers instead of paying direct to the fuel station and the officers collect it through fuel chit. There is evidence of fuel being subsequently procured by the mobilisers. The activity report presented is a photocopy and there is no approved list of mobilizers and no date on PV.
2017	Coordination Meeting		32,100,000	There are no minutes for all the 6 monthly meetings held from May to Oct 2016 and the attendance lists are not dated. A receipt and invoice from Ngoyela Caterers has been provided to support the cost for breakfast and lunch. However, there are no other pro-forma invoices or quotations from other service providers to confirm if the procurement process was competitive.
2017	Outreach	22,275,000	17,820,000	There is no activity report, no fuel distribution list, register or chits for fuel amounting to SLL 22,275,000. The attached list of approved PHU outreach staff was made retrospectively following the existing payment sheets.
Total - SLL		**111,988,750**	**294,630,577**	
Total USD @ 1USD = 5,508SLL		**20,332**	**53,491**	

6. BO (Bobo) District				
Date	**Activity**	**Unsupported**	**Inadequately supported**	**Audit Comments**
2015	Measles Polio (UNICEF)		101,231,000	Refreshments from chiefdoms during the trainings are supported by cash receipts without any contact address. the receipts are prepared by the chiefdom supervisors and stamped. total expenditure is Le 42,340,000. Fuel for coordination was all paid out to Total Service Station, there is no evidence of which vehicle used the fuel. The receipt for fuel is also dated 18 June 2018. All support documents were presented by the district. However, these were photocopies. As a result, SLL 55,021,000 should be reclassified under inadequately supported.
2016	Red Approach		39,727,000	Unsupported expenditure relating to catering services has been reclassified under inadequately supported because they are photocopies. All expenditure is questioned on the basis of photocopied documents.
2017	Outreach		49,815,000	No approved list of participants. The approved list of participants presented during the follow up review was developed following the audit finding. The list was developed following the already existing payment sheets. All support documents presented are photocopies.
2017	Defaulter Tracing		18,450,000	
2017	Defaulter Tracing		18,450,000	
2017	Outreach		49,815,000	
2017	Outreach		49,815,000	
2017	Defaulter Tracing		18,450,000	
	Total - SLL	**-**	**345,753,000**	
	Total - USD @ 1USD = 5,508SLL		**62,773**	

7. Bombali District					
DATE	**Activity**	**Unsupported**	**Inadequately supported**	**Irregular**	**Audit Comments**
2015	Measles Polio (UNICEF)		74,190,953		No liquidation for refreshment costing SLL30,860,000.00 No approved list of campaigners, no contact number of workers on the PV, no fuel register and chits or details of beneficiaries of 3,930,000 and no invoice, delivery note refreshment costing 3,465,000. No activity reports.
2016	Outreach	9,270,000			Not liquidated and not supporting documents available for review
	Supportive Supervision 1st Trench		4,110,577		Fuel cost do not have list or details of beneficiaries. No approved list of supervisors, and no contact on the PV, No activity report.
	Red Approach	449,000	6,700,000		No liquidation for SLL 449,000. Contact on PV, Procurement of SLL 6,700,000 without complete documentation.
	Supportive 2nd Trench		4,110,577		Fuel cost do not have list or details of beneficiaries. No approved list of supervisors, and no contact on the PV, No activity report.
2017	Defaulter Tracing		15,900,000		No contact on PV, no approved list of outreach staff, No fuel beneficiaries' details.
	Coordination Meeting		11,880,000	33,600,000	No supporting documents available for review
	Outreach		42,930,000		No contact on PV, no approved list of outreach staff, No fuel beneficiaries' details.
	Total – SLL	**9,719,000**	**159,822,107**	**33,600,000**	
	Total - USD @ 1USD = 5,508SLL	**1,765**	**29,016**	**6,100**	

8. Tonkolili District					
DATE	**Activity**	**Unsupported**	**Inadequately supported**	**Irregular**	**Audit Comments**
2015	Measles Polio (UNICEF)	177,390,000	5,930,000	48,190,000	Fuel receipt has no serial number; SLL - 3,930,000; and no fuel distribution list or delivery schedule; refreshments receipts and invoices are not dated; Attendance of supervisors and DHMT supervisors indicates 59 people were trained; however, the budget was only for 30 people; Support documents seen for Incentives was only adding up to SLL - 39,900,000; this leaves the balance of SLL 177,390,000 unsupported/unaccounted for; We noted several instances where the signatures of participants do not match between the payment sheets and attendance sheets; we noted instances where the attendance sheet is signed by a thumb print, but the payment sheet is signed by a signature.
2016	WHO	44,700,000	-		No liquidation, no support documents available.
	Red Approach	-	1,088,000		Documents presented are photocopies; we also noted photocopied documents (payment sheets) with a fresh signature; receipts are not serially numbered;
2017	Outreach	22,950,000		18,360,000	Documents presented relate to 2016 instead of 2017; However, still documents presented were bearing mismatching signatures; and no receipts for fuel - SLL 22,950,000; tampered with dates on payment sheets;
	Defaulter Tracing	-		15,300,000	
	Total – SLL	**245,040,000**	**7,018,000**	**81,850,000**	
	Total - USD @ 1USD = 5,508SLL	**44,488**	**1,274**	**14,860**	

9. Port Loko District				
Date	**Activity**	**Unsupported**	**Inadequately Supported**	**Audit Comments**
2016	Outreach and Defaulters	14,552,500		Amount unliquidated and no supporting documents available.
2016	WHO		11,310,000	No approved list of participants, payment of allowance participants are made by medical staff and not Finance Officer and documents were not authorized by the DMO or prepared by the Finance Officer and procurement process for refreshment was not competitive and there are no business documents from the vendor SLL 11,310,000.
2016	Red Approach		1,080,000	No activity report, receipt of withholding tax of SLL 55,000 was not deducted from Hall Rental payment, selection of hall rental was not competitive, no distribution list for distributed top up card cards amounting SLL 80,000 and fuel amounting to SLL 420,000
2016	MSD Data collective		375,000	No Approved list of participants, payment of allowance by a staff outside of the finance/accounting function and payment documents was not approved by the DMO or prepared by the Finance Officer, no fuel distribution list fuel Register or fuel chits SLL 375,000.
2017	Coordination Meeting		7,985,000	No invoice for refreshment amounting to SLL 1,995,000 on the 16/12/2016, no invoice for refreshment amounting to SLL 1,995,000 on the 4/11/2016, no invoice for refreshment amounting to SLL 1,995,000 on the 6/4/2017, procurement process for refreshment not competitive, no business documents from the vendor, an amount of SLL 2,000,000 to be accounted for the amount budgeted for refreshment was SLL 11,310,000 while the liquidation is SLL 9,310,000, withholding tax was over deducted by SLL 37,950.
Total - SLL		**14,552,500**	**20,750,000**	
Total USD @ 1USD = 5,508SLL		**2,642**	**3,767**	

10. Kambia District				
Date	**Activity**	**Inadequately Supported**	**Irregular**	**Audit Comments**
2015	Measles Polio (UNICEF)	158,160,250	36,391,000	Fuel distribution list seen however the fuel receipt was not available. No approved list of officers. Attendance lists availed do not indicate the exact dates when the activity took place; they are just marked with 2015. Receipts with no numbers and numbers tampered with amounted to SLL 36,391,000. Additionally, no evidence of procurement process being followed on the procurements executed.
2016	Outreach and Defaulters	-	30,975,000	The budget breakdown availed does not add up to amount used; it only adds up to SLL 29,205,000; Fuel distribution lists for fuel amounting to SLL 14,925,000 not seen; payment sheets for outreaches presented indicate mixed up dates of 2017 and 2016; and mixed up months of May and March; we cannot confirm where they truly relate to.
2016	Outreach	-	5,655,000	
Total - SLL		**158,160,250**	**73,021,000**	
Total USD @ 1USD = 5,508SLL		**28,715**	**13,257**	

11. Bonthe District				
Date	**Activity**	**Unsupported**	**Inadequately Supported**	**Audit Comments**
2015	Measles Polio (UNICEF)	231,956,250	-	Unliquidated amount and no supporting documents available.
2015	Vaccination distribution	3,000,000	-	
2015	Outreach and Defaulters	26,992,500	-	
2015	Outreach	4,087,500	-	
2015	Supportive Supervision 1st Trench	7,110,577	-	
2016	WHO - Supportive 2nd Trench	25,590,000	-	
2016	WHO-Supportive 2nd Trench	8,933,077	-	
2016	MSD Data collective	6,975,000	-	
2016	Defaulter Tracing	-	8,400,000	No approved list of beneficiary/participant, unapproved payment voucher, no activity report
2016	Coordination Meeting	-	25,590,000	Withholding tax amounting to SLL 400,950 was not deducted from refreshment payment of SLL 7,290,000, no beneficiary/participant contact on the payment voucher, no minutes of meetings held, selection of caterer was not competitive
	Total – SLL	**314,644,904**	**33,990,000**	
	Total - USD @ 1USD = 5,508SLL	**57,125**	**6,171**	

12. Western Area-Urban				
Date	**Activity**	**Unsupported**	**Inadequately Supported**	**Audit Comments**
2016	Red Approach	-	23,890,269	Payment vouchers still not approved; approved participants list still not seen; contact list provided and seen; however, payment vouchers are not dated; we cannot confirm period to which they relate.
2017	Outreach		15,525,000	Fuel distribution list provided was a photocopy document;
	Total - SLL	**-**	**39,415,269**	
	Total - USD @ 1USD = 5,508SLL	**-**	**7,156**	

Table 10: EPI Central detail of unsupported, inadequately supported and ineligible expenditures (funds Via UNICEF)

Grant	Date	Description of transaction	Unsupported	Inadequately supported	Irregular	Exceptions noted
Measles second dose	01 Nov 2016	Printing of measles second dose reporting forms - 18,000 forms @ SLL 300 per form. Transport to national staff to collect backlog data - 14 staff for 3 days @ SLL 150,000. DSA to national staff to collect backlog MSD data - 14 staff for 3 days @ SLL 180,000. Coordination cost (lump sum) - SLL 2,000,000.	297,000		15,860,000	The receipt from Ajason enterprises is for SLL 5,103,000. There is no evidence of payment of WHT to the NRA. The accountability documents are dated early August (1 - 5th Aug 2016) before transaction date thus do not reflect the substance of actual transaction. There is no documented evidence on the approval, source of funds used, and how monies were refunded in case this was a pre-financed activity. The receipt presented as evidence of coordination was prepared retrospectively after the June 2018 Audit.
Ebola Recovery Plan - EPI Strengthening	11 April 2016	Vaccine Distribution	203,000			There is no evidence of payment of WHT to NRA.
Ebola Recovery Plan - EPI Strengthening	11 Jan 2017	Vaccine Distribution			21,678,000	The support documents relate to 2016 yet the funds were received and withdrawn in January 2017 thus do not reflect the substance of actual transaction. There is no documented evidence on the approval, source of funds used, and how monies were refunded in case this was a pre-financed activity. As a result, the expenditure has been reclassified as Irregular.
Measles Campaign under EPI Ebola Recovery	10-Aug-15	measles coverage survey 2015	1,250,010	207,140,000	5,700,000	SLL 7,500,000 -All airtime receipts for the 14 districts and national are from one supplier - Osman investment telephone no. 077206184 - Freetown and are all dated 31/8/15.there is no distribution list for the airtime. Supervisors and enumerators received DSA amounting to 109,340,000. There is no activity report to support the work done. Enumerators received 63,000,000 for bike hire, however, there is no evidence of acknowledgement of receipt of fund by the okada men or any person that provided the bikes. 6,300,000 was spent on Production of EA maps but there is not delivery note. Receipt from Maducherie for tea break - 5,700,000 is dated 27/8/15 yet the training took place on 29/8/15. There was a violation of national financial guidelines and best practices. In addition, the attendance sheets have 115 people, yet the break tea was paid for 120 participants. There is no evidence for payment of WHT amounting to SLL 1,250,010 deducted from suppliers of stationery and printing. SLL 21,000,000 relating to Cartography and selection of EAs is not supported by any deliverable.

Grant	Date	Description of transaction	Unsupported	Inadequately supported	Irregular	Exceptions noted
Ebola Recovery Plan - EPI Strengthening	13-Apr-17	Vaccine Distribution	21,678,000			No support documents have been provided for this activity.
Ebola Recovery Plan - EPI Strengthening	5 Sept 2016	Periodic Intensified Routine Immunisation (PIRI round 2)		4,500,000	24,901,375	Payments for Transport and SDA were signed for by the recipients of the funds on 25th and 26th August 2017 yet funds were approved by the PS on 2nd September 2017 thus do not reflect the substance of actual transaction. There is no documented evidence on the approval, source of funds used, and how monies were refunded in case this was a pre-financed activity. As a result, the expenditure has been reclassified as Irregular. The fuel receipts presented do not have supplier contact details and receipt number. The receipt for coordination amounting to SLL 2,000,000 does not look authentic. Cost reclassified under irregular. SLL 20,400,000 for bike hire is not supported by acknowledgement of receipt of fund by the okada men or any person that provided the bikes.
Ebola Recovery Plan - EPI Strengthening	3 Aug 2016	Periodic Intensified Routine Immunisation (PIRI round 2)		4,500,000	26,701,375	Transport and DSA (50%) of 22,440,000 was paid to National supervisors, Mrs. Mamie C Lahai was paid 1,229,375 for refreshment, on 23 July 2016 yet funds were withdrawn on 3 Aug 2016. Dr. Marke was paid 2,000,000 for Coordination and planning and DSA for Drivers of 1,032,000 were all signed for and dated 23 July 2016 yet funds for the activity were approved by Ag. PS on 29/7/2016 and withdrawn on 3 Aug 2016. There is no documented evidence on the approval, source of funds used, and how monies were refunded in case this was a pre-financed activity. As a result, the expenditure has been reclassified as Irregular. The fuel receipts presented do not have supplier contact details and receipt number. The receipt for coordination amounting to SLL 2,000,000 does not look authentic. Cost reclassified under irregular. SLL 20,400,000 for bike hire is not supported by acknowledgement of receipt of fund by the okada men or any person that provided the bikes.
		Total - Leones	**23,428,010**	**216,140,000**	**94,840,750**	
		Total - USD @ 1USD = 5,508SLL	**4,253**	**39,241**	**17,219**	

Table 11: This table was removed.

Table 12: Breakdown of unsupported, inadequately supported and ineligible and irregular expenditure Spent at EPI with Gavi funds from WHO

Grant	Description of transaction	GL Date	Unsupported	Inadequately supported	Ineligible	Irregular	Exceptions
ERP - EPI Strengthening	Payment for Refreshments for 30 participants per monthly meetings - (12 x 30 pax @ SLL 55,000 per pax)	12-Jul-16	-	-	-	19,800,000	The budget was for 360 people; however, the supplier was paid tea and Lunch breaks for 495 participants- attendance lists had 361 persons; The procurement process was not followed; no LPOs, no quotations were seen from other suppliers; The minutes attached were only for February, April & November 2016; 09 minutes for the rest of the months were not seen. The Attendance sheets attached bear similar people with different signatures in the different months.
ERP - EPI Strengthening	To train national and district trainers on the RED approach for RCH in Sierra Leone	Aug-17-2016	13,387,503	26,556,000	-	10,060,000	There are no fuel receipts for SLL 10,875,000 and questionable coordination receipt for top up of SLL 2,500,000 not serially numbered; There was a double payment of national supervisors; excess amount paid SLL 7,560,000 and Non-compliance with Procurement procedures for meals- SLL 13,860,000
ERP - EPI Strengthening	Refreshment for TCC Meeting	23-Jan-17	-	-	-	10,800,000	The attached support documents are dated Dec 2016 yet the requisition for the funds was raised in January 2017 and funds withdrawn in February 2017. There are no attendance lists for TCC meetings from Jan to Dec 2016 and minutes from February to May 2016.
ERP - EPI Strengthening	Refreshment for TCC Meeting	13-Jul-16	-	-	-	10,800,000	The attached support documents are dated June 2016 yet the requisition for the funds was raised in July 2016. There are no original attendance sheets for the minutes. The attached activity report is not dated. There are no attendance lists for TCC meetings from Jan to Dec 2016 and minutes from February to May 2016.
ERP - EPI Strengthening	Data Quality Survey	05-May-16	-	-	-	69,600,000	Irregular payments for procurements before approval by PS; The attached support documents are dated November 2016, yet the funds were withdrawn on 16 Dec 2016. Further, the requisition for the funds was not approved by DFR and PS. The activity report is also dated November 2016.
ERP - EPI Strengthening	Ebola Recovery Plan - EPI Strengthening	16/12/2016	15,282,000	-	1,500,000	36,186,000	The report is dated 16 March, yet the activity took place on 17 March as per the support documents. There are no fuel receipts for the fuel allowance amounting to 15,282,000 that was paid to officials. The receipt for catering does not indicate the number of people being served and also indicates that payment is for 2 days yet the activity was a 1-day activity.
Total - SLL			**28,657,000**	**13,860,000**	**9,060,000**	**147,186,600**	
Total -USD @ 1USD = 5,508SLL			**5,203**	**2,516**	**1,644**	**26,722**	

Table 13: Breakdown of unsupported, inadequately supported and ineligible and irregular expenditure – Spent at Health Education Division

Grant	Date	Description of transaction	Unsupported	Inadequately supported	Irregular	Audit Comments
RI Recovery Plan	17-Aug-16	Tea break and lunch and	-	-	4,800,000	In Kenema; Receipt seen with a number of 30 participants per chiefdom for 16 chiefdoms; however, it is clear that the receipt was tampered with to include the number of participants; SLL 4,800,000 In Bo, New receipt of SLL 2,400,000 dated 26-8-16 was presented with an explanatory letter; earlier receipt was dated 6-09-16; activity took place between 31-8-16 to 13-09-16; Evidence provided indicates that districts went back to suppliers that issued fresh documents. This is irregular and therefore not reliable to retire questioned amounts. In Bombali, the district generated a new document to support this activity with the correct dates; old document not seen; Total amount was signed for by one individual and no details/breakdown for what it was used for; SLL – 1,000,000; 13 receipts seen each of SLL 300,000 and dates are within the implementation period of 21 - 24 Sep 16; however, the old receipts not attached clearly indicating that evidence was tampered with; SLL – 3,900,000. In Kambia, we noted that new documents were presented with corrected information especially on dates; number of participants on receipts; this clearly indicates that evidence was tampered with and old documents could not be traced; SLL – 7,900,000.
RI Recovery Plan	17-Aug-16	DSA for participants, drivers, facilitators,			2,400,000	
RI Recovery Plan	17-Aug-16	Transport for participants			1,000,000	
RI Recovery Plan	17-Aug-16	PA system and communication			3,900,000	
RI Recovery Plan	21-Jul-16	Conduct awareness through community radio			7,900,000	
RI Recovery Plan	21-Jul-16	Printing and disseminate flex banners				
Total - SLL					**20,000,000**	
Total -USD @ 1USD = 5,508SLL					**3,631**	

Table 14: This table was removed.

Annex 4 – Vaccine supply data analysis

Table 15: Vaccine Stores visited by the Audit Team

District/ PHU				
Western Urban	*Port Loko*	Kinema	*Bo*	*Western Rural*
1. George Brooke CHC 2. Aberdeen Women's CHC 3. Ginger Hall CHC 4. Grey Bush CHC 5. Western Urban DVS	1. Rogbere CHC 2. Tagrin CHC 3. Port Loko DVS	1. Tokpombu MCHP 2. Kinema DVS	1. New Police Barracks CHC 2. Jembe CHC 3. Damballa CHC 4. Lyn Maternity CHC 5. Bo DVS	1. Newton CHC 2. Masorie MCHP 3. Western Rural DVS

Table 16: Months of stock at Central Vaccine Store as of June 2018

Gavi-supported Vaccines	Stock balance on hand at central level	Maximum critical stock level
Pentavalent	8.70 months	6 months
Pneumococcal -13	11.78 months	6 months
Rotavirus	9.58 months	6 months

Table 17: Months of stock at the District Vaccine Store as of June 2018

Gavi-supported Vaccines	Months of Stock	Audit Team assessment:	District Vaccine Store
Measles	0.08	Under stocked	Bo
Rotavirus	0.92	Under stocked	Kenema
Measles	4.04	Over stocked	Port Loko
Pentavalent	0.95	Under stocked	Western Rural
Pneumococcal -13	0.53	Under stocked	
Rotavirus	0.67	Under stocked	
Measles	1.73	Over stocked	

Table 18: Vaccines/ syringes shelf/expired or written off without justification at the Central Vaccine Store

Vaccine/device	Reason cited for wastage	Number of Doses/ units				Value in USD
		2015	2016	2017	Total	
Pentavalent	Shelf-expiry	-	-	153,500	153,500	111,286
Measles Rubella	"Breakages"	-	5,110	9,000	14,110	3,739
ADS 0.5ml syringes	"Breakages"	-	356,200	-	-	29,173
Total						144,198

Table 19: Vaccines received at the airport per the VAR, but not recorded in SMT

Date of Arrival at the Airport as per VAR	Vaccine/Diluent	Batch Number	No. of boxes:	No. of Vials:	No. of Doses:
04 May 2015	Diluent-Measles	068S14271Z	80	95,670	
04 May 2015	Diluent-Measles	068S14272Z	41	50,630	
24 Dec 2015	Measles	004N5078	13	15,070	150,700
24 Dec 2015	Pentavalent	124P5055	26	26,600	266,000

Table 20: Unexplained variances between expiry dates of vaccines in the VAR and SMT

Date of receipt in CVS as per SMT	Vaccine	Batch Number	No. of doses	Date of expiry as per the SMT	Date of expiry as per the VAR
29-Jan-15	Pentavalent	124P4022A	26,530	Jan-16	Oct-16
29-Jan-15	Pentavalent	124P4022A	6,150	Jan-16	Oct-16
6-Apr-15	Pentavalent	124P4031B	6,900	Dec-16	Oct-16
21-May-15	Pneumococcal-13	L39933	100,400	Jul-17	Sep-17

Table 21: Unexplained variances between Physical stock count at DVS, PHU, and recorded amounts per Stock cards (in doses)

Vaccine Store	Date count performed	Vaccine	Physical count	Stock card	Unexplained variance
Bo District	19-Jun-18	Pneumococcal-13	6,160	6,100	60
Kenema District	18-Jun-18	Pentavalent	15,800	15,850	(50)
	18-Jun-18	Pneumococcal-13	9,860	9,991	(131)
	18-Jun-18	Rotavirus	4,205	4,300	(95)
	18-Jun-18	Measles	7,230	7,270	(40)
Port Loko District	19-Jun-18	Pneumococcal-13	11,541	11,629	(88)
	19-Jun-18	Measles	7,620	7,610	10
Western Urban	14-Jun-18	Pentavalent 124X70151	467	8,660	(8,193)
	14-Jun-18	Pentavalent 124X7017B	600	-	600
	14-Jun-18	Pneumococcal-13	11,989	9,210	2,779
	14-Jun-18	Rotavirus	4,800	1,340	3,460
Western Rural	18-Jun-18	Pentavalent	4,070	4,320	(250)
	18-Jun-18	Pneumococcal-13	2,280	2,404	(124)
	18-Jun-18	Rotavirus	1,920	2,192	(272)
	18-Jun-18	Measles	3,270	1,590	1,680
Grey bush CHC	14-Jun-18	Pentavalent	29	20	9
	14-Jun-18	Pneumococcal-13	100	110	(10)
	14-Jun-18	Measles	8	200	(192)
Newton CHC	18-Jun-18	Pentavalent	26	101	(75)
	18-Jun-18	Pneumococcal-13	69	67	2
	18-Jun-18	Rotavirus	137	66	71
	18-Jun-18	Measles	7	80	(73)
Rogbere CHC	19-Jun-18	Pentavalent	90	50	40
	19-Jun-18	Pneumococcal-13	63	50	13
	19-Jun-18	Rotavirus	8	10	(2)
George Brooke CHC	May-18	Pentavalent	31	20	11
	May-18	Pneumococcal-13	200	168	32

Table 22: Weaknesses at district vaccine stores visited

Table 21: Unexplained variances between Physical stock count at DVS, PHU, and recorded amounts per Stock cards (in doses)

Issue	Bo DVS	Port Loko DVS	Kinema DVS	Western Rural DVS	Western Urban DVS
SOPs not available	X	X			X
Non-availability of store ledger	X				
No written records for temperature monitoring				X	X
Non-functional FT-2 tags/temperature monitoring devices				X	
Staff not trained in SOPs for vaccine management	X	X	X		X
Stock-outs					
Irregular updates of stock records	X	X	X	X	X
Irregular stock counts	X	X	X	X	X
No inventory card for expired, damaged vaccines and wastages	X	X	X	X	X
No guidelines or job aids pasted on wall to ensure good storage vaccine conditions	X	X	X	X	X

Table 23: Weaknesses at PHU visited

Issue	Ginger hall CHC	Grey bush CHS	Newton CHC	Lynn Maternity	Masorie	Tokpombu	Rogbere	George Brooke	Aberdeen women's	Tagrin	Jembe	Damballa	New Police Barracks
SOPs not available	X			X		X							
Non-availability of store ledger	X					X				X			
Stock register not updated with records	X	X	X	X	X		X	X	X		X	X	X
No written records for temperature monitoring		X	X	X		X				X			X
Non-functional FT-2 tags/temperature monitoring devices		X	X	X									
Staff not trained in SOPs for vaccine management	X	X	X	X		X	X	X					
Stock-outs		X	X				X				X		X
No AEFI Forms	X	X				X							
No inventory card for expired, damaged vaccines and wastages		X	X	X	X	X	X	X	X	X	X	X	X
No guidelines or job aids pasted on wall to ensure good storage vaccine conditions.	X	X	X		X	X	X	X	X	X	X	X	X

Table 24: Delays between receipt of vaccines at the airport and receipt of vaccines at the Central Vaccines Stores

Date of Arrival at Airport	Vaccine Description	Lot Number	No. of Boxes	No. of Vials	Expiry Dates	Date of arrival at CVS	Lead Time in days
11-Mar-15	Rotarix Liquid Tube	AROLB212AA	5	139,500	May-17	19-Mar-15	8
01-Apr-15	Penta (10 Dose)	124p4031a	22	26,100	Dec-16	07-Apr-15	6
01-Apr-15	Penta (10 Dose)	124p4031a	6	6,900	Oct-16	07-Apr-15	6
24-Apr-15	PCV 13 (1Doses)	L44161	58	103,600	31-Aug-17	05-May-15	11
24-Apr-15	PCV 13 (1Doses)	L39942	19	32,950	31 Sept 2017	05-May-15	11
24-Apr-15	PCV 13 (1Doses)	L35152	7	12,500	31-Aug-17	05-May-15	11
24-Apr-15	PCV 13 (1Doses)	L28840	1	750	31-Aug-17	05-May-15	11
24-Apr-15	PCV 13 (1Doses)	L35150	1	500	31-Aug-17	05-May-15	11
10-May-15	PCV 13 (1Doses)	L69761	63	112,500	Sep-17	22-May-15	12
13-May-15	PCV 13 (1Doses)	L39933	66	118,400	Sep-17	22-May-15	9
06-May-15	PCV 13 (1Doses)	L44161	58	103,550	Aug-17	14-May-15	8
06-May-15	PCV 13 (1Doses)	L18254	10	16,550	Jul-17	14-May-15	8
07-Sep-15	PCV 13 (1Doses)	M21842		91,800	Mar-18	23-Sep-15	16
01-Sep-15	Rotarix Liquid Tube	AROLB321CA	2	1,600	Oct-17	17-Sep-15	16
01-Sep-15	Rotarix Liquid Tube	AROLB327AA	9	81,000	Oct-17	17-Sep-15	16
01-Sep-15	Rotarix Liquid Tube	AROLB344AA	54	13,400	Oct-17	17-Sep-15	16
22-Sep-15	PCV 13 (1Doses)	M21842	51	91,800	Mar-18	02-Oct-15	10
23-Nov-15	Rotarix Liquid Tube	AROLB389AA	2	19,500	Jan-18	04-Dec-15	11
03-Feb-16	PCV 13 (1Doses)	L57122	40	72,000	Mar-18	06-Feb-16	3
29-Jan-16	Yellow Fever	973	8	5,490	Nov-17	06-Feb-16	8
29-Jan-16	Yellow Fever	974	10	7,460	Dec-17	06-Feb-16	8
29-Jan-16	Yellow Fever	975	9	7,020	Dec-17	06-Feb-16	8
09-Feb-16	PCV 13 (1Doses)	L57122	40	72,000	Mar-18	12-Feb-16	3
05-Jul-16	Penta (10 Dose)	124P6004	25	29,400	Jan-18	08-Jul-16	3
03-Oct-17	PCV 13 (1Doses)	T12418	26	46,300	Sep-19	12-Oct-17	9
03-Oct-17	PCV 13 (1Doses)	S05559	21	22,050	Jul-17	12-Oct-17	9
03-Oct-17	PCV 13 (1Doses)	S05559	51	91,100	Oct-19	12-Oct-17	9

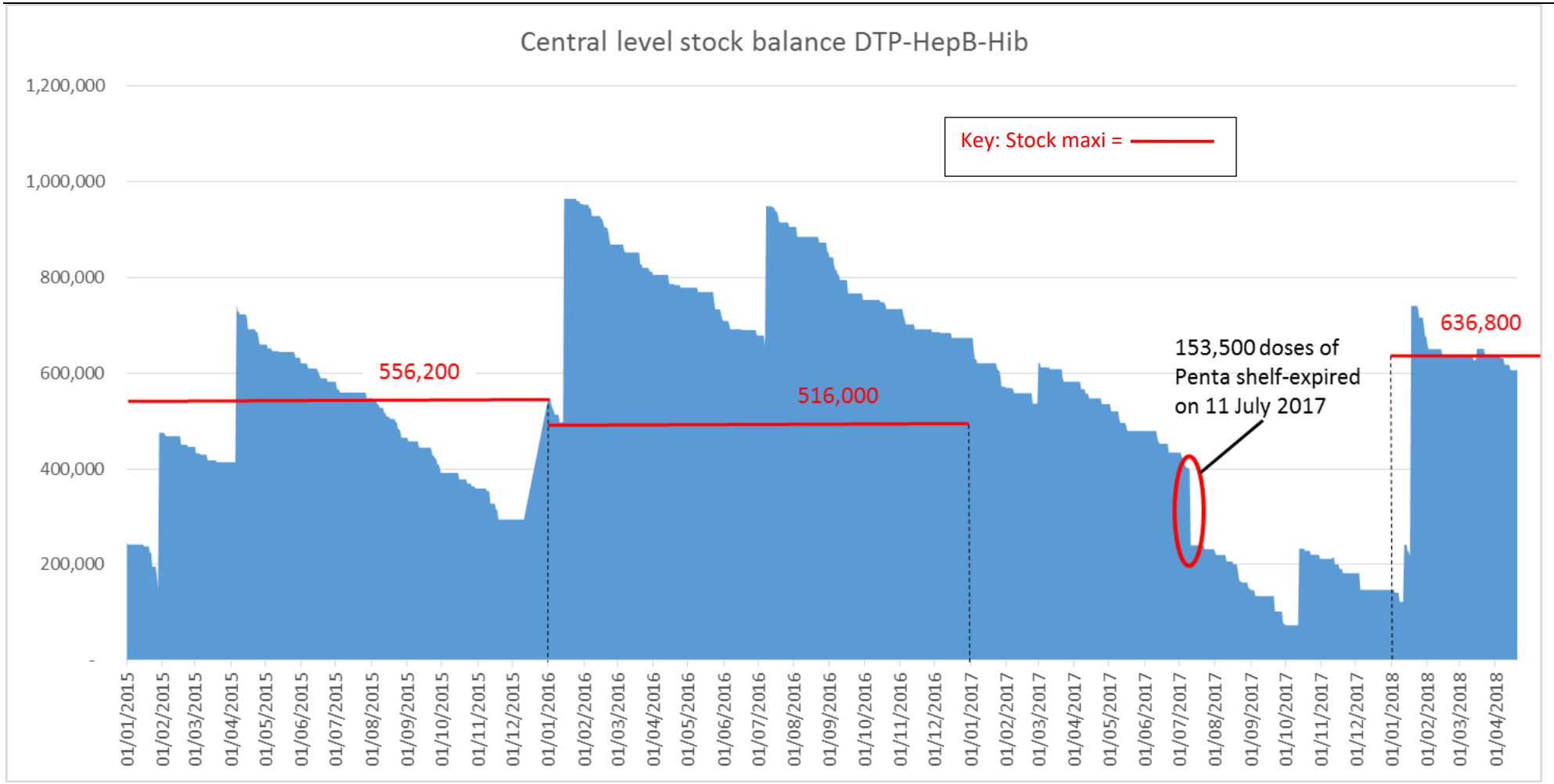
Table 25: Variance between vaccine received and number of children immunized as reported in HF-2 at selected PHUs and the closing balance of vaccines as at June 2017

PHU	Vaccine	Cls. bal. as at 30/06/2017 based on immunisation consumption data (Doses)	Cls. Bal. as at 30/062017 per stock card (Doses)	Variance (Doses)
Grey Bush	Pneumococcal-13	64	94	-30
	Pentavalent	1,344	1,390	-46
Tokpombu	Pneumococcal-13	1	-	1
	Pentavalent	1	-	1

Table 25: Variance between vaccine received and number of children immunized as reported in HF-2 at selected PHUs and the closing balance of vaccines as at June 2017

PHU	Vaccine	Cls. bal. as at 30/06/2017 based on immunisation consumption data (Doses)	Cls. Bal. as at 30/062017 per stock card (Doses)	Variance (Doses)
Ginger Hall	Pneumococcal-13	20	19	1
	Pentavalent	20	10	10
Newton	Pneumococcal-13	11	67	-56
	Pentavalent	11	67	-56

Table 26: Running balance of Pentavalent held at the Central Vaccine Stores


Central level stock balance DTP-HepB-Hib
1,200,000
1,000,000
800,000
600,000
400,000
200,000
-
Key: Stock maxi =
556,200
516,000
153,500 doses of Penta shelf-expired on 11 July 2017
636,800
01/01/2015
01/02/2015
01/03/2015
01/04/2015
01/05/2015
01/06/2015
01/07/2015
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01/03/2018
01/04/2018

Annex 5 – Criteria for assessing implementation of the MR Campaign

WHO AFRO measles SIAs Planning and Implementation Field Guide on pre-campaign activities

According to WHO AFRO measles SIAs Planning and Implementation Field Guide, the micro-planning exercise is a bottom-up approach of planning that should start at the district level. This exercise should try to come up with valid and realistic estimates of the resource needs based on the target population and the reality on the ground about existing and locally available resources – human as well as material. The national level should provide guidelines on how to do micro-planning at the district level, based on the selected strategy of delivery and the selected mix of services during the SIAs. As preparation for the micro-planning workshops, guidelines should be provided in advance. The guidelines also recommends, as a pre-requisite to successful training, identification of qualified and committed trainers as well as appropriate participants who will both cascade the training as well as conduct the campaign activities

WHO AFRO measles SIAs Planning and Implementation Field Guide on advocacy and social mobilisation

The WHO guidelines recommend that planning for social mobilization is done at least six months prior to a campaign and as part of the overall micro-planning.

WHO AFRO measles SIAs Planning and Implementation Field Guide on monitoring and supervision

The WHO guidelines recommend that supervisors are designated at each level to guide, support operative personnel, and ensure that the campaign is properly implemented during planning, campaign and reporting phases. The guidelines also recommend training the supervisors on key skills and activities required to conduct effective and supportive supervision for the measles campaign. Supervisory visits were to be duly documented using the structured campaign supervision checklists that were to be analysed by the campaign coordinators to identify areas of improvement. For instance, the results of supervision monitoring were supposed to immediately identify cases of unimmunised children and the reasons thereof so that the bottlenecks are addressed during the course of the campaign. If supervision checklists and reports are not completed, identification of unimmunised children becomes difficult.

Arrangement for management of Adverse Effects Following Immunisation (AEFI) incidents

The Ministry of Health and in-country alliance partners recruited a team at national and district levels that spearheaded surveillance of Adverse Events Following immunisation (AEFI). Various committees and teams were constituted and orientated for respective functions. An AEFI report was prepared at the end of the campaign. Ten (10) AEFI cases were reported during the campaign. These cases were treated as they occurred in the field through the free care initiative but non- was life threatening.