# Memorandum on the Republic of Rwanda's Programme Audit report

The attached audit report sets out the conclusions on Gavi Secretariat's Programme Audit of the Government of Rwanda's immunisation programmes as managed by the Rwanda Biomedical Centre (RBC).

The audit was conducted in February and March 2018 with a supplementary visit in April 2018 to review additional supporting documents which had not been available earlier. It reviewed the period from 1 July 2014 to 31 December 2017. The scope of the audit covered the Ministry of Health's management of grants supporting its Health Systems Strengthening (HSS), Measles Rubella campaign (MR) operational costs and select vaccine management processes. The final audit report was issued to the Ministry of Health on 3 September 2018.

The audit report's Executive Summary (pages 5 to 7) sets out the key conclusions, the details of which are set out in the body of the report:

- 1. There is an overall rating of Partially Satisfactory which means that "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 impact on the achievement of the entity's objectives".
- 2. Fifteen issues were identified, most of which related to non-compliance with the Government of Rwanda and Ministry of Health's guidelines or to the financial management arrangements governing Gavi cash grants.
- 3. Key findings were that:
  - a. There were weaknesses in the financial review and monitoring processes undertaken by the central level and the district hospitals. The audit team questioned expenditures totalling USD 117,397 (RWF 92,873,703), which were classified as being inadequately supported, unsupported or irregular in nature;
  - b. For a single contract totalling USD 2,205,145 relating to the construction of a warehouse, value for money concerns were identified by the team, due to non-compliance with national procurement regulations and contract management practices being ineffective; and
  - c. The vaccine stock records were poorly maintained and managed, including missing or incorrect entries, and the existence of conflicting versions of the records. At central level the vaccine management principle of "first expired first out" was not consistently followed.

The results of the programme audit have been discussed and agreed with the Ministry of Health, with a commitment in a letter dated 12 December 2018, to remediate the identified issues and refund the unsupported and irregular expenditure amounting to USD 100,761. The form of reimbursement is still under discussion, and Gavi has asked the Ministry of Health to confirm that it will refund by 19 May 2019.

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

Geneva, March 2019

# **REPUBLIC OF RWANDA**

Programme Audit of Gavi Support to the Ministry of Health

Gavi Secretariat, Geneva, Switzerland

Final Audit Report – 03 September 2018



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# **Abbreviations**

BoQ Bill of Quantities

CHW Community Health Worker

DAF Director of Administration and Finance

DH District Hospital

DHIS District Health Information System

DQA Data Quality Audit

ERP Enterprise Resource Planning

EPI Expanded Program of Immunisation

HC Health centre

HMIS Health Management Information System

HSS Health Systems Strengthening

IFMIS Integrated Financial Management Information System

IPV Inactivated Polio Vaccine

ISS Integrated Supportive Supervision

LMIS Logistical Management Information System

M&E Monitoring and Evaluation

MCCH Maternal Child and Community Health
MINECOFIN Ministry of Economic Planning and Finance

RBC Ministry of Health MR Measles Rubella

PBF Performance Based Framework

PCV Pneumococcal vaccine

PFA Partnership Framework Agreement

RBC Rwanda Biomedical Centre

RWF Rwandan franc

SOP Standard Operating Procedures
SPIU Single Project Implementation Unit

VPDP Vaccines Preventable Disease Programme

WUENIC WHO/ UNICEF Estimates of National Immunisation Coverage

# 1 Executive Summary

Between February and March 2018, the Audit and Investigations team (the Audit Team) conducted a programme audit of Gavi's contributions to the Republic of Rwanda's Ministry of Health (RBC). At the request of the RBC, a supplementary visit was carried out in April 2018 to review additional supporting documents which had not been available earlier.

The audit covered the Ministry of Health's management of Health Systems Strengthening (HSS) and Measles Rubella (MR) operational costs for the three and half-year period from 1 July 2014 to 31 December 2017 with the Team reviewing 48% of RBC programme expenditures totalling USD 3,003,489 (RWF 2,349,299,076).

# **Audit rating**

The Audit Team assessed the Ministry of Health's management of Gavi provided funds as **partially satisfactory**, which means, "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 impact on the achievement of the entity's objectives".

Table 1: Summary of audit focus areas rated by programme audit.

Area	Audit Rating		
Budgeting and Financial Management	Partially Satisfactory		
Disbursements and Expenditure	Partially Satisfactory		
Procurement Management	Partially Satisfactory		
Immunisation Data Quality	Satisfactory		
Vaccine Supply Management	Partially Satisfactory		
Overall rating	Partially Satisfactory		

#### **Key issues**

The Audit Team raised 15 issues, most of which related to non-compliance with the Government of Rwanda and Ministry of Health's guidelines or to the financial management arrangements governing Gavi cash grants. These arrangements are described in the 2013 Partnership Framework Agreement and Aide Memoire, signed between Gavi and the Government of Rwanda, represented by the RBC and Ministry of Finance and Economic Planning.

To address these issues, the Audit Team made 15 recommendations, of which 10 (or 67%) were rated as of critical priority, which means "action is required to ensure that the programme is not exposed to significant or material incidents. Failure to take action could potentially result in major consequences, affecting the programme's overall activities and output."

A summary of the audit findings in this report are presented below:

Budgeting and Financial management

Challenges in using the national IFMIS system resulted in financial reports being prepared manually. As a result, it was not possible to confirm the completeness and accuracy of these reports submitted to Gavi. The resulting process was inefficient leading to delays in submission. From the programmatic side, there were delays in the implementation of immunisation activities resulting in a low absorption rate of Gavi's funding.

Disbursements and

Expenditure

The Audit Team identified weaknesses in financial review and monitoring done by the central level and the district hospitals. This resulted in the delayed justification of advances, weaknesses in fuel management and delays in VAT being reclaimed. In addition, the team questioned expenditures totalling USD 117,397 (RWF 92,873,703), as a result of these being classified as inadequately supported, unsupported or irregular transactions.

Procurement management

For one of the major contracts in the period under review relating to the construction of a warehouse, there were value for money concerns due to non-compliance with national procurement regulations and ineffective contract management practices including commencement hold-ups, setbacks in carrying out technical reviews and design changes, delays in submission of the Contractor's programme of works and ineffective communication on contract matters.

Immunisation
Data Quality

Rwanda consistently attains high immunisation coverage. This section summarises potential areas of improvements for better data quality.

There exists a data anomaly between the elevated administrative coverage rates for pentavalent, in contrast to the lesser quantity of vaccine supplied. The immunisation records maintained by most of the health centres visited contained data inconsistencies and inaccuracies. Data quality assurance processes were inadequate, and consistency checks or audits of the subnational data were not done or were of limited quality. There was also no consistency in how district hospitals supervised and supported health centres.

Vaccine Supply Management

Vaccine electronic stock records were poorly maintained and managed, including missing or incorrect entries, and conflicting versions of the electronic records. At the central level the vaccine management principle of "first expired first out" was not consistently followed. There were unexplained gaps in the stock records, including 670,000 doses of Gavi-supported vaccines being written off without any basis. The level of supervision provided by the central and district levels, in support of the health centres, was inconsistent, resulting in inconsistent or non-compliant vaccine management practices.

Recommendations have been made to address the findings and have been prioritised as either critical, essential or desirable. Definitions of the three-levels of prioritisation are summarised in Annex 5.

The table below summarises amounts questioned by the audit team:

Table 3: Summary of amounts questioned by the audit team

Category	Total (USD)	Report section
Inadequately supported	16,636	4.2.1
Irregular	1,075	4.2.1
Unsupported	99,686	4.2.1
Total	117,397	

In addition to the questioned amounts above, value for money concerns were noted on a major contract to construct a warehouse. This was due to non-compliance with national procurement regulations and ineffective contract management practices. As at March 2018, the expenditure to date on the project totalled RWF 348,903,034 (USD 441,029), with the works being less than 25% complete, corresponding to a total contract value of RWF 1,744,515,172 (USD 2,205,145)

# 2 Objectives and Scope

# 2.1 Objectives

In line with the Partnership Framework Agreement – signed 7 June 2013 - and with Gavi's Transparency and Accountability Policy, the primary objective of a programme audit is to review internal controls and risk management practices. The programme audit also sought to obtain assurance that funds were used for intended purposes in accordance with the agreed terms and conditions, as well as to identify opportunities to enhance programme processes.

In addition, the Audit Team assessed: the reliability and integrity of managerial and operational information; the effectiveness of operations; the safeguard of assets; oversight arrangements; and compliance with relevant national policies and procedures.

# 2.2 Scope

The period under review was 1 July 2014 to 31 December 2017. During this period the total value of the vaccine and cash support provided to the RBC was USD 43,886,110 of which, USD 7,255,168 consisted of cash grants. The audit covered income received, expenditure incurred for the Health Systems Strengthening (HSS), Health Systems Strengthening Performance Based Framework (HSS-PBF) and Measles Rubella (MR) operational costs at national and sub-national level.

The Audit Team visited the Rwanda Biomedical Centre Single Project Implementation Unit ((RBC - SPIU) and eight districts, and reviewed transactions totalling USD 3,003,489 (RWF 2,349,299,076), equivalent to an effective audit coverage of 48% of the net expenditure.

- TUDIE Z. GUVI UISDUI SEITIETIIS TO NWUTIUU UUTITU THE DEFIOU ZUT4 -ZUT7 III USI	disbursements to Rwanda during the period 2014 -201	7 in USD.
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Grant type /Year disbursed	2014/2015	2015/2016	2016/2017	2017/2018	Total
Cash grants	2,315,144	-	980,442	3,959,583	7,255,168
Vaccine support	15,082,876	9,156,212	6,827,378	5,564,476	36,630,942
Total	17,398,020	9,156,212	7,807,820	9,524,059	43,886,110

Table 3: Breakdown of expenditures by grant that were reviewed by the Audit Team in USD.

Grant type	Expenditure in the audit period	Reviewed by the Audit Team	% coverage
Health Systems Strengthening (HSS)	4,746,482	1,843,659	39%
HSS Performance Based Framework (HSS-PBF)	446,059	446,059	100%
Measles Rubella (MR) operational costs	1,037,806	713,770	69%
Total	6,230,348	3,003,489	48%

For the M&E review, three indicators were selected as detailed in Annex 1. Service delivery data for the vaccines covered under these indicators was linked with vaccine consumption. Data for three months (April to June 2017) was sampled for the assignment.

# 2.3 Exchange Rates

The exchange rates conversion from RWF to USD was guided by the financial year end closing procedures circular. The circular is pursuant to Article 64 and 19 of the Organic Law on state finances and property. It states, "Where the translation of revenue and expenditure is done as a period end procedure and it is not practical to assign a rate for each revenue and expense item, the average rate for that period can be applied. Hence, at the end of the year, the conversion used is the average rate of exchange ruling on that closing date, for instance 30 June 2017, as issued by the National Bank of Rwanda."

The table below summarises these average year end closing rates:

Table 4: Average year end exchange rates for the period 2014 to December 2017

Year	Rate as at:	Average year end exchange rates (1.00 USD into RWF)
2014/2015	30 June 2015	719.5405
2015/2016	20 June 2016	783.2595
2016/2017	30 June 2017	816.6507
2017/2018	30 December 2017	844.9970

# 3 Background

#### 3.1 Introduction

Rwanda is a country in East Africa with an estimated population of 12 million and a life expectancy of 66.6 years according to the National Institute of Statistics of Rwanda. Rwanda is bordered by Uganda, Tanzania, Burundi and the Democratic Republic of the Congo. The country is divided into five provinces (intara) and subdivided into thirty districts (akarere).

The health system in Rwanda is organised as a three-tier system. The central level includes the Ministry of Health (RBC), the Rwanda Biomedical Centre (RBC) as the operational implementing agency for the Ministry and the national referral hospitals. The intermediate level is made up of provincial and district hospitals and the peripheral level includes the health centres and health posts, which provide primary health care services, in collaboration with the Community health workers (CHWs). Currently there are four referral hospitals, 42 district hospitals and 438 health centres.

Gavi has invested HSS funding in Rwanda geared towards increased access to outreach activities, supportive supervision, provision of EPI vaccines and supplies, cold chain expansion and maintenance at all levels, and data management.

The Ministry of Health is the recipient of Gavi support with the implementation of the programme being hosted under the Rwanda Biomedical Centre (RBC), a department of RBC, where all donor programmes are managed through the Single Project Implementation Unit (SPIU). The SPIU provides administrative, technical support and oversight to all donor funds managed by the Ministry of Health, including Gavi funding.

According to WHO/UNICEF Estimates of National Immunisation Coverage (WUENIC), Rwanda's immunisation program is rated as one of the best performers in the African Region. Currently, 13 vaccines are being utilised in the routine Immunisation program, including six supported by Gavi: Rotavirus, Measles Rubella, HPV at national level, Pentavalent and Pneumococcal and IPV (introduced in March 2018). The traditional vaccines are procured and fully funded by the Government of Rwanda.

# 3.2 Good practices

The Audit Team identified several good practices as outlined below:

In 2011, the RBC implemented its IFMIS system, its ERP financial system at the national level. In 2016, the system was rolled out to the District Hospital level. The system automates the execution and accounting processes aimed at effective Public Financial Management. The system is expected to significantly improve the management and reporting on the use of donor funds.

RBC SPIU provides a strong oversight mechanism for donor-funded programs including Gavi funding. RBC SPIU structure provides for the appropriate segregation of functions, in line with the institution's internal control mechanism.

## 3.3 Key challenges

Despite the roll-out of IFMIS to the District level, the SPIU faces challenges in integrating various donor reporting requirements into the Government reporting structure. As a result, as at March 2018 the SPIU had been unable to input Gavi budget categories within the IFMIS system. Consequently, District-level reporting on Gavi expenditures had to be manually collated using MS Excel spread sheets.

# 4 Detailed Findings

# 4.1 Budgeting and Financial Management

Challenges in using the national IFMIS system resulted in financial reports being prepared manually. As a result, it was not possible to confirm the completeness and accuracy of these reports submitted to Gavi. The resulting process was inefficient leading to delays in submission. From the programmatic side, there were delays in the implementation of HSS-related activities resulting in a low absorption rate of Gavi's funding.

Partially Satisfactory

**Audit Rating** 

Annex 2 of the Partnership Framework Agreement signed in June 2013, sets out the financial management arrangements for Gavi cash support to the Republic of Rwanda.

#### 4.1.1 Challenges in using IFMIS for budgeting and reporting

The Government of Rwanda rolled out its Integrated Financial Management Information System (IFMIS) in FY 2011/2012 across its Ministries at the central-level to strengthen its Public Financial Management, including automating its accounting processes. Thereafter beginning FY 2016/2017, IFMIS was rolled out at district hospitals and district pharmacies. This resulted in each district hospital being designated as a cost centre, against which it can record its appropriations and expenditures directly into IFMIS.

However, the introduction of IFMIS has resulted in budgetary and reporting challenges for the district hospitals, as they were unable to enter the donor funded programmes budget categories into IFMIS system. As a result, for each programme, the respective expenditures incurred could only be traced through the cash book. Similarly, the district hospitals were unable to produce specific donor-reports using IFMIS, resulting in them having to manually recreate such reports using MS Excel manually. In addition, the central-level RBC SPIU finance unit did not have access to the district hospitals' data through IFMIS and hence the unit was not able to verify the validity of the district hospitals' manual reports received.

Faced with the same limitations, the RBC SPIU also currently uses MS Excel to collate and submit the necessary Gavi financial reports. Due to the manual interface, these reports are equally prone to manual error. During its review, the Audit Team noted that it was not possible to re-perform and validate the accuracy of past Gavi financial reports against the IFMIS system. This is because no audit trail was kept, including the past source documents used for the preparation and consolidation of such reports not having been kept on file.

### Cause

The SPIU finance unit had not engaged with the IFMIS team at Ministry of Economic Planning and Finance (MINECOFIN) to resolve the budgetary and reporting challenges relating to donor programmes, including Gavi funding.

#### Risk/ Effect

Inefficient manual processes which are prone to error and manipulation.

#### **Recommendation 1 (Critical)**

Following discussions held with the MINECOFIN IFMIS development team and RBC SPIU Finance staff on 13 March 2018, it was concluded that the system has the capability to support the budgeting and

reporting functionalities both for the government entities as well as to meet donor-reporting requirements. As a result, the Audit Team recommends that:

- RBC SPIU disaggregates its district budgets for FY 2018/2019, and ensures that these budgets are mapped into IFMIS both according to the government's chart of account as well as according to Gavi cost framework;
- Key individuals within RBC SPIU should request appropriate access (while complying with internal control framework principles) to be able to view and access the district hospitals' IFMIS data directly; and
- Finally, working jointly with the IFMIS development team, RBC SPIU should develop suitable reporting template for Gavi.

### Management comments

Management agrees with the recommendations.

This will be important for next funding period especially since the approved and agreed upon activity plan currently under execution will end by 31 December 2018. Therefore, RBC will try to explore possibility of submitting a detailed reporting requirements to IFMIS development team such that it can be developed and tested within the IFMIS before validation to agree on the report feasibility, training and usage by SPIU and district finance teams.

Responsible Entities: MINECOFIN, RBC and Hospitals

Deadline: 31 December 2018

# 4.1.2 Weaknesses in the accounting and reporting process

Section 24 to 30 of the Aide Memoire signed between the RBC and Gavi in July 2013 outlines the accounting and reporting requirements for the Gavi-supported programmes. Accordingly, RBC SPIU should have annually prepared Interim unaudited Financial Reports (IFR) that included a Statement of Expenditure classified by Programme components/activities showing comparison with budgets for the reporting period and the cumulative totals over the programme. Once prepared, this IFR would be shared with the external auditors and would form the basis for their own assignment.

However, the Audit Team confirmed that the actual Interim unaudited Financial Reports (IFR) which were prepared and were provided to the external auditors were incomplete, as they did not include an appropriate Statement of Expenditure.

# Recording

As part of its accounts payable process, the payment vouchers prepared by RBC SPIU did not indicate the activity code for each expenditure item. This was also the case for the district-level quarterly financial reports. As a result, the expenditures incurred could not be matched to the Gavi work plan approved activities. The activity codes are retroactively assigned to expenditure incurred at the time of reporting every six months where the accountant sits with programme staff and allocates expenditure to each budget line during discussions.

RBC SPIU has two designated accounts for Gavi: a transition account denominated in USD and a spending account denominated in RWF. Although the majority of expenditures were incurred in local RWF currency, typically RBC SPIU would raise the payment vouchers in IFMIS directly against the USD account. Once booked, a few additional days were required before the vendor was actual paid. As a result, an additional step was required to execute the payment, and an additional journal had to be created for each transaction to adjust for exchange differences due to time elapsed between when the payment voucher was first booked and when the funds were disbursed. As a result, all USD

payments of RWF invoices required two accounting entries, in effect creating an extra administrative step in the process.

#### Reporting

The Audit Team reviewed the HSS unaudited financial reports submitted to Gavi and noted that these reports were prepared and consolidated in MS Excel Spreadsheet, a manual process which is prone to human error. In addition, multiple exchange rates were used to translate expenditure incurred in RWF to USD where (i) for expenditure incurred at RBC SPIU level, daily exchange rates from National Bank of Rwanda (NBR) website were used; and (ii) for expenditure incurred at district level, a different rate, the closing rate of the last day of the reporting was used.

#### **Submission**

As per Gavi reporting guidelines, interim financial reports are required 45 days after the period end, annual reports three (3) months after the period end, and the annual audited financial statements six (6) months after the period end.

The Audit Team determined that as a consequence of the payment cycle process being longer than necessary, that RBC SPIU's subsequent preparation and submission of financial reports to Gavi was also delayed. For example, the financial report for the period, 1 January 2017 to 30 June 2017 was belatedly sent to Gavi in November 2017. Similarly, the preparation for the interim financial report for the period 1 July 2017 to 31 December 2017 and the MR follow up campaign report was ongoing at the time of our audit in March 2018 and the reports were submitted on 30 April 2018.

#### Cause

Changes of staff at RBC SPIU and lack of a proper filing system for the source documents used in preparation and consolidation of financial reports submitted to Gavi. Cumbersome or inefficient payment cycle.

#### Risk/ Effect

Without proper budget monitoring, RBC SPIU and the districts may not effectively track and report expenditure against the work plan as approved by Gavi.

#### **Recommendation 2 (Critical)**

In future, the Ministry of Health should:

- Ensure that an appropriate activity code (e.g. in accordance with the Gavi-approved work plan) is assigned to each respective payment voucher. These activity codes should also be included within the quarterly financial report template for the districts;
- Put in place suitable procedures such that the RWF local bank account is used for the day to day
  expenditures. In parallel, funds should be regularly transferred from the USD bank account to the
  RWF local account to ensure there is sufficient liquidity to cover the local operational expenses. As
  a result, the overall accounting and reporting requirements should be minimised by ensuring that
  the bulk of the payment vouchers are raised against the local bank account;
- Prepare financial reports in line with the GAVI reporting template, including the necessary budget execution and budget variance analysis reports. These reports should also be submitted on time to Gavi as per Gavi reporting guidelines;
- With respect to the process of preparing and collating data for its financial reports, proper documentation and archives should be maintained to ensure that there is an adequate audit trail.

 Follow up with the IFMIS development team at MINECOFIN to ensure suitable access rights are given to appropriate individuals within the RBC SPIU Finance team so that they can access the districts' financial reports; and

Use a consistent exchange rate to convert all expenditure incurred in RWF to USD.

#### Management comments

Management agrees with the recommendations.

This will be important for next funding period especially since the approved and agreed upon activity plan currently under execution will end by 31 December 2018. RBC is currently working with hospitals and MINECOFIN to:

- explore possibility of setting up activity codes for use in tracking payments and reporting for both central level and district levels;
- ensure transactions are made in local currency using consistent exchange conversion rate, as required;
- improve report compliance to the Gavi template report, content regarding budget execution and variance analysis as well as submission time;
- improve documentation and archiving;
- request MINECOFIN for access rights to appropriate individuals within the RBC SPIU Finance team

Responsible Entities: MINECOFIN, RBC and Hospitals

Deadline: 31 December 2018

#### 4.1.3 Slow pace of programme implementation

The Audit Team observed that, as at 31 December 2017, RBC had incurred expenditure amounting to USD 4,966,853 for HSS against a budget of USD 10,339,970, achieving a low utilisation rate of 48%, as shown in the table below:

Table 5: HSS grant budget utilisation analysis (amounts in USD)

Calendar year	Expenditure reported (USD)
2014	760,659
2015	1,782,227
2016	1,227,827
2017	1,196,140
Total expenditure	4,966,853
Total grant	10,339,970

The table above outlines the expenditure per year where overall utilisation as at 31 December 2017 was 48%.

From the Audit Team's discussions with the officials from the RBC, they cited the following reasons for the low level of utilisation of Gavi funds:

The restructuring of the RBC which led to the establishment of the SPIU;

• Staff turnover at the RBC SPIU during the period especially during the years 2014 and 2015;

- Delays in procurement of cold chain equipment, computers and motor cycles for health centres although this was due to slow submission of the budget reallocation to Gavi; and
- Competing priorities from other Government and donor activities.

#### Cause

Weak capacity and/or inadequate planning.

## Risk/ Effect

Activities may not be implemented per the approved work plan which increases the likelihood of low utilisation of funds. Similarly, the monitoring of implementation of the approved work plan may be ineffective.

# Recommendation 3 (Critical)

The RBC SPIU should institute a practice whereby the Finance and Programme teams jointly review progress of implementation every three months, by reviewing the quarterly budget against expenditures incurred.

# Management comments

Management agrees with the recommendation.

The approved and agreed upon activity plan currently under execution will end by 31 December 2018. This followed a budget reallocation prepared in collaboration with GAVI, and approved by GAVI Secretariat on 24th May. RBC will endeavour to ensure that all activities are implemented by 31st December 2018. The budget absorption will be boosted after procurement and payment of important activities such as Cold Chain Equipment Optimisation Platform (CCEOP), 217 motorbikes, 504 desktops, 2 refrigerators vehicles, and training of Health Providers in use of Immunization Software.

Responsible Entities: RBC and Hospitals and Health Centres

Deadline: 31 December 2018

# 4.2 Disbursements and Expenditure

The Audit Team identified weaknesses in financial review and monitoring done by the central level and the district hospitals. This resulted in the delayed justification of advances, weaknesses in fuel management and delays in claiming for VAT charged to the program. In addition, the team questioned expenditures totalling USD 117,397 (RWF 92,873,703) which was classified as inadequately supported, unsupported or irregular transactions.

Partially
Satisfactory

#### 4.2.1 Questioned costs

Paragraph 19 of Annex 2 of the Partnership Framework Agreement (PFA) instructs the Government of Rwanda to manage and use Gavi's funding solely for the appropriate programme activities. Further, Paragraph 20.1(c) of the same Annex directs that all expenses relating to application of such funds, should be properly evidenced with supporting documentation sufficient to permit Gavi to verify the expenses.

From its sample review, the Audit Team identified expenditures which were not adequately supported by documents in sufficient detail to give assurance that the funds were utilised for the intended purpose. As a result, the audit team questioned select expenditures under the following categories: Inadequately supported, unsupported costs, irregular costs and ineligible costs.

The team's basis for questioning most of the expenditures was due to:

- i) Unsupported costs which consisted of unaccounted transfers and missing payment vouchers from 2014 from three entities MCH Unit (USD 52,753), Kabaya (USD 38,601) and Kabgayi (USD 6,298) hospitals under the HSS grant amounting to USD 97,652 at national level. There were also other payments at the district hospitals visited that were not supported amounting to USD 2,034;
- ii) Inadequately supported costs where a payment of USD 16,636 was made to a firm, Kigali Real Estate under the HSS grant in 2014, for warehouse storage outside the contract period without a contract extension; and
- iii) Irregular costs relating to signatures in the payment lists for allowances differing from attendance sheets for the same participants and lack of explanations for questioned documents including receipts for fuel which were sequentially numbered. This was at the district hospitals visited and amounted to USD 1,075.

The total amount questioned from the Audit Team amounted to USD 117,397 (RWF 92,873,703) which was 2% of the expenditures reported by the RBC for the period 1 July 2014 to 31 December 2017. The tables below outline the questioned costs per category, per location and per grant:

Table 6: Questioned costs per category (USD)

Category of questioned costs	RBC SPIU (USD)	Sub-national (USD)	Total (USD)
Inadequately supported	16,636	-	16,636
Irregular	-	1,075	1,075
Unsupported	97,652	2,034	99,686
Total	114,288	3,109	117,397

The following Table 7, is the equivalent of Table 6, but presenting amounts in local currency.

Table 7: Questioned costs per location (RWF)

Entity	Inadequately Supported (RWF)	Irregular (RWF)	Unsupported (RWF)	Total (RWF)
RBC SPIU	13,161,060	ı	77,253,500	90,414,560
Masaka DH	1	508,400	209,738	718,138
Byumba DH	1	312,000	467,005	779,005
Kabutare DH	1	1	932,000	932,000
Kabgayi DH	-	30,000	1	30,000
Total	13,161,060	850,400	78,862,243	92,873,703

Table 8: Questioned costs per grant/year (RWF)

	2014/15	2015/16	2016/17	2017/18	Total
Grant/year	RWF	RWF	RWF	RWF	RWF
MR				30,000	30,000
HSS	90,414,560	161,605	1,759,138	508,400	92,843,703
Total	90,414,560	161,605	1,759,138	538,400	92,873,703

#### Cause

Weaknesses in the internal control system resulting in gaps on compliance, accountability and documentation.

#### Risk/ Effect

The Audit Team could not obtain assurance that the above expenditures which it questioned were used in accordance with the agreed guidelines on supporting documentation having to be properly evidenced.

## **Recommendation 4 (Critical)**

The Ministry of Health should:

- In future, ensure that all necessary supporting documents attached to the payment voucher are reviewed for completeness and accuracy before payments are made;
- Provide additional supporting documents for expenditure identified as unsupported or inadequately supported by the audit team or refund the same amount to Gavi; and
- Refund any amounts identified as irregular to Gavi.

# **Management comments**

Management agrees with the recommendations.

For irregular expenditure, Masaka DH has refunded the Frw 508,400, Byumba DH has refunded the Frw 312,000 and Kabgayi DH is in process of refunding. RBC and MOH are working together for additional documents of the expenditures that were inadequately supported or unsupported.

Responsible Entities: RBC and MOH (lead) and Hospitals and Health Centres

Deadline: 31 October 2018

#### 4.2.2 Weaknesses in financial review and monitoring at different levels

Ministerial instruction No. 20/52 of 10 March 2011 establishes the SPIU in the Ministry of Health (RBC). The instruction is made pursuant to Organic Law No. 32/2008 which determines the organisation, functioning and competence. Article 3 of the Ministerial Instruction states that the SPIU shall assure comprehensive management of funds used by sub-recipients.

Funds were transferred by RBC SPIU to the District Hospitals (DHs) in order to implement activities at the sub-national levels. When the DHs received their respective transfers, they would duly record the funds into IFMIS. Thereafter, the DHs would either expend or disburse these funds on to the respective health centres, according to the approved budget as advances.

When the health centres had used their advances, they would submit their original supporting documents back to the DHs as accountabilities for the funds received. Similarly – from a DHs perspective, they were required to retain all such related supporting documents on file to account for the implementation of the activities and the associated expenditures.

Thereafter on a quarterly basis, the DHs were required to provide financial reports to RBC SPIU, using the same classifications as in the approved budget, to enable RBC SPIU to validate the actual expenditure incurred against the respective budget. RBC SPIU would subsequently use these DH's quarterly reports to prepare an overall consolidated financial report for submission to Gavi.

However, the Audit Team noted that there was weaknesses in the mechanism in place at RBC SPIU to undertake regular monitoring at the district level so as: (i) to review the districts accountabilities and related supporting documents, (ii) to ensure that the funds advanced were used as per budget and (iii) that the expenditure reported was accurate and adequately supported with the required documentation.

Further, there was no review log maintained to record any review findings noted or action points to be taken. Similarly, at the DH level, the Finance Departments are required to review the accountabilities and related supporting documents from health centres for completeness and accuracy.

For all the districts visited by the Audit Team, there was no evidence of such review. There was also no evidence that the unaccounted advances were recorded, and or that any follow up was undertaken to ensure the health centres were held to account.

#### Cause

Weak follow-up and review of districts and health centres' advances and accountabilities.

#### Risk/ effect

Failure to monitor or review the DHs and health centres' advances increases the likelihood of questionable transactions not being detected or resolved on a timely basis.

#### **Recommendation 5 (Critical)**

RBC SPIU should review all expenditures incurred at the sub-national levels on a regular basis and ensure that:

- Health Centres justify their advances and submit the relevant supporting documentation for review to the DHs in a timely manner;
- Suitable financial review processes are established at the DH level, to review the Health Centres' accountabilities and confirm that these are adequately supported, complete and accurate; and
- A record of the accountabilities and documents reviewed is maintained, including findings and observations, so as to enable the follow up and resolution of any outstanding items.

# Management comments

Management agrees with the recommendations.

RBC has set up mechanisms for the review and monitoring of funds sent to hospitals including:

- Quarterly workshops with Hospital Accountants and EPI Supervisors to review hospital reports and supporting documents;
- RBC formal feedback with findings and observations to hospital programmatic and financial reports; and
- A checklist used to review district accountabilities and related supporting documents.

During the next workshop in August 2018, discussions will be held with Hospital Accountants to set up a system that will ensure that (i) Health Centre expenditure reports and full supporting documentation are submitted early for review at Hospital level; (ii) Hospital Accountants introduce and understand the checklist to review health centre accountabilities and related supporting documents; and (iii) set up a system at all levels to allow recording, documentation and follow up of identified issues.

Responsible Entities: RBC (lead) and Hospitals and Health Centres

Deadline: 31 October 2018

#### 4.2.3 Weaknesses in Fuel Management

Paragraph 19 of Annex 2 of the Partnership Framework Agreement (PFA) instructs the Government to manage and use Gavi's funding solely for the appropriate programme activities. Paragraph 20.1(c) of the same Annex directs that all expenses relating to application of such funds, should be properly evidenced with supporting documentation sufficient to permit Gavi to verify the expenses. In addition, the District Health Facility Procedures Manual requires vehicles logbook to be used to track the movement of vehicles, routine maintenance and fuel consumption. Likewise, at the end of every month, the logistics officer is required to prepare a monthly report on how the fleet vehicles were used.

During the audit, the Audit Team noted the following weaknesses with respect to fuel:

# Failure to maintain adequate fuel registers or fuel coupon issuance registers

Districts Hospitals (DHs) routinely purchase fuel coupons from fuel suppliers, and these coupons would be allocated to each vehicle on a need basis. Alternatively, the DHs would issue a requisition order to the fuel supplier, which the vehicle driver would present at the fuel pump to collect fuel equivalent to the order amount. For all of the DHs visited by the Audit Team, various weaknesses and inconsistencies were noted in how the respective fuel registers and fuel coupons issuance registers were maintained.

# **Discrepancies in fuel consumption reports**

There were discrepancies between the data presented in the monthly fleet report compared to the vehicle log books across all facilities visited. For instance, at Kirehe Hospital, the December 2017 monthly fleet report for vehicle registration number IT 949 RC, the odometer showed a kilometre reading at the end of the month of 391,700KM whereas the log-book provided reflected a month-end reading of 214,530KM.

#### Delays in updating vehicle log books

Vehicle log books should be promptly updated after the movement or each journey a vehicle undertakes. The Audit Team noted delays in the vehicle logbooks being updated as required, across the facilities it visited. For instance, the Audit Team noted several log books which only tracked movements up to the calendar year-end, 31 December 2017, in contrast to the same vehicles' fuelling internal requisition notes indicating that there were several subsequent movements in the period up to 9 March 2018.

#### Failure to indicate vehicle registration number on fuel receipts

A sample of cash sale receipts for fuel purchases were reviewed. However, these receipts did not indicate the vehicle's registration number, hence it was not possible to reconcile this with the movement recorded in the respective log book.

#### Cause

Lack of harmonised guidance directing how to monitor and track fuel payments. Inadequate mechanisms for the review of fuel utilisation.

#### Risk/ Effect

Unless fuel utilisation is properly tracked, it is difficult to ascertain if fuel was used as intended. Funds or prepayments could be consumed incorrectly, or payments to vendors might not be matched by the actual service rendered (i.e. the amount of fuel). Errors or discrepancies in log books or monthly fleet reports could result in the unsanctioned or unofficial vehicle trips not being detected.

#### **Recommendation 6 (Essential)**

SPIU in liaison with MINECOFIN should develop suitable harmonised guidelines for the tracking of bulk purchases and utilisation of fuel to ensure adequate supporting documents track the consumption of fuel, and that the suppliers render service for what they are paid for.

# **Management comments**

Management agrees with the recommendation.

RBC has developed a fuel utilisation report template which has been disseminated to all Health Facilities for regular monitoring and reporting.

Responsible Entities: RBC (lead) and Hospitals and Health Centres

Deadline: 31 December 2018

# 4.2.4 Gaps in the information presented in external audit reports

Section 24 to 30 of the Aide Memoire signed between the RBC and Gavi in July 2013 outlines the grant accounting and reporting requirements. Accordingly, RBC SPIU should have prepared the annual Interim unaudited Financial Reports (IFR) prior to the audit that meets the requirements of the Aide Memoire and Partnership Framework Agreement. The Audit Team confirmed that the annual unaudited interim Financial Reports (IFR) were prepared by RBC SPIU and submitted to MINECOFIN prior to the carrying out of the external audits by OAG and RUMA Certified Public Accountants.

The Audit Team reviewed the external audit reports for Financial Years 2013/2014, 2014/2015, 2015/2016 and 2016/2017 for the Gavi supported programmes and observed the following shortcomings:

- The audited financial statements did not include a statement of expenditures classified by programme components/activities, with a suitable cross-reference to the reporting budget for the period and the accumulated programme activities to date, even though this was a Gavi requirement (as per the Aide Memoire). Instead, the expenditure was presented under four broad nationally recognised categories¹ as per requirements of Article 19 of Ministerial Order No 002/07 of 9/02/2007 relating to Financial Regulations. Although these expenditure categories comply with the country's standard chart of accounts, they were not aligned to Gavi's approved HSS budget. As a consequence, the external audit report's content did not provide any meaningful insights on the budget utilisation, as well as undermining the budget owner's ability to obtain suitable assurance that the funds were only used for approved activities.
- Although budget execution reports were included as part of the audited financial statements, the
  Audit Team noted that the expenditure incurred was not linked to the Gavi approved work plan.
  As a consequence, a reader of the audited financial statements could not compare or determine
  the actual expenditure incurred against the budget.
- The past three years of external audits of the HSS programme had a limited scope, as they only focused on the activities funded by the USD account, and inadvertently excluded the local bank account activities. Moreover, the total expenditure reported for the period was overstated since it expensed the entire advance of funds transferred to subsidiary entities, rather than reporting the actual expenditure incurred. Similarly, the bank balances of unspent Gavi funds were understated, since these did not reflect the remaining funds held at bank by the subsidiary entities. For example, unspent Gavi cash balances held by the hospitals as at financial year end 2015/2016 totalled RWF 197,070,939 (USD 237,505).
- The audited financial statements reflected the total overall advances transferred to subsidiary
  entities, but there was no detailed breakdown of these advances provided, so as to reflect how
  much funds each entity received, spent and held at bank.
- There were no detailed fixed assets listing in the audited financial statements, identifying what items were purchased using HSS funding, the location fixed asset and status.

#### Cause

Inadequate preparation for the annual financial audit – the external auditor was not presented with the complete set of Interim unaudited Financial Reports (IFR) as required, even though the IFR requirements were described in Gavi's Partnership Framework Agreement and Aide Memoire.

#### Risk/ Effect

The external audit undertook their work working from an incomplete set of Interim Unaudited Financial Reports, whose outcome resulted in audited financial statements which did not provide all of the necessary information on how Gavi funds were used.

#### **Recommendation 7 (Essential)**

<sup>&</sup>lt;sup>1</sup> Four broad national categories refer as follows: (i) Compensation of Employees, (ii) Purchase of goods and services; (iii) Other expenses; and (iv) Capital expenditure.

The Ministry of Health should ensure that in the future, the audited financial statements are completed in compliance with the agreed requirements stipulated in the Aide Memoire and Partnership Framework Agreement.

In addition, the OAG should ensure that all of the necessary disclosures as set down in Gavi's "financial management and audit requirements" are included as part of the audited financial statements and notes to the accounts. Future audit reports, to include a detailed breakdown of advances, including each entities' opening balance, amount received, actual expenditure and closing balance."

#### Management comments

Management agrees with the recommendation.

The financial statement was prepared based on the country financial regulations as noted. However, as recommended, the future financial statements will be completed in compliance with the agreed requirements stipulated in the Aide Memoire and Partnership Framework Agreement. For transfers made to the hospitals, during the preparation of financial statements, RBC will include the detailed transfers done to the hospitals in Frw, including each entities' opening balance, amount received, actual expenditure and closing balance.

Responsible Entities: RBC (as a lead), Office of Auditor General of State Finances, Hospitals

Deadline: 31 December 2018

#### 4.2.5 Failure to reclaim VAT on a timely basis

According to Article 15 of the Partnership Framework Agreement, "The Government shall use its reasonable efforts to set up appropriate mechanism to exempt from duties and taxes all purchases made locally and internationally with Gavi funds."

RBC obtained tax exemption for Gavi funds from the Rwanda Revenue Authority. However, based on the Audit Team's sample review, RBC SPIU had not yet submitted a request to the Rwanda Revenue Authority for a refund of VAT for amounts totalling USD 13,092 (RWF 10,356,934) incurred on goods and services related to the HSS grant for the period beginning 1 July 2017.

Similarly, at the sub-national level, outstanding unclaimed VAT refunds totalled USD 772 (RWF 611,104) as listed below:

Table 9: Summary of unclaimed VAT payments

District	Amount (USD)	Amount (RWF)
Gisenyi	264	208,708
Gahini	66	52,154
Kirehe	211	167,034
Kabgayi	232	183,208
Total	772	611,104

As the unclaimed VAT amounts were identified only from the sampled expenditure, there is a possibility that there are additional unclaimed amounts from other expenditure at RBC SPIU and District Hospitals.

#### Cause

Non-compliance with the Partnership Framework Agreement

#### Risk/ Effect

Where refundable taxes are not promptly reclaimed, significant savings may be foregone resulting in less programme resources being available to fund immunisation activities.

## **Recommendation 8 (Essential)**

The Ministry of Health should:

- Identify all the taxes paid which have not been claimed to date and submit the necessary claims for refund at all levels.
- Make reasonable efforts to ensure that in future all taxes associated with the implementation of Gavi-funded activities are promptly recovered.

## **Management comments**

Management agrees with the recommendation. The hospitals are in process of claiming the outstanding VAT.

Responsible Entities: RBC and Hospitals

Deadline: 31 December 2018

# 4.3 Procurement and Asset Management

Value for money concerns were noted for one of the major contracts in the period under review relating to the construction of a warehouse. This was due to non-compliance with national procurement regulations and ineffective contract management practices including commencement hold-ups, setbacks in carrying out technical reviews and design changes, delays in submission of the Contractor's programme of works and ineffective communication on contractual matters. As a consequence, there is a considerable risk of additional cost overruns accruing, and of the contract becoming adverse.

The Government of Rwanda carried out procurement in line with guidelines issued by the Rwanda Public Procurement Authority (RPPA) as established by the Public Procurement Laws. Applicable laws include the 2007, law  $n^{\circ}$  12/2007 of 27/03/2007 on public procurement, the law  $n^{\circ}$ 05/2013 of 13/02/2013 modifying and completing the law  $n^{\circ}$ 12/2007 of 27/03/2007 on public procurement and the ministerial order  $n^{\circ}$  001/14/10/tc of 19/02/2014 establishing regulations on public procurement, standard bidding documents and standard contracts.

The UMUCYO is the Republic of Rwanda's e-Procurement System, representing the country's single channel for all public procurements undertaken in Rwanda.

The Audit Team reviewed a sample of the Gavi-funded procurement of goods and services undertaken by the RBC during the period 1 July 2014 – 31 December 2017. Such procurements took place at both the SPIU and at the district hospital level, with the majority of goods and services being purchased by the SPIU's Procurement Unit.

The major procurements related to: (i) the construction of the Vaccine Preventable Diseases Programme (VPDP) warehouse at the Kigali Prime Economic Zone (KPEZ), (ii) the supervision and control of the VPDP warehouse works in KPEZ; (iii) printing; (iv) conferencing; and (v) the hire of motor vehicles.

The Audit Team identified several incidents of non-compliance with the national procurement regulations and weaknesses in contract management for the construction of the VPDP warehouse at the Kigali Prime Economic Zone as detailed below. The procurement for this project included several major contracts totalling approximately RWF 2 billion.

#### 4.3.1 Non-compliance with the national procurement regulations

# Wrong procurement method

Article 15, of the ministerial order n° 001/14/10/tc of 19 February 2014 establishing regulations on public procurement, standard bidding documents and standard contracts outlines that, tenders shall be undertaken internationally if they are for works and their estimated value exceeds RWF one billion two hundred million (1,200,000,000).

Under International Competitive Bidding, the procuring entity is required to internationally advertise for the required works, issue bids for advertisement in an acceptable international language and award contracts to the lowest acceptable bids, subject to certain considerations for qualitative judgment.

The Audit Team's review of the bidding documentation relating to the construction of the VPDP warehouse at the Kigali Prime Economic Zone indicated that the wrong procurement method was used. The procuring entity chose to apply the National Competitive Bidding method even though the tender totalled RWF 1,744,515,172, which was above the International Competitive Bidding threshold of RWF 1,200,000,000

# Failure to advertise major tender appropriately

Article 15, of the Ministerial Order n° 001/14/10/tc of 19/02/2014 establishes regulations on public procurement, standard bidding documents and standard contracts requiring that, if the estimated budget of supplies, works or services is above two million Rwanda francs (2,000,000 RWF), the procuring entity shall advertise the tender in at least one newspaper of wide circulation, on the official website of that procuring entity and on Rwanda Public Procurement Authority official website.

However, announcement of the construction tender for the VPDP warehouse at the Kigali Prime Economic Zone was done only through the e-procurement website. In addition, as the tender met the International Competitive Bidding requirements, the announcement should also have qualified for being widely broadcast using various international platforms and circulation.

# Bid evaluation due process was not consistent

This tender's application and evaluation method was done using the UMUCYO e-procurement system. The system allows the bidders to submit their bids by completing the appropriate template and attaching all relevant documentation. However, the Audit Team noted that there were inconsistencies in the winning bidder's gross and net amounts when the company submitted its tender amount as highlighted in the extract below from the system.

Figure 1: Bid evaluation extract

Sea	seg Name of Bidder				
004	ramo or Biddo.	materials	taxes(with)	Its amount	Its validity period
1	CHINA STAR CONSTRUCTION (RWANDA) CO Ltd	View Bids	1,662,101,607.46 FRW (1,961,279,896.8 FRW)	15,000,000	14/04/2017 ~ 11/09/2017
2	ECOMEM CO. LTD	View Bids	1,744,515,172 FRW (1,744,515,172 FRW)	15,000,000	14/04/2017 ~ 13/08/2017
3	ECOSEKAT LTD	View Bids	1,345,781,360 FRW (1,588,022,005 FRW)	15,000,000	12/04/2017 ~ 10/09/2017
4	HORIZON CONSTRUCTION LTD	View Bids	2,116,399,610 FRW (2,497,351,539.81 FRW)	15,000,000	14/04/2017 ~ 11/09/2017

ECOMEM Co. Ltd, which ultimately was the winning bidder, submitted a bid quotation which reflected the same amount both before and after tax. As a result, the quotation could be interpreted in various ways, for example that the contractor was zero rated for tax purposes. However, the evaluation team chose to interpret that the bidder's quotation was inclusive of VAT. The evaluation team reached this decision without first clarifying its assumption with the bidder. As a result, this bidder was effectively

provided privileged in favour of the ambiguously relating to its bid price. Ultimately, this resulted in the bidder being selected based on least cost price.

#### **Non-compliance with bid security**

In addition, the bid security provided by the winning bidder was issued by an insurance company instead of being issued by a bank as required by Instructions to Bidders (ITB) section 17.1. Based on this discrepancy the bidder should have potentially been disqualified at the preliminary evaluation.

#### Cause

Non-compliance with the national procurement regulation requirements. Due process was undermined by failing to clarify bid inconsistencies.

#### Risk/ Effect

The selected method of procurement was restrictive and did not promote competition as widely as possible as dictated by the national regulations. As a result, value for money may not have been achieved.

#### **Recommendation 9 (Critical)**

The RBC should comply with its national procurement regulations when selecting the appropriate procurement method, advertising its tenders, evaluating bids and awarding contracts.

#### Management comments

Management agrees with the recommendation. RBC fully complies with national procurement regulations and guidelines regarding procurement method, advertising, evaluating and awarding the contracts.

In future, RBC management will ensure that all potential non-compliance issues are identified and corrected on time.

Responsible Entities: RBC

Deadline: 31 December 2018

# 4.3.2 Ineffective contract management practices

The following table outlines the VPDP warehouse construction contractual milestones:

Table 10: VPDP warehouse construction contractual milestones

Contract aspect	Description and comments
Project name:	Construction works of RBC/VPDP warehouse
Location:	Kigali Prime Economic Zone (KPEZ)
Scope of works:	A double story warehouse of 1,440M <sup>2</sup> with offices, kitchenette, storage, toilets; Parking; Access road; and External works.
Contractor:	Ecomem Company Ltd
Contract signing date:	10 July 2017
Commencement date:	15 December 2017
Contract period:	12 Months
Completion date:	15 December 2018

Contract aspect	Description and comments
Contract amount:	RWF 1,744,515,172
Time elapsed:	36% (i.e. As at the time of the audit in March 2018)
Percentage of completion:	15% (i.e. As at the time of the audit in March 2018)
Supervising Consultant for the construction:	Atlantis Consult Ltd (engaged from 13 July 2017)
Oversight Agent:	Edes & Associates (engaged from 15 December 2017)

The Audit Team held discussions with the RBC SPIU Project Manager for the construction of the central vaccine warehouse and identified the following weaknesses in the ongoing management of this project:

#### **Commencement delays**

Following the contract being signed on 10 July 2017, RBC SPIU issued the order to commence on 7 December 2017, specifying that the official contract start date as 15 December 2017, and correspondingly the date of completion as 15 December 2018. RBC management clarified that part of the 5-month delay from contract until commencement, was due to the fact that it took additional time to introduce a suitable Oversight Agent.

The Audit Team noted that RBC SPIU officially handed over the site to the Contractor on 21 November 2017. However, at that time the Contractor could not access and take possession of the site since several containers and unused vehicles remained on site which had yet to be removed. This was done in the month of December 2017.

#### Delays in carrying out technical reviews and design changes

From the outset the prerequisite elements to manage this construction contract were not in place. The original designer - L & F Consultants – was contracted by RBC SPIU on 15 July 2016, to provide: (i) Project brief/report; (ii) schematic architectural and engineering designs; (iii) Bill of Quantities (BoQs) for the construction works; (iv) detailed architectural and engineering designs; and (v) final architectural and engineering designs report. The designer successfully delivered these services prior to the tendering of the construction works in June 2017.

Subsequently in July 2017, both the works contractor (Ecomem Company Ltd) and the Supervising Consultant (Atlantis Consult Ltd) were appointed. The Supervising Consultant was responsible for reviewing the designer's technical schematics and designs. However, it was only in 14 February 2018 that the Consultant belatedly submitted his report thereon, including revised BoQs, to RBC SPIU. The Supervising Consultant's BoQs revisions amounted to a contract variation of RWF 28 Million (a 2% increase in the contract). However, as of 16 March 2018, the Audit Team noted that this variation was not validated by RBC SPIU, nor was a corresponding contract Addendum finalized or issued. This finding has also been raised and reported by the Oversight Agent in their monitoring report for February 2018.

# Delays in submission of Contractor's programme for construction of the Works

As a consequence, the Contractor submitted his revised programme of works at the end of February 2018, which was reviewed by the Supervising Consultant. The Supervising Consultant instructed the Contractor to revise the programme of works since there was a problem with the sequence of the proposed construction activities. However, following the changes, the Contractor has not yet submitted this revised programme of works taking into account the changes recommended by the Supervising Consultant.

As at 16 March 2018, the Audit Team noted that there was no documentation on file evidencing that the revised programme of works was formally approved by RBC SPIU, suggesting that the programme of works was not yet in fact finalised. This is irregular given that the Contractor "broke ground", beginning by constructing a retaining wall on 3 January 2018. This finding has also be raised and reported by the Oversight Agent in their monitoring report for February 2018.

#### Delays in disbursement of advance payment to the Contractor

In July 2017, as a consequence of signing a contract with the Contractor two significant financial elements were triggered, as follows:

Table 11: Contractual financial instruments

Financial instrument	Value RWF	Start date	End date	Basis/ conditions
Advance Bond	50,000,000	12 July 2017	Not specified	Article 51 of the contract requires payments to the Contractor be made within 45 days after approval by the Project Manager (i.e. Supervising Consultant)
Performance guarantee	84,225,757 (5% of contract value)	25 May 2017	30 days after final acceptance of Works	One year – matching the period of construction

However, both the contractor's advance bond and the performance guarantee were not in compliance with the Bidding Instructions (see Article 34.2 of the ITB), as they were issued by an insurance company, instead of a bank as required. Moreover, given that this specific requirement also applied at the time of bid submission in early 2017 (see Article 17.1 of the ITB) this brings into question the eligibility of the Contractor's original submission for technical evaluation.

The Audit Team also noted that as RBC SPIU initial disbursement totalling RWF 348,903,034 (equivalent to 20% advance payment) to the Contractor occurred on 1 December 2017, that since the payment was more than five months after the contract was initially signed that the Contractor's advance bond had lapsed, and as a result there were no measures in place to mitigate against the risk of default.

Similarly, with respect to the performance guarantee which should equally be covering the contract period, both the contract needs to be formally extended, and an updated performance guarantee needs to be put in place to matching the revised period of works.

#### Ineffective communication on contract matters

The Audit Team noted instances of poor communication on contract matters between RBC SPIU, the Supervising Consultants and the Contractor. Two examples illustrate this: (i) in October 2017, the Contractor wrote to RBC SPIU citing the delays his being able to take possession of the site, and that these could lead to a claim. However, to date, there was no response by SPIU to the Contractor on the issue. (ii) although the commencement of works order was given in December 2017, at that time it was not possible for the Contractor to obtain site possession as there were containers and cars that still need to be removed by RBC SPIU. In addition, the audit team noted that the SPIU did not maintain a physical file to archive all communication regarding the construction between the various parties involved.

#### Personnel changes at RBC SPIU

The Audit Team noted that the Project Manager responsible for overseeing construction of the warehouse at RBC SPIU was changed, but that following the handover, there was ineffective follow-up of several outstanding contractual matters.

#### Procedure for approval of replacement of key personnel not followed

Similarly, there were significant changes from the personnel proposed by the contractor in his bid, for example the appointment of Site Engineer as evidenced by minutes from a site meeting held on 3 January 2018. This change in Engineer appointment was not compliant with the respective contractual procedures as per Article 12, as no approval was given to the Contractor for the replacement.

#### **Delays by Supervising Consultant in submission of monthly progress reports**

The Supervising Consultant is required to provide a monthly progress report to the RBC SPIU (as per Article 10.2 of his TORs). The progress report should include: (i) an executive summary; (ii) activities of the Project; (iii) payments made to the Contractor; (iv) cost analysis of Works carried out by the Contractor and performance thereof; (v) Contractor's mobilisation in terms of equipment and personnel as provided in the contract; and (v) pictorial representation of executed works. However, the Audit Team noted that the Supervising Consultant submitted its monthly report No.1 for the month of January 2018, on 7 February 2018 and had not submitted monthly report No.2 at the time of our audit in March 2018. The Team reviewed the Consultant's January 2018 monthly report, and also noted that it did not elaborate on all of the matters required and, furthermore that there was no evidence on file that this report was reviewed by RBC SPIU.

#### Cause

Failure to comply with contract requirements. Inadequate resolution of contractual matters and poor communication on contractual issues could have been caused by changes in RBC SPIU project managers in charge of supervision of works without a proper handover.

# Risk/ Effect

Given that not all of the necessary contractual documentation (e.g. final design, matching BOQs and revised work programme) has been finalised and approved in accordance with the contract, there is a considerable risk of additional cost overruns accruing, and of the contract becoming adverse.

## **Recommendation 10 (Critical)**

Given the underwhelming current progress of works compared to the contractual period, it is critical that a realistic programme of works be put in place and approved, so as to direct, manage and supervise the remaining civil works. To that effect, the:

- RBC SPIU should review and approve the revised designs;
- The contractor should submit his revised programme of works, as required. These should be subsequently reviewed and approved by both the Supervising Consultant and RBC SPIU;
- The contract period should be revised as appropriate to reflect the revised date of commencement. The period of time that the performance bond guarantee covers, should be aligned to the latest proposed period of works;
- Any outstanding requests or claims relating to potential cost variations by the contractor should be promptly addressed;
- All remaining issues, identified by the Oversight Agent should be dealt with.

#### **Management comments**

Management agrees with the recommendations.

Although the contract was signed in June 2017, the transfer of construction budget by Gavi was done on 22/11/2017- five months later — implying the construction works could not start before the availability of funds from Gavi. The commencement of works was delayed due to the long recruitment process (took at least six months) for an additional oversight agency in charge of supervision and control of execution of works which previously was not a requirement. Consequently, the contract period was revised to 3 January 2019 so as to reflect the actual date of commencement.

In addition, the revised design as well as the revised programme of works were reviewed and approved by both the Supervising Consultant and RBC SPIU and in April 2018.

Finally, a team of Engineers from RBC SPIU, Supervising Consultant and Oversight Agent are now holding weekly on-site meetings in order to identify potential issues early on and follow up on any outstanding issues.

Responsible Entities: RBC

Deadline: 31 December 2018

# 4.4 Immunisation Data Quality

	Audit Rating
Rwanda consistently attains high immunisation coverage. This section summarises potential areas of improvements for better data quality.	
At the micro level – the immunisation primary records maintained by most of the health centres visited contained data inconsistencies and inaccuracies. Data quality assurance processes were inadequate, and consistency checks or audits of the sub-national data were not done or were of limited quality. There was also no consistency in how district hospitals supervised and supported the health centres.	Satisfactory
At the macro level – there exists a data anomaly between the elevated administrative coverage rates for pentavalent, in contrast to the lesser quantity of vaccine supplied.	

The Audit Team assessed part of the immunisation data system, by focusing:

- At the micro level, an assessment of the quality of data at the sub-national level and how this affects upwards the reporting practice; and
- At the macro level for the pentavalent vaccine, a review of the data congruency between administrative coverage rates and the actual supplies of vaccine distributed to the districts.

The Audit Team examined a sample of the health data reported, and looked at what linkages exist between this data and the usage of vaccines – i.e. consumption data.

At the micro level, the review was limited to covering a sample of 8 district hospitals (DHs) and 24 health centres (HCs) across the five provinces in Rwanda.

For the purposes of this micro assessment, the Audit Team selected to track three indicators covering three of the Gavi-supported vaccines, and reviewed the corresponding data for a three-month period from April 2017 to June 2017, as indicated in Annex 1.

From the Audit Team's review of the aspects of the sub-national data collection system and the use of tools, it identified the following issues:

#### 4.4.1 Gaps in data capture, aggregation and reporting

In line with the "Standard Operating Procedures for management of routine health information", each health centre has a nurse who is the focal point responsible for immunisation data, including the accurate recording of the provision of such services. Each focal point is to be provided with the appropriate tools, including immunisation registers for recording each infants' details, and tally sheets to track and consolidate the total number of individuals immunised.

On a monthly basis, the data manager at the health centre is responsible for aggregating all such data, which he inputs into the HMIS system (DHIS2) after internal data quality review by the health centre data quality committee. Thereafter, each health centre finalises its HMIS Monthly report and submits a physical copy of the report to the district level, for

quality check. The central level accesses the data submitted through the electronic system (DHIS2).

From the Audit Team's sample review of the tools and data available, the following gaps were noted in the capture, consolidation and reporting of sub-national data:

#### Delays in roll out of revised immunisation registers

For 12 out of 24 health centres, the immunisation registers being used were out of date. This included immunisation registers which dated back to 2012, despite new registers having being disseminated in 2016, as well as the latest register being currently rolled-out since the start of 2018. As a result, some of the immunisation data captured was compromised or incomplete, because the old register format did not include a column for each of the routine and new vaccines administered. For example, the 2012 register combined Oral Polio, Penta3 and PCV all in a single one column. Furthermore, there was no additional column, to document the number of infants who received the Rotavirus vaccine.

# Data inconsistency, inaccuracies and data entry errors

The Audit Team identified inconsistencies in the sub-national data between the following sources: HMIS data, tally sheets and the immunisation registers.

For the period April to June 2017 reviewed by the Audit Team, the country made a rota product switch from a three-dose immunisation to a two-dose immunisation. However, the Audit Team noted that some data managers were erroneously adjusting the focal point's data, based on the manager's misunderstanding or lack of awareness of the product switch. This was observed in 8 out of the 24 health centres. In addition, some health centres continued to document Rota3 in the immunisation registers, even though infants were not given the 3<sup>rd</sup> dose.

The Audit Team also noted inconsistencies in the HMIS data recorded for other vaccines including Pentavalent and PCV immunisations as the number of infants vaccinated were not the same for the two antigens as it should be the case.

## **Incomplete immunisation registers and tally sheets**

For 19 out of 24 health centres visited, the immunisation data recorded was not up to date or complete. The Audit Team noted the following examples of anomalies:

- For Avega HC the dates that children were vaccinated were not recorded in the immunisation register;
- Other HCs did not accurately complete their tally sheets, as the totals were
  inconsistent with the number of infants vaccinated as per the register and as per the
  monthly report. Examples noted in Miyove HC for the month of April 2017 and
  Nyakabungo HC for June 2017.

From the discussion with the health centre staff responsible for immunisation, it was explained that they frequently did not have enough time to complete all of the required data due to workload.

#### Cause

The health centre staff had limited bandwidth and time to exhaustively complete and capture all of the data for the swathe of services provided. This was exacerbated for some health centres by their limited or insufficient manpower.

#### Risk/ Effect

There is a risk that the immunisation data collected is unreliable.

#### **Recommendation 11 (Critical)**

The Vaccines Preventable Disease Programme (VPDP) should:

- Ensure that each HC has the most current tools, including immunisation registers.
- Orient the health centre staff on how to maintain the immunisation registers as well as to clarify or train on the latest vaccine reporting requirements.

# Management comments

Management agrees with the recommendation.

A close follow-up will be done in order to ensure all HCs are using correctly updated tools including immunization registers. Vaccination program emphasized on this issue with district EPI supervisors and M&E Officers during the Mid-Level Managers (MLM) training from 27<sup>th</sup> May to 8<sup>th</sup> June 2018 and issue of data quality was discussed during MCCH coordination meeting from 11<sup>th</sup> to 14<sup>th</sup> June 2018. District Hospitals have a deadline up to 31 July 2018 to orient Health Centres staff on correct use of immunization tools and reporting. Regular follow up will continue to resolve the issue.

Responsible Entities: RBC (lead) and Hospitals

Deadline: 31 December 2018

### 4.4.2 Gaps in data quality assurance

In line with "Data Quality Assessment Procedures Manual (2016)", data quality assessments (DQA) should be regularly conducted focusing on a range of health indicators (including immunisation so as to provide feedback to the health staff concerned. According to the applicable guidelines, these DQAs were supposed to have been initiated across three levels, as follows:

- Quarterly, by the District data managers conducting DQA of their HCs;
- Every six months, by the Maternal Child and Community Health (MCCH) department conducting a supportive supervision mission including data audit and mentorship components at the district level and selected health centres; and
- Every six months, by RBC required to conduct national Integrated Supportive Supervision missions, including data quality audits/assessments (DQA) component, and covering all 42 district hospitals, as well as a health centre for each district hospital catchment area.

From its review, the Audit Team noted multiple weaknesses, effectively questioning the actual effectiveness, existence and frequency of these DQAs:

# Inadequate data consistency checks at district level

For 7 out of 8 district hospitals with health centre HMIS monthly reports (one district had no reports), there were variances in the data between the monthly HMIS reports from the health centres and electronic system (DHIS2). Some district hospital data managers suggested that they conducted checks on the data for accuracy, in accordance with the 2016 applicable data quality guidelines (as well as the district hospital "standard operating procedures for routine information management"). However, there was insufficient documentation on file evidencing this.

# Insufficient data quality audits at Health Centre level

During the past one year preceding the audit (2017/18) reviewed by the Audit Team, 3 out of the 8 district hospitals, did not conduct regular DQAs at the health-centre level as required. Also for those that conducted DQAs, the tools used by the district hospital staff undertaking the assessment were inconsistent, and were not in accordance with the applicable 2016 guidelines. See Annex 2 for details.

# Inconsistent data audits by MCCH national team

Although the MCCH claimed to be carrying out its supportive supervision missions (including data audit and mentorship components), to the district level on semester basis, the Audit Team noted that there was insufficient documentation indicating if such exercises actually occurred and how they were conducted, given that no completed standard checklists were available on file.

# <u>Mixed reporting by private HCs not allowing for data quality checks by the district hospitals</u>

Private HCs send their monthly reports through the nearest public HCs for data to be reported into the HMIS, even though their requisitions for vaccines was done directly to the district hospital. There is therefore a missed opportunity for districts to provide support supervision and data quality audits on their immunisation data. Examples of these facilities are King Faisal clinic and La Croix de Sud, Hospitals which are under Kibagabaga district hospital.

#### Cause

Lack of adherence to Data Quality Assessment Procedures Manual (2016) Routine Information Management guidelines (2012) at the various levels.

#### Risk/ Effect

Inadequate data quality assurance mechanisms could undermine the accuracy of data.

#### Recommendation 12 (Critical)

At all levels, the necessary data quality checks and supervision support should be undertaken on a routine basis, and all such checks and reviews are to be properly documented. Therefore, RBC should ensure that:

- The district hospitals designated team consistently conduct DQAs on a quarterly basis as required;
- All Health Centres should consistently submit their monthly HC reports to the District hospitals' data managers and M&E officers for quality checks; and
- Vaccination data for private HCs reported through the nearest public HC is reviewed by the district and data quality audits done on their immunisation data. In addition,

RBC should explore the possibility of private HCs reporting their data into HMIS for ease of accessibility by district and central levels so as to strengthen the Public-Private Mix (PPM)

#### **Management comments**

Management agrees with the recommendation.

In collaboration with SPIU, VPDP will ensure that the action plans of district hospital level include DQA of vaccination data and reports from quarterly DQA are well kept.

Before the end of October 2018, RBC will ensure that all EPI Supervisors in Hospitals with missing hard copy reports collect them from HCs in their respective catchment areas.

Reporting structure of vaccinated children by private institutions (King Faisal and La Croix de Sud Hospitals) which report to the nearest public HC: Hospitals provide the complementary package of activities which does not include vaccination. Vaccination is in minimum package of activities performed at HC level reason why then these private hospitals' data is reported by HC and not by hospitals. However, we agree that, RBC through VPDP will improve supervision and vaccination data audit for private institutions which carry out vaccination. In addition, RBC will explore the possibility of private HCs reporting their data into HMIS.

Responsible Entities: RBC (lead), Hospitals and Health Centres

Deadline: 31 December 2018

#### 4.4.3 Incoherencies in pentavalent coverage data

In line with the principles agreed in the Partnership Framework Agreement between the RBC and Gavi on the accuracy of information, the Audit Team reviewed the country's macro level data relating to the use of pentavalent vaccine.

Per Article 8.1 (d) of this Agreement on the accuracy of information, the government represents to Gavi that all information that it provides to Gavi: "including, its applications, progress reports, any supporting documentation, and other related operational and financial information or reports, is accurate and correct as of the date of the provision of such information."

In addition, Article 16, Annex 2, Section C of the Partnership Framework Agreement, sets out additional provisions on the monitoring and reporting of programmes, and states that "The Government's use of Gavi's vaccine and cash support is subject to strict performance monitoring," such that: "Gavi seeks to use the Government's reports and existing country-level mechanisms to monitor performance."

For pentavalent, the audit team compared the administrative immunisation coverage reported by the country to the actual volume of vaccine issued by the central level warehouse to all 30 districts during the three year period, Jan 2015 – Dec 2017. The team's analysis as set out on Annex 3.1, shows that:

 In at least seven of the districts, the administrative coverage reported during this 3year period was consistently greater than 100% of the number of doses of pentavalent issued during the period; • In another four districts, the administrative coverage inexplicably increased faster than 10%, after considering the actual quantities of pentavalent vaccine available. The impact of any open and closing balances of pentavalent held at the district levels was negligible on the analysis, given that as illustrated in Annexes 3.3 and 3.4, the supply of pentavalent to each district was a consistent, monthly supply of vaccine.

The audit team did not adjust its analysis to account for any wastage of pentavalent, even though this factor would widen the unexplained gap between the elevated administrative coverage rates, in contrast to the lesser quantities of vaccine supplied.

In addition, the greatest outlier in terms of administrative coverage was Kigali City province, consisting of three districts, where the overall coverage rates reported were 20-30% higher than the maximum level of pentavalent vaccine physically available (see Annexe 3.2), even after assuming that there was no vaccine wastage and the supply chain had perfect efficiency.

The audit team's analysis of the pentavalent coverage data, demonstrates that there are inconsistencies in select districts and provinces between the number of children vaccinated, compared to the volume of vaccine issued at central level. The analysis therefore questions the quality of administrative data (as reported to Gavi in the Performance Framework and requests for renewal).

#### Cause

The cause of the data anomaly relating to pentavalent immunisation coverage is not known.

## Risk/ Effect

Potential, unexplained inconsistencies in the administrative coverage data, which are reported as official data could have the following adverse consequences:

- Non-compliance with the terms of the Partnership Framework Agreement and inaccurate reporting in the Performance Framework;
- Possible vaccine losses going unreported;
- Undermining the level of confidence in administrative immunisation data; and
- Ultimately potentially overstating the administrative immunisation coverage data for pentavalent.

## **Recommendation 13 (Essential)**

Given the discrepancy between administrative coverage data and the supply of pentavalent vaccine, it is recommended that the RBC should follow up on this data anomaly by examining its process of administrative data collection, in order to ensure that it accurately captures the immunisation coverage rates.

#### The RBC could consider:

Reviewing its procedures for collecting and collating immunisation data across the
various primary health care levels, and subjecting the various outlier districts to a
rigorous analytical assessment - to identify and correct any errors or inconsistencies
in how the data is managed; and

• Formulating and implementing in place a plan to strengthen the quality of administrative immunisation data.

### **Management comments**

Management agrees with the recommendation.

For rigorous analytical assessment of vaccination data; VPDP developed and shared with DHs an Excel sheet which will help DH to perform quick analysis of utilized doses vs administered doses for all routine vaccines. This Excel sheet has 3 parties: one for utilized doses, one for administered doses and another one for wastage rate. This report will be submitted to VPDP every month and VPDP will compile reports from all DHs and find out any inconsistency and give feedback to DH for correction. Reports will start to be submitted to VPDP by August 2018.

Responsible Entities: RBC (lead) and Hospitals

Deadline: 31 July 2018

# 4.5 Vaccine Supply Management

Vaccine stock records were poorly maintained and managed, including missing or incorrect entries, and conflicting versions of the electronic records. At the central level the vaccine management principle of "first expired first out" was not consistently followed. There were unexplained gaps in the stock records, as well as at least 670,000 doses of Gavi-supported vaccines being written off over the past years without documenting why the stock was missing. Similarly, the health centers' vaccine management practices were inconsistent and did not comply with best practice. The level of supervision provided by the central and district levels, in support of the health centers, was inconsistent in its approach and execution.

At the central level, the Rwanda vaccines store has 9 cold rooms (including one freezer). One of the cold rooms is also used as a distribution cold room where smaller quantities of each antigen are transferred awaiting distribution to district hospitals. Records are maintained for both the main stock cold rooms and also for the distribution stock cold room for each vaccine.

The Standard Operating Procedures direct that stock records should be accurately maintained up to date.

Both manual stock registers as well as SMT were maintained. However SMT was not updated on a daily basis. The data in the stock cards was incomplete where the distribution stock cards were not fully updated. This led to differences in the inventory counts, with the latest done on 5 March 2018, although these variances were yet to be investigated. At national level, evidence of regular stock counts was also not obtained.

## 4.5.1 Erroneous stock records and non-compliance with Earliest Expiry First Out

There were two sets of stock records in place at the central level, with the storekeeper favouring the use of manual stock records, which were maintained up to date on a daily basis.

With respect to the central-level electronic stock records, the Audit Team reviewed these records for the period Jan 2015 to Mar 2018 to determine if they were complete, accurate and timely updated. The following errors and shortcomings were identified in the electronic stock records:

- 1) Significant amounts of stock were written off at the end of each calendar years (December 2015, 2016 and 2017), without any documentation or explanation. As a result, the subsequent year's stock records had a lower opening balance than prior year's closing balance, when the balance should have been the same.
- 2) Beginning January 2016, the storekeeping no longer recorded the movement of ADS 0.5ml syringes in the electronic stock records— meaning that these items were no longer managed alongside the vaccines;

- 3) The stock management principle of "earliest expired first out" was not strictly followed, as required. For example, the audit team observed that between January and September 2017, the issuances of Penta and PCV vaccines did not respect the expiry dates. In particular for at least two batches of pentavalent there was a 11 month difference in the shelf-life between the products, with various stock lines being alternatively and inconsistently issued in parallel, without any basis, during an overlapping period of at least two months;
- 4) There was poor version control of the electronic stock records, evidenced by the fact that on two occasions the Audit Team was provided with inconsistent or different version of the SMT file. In addition, errors in the date recorded against the several issuances of Pentavalent and PCV in December 2017, resulted in the resulting closing stock balances being overstated.

Based on the unexplained gaps in the electronic stock records between the closing balance and the subsequent year's opening balance, the Audit Team estimated that the following quantities of vaccines were effectively written off, as follows (computation details shown on Annex 5):

Vaccine/ syringe type	Difference between SMT 2015 closing & SMT 2016 opening			erence between 7 2016 closing & 7 2017 opening	SM	erence between T 2017 closing & T 2018 opening	Total unexplained difference of stock written-off		
Penta	-	367,645		27,840		1,200	- 338,605		
PCV		35,560	ı	1,200	1	42,400	- 8,040		
Rota	-	120,653	ı	18,150	1	55,488	- 194,291		
MR	-	90,910	-	22,560		-	- 113,470		
HPV	-	3,370	-	12,660		1,870	- 14,160		
<b>Grand Total</b>							- 668,566		

Table 12- Unexplained stock differences at the central vaccine store 2015 – 2018 per SMT

#### Cause

- Non-compliance with the standard operating procedures, including EEFO and the need to investigate and document the basis for any variances identified during physical stock counts;
- Insufficiently detailed procedures for stock recording and reporting, inadequate oversight procedures, supervision and a general lack of awareness of existing procedure and rules to follow;
- Human error when recording stock movements.

## Risk/ Effect

Without accurate, reliable stock records that present an overall picture of the vaccine movements, it is difficult to link this to actual consumption and wastage, which affects the reliability of stock data which is subsequently used for forecasting.

#### **Recommendation 14 (Essential)**

The RBC is recommended to:

- Implement its Vaccines Management Guidelines and Standard Operating Procedures;
- If necessary, to develop Suitable protocols or terms of reference for physical stock counts should be developed, including details on the requirement to investigate any

differences between stock count figures and vaccine records. Staff should be trained accordingly to follow such guidance.

- Direct all staff responsible for managing stock, to duly use suitable checklists/and tools
  to ensure that key areas including warehouse management, the reconciliation of manual
  to electronic stock records, and stock counts, so as to systematically document
  processes.
- Ensure that regular physical stock checks are executed and that these are reconciled back to the electronic stock records. Such stock checks should also aim to identify the root causes of differences in stock balances, and suggest approaches so as to improve the quality of data pertaining to vaccine movements, tracking, and recording.

### **Management comments**

Management agrees with the recommendations.

The Vaccines Management Guidelines and Standard Operating Procedures for central level and health facilities were recently developed, printed and are already for distribution to health facilities. By the end of December 2018, a big focus will be put on effective vaccine management and by October 2018 the Effective vaccine management assessment will be conducted to assess deeply the gaps in this area. From the assessment vaccine management improvement plan and recommendation implementation plan will be drawn and regularly monitored.

## 4.5.2 Health centre stock management weaknesses

At the health centre level the Audit Team also noted the following weaknesses in select stock records:

## Non-compliance with guidelines in recording stock at HCs

The SoPs for district hospitals and health centres required that the stock records should document and account for vaccines by the number of doses.

In 7 of the 24 HCs visited, the vaccination officers were tracking vaccines in terms of the physical vials on hand, rather than the number doses, as required. As a result of this inconsistency in recording, there were more doses in the fridge (physical count) compared to what was reported as balance in the stock register.

### Non-recording of vaccines utilisation and wastage at HCs

In 2 out of the 24 HCs audited, the health centres were not documenting their vaccine utilisation in the vaccine stock register. For example, in Rwamagana HC, the vaccinator did not record the movement of Rotarix vaccines received as per the requisition form in May and June 2017, while in Huye health centre stock utilisation for the month of April 2017 were missing in the stock register, despite the immunisation register showing that children were vaccinated at that time.

Also any vaccine wastage which occurred at the health centres was not formally documented. Instead it was assumed that by extrapolation, the difference between the number of infants vaccinated (as per the requisition form) and the actual consumption of vaccines, would indicate the level of wastage. However, there was no specific column to record the actual wastage, and therefore it could not be validated what the level of actual

wastage was. Other questionable practices were noted, for example in Nyakiriba HC the staff automatically applied the same wastage rate across the three vaccines which they grouped together (Penta, PCV and Rota).

## Inadequate/weak mechanism to monitor vaccine stock levels and consumption

The Audit Team noted that there was no specific system used to monitor facility stock levels for vaccines (expected minimum and maximum) level so as to cushion for under stocking and overstocking.

Furthermore, the Team noted variations in stock levels, and even some centres lending vaccines to others, an indication that some could be overstocked than others and vice versa. In addition, the HCs submit requisition forms to the district vaccination supervisor, and from the district hospital the requisition form is sent to central level unlike other drugs reported through DHIS2 or e-LMIS.

There is a risk of district and central level not being able to monitor stock levels at both the district and health centre levels.

## <u>Lack of coordinated approach to supervision</u> visits

The district EPI supervisor conducts monthly supervision visits. However, the documentation varied from one district to another. There was lack of a standardised approach for conducting supervision and documenting any findings or observations. No standard checklist was used, thus posing the risk of inconsistent/un-harmonised support supervision. There was also no documentation on which districts were sampled, evidencing that the VPDP central team carried out their regular support and supervision visits to the district-level EPI supervisors, as required.

#### Cause

Non-compliance with the standard operating procedures. Errors in recording. Limited monitoring supervision by more senior staff meant that weaknesses were not identified on a timely basis and actions taken to remediate them.

## Risk/ Effect

Without accurate stock data, it is difficult to link this to actual consumption and affects reliability of stock data which is subsequently used for forecasting.

## **Recommendation 15 (Critical)**

The RBC should:

- Ensure that all staff responsible for vaccines update and maintain the stock records timely including necessary information such as expiry dates, VVM status, batch numbers and wastage.
- Ensure stock counts are undertaken periodically and that these are reviewed and filed.
- Re-orient/ train the HCs on the standard approach of vaccine management and documentation to ensure consistency during the roll out of the updated guidelines.
- Establish a standardised approach for support supervision to HCs to ensure consistency in stock management and service delivery across HCs.

 Consider having stock data reported through the monthly HMIS/e-LMIS like other stock data for essential drugs for consolidated monitoring of compatibility between vaccine consumption and service utilisation at national level.

## **Management comments**

Management agrees with the recommendations,

For proper management of vaccines stock, all required information will strictly be followed up regularly including date of expiry, VVM, Batch numbers and wastage.

The stock counts will be conducted on monthly basis and direct investigation of any discrepancy between physical counts and records in SMT/ stock cards will be performed accordingly.

Vaccination program will continue to follow up the implementation of recommendations from different assessments at all levels during routine mentorship/supervision as well as the ISS/DQA.

The HMIS reporting system is revised on annual basis to include new variables, starting 2019 RBC will push to include report on vaccine management in both hospitals and health centres.

Responsible Entities: RBC (lead), Hospitals and Health Centres

Deadline: 31 December 2018

# Annex 1: M&E sampling and methodology

### **Indicator selection**

The three indicators selected are:

- a. Number of surviving infants who received the third recommended dose of pentavalent vaccine (Penta3)
- b. Number of surviving infants who received the third recommended dose of PCV vaccine (PCV3)
- c. Number of surviving infants who received the last recommended dose of rotavirus containing vaccine (Rota last/3)

### Site selection

The sampling frame was the 42 district hospitals in the country that were proportionately selected. A total of 8 district hospitals were selected, as well as 24 health centres reporting to the 8 district hospitals that were randomly selected. In addition, a total of three health centres per the 8-district hospital catchment area were selected at random. (Refer to Annex 2 for details).

All the five provinces in the country were covered in terms of district hospital selection. The selection was as follows:

- South province has twelve district hospitals of which two (28%) were selected (Kabutare and Kabgayi),
- Kigali has three district hospitals and one (8%) was selected (Kibagabaga),
- East province has eight district hospitals and two (19%) were selected (Gahini and Rwamagana),
- West province has twelve district hospitals and two (28%) were selected (Gisenyi and Shyira) and
- North province has seven district hospitals and 1 (17%) was selected (Byumba).

### Methodology

- a. Review of documentation/desk review
- b. Discussions with relevant departments -
  - RBC (Rwanda Biomedical Centre Single Program Implementation Unit (RBC-SPIU))
  - Maternal Child and Community Health (MCCH) program level-Vaccines Preventable Disease Program (VPDP).
- c. Onsite assessment (VPDP, District and health centre level)

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# **Annex 2: Reporting gaps**

Annex 2.1: Availability of reports at the district hospital level

Province	District hospital	Reports availability
Kigali	Kibagabaga Hospital	All HCs report were available
North	Byumba Hospital	All HCs report were available
West	Gisenyi hospital	All HCs report were available
	Shyira hospital	All reports were available
		except for Kareba HC for June
		2017
East	Gahini hospital	All reports were available
		except for Buhabwa HC for
		April 2017
	Rwamangana hospital	Reports for all HCs were
		unavailable
South	Kabutare hospital	All HCs report were available
	Kabgayi hospital	All HCs report were available

## Annex 2.2: Summary of districts hospitals conducting DQA at Health centre level

Province	District hospital	DQA done (Yes/No)
Kigali	Kibagabaga Hospital	No
North	Byumba Hospital	Yes
West	Gisenyi hospital	No
	Shyira hospital	No
East	Gahini hospital	Yes
	Rwamangana hospital	Yes
South	Kabutare hospital	Yes
	Kabgayi hospital	Yes

Annex 2.3: Doses utilised vs infants vaccinated

Health Centres	Dosage u	tilised (As <sub> </sub> register)	per stock		s vaccinated y report -all		VARIANCE			
	Penta	PCV	Rotavirus	Penta	PCV	Rotavirus	Penta	PCV	Rotavirus	
Remera health centre	2472	2594	2277	2502	2502	2241	-30	92	36	
Rwanda Women Network health centre	388	388	388	391	391	347	-3	-3	41	
Kacyiru health centre	811	887	671	1265	1265	1005	-454	-378	-334	
Byumba health centre	758	781	744	798	798	798	-40	-17	-54	
Gizisa health centre	270	281	277	304	304	271	-34	-23	6	
Miyove health centre	580	490	501	541	541	399	39	-51	102	
Gisenyi health centre	1321	1373	1381	1321	1321	1321	0	52	60	
Murara health centre	723	723	649	798	838	620	-75	-115	29	
Nyakiriba health centre	800	836	793	786	786	786	14	50	7	
Shyira health centre	215	258	226	258	258	228	-43	0	-2	
Jomba health centre	743	742	583	722	722	639	21	20	-56	
Rurembo health centre	400	497	368	430	430	430	-30	67	-62	
Gahini health centre	860	926	791	909	909	788	-49	17	3	
Rukara health centre	752	752	612	708	708	708	44	44	-96	
Nyakabungo health centre	420	419	309	440	440	440	-20	-21	-131	
Rwanmagana health centre	1170	1190	684	1172	1172	1047	-2	18	-363	
Avega Rwanmagana health centre	560	560	550	548	548	548	12	12	2	
Gishari (police) health centre	420	455	300	455	455	362	-35	0	-62	
Gishamvu health centre	320	323	301	333	333	333	-13	-10	-32	
Sovu health centre	490	489	437	489	489	489	1	0	-52	
Huye police health centre	184	166	181	272	272	257	-88	-106	-76	
Kabgayi health centre	1119	1162	1065	1206	1206	1206	-87	-44	-141	
Mata health centre	350	364	293	345	345	293	5	19	0	
Gasovu health centre	193	190	160	185	185	164	8	5	-4	
Total	16319	16846	14541	17178	17218	15720	-859	-372	-1179	
Percentage (%) difference							-5%	-2%	-8%	

# Annex 3: Data anomalies - Immunisation coverage vs. supply of pentavalent

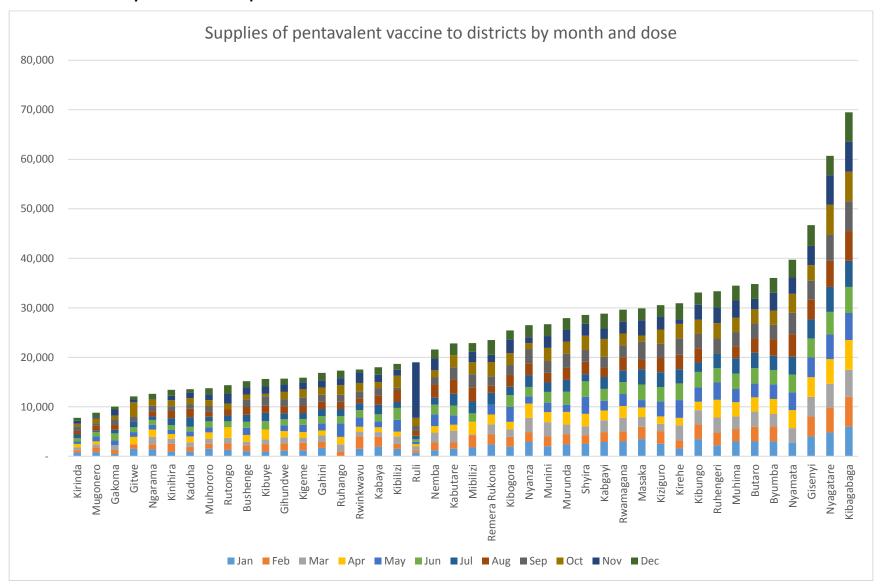
Annex 3.1: Administrative coverage compared to the supply of penta vaccine to districts

	Administrative coverage data				Stock data Pen	ta issuances fro	Administra	tive coverage		Net %											
District	2015	<b>2016</b> 44,125	2016	2016	2016	2016	2016	2016	2016	2016	2016	2017	District	2015 SMT	2016 SMT	2017 SMT	of Penta sto	ock issued ce	ntrally	Audit comments:	difference
Bugesera	41,570		47,243	BUGESERA	39,732	42,600	46,500	105%	104%	102%	consistently > 100%	(3%)									
Burera	33,370	34,843	35,462	BURERA	34,804	34,800	34,500	96%	100%	103%	increasing trend	7%									
Gakenke	27,414	30,144	29,821	GAKENKE	40,564	27,000	27,300	68%	112%	109%	includes outlier>110%	42%									
Gatsibo	46,281	45,326	45,799	GATSIBO	43,156	46,300	42,600	107%	98%	108%		0%									
Gasabo	66,124	70,906	74,297	GASABO	69,504	67,200	68,100	95%	106%	109%	increasing trend	14%									
Gicumbi	34,748	36,743	37,814	GICUMBI	36,028	36,000	35,700	96%	102%	106%	increasing trend	9%									
Gisagara	30,797	33,227	32,145	GISAGARA	28,704	31,400	30,600	107%	106%	105%	consistently > 100%	(2%)									
Huye	28,640	29,386	28,026	HUYE	22,804	29,100	27,900	126%	101%	100%	includes outlier>110%	(25%)									
Kamonyi	26,412	28,121	28,516	KAMONYI	23,496	30,600	23,400	112%	92%	122%	includes outlier>110%	9%									
Karongi	33,130	37,108	34,449	KARONGI	32,212	32,800	33,000	103%	113%	104%	includes outlier>110%	2%									
Kayonza	34,136	35,849	32,372	KAYONZA	34,404	35,400	30,300	99%	101%	107%	increasing trend	8%									
Kicukiro	30,026	31,943	35,543	KICUKIRO	29,896	32,700	33,300	100%	98%	107%	increasing trend	6%									
Kirehe	31,989	38,814	42,716	KIREHE	30,936	37,700	41,100	103%	103%	104%	consistently > 100%	1%									
Muhanga	27,002	27,490	27,995	MUHANGA	28,812	26,700	25,500	94%	103%	110%	increasing trend	16%									
Musanze	35,826	38,655	37,707	MUSANZE	33,348	40,100	41,400	107%	96%	91%		(16%)									
Ngoma	32,118	32,588	30,778	NGOMA	33,100	32,100	30,300	97%	102%	102%	increasing trend	5%									
Ngororero	31,238	32,426	32,385	NGORORERO	31,744	32,700	32,800	98%	99%	99%		0%									
Nyabihu	28,162	27,585	26,561	NYABIHU	28,564	27,300	25,500	99%	101%	104%	increasing trend	6%									
Nyagatare	55,780	54,074	53,410	NYAGATARE	60,692	51,500	52,500	92%	105%	102%		10%									
Nyamagabe	28,634	29,201	28,868	NYAMAGABE	29,428	29,500	27,600	97%	99%	105%	increasing trend	7%									
Nyamasheke	38,892	38,158	37,668	NYAMASHEKE	40,620	39,300	38,100	96%	97%	99%		3%									
Nyanza	27,272	27,187	30,126	NYANZA	26,480	25,500	28,800	103%	107%	105%	consistently > 100%	2%									
Nyarugenge	34,752	35,857	37,447	NYARUGENGE	34,484	35,200	35,700	101%	102%	105%	consistently > 100%	4%									
Nyaruguru	25,319	26,034	26,949	NYARUGURU	26,688	25,800	27,600	95%	101%	98%		3%									
Rubavu	44,172	48,268	48,440	RUBAVU	46,708	51,600	45,600	95%	94%	106%	increasing trend	12%									
Ruhango	28,219	26,596	27,605	RUHANGO	29,394	25,800	26,700	96%	103%	103%	increasing trend	7%									
Rulindo	29,697	29,858	30,729	RULINDO	27,796	30,000	30,300	107%	100%	101%	consistently > 100%	(5%)									
Rusizi	42,000	43,641	45,334	RUSIZI	38,592	44,780	45,900	109%	97%	99%		(10%)									
Rutsiro	29,275	30,677	31,296	RUTSIRO	27,928	29,400	30,000	105%	104%	104%	consistently > 100%	(1%)									
Rwamagana	30,815	33,103	31,991	RWAMAGANA	29,616	34,700	30,900	104%	95%	104%		(1%)									
_				#N/A	·		2,700														
TOTAL	1,033,810	1,077,933	1,089,492	TOTAL	1,040,234	1,065,580	1,052,200	99%	101%	104%											

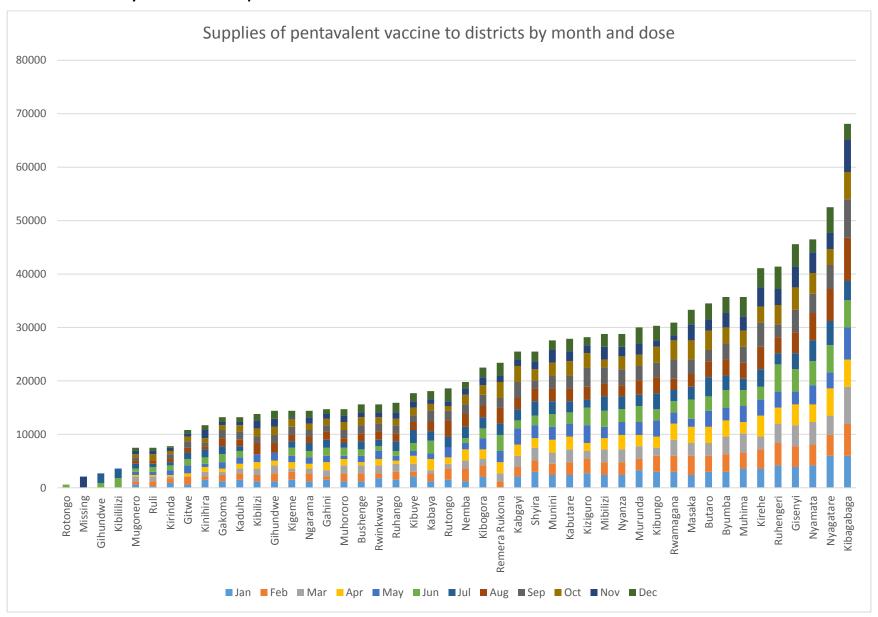
# Annex 3.2: Administrative coverage compared to supply of penta vaccine to provinces

	Administrative coverage data				Stock data Pen	tock data Penta issuances from central level			Administrative coverage as a %			Programme audit	Net %
Province	2015	2016	2017	Province	2015 SMT	2016 SMT	2017 SMT		of Penta stock issued centrally			comments:	difference
Eastern	272,689	283,879	284,309	Eastern	297,984	301,200	299,700		92%	94%	95%	increasing trend	3%
Kigali City	130,902	138,706	147,287	Kigali City	107,536	114,200	111,600		122%	121%	132%	consistently > 100%	10%
Northern	161,055	170,243	171,533	Northern	172,540	167,900	169,200		93%	101%	101%	increasing trend	8%
Southern	222,295	227,242	230,230	Southern	215,806	224,400	218,100		103%	101%	106%	consistently > 100%	3%
Western	246,869	257,863	256,133	Western	246,368	257,880	250,900		100%	100%	102%	increasing trend	2%
Total	1,033,810	1,077,933	1,089,492	Total	1,040,234	1,065,580	1,049,500		99%	101%	104%		

Annex 3.3: Monthly distributions of pentavalent vaccine in 2015



Annex 3.4: Monthly distributions of pentavalent vaccine in 2017



# Annex 4: Analysis of central-level Stock Management Tool records 2015-2018

The Audit Team's review of the EPI central level stock records, identified the following unexplained gaps between the closing and opening balances of successive years:

s review or	the EPI central leve	i stock records	s, identified t	ne following u	nexplained	i gaps betw	een the closing	g and openir	ig balances c	or successive ye
		<<<<<<	<<<<<<	<<<<<	·····	SMT Data	>>>>>>>	>>>>>	>>>>>>	>>>>>>
	Unexplained opening					2015				
	differnce gain/loss	Brought fwd	Arrivals	Issued	Expired	VVM Exp	missing	Surplus	Returns	Closing bal.
Penta	N/A	526,079	1,223,510	- 1,040,234				78,670		788,025
PCV	N/A	511,110	914,400	- 1,037,070						388,440
Rota	N/A	932,465	452,700	- 1,010,837				68,350		442,678
MR	N/A	332,160	880,000	- 534,250						677,910
IPV	N/A	-	-	-						-
HPV	N/A	16,480	323,110	- 221,460						118,130
ADS 0.5ml	N/A	8,173,900	2,841,800	- 4,289,100						6,726,600
	Unexplained opening					2016				
	differnce gain/loss	Brought fwd	Arrivals	Issued	Expired	VVM Exp	missing	Surplus	Returns	Closing bal.
Penta	- 367,645	420,380	1,229,760	- 1,065,580						584,560
PCV	35,560	424,000	807,900	- 1,088,650						143,250
Rota	- 120,653	322,025	1,020,975	- 1,087,300						255,700
MR	- 90,910	587,000	1,059,300	- 738,130						908,170
IPV	-	-	-	-						-
HPV	- 3,370	114,760	119,980	- 214,280						20,460
ADS 0.5ml	- 6,726,600			<<< No ADS st	ock data in S	SMT from 01	Jan 2016 >>>			
	Unexplained opening					2017				
	differnce gain/loss	<b>Brought fwd</b>	Arrivals	Issued	Expired	VVM Exp	missing	Surplus	Returns	Closing bal.
Penta	27,840	612,400	1,198,500	- 1,050,100			- 2,100			758,700
PCV	- 1,200	142,050	1,262,300	- 1,086,550				600		318,400
Rota	- 18,150	237,550	985,350	- 879,335				1,035		344,600
MR	- 22,560	885,610	2,133,100	- 2,459,000				5,000	82,790	647,500
IPV	-	-	-	-						-
HPV	- 12,660	7,800	304,560	- 252,470			- 5,670			54,220
	Unexplained opening					2018				
	differnce gain/loss	<b>Brought fwd</b>	Arrivals	Issued	Expired	VVM Exp	missing	Surplus	Returns	Closing bal.
Penta	1,200	759,900	185,100	- 167,000						778,000
PCV	- 42,400	276,000	72,400	- 165,700						182,700
Rota	- 55,488	289,112	120,000	- 117,700						291,412
MR	-	647,500	231,000	- 44,000						834,500
IPV	-	-	148,000	- 34,200						113,800
HPV	1,870	56,090	293,900	- 93,900						256,090

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# Annex 5: Definitions of audit ratings and prioritisations

# A. Audit ratings

The Gavi Programme Audit Team's assessment is limited to the specific audit areas under the purview and control of the primary implementing partner administrating and directing the programme of immunisation. The three audit ratings are as follows:

- 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 impact on 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. Prioritisation of recommendations

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.

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# Annex 6: Classification of expenditures questioned by Audit

# 1) Adequately supported

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

# 2) Inadequately supported

This covers two sub-categories of expenditure:

- a. 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.
- b. 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.

# 3) Irregular Expenditure

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

- 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,
- b. The embezzlement or misappropriation of funds to purposes other than those for which they were granted.

# 4) Ineligible expenditures

Expenditure which does not comply with the country's programme/grant proposal approved by Gavi or with the intended purpose and relevant approved work plans and budgets.

# **Annex 7: Audit Procedures and Reporting**

Using risk-based audit procedures, the audit shall include, an analysis of reported expenditure (in periodic financial reports), inquiry/ discussions, computation, accuracy checks, reconciliation and inspection of records/ accounting documents, interviews of individuals receiving cash disbursements, and the physical inspection of assets purchased and works performed using grant funds.

The following procedures were carried out:

- Review of the Financial Management arrangements for the programmes, focusing on the control procedures e.g. appropriation and approval, segregation of duties, roles and responsibilities, reconciliation, verification of delivery of goods and services, invoice verification, retirement of advances controls and imprest;
- Review of the arrangements for managing the bank accounts, including tracing withdrawals and transfers from the programme and designated accounts to determine that they are for eligible expenditures for the programmes;
- Verification, on a sample basis, of procurement undertaken to ensure that the applicable policies and procedures are strictly adhered to and that transparency and value for money is maintained;
- Review of the mechanism for channelling cash advances from the RBC to the various budget management centres at the various levels (regional and district) to ensure that there are adequate internal controls in place to timely liquidated such advances;
- Undertaking field visits to regions and districts to review flow of funds and to determine
  whether principal activities took place according to the work plan/ schedule of cash
  advances;
- Visit to the central, regional and district stores to ensure that stock management procedures are being well implemented;
- Physical verifications, on a sample basis, to check the actual delivery of goods, works and services purchased as per the source documents;
- Review of expenditure and identifying expenditures which are not eligible for funding from Gavi programme funds.

At the end of the audit, key findings were discussed with the senior management team at Ministry of Health on 16 March 2018 and a presentation which contained a summary of these findings was shared with the Ministry of Health and other partners. Another discussion was also held with management on 19 April 2018 on finalisation of the follow up review.