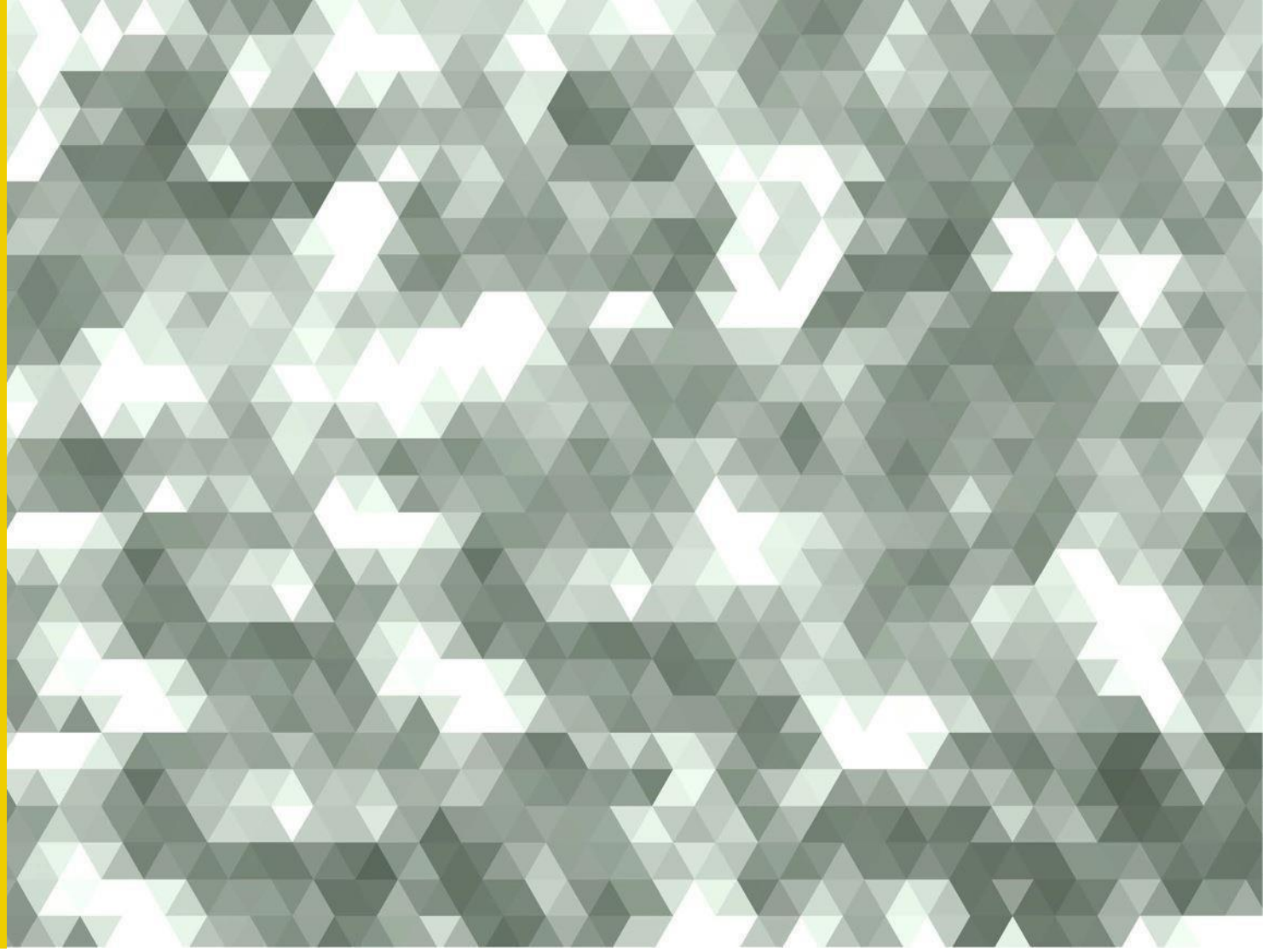

Audit Report

Global Fund Grants to the Republic of Sierra Leone

GF-OIG-19-001
18 January 2019 (updated 1 February 2019)
Geneva, Switzerland

The Global Fund
Office of the Inspector General

What is the Office of the Inspector General?

The Office of the Inspector General (OIG) safeguards the assets, investments, reputation and sustainability of the Global Fund by ensuring that it takes the right action to end the epidemics of AIDS, tuberculosis and malaria. Through audits, investigations and advisory work, it promotes good practice, reduces risk and reports fully and transparently on abuse.

Established in 2005, the OIG is an independent yet integral part of the Global Fund. It is accountable to the Board through its Audit and Finance Committee and serves the interests of all Global Fund stakeholders. Its work conforms to the International Standards for the Professional Practice of Internal Auditing and the Uniform Guidelines for Investigations of the Conference of International Investigators.

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The Global Fund believes that every dollar counts and has zero tolerance for fraud, corruption and waste that prevent resources from reaching the people who need them. If you suspect irregularities or wrongdoing in the programs financed by the Global Fund, you should report to the OIG using the contact details below. The following are some examples of wrongdoing that you should report: stealing money or medicine; using Global Fund money or other assets for personal use; fake invoicing; staging of fake training events; counterfeiting drugs; irregularities in tender processes; bribery and kickbacks; conflicts of interest; and human rights violations…

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Audit Report

OIG audits look at systems and processes, both at the Global Fund and in country, to identify the risks that could compromise the organization's mission to end the three epidemics. The OIG generally audits three main areas: risk management, governance and oversight. Overall, the objective of the audit is to improve the effectiveness of the Global Fund to ensure that it has the greatest impact using the funds with which it is entrusted.

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OIG investigations examine either allegations received of actual wrongdoing or follow up on intelligence of fraud or abuse that could compromise the Global Fund's mission to end the three epidemics. The OIG conducts administrative, not criminal, investigations. Its findings are based on facts and related analysis, which may include drawing reasonable inferences based upon established facts.

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1. Executive Summary

1.1. Opinion

The Global Fund is a key partner in Sierra Leone, accounting for approximately 19% of the health sector budget and 27% of international health funding for the period 2015 to 2017:[1] the current grants provide funding for 90% of the HIV program, 70% of the TB program and 74% of the malaria program.[2] The outbreak of Ebola in 2014 stalled progress made on HIV and reduced TB services; the country, and in particular the health sector, remains engaged in recovery from the adverse effects of the outbreak.

Delays in executing key activities have meant that grant implementation has been adversely impacted, particularly on cross cutting health system strengthening key deliverables, such as warehouse construction. In terms of mitigating the high financial risks in Sierra Leone, the Global Fund has implemented various layers of financial controls, assurance activities and governance improvements. However these processes are not operating effectively to mitigate key financial and procurement risks. The implementation and oversight arrangements therefore **need significant improvement**.

Global Fund support for malaria, constituting 34% of total Global Fund investments in the existing grant cycle, has led directly to significant reductions in malaria incidence and mortality, mainly through improvements in prevention and treatment activities. For the other diseases, ongoing programmatic challenges include low TB case detection, difficulties in targeting key populations for HIV testing, low retention of patients on HIV treatment and data weaknesses. Results have started improving as the impact of Ebola declines, and new and catch-up initiatives have been budgeted in both the current and the next grant cycle. Overall, the program management and monitoring processes are **partially effective** in providing quality services to patients and data for decision-making.

The supply chain is able to distribute medicines to districts and health facilities. However, there are limitations in the underlying systems and inefficiencies in procurement and supply chain management processes. These have led to stockouts and disruptions in treatment, emergency orders, expiries and material gaps in stock records and reconciliations. The supply chain mechanisms therefore **need significant improvement** in ensuring timely provision of good-quality medicines to patients.

1.2. Key Achievements and Good Practices

Successes achieved in Malaria: Malaria mortality and case incidence in Sierra Leone reduced by more than 40% and 50%, respectively, between 2000 and 2015.[3] This is mainly due to increased use of bed nets (63% of households reportedly use bed nets), prompt access to malaria diagnosis and treatment available through Artemisinin-based Combination Therapy (ACTs).[4]

Progress made in TB and HIV: Between 2000 and 2014, TB morbidity reduced significantly prior to the Ebola outbreak, and the treatment success rate reached 87.5% among bacteriologically confirmed TB cases.[5] Sierra Leone commenced multi-drug resistant TB (MDR-TB) treatment in one site in 2017. On co-infection, over 90% of TB patients were tested for HIV and more than 95% of co-infected cases were put on treatment. For HIV, the country has adopted a universal test and treat approach and has set up an HIV catch-up plan to strengthen intensified case detection.

Lessons learned from the Ebola outbreak: The Ministry of Health and Sanitation has developed a costed strategy to build resilient and sustainable systems for health in response to the Ebola outbreak.

[1] Global Fund Concept note Sierra Leone 2018.
[2] Global Fund Concept note Sierra Leone 2018.
[3] World Malaria Report 2016; p88-90
[4] World Malaria Report 2016;
[5] WHO Global Tuberculosis Report 2014

Investments have taken into account lessons learned (such as the Community Health Workers Strategy utilizing partners and the community for a more effective approach) and Global Fund funding applications are part of the overall Health System Recovery Plan (2015-2020). Community health workers played a major role in responding to the Ebola outbreak by tracing contacts, supporting prevention and placing a greater emphasis on community based care, aiming to support better access.

1.3. Key Issues and Risks

Gaps in the design of implementation arrangements and management of the HSS grant funding: The Global Fund has allocated resources to support the country's Health Systems Strengthening (HSS) activities. However, the HSS grant was not adequately planned and executed in the current implementation cycle to solve the identified challenges. The current grant period was already short (two years), and delays in establishing the program management unit within the Ministry of Health, ineffective management structures, communication challenges and weak coordination all contributed to just 24% of grant funds being absorbed as at December 2017. Progress has been made on the HSS grant through catch-up interventions, with absorption increasing to 68% as at June 2018. However, key cross cutting interventions including the central warehouse, support for laboratory network strengthening, data and surveillance systems, and the community health worker strategy have been delayed.

Absence of consolidated donor budgets and accountability: Consolidated donor funding maps and procurement plans have not been developed by implementers, weakening management oversight on activities and increasing the risk of fund misuse. Increased post-ebola donor funding, often with limited inter-donor coordination or visibility to the Ministry of Health, has contributed to making such mapping difficult. While the Ministry of Health has attempted to enhance its knowledge of donor funding by introducing service level agreements, a comprehensive budget or work plan has not been developed that compiles donor and government investments to ensure efficiencies and avoid overlaps.

Further, there is a need to strengthen internal controls and accountability over finance and procurement activities. Improvement is required in both the completeness and accuracy of documentation submitted by the Principal and Sub Recipients to the fiscal agent, and in the quality of review performed by the fiscal agent.

TB and HIV Programs not meeting targets: TB notification remains low at 21% for first-line (normal) and 2% for MDR TB, with ongoing efforts to scale up and reach the national strategic target of 85% of all TB patients receiving treatment by 2020.[6] This is partly due to the TB response collapsing during the Ebola crisis, and to MDR-TB treatment being new in Sierra Leone.[7] The performance is particularly weak in terms of reaching children and imprisoned populations. The new grants are designed to address these challenges. Similarly, ambitious targets for HIV key population interventions have not been achieved, and patient retention at treatment sites is a challenge for the program, with enrolled patients being lost and no viral load indicators or records captured for those on anti-retroviral (ARV) treatment. The new 2018-2021 grants have been designed to address these gaps.

Ongoing need for stronger data and surveillance systems: Despite an allocation for HSS grant support, budgeted interventions are largely unimplemented and challenges remain around quality of data and parallel reporting systems. A District Health Information System (DHIS) is being supported to address these limitations; however, quality checks over data are needed at health facility, district and central levels to improve data accuracy and completeness at the input stage. The supervision budgets for these checks have been incorporated within the new grants.

[6] Sierra Leone National Leprosy and Tuberculosis Strategic Plan 2016-2020.
[7] Sierra Leone first treated MDR-TB patients in Q1 2016.

1.4. Rating

	Objective 1. The design adequacy of the implementation and assurance arrangements in supporting the achievement of grant objectives and sustainability of the programs. **OIG rating: Needs significant improvement**.
	Objective 2. The program management and monitoring processes of the three diseases to ensure quality of services to patients and provision of materially accurate and timely data for decision-making. **OIG rating: Partially Effective.**
	Objective 3. Supply chain mechanisms in ensuring timely provision of good-quality medicines to the patients of the three diseases. **OIG rating: Needs significant improvement.**

1.5. Summary of Agreed Management Actions

The Global Fund Secretariat will work with the Principal Recipients (the Integrated Health Projects Administration Unit and the National Aids Secretariat) to address the risks identified by the OIG through the following Agreed Management Actions:

- The Principal Recipients will develop a procurement plan for Global Fund grants, a work plan for key grant activities, an activity-level donor map for all funding received by IHPAU for the current grant cycle, and an approved supplier list.
- The Principal Recipients will perform analysis of the Community Health Workers program to develop a plan to improve access to services for the three diseases.
- The Principal Recipients will work to improve the use of data to inform decision-making, paying particular attention to the reporting rate of logistics management information systems, and to the use of LMIS data to inform forecasting.
- The Principal Recipients will develop a comprehensive data quality improvement plan.

2. Background and Context

2.1. Overall Context

Sierra Leone is classified as a low-income country by the World Bank, and has an estimated population of 7.4 million and a population growth rate of 2.3%.[8] About 38% of the population lives in urban areas in major cities. It ranked 179 out of 188 countries in the United Nations Development Programme's 2017 Human Development Index.

Until the outbreak of Ebola in 2014, Sierra Leone was seeking to become a middle-income country. The Ebola outbreak was the largest and longest in world history, devastating health infrastructure and the economy as a whole, and resulting in 3,955 deaths. Gross Domestic Product declined from US$5 billion in 2014 to US$3.8 billion in 2017.[9] Consumer price inflation reached 17% in December 2016. The nation's currency, the Leone, depreciated by 29% in December 2016 (year-on-year).[10] While recovery is ongoing, the country remains burdened by high youth unemployment, natural disasters and weak infrastructure.

2.2. Differentiation Category for Country Audits

The Global Fund has classified the countries in which it finances programs into three overall portfolio categories: focused, core and high impact. These categories are primarily defined by size of allocation amount, disease burden and impact on the Global Fund's mission to end the three epidemics. Countries can also be classed into two cross-cutting categories: Challenging Operating Environments and those under the Additional Safeguard Policy. Challenging Operating Environments are countries or regions characterized by weak governance, poor access to health services, and manmade or natural crises. The Additional Safeguard Policy is a set of extra measures that the Global Fund can put in place to strengthen fiscal and oversight controls in a particularly risky environment.

Sierra Leone is:

	Focused: (Smaller portfolios, lower disease burden, lower mission risk)
X	**Core: (Larger portfolios, higher disease burden, higher risk)**
	High Impact: (Very large portfolio, mission critical disease burden)

X	**Challenging Operating Environment**
	Additional Safeguard Policy

2.3. Global Fund Grants in the Country

The Global Fund has signed over US$304 million and disbursed over US$248 million in Sierra Leone since 2006. There are currently three active grants in the country:

Principal Recipient	Grant Number	Component	Grant Period	Grant Signed Amount
National AIDS Secretariat	SLE-H-NAS	HIV/AIDS	01 Jan 2016-31 Dec 2017[11]	US$32,318,190

[8,9,10] World Bank (https://data.worldbank.org/country/sierra-leone)

[11] The new grant signed with NAS for the period 01 January 2018 to 31 December 2020 is US$ 31,799,803. It was not included in audit scope since it had just started at the time of audit fieldwork.

Ministry of Health and Sanitation of Sierra Leone	SLE-Z-MOHS	TB, malaria and HSS	1 Jan 2016-30 Jun 2018	US$70,223,713
Catholic Relief Services - United States Conference of Catholic Bishops	SLE-M-CRS	Malaria	1 Jul 2016-30 Jun 2018	US$3,988,778
Total			1 Jan 2016-30 Jun 2018	US$106,530,681

For the consolidated TB, malaria and HSS grant, the Integrated Health Projects Administration Unit (IHPAU) acts as the program management unit under the Ministry of Health and Sanitation (MOHS). The Health System Strengthening coordination unit under MOHS and the Chief Medical Officer coordinates six Ministry of Health directorates. Approximately 41% of the current Global Fund grants finance the procurement of medicines and health products through Wambo.[12] Services and non-health items are procured by NAS and IHPAU.

2.4. The Three Diseases

HIV/AIDS: The country has adopted the Joint United Nations Programme on HIV/AIDS "90–90–90" targets, and its National AIDS Strategic Plan 2016–2020 seeks to reach these ambitious targets by 2020, and end AIDS as a public health threat by 2030.

61,000 people living with HIV in 2016[13]

3,200 new HIV infections and **2,600** AIDS-related deaths in 2018[14] **26,222** people currently on antiretroviral therapy.[14]

Malaria is the most common cause of illness and death in the country, accounting for about 50% of outpatient visits and 38% of admissions. Malaria-related illnesses contribute to 38% and 25% of child and all-ages mortality rates, respectively. Sierra Leone ranked eighth in the world for Malaria incidence in 2015.[12]
In 2016, there were 250 cases of malaria per 1000 population at risk, a 50% drop since 2010. The malaria incidence rate decreased by 70% during the same period. In 2015, it was estimated that 5,800 deaths from malaria occurred in the country compared to 12,000 deaths in 2000. [14]

5,450,000 Insecticide-treated nets distributed (cumulative total)

1,775,306 confirmed cases reported in 2016 [15]

[12] Wambo.org is an e-marketplace initiative to streamline procurement operations for PRs to procure autonomously with affordable prices and reduced transaction costs.
[13] UNAIDS 2018 National Reports Sierra Leone and World Bank: International Monetary Fund, International Financial Statistics and data files
[14] UNAIDS Sierra Leone Country factsheet 2018
[15] World Health Organization Global Tuberculosis Report 2017

Tuberculosis: Sierra Leone is one of the 30 countries with the highest disease burden of the disease in terms of cases per capita. In 2017, the country started using GeneXpert technology to diagnose multi-drug resistant TB.

TB prevalence is estimated at **441** per 100,000 population, while incidence is **304** per 100,000[16]

58,100 cases of TB detected and treated in Sierra Leone to date **14,114** TB cases diagnosed in 2016[16]

[16] WHO Global Tuberculosis Report 2017 TB prevalence is estimated with no post EVD prevalence survey having been undertaken.

3. The Audit at a Glance

3.1. Objectives

The audit specifically assessed the design adequacy of:

- implementation and assurance arrangements in supporting the achievement of grant objectives and sustainability of the programs;
- program management and monitoring processes of the three diseases to ensure quality of services to patients and provision of materially accurate and timely data for decision making;
- supply chain mechanisms in ensuring timely provision of good-quality medicines topatients of the three diseases.

3.2. Scope

The audit was performed in accordance with the methodology described in Annex B and covered the period from July 2016 to March 2018. The audit covered grants implemented by the three Principal Recipients – the Ministry of Health and Sanitation (MOH&S), the National AIDS Secretariat (NAS) and Catholic Relief Services (CRS) and their sub-recipients. As part of its fieldwork, the OIG visited 12 warehouses, district offices and health facilities in three of the five highest disease burden districts for HIV and TB.

3.3. Progress on Previously Identified Issues

This is the first OIG audit of Global Fund grants to Sierra Leone.

In 2014, the OIG published an investigation into allegations of procurement irregularities and invoicing fraud affecting Global Fund Round 7 Malaria and Tuberculosis grant funds disbursed to the Sierra Leone Ministry of Health and Sanitation (MOH&S). In addition to LFA identified losses, the OIG investigation found falsified invoices and fictitious vendors.

Previous relevant OIG audit work

Investigation Report of Global Fund Grants to Sierra Leone

(GF-OIG-14-005)

Following the investigation, the Secretariat agreed to a series of actions to improve the performance of the grant (GF-OIG-14-005), including replacing the Fiscal Agent and outsourcing all non-health procurements to the United Nations Office for Project Services (UNOPS). Grant funds totaling US$70,510 were recovered from the Principal Recipient.

4. Findings

4.1. Weaknesses in implementation and oversight arrangements affect execution of key activities as well as grant effectiveness and efficiency

The three disease programs supported by the Global Fund were severely affected by Ebola during 2014-15, due to its devastating impact on an already fragile health infrastructure and implementation arrangements. Three years on, the programs are recovering and have started to report better results. In 2014, based on the recommendations of a Joint Financial Management Assessment[14], the Integrated Health Projects Administration Unit (IHPAU) was created to optimize the financial management and administration of all donors' supported programs. However, the following challenges highlight the need for strengthening the implementation and assurance arrangements:

Lack of an overall view of program activities: Principal Recipients do not have a consolidated budget or work plan incorporating investments and activities from all donors and the government, increasing the risk of duplication or overlap of activities and expenses, especially for cross-cutting activities. For example, expenditures by IHPAU in 2016-18 amounting to US$5 million are also funded by other partners including the government of Sierra Leone, World Bank, Islamic Development Bank and GAVI. These expenditures include laboratory equipment, vehicles and motorbikes, supervision and monitoring and evaluation visits, incentives to Community Health Workers (CHW), and salaries and office costs, which have high inherent risks of duplication.

Donor mapping challenges are not unique to Sierra Leone; however, in the absence of clear segregation of donor roles by regions and activities, there are higher risks of duplications and overlaps. Further, given that MOH&S has laid down the mechanisms to collect and consolidate the necessary data, donor mapping should be possible. Although the HSS unit tried to map donor support to CHW activities for 2016- 2018, this mapping omitted major donors with CHW budgets of US$1.3 million, such as Islamic Development Bank and GAVI (whose support started in 2018 through UNICEF). The Country Team is in the process of including complete donor mapping within the deliverables of IHPAU in future, to identify different sources and uses of funds, and correct any major funding gaps or overlaps.

Delays in key grant activities: the largest grant (covering malaria, TB and HSS components) budgeted for key activities to address some of the systemic challenges affecting service delivery. These include a central warehouse (replacing the rented warehouses currently enabling services), laboratory upgrades to improve the quality of diagnosis, and investments in data reporting systems.[15] However, the implementation of these activities has been delayed; for example, the principal recipient (PR) took 18 months to find a consulting civil engineer to supervise the construction of the central warehouse, which has therefore not yet started. Similarly, training for community-based health workers has been delayed for a year. The equipment needed to provide services to communities was received after a delay of over a year. These delays have contributed to low absorption of grant funds - 52% as at June 2017 - which could affect future grant allocations. By June 2018, after planning, reprogramming and the execution of catch-up activities, the absorption rate had improved to 75%. The grant has also prioritized laboratory services for surveillance and early warning systems over clinical laboratory services to mitigate risks of future outbreaks like Ebola. However, following the delays, implementation within the current two year grant period has left limited time to catch up.

Several factors contribute to these implementation delays including:

- Weak planning and implementation: For example, the construction of the warehouse could not start due to condition precedents not having been fulfilled. After six months, the condition precedent of a time-bound detailed budget was converted to a management action, to allow the procurement

[14] Initiated by the Ministry of Health and Sanitation, carried out by supported by the Global Fund, GAVI, World Bank and WHO local office.
[15] The package under "renovation" included support to upgrade and renovate laboratories, purchase of laboratory equipment, andestablishment of Laboratory Information Management Systems as well as quality assurance for diagnostics.

process to begin. Subsequently, a further delay occurred when issues were identified in the selection of the Service Provider by the Global Fund, and the process was cancelled in July 2017. A Service Provider was finally selected in November 2017. However, the warehouse could not be completed by grant end in June 2018, and has been deferred to the next grant cycle.

- Slow decision-making: Despite the delays in grant implementation and early warnings about low grant absorption rate, discussions about reprograming the largest grant started late. The first reprogramming request was submitted to the LFA by the principal recipient in Q4 2017, after a lapse of 75% of the grant period, and was still under discussion at the time of audit, with the PR yet to respond to Global Fund comments in April 2018. While the delay in decision-making was partly due to Ebola crisis earlier as well as frequent staffing changes, this left only four months till grant end date for implementation of reprogrammed activities.

Insufficient quality of Principal Recipient documentation and Fiscal Agent review of grant expenditure: Following the 2014 OIG investigation which highlighted fictitious invoices amounting to more than US$70,000, the Country Team replaced the Fiscal Agent and later added a procurement specialist to the new fiscal agent team. However, despite these changes, quality and timeliness issues remain:

- Incomplete and inaccurate documentation continues to be submitted to the Fiscal Agents. Approximately 31% of the sampled transactions were rejected by fiscal agents after initial submission, the majority of which were repetitive, uncomplex transactions;
- In terms of quality checks over supporting documentation, weaknesses exist in the quality of Fiscal Agent review based on a sample of 36 key procurements reviewed by OIG: irregularities were noted for 44% and 55% of OIG sampled procurements made by NAS and IHPAU respectively which had not been highlighted by Fiscal Agent review.[16] Irregularities included fictitious bidders, forged certificates, arithmetical mistakes, mismatches between the payment recipient as per acknowledgement and the cheque, and incomplete documentation. In 15% of tested transactions, the fiscal agent processed payments which lacked supporting documentation.[17] The irregularities have been referred to OIG Investigations to extend the tests and establish the scope of ineligible expenditures for recoveries.

The submission of incomplete documentation by Principal Recipients contributed to delays in the implementation of activities and low grant absorption: 19% of transactions took between 3-5 months from initial documentation submission by the principal recipient to approval (including all steps of review, revisions and approval). Transactions typically take one to three days to be processed by the Fiscal Agent.

[16] Red flags were identified during our compliance testing: 11 out of 25 sampled procurements for NAS and 6 out of 11 Procurements sampled for IHPAU.
[17] A referral has been made to the OIG Investigations team on the basis of the samples tested within the audit.

The Ministry of Health has made efforts to improve financial management execution and oversight through the support of the Global Fund, GAVI and the World Bank. IHPAU has been restructured, with new reporting lines, roles and responsibilities, accountability arrangements and staffing. A new financial management system was rolled out at NAS in 2017, and financial operating procedures have been revised and staff have been trained on the revisions. The Secretariat and the fiscal agent have also initiated changes in scope and approach of fiscal agent work, including enhancing internal records and trail of reviews performed, initiating sample-based verifications of bidders, increasing fraud prevention checks on transactions, and adopting structured transaction review checklists.

Agreed Management Action 1

The IHPAU and NAS as Principal Recipients should develop:

- a procurement plan for the Global Fund grants;
- a work plan for key activities under the Global Fund grants;
- an activity-level donor map for all funding received by IHPAU for the current grant cycle;
- an approved supplier list based on well-documented selection process.

Owner: Head of Grant Management

Due date: 31 December 2019

4.2. Challenges in TB case detection

Sierra Leone is among the top 30 high-burden countries for TB[18]. Between 2000 and 2014, significant gains in reducing TB morbidity and mortality were made, with a decline in most of the disease burden indicators. Despite progress being hampered by the Ebola outbreak, TB treatment success rate remains over 80%.[16]

TB case detection challenges: Focused TB interventions have increased case notifications, resulting in the achievement of 85% of the performance framework target. The National Tuberculosis and Leprosy Program (NTLP) in Sierra Leone has focused attention on six high burden districts to further increase detection. However, while the estimated TB burden is 22,000 cases[19], only 64% of cases were detected for drug sensitive or simple TB, and only 2% of the estimated national average of 440 for MDR-TB.[20] The NTLP Strategy requires putting 85% of all people with TB on treatment by 2020.[21] The following main root causes were noted:

Community-referred patients not tested due to limited access to service delivery points: The TB program has limited access; only 13% of approximately 1,360 health facilities in Sierra Leone, are directly observed treatment strategy (DOTS) centres, with one MDR-TB facility.[22] This means that patients referred from the community level may not be successfully tested (due to limited access to service delivery points), leading to missed cases and limited effectiveness of the referral process: WHO treatment protocols recommend that Gene Xpert tests should be used for initial diagnosis for MDR TB, or HIV/TB coinfected patients, and for a follow up to microscopy in other cases. However, only 3% of patients are currently tested using Gene Xpert machines in Sierra Leone. The main causes of this include low utilization of Gene Xperts, with an LFA survey assessing utilization between 4 and 12% across the nine machines in the five highest burden districts. Testing algorithms (which set out the process to be followed after positive or negative tests) were aligned with WHO guidance and only include HIV positive TB cases and children under five years for Gene Xpert testing. Updating and implementing the new algorithm is part of the new grant. Further, TB supervisors do not have adequate budget for traveling and accessing patients for screening, and have limited logistics to transport their samples for confirmatory Gene Xpert tests.

Inadequate childhood TB coverage: Childhood TB integration with maternal and child health is a major component of the NTLP Strategy. Despite childhood TB incidence representing 12%[23] of the total case load, childhood TB activities are not included in the program budget. Through a partner, Solthis, an assessment at pilot sites is being undertaken to inform scale up in this area, but the number of childhood TB cases being referred is not recorded and reported, and there is no indicator to measure progress in this area. Efforts for improvement are ongoing through capacity building of health workforce on child diagnosis and researching new diagnostic technologies using stool and gastric aspiration.

[18] WHO Global TB Report 2017
[19] idem
[20] SLE_SBNTB_12Apr17_Final.docx. Estimated WHO upper limit of 700.
[21] Sierra Leone National Leprosy and Tuberculosis Strategic Plan 2016-2020
[22] In general, one ZN microscopy center per 100,000 population is sufficient; however, expansion of ZN microscopy services should also take into account the location and utilization of existing services, urban/rural population distribution, and specimen transport mechanisms. In addition to DOTS centers, laboratories also test for TB.(WHO)
[23] https://www.afro.who.int/sites/default/files/2017-05/tbreview.pdf
[24] One site has established a screening on entry protocol and has a functional DOT site. This has contributed to the detection of 16 cases in 2017 compared to 12 in 2016. 24 cases were detected in 2018 and four MDR cases.

Lack of strategy for Public-private partnerships: The NLTP lacks a strategy for Public Private Partnerships to improve case detection. The private sector does not share data with the national program. The national program also lacks the resources to effectively engage and supervise TB service providers. The NLTP acknowledges this gap and has set a strategic intervention target on case detection and treatment by the private sector and community health workers of 40% by 2020 (24% in 2016). This is crucial because in Sierra Leone, the private sector also covers high risk TB hotspots such as military hospitals and prisons.

Delays in training of CHWs: CHW training across the three diseases, initiated in 2016, were completed in June 2018, after 1.5 years' delay. This particularly impacted active TB case finding activities and community referrals. Delays were due to the long planning and approval process by the PRs, discrepancies in financial documentation leading to approval delays, delays in developing training material, and delays in decision making as a result of Q1 2018 elections.

Agreed Management Action 2

Principal Recipients should perform an analysis of the Community Health Workers program and to develop a plan to improve access to services for the three diseases.

Owner: Head of Grant Management

Due date: 31 December 2019

4.3. Inadequate access to services for HIV patients

The HIV catch-up plan has intensified case detection, treatment coverage, and viral load suppression. Under the current grants, guidelines have been developed for effective service delivery including HIV counselling, testing and treatment guidelines. The grants have seen a specific focus on prevention and community systems strengthening for key populations. A Viral Load Strategy has been introduced and while testing remains in its infancy, this will provide further evidence on suppression rates and treatment success.

However, problems exist in HIV access and treatment retention. Overall, 30% of patients are lost to follow-up, registering a 21% increase since 2014.[25] A 2017 Survival Analysis study by Dalan Development Consultants[26] shows that treatment retention declined from 74% to 56% for those enrolled on anti-retroviral therapy during the previous 5 years. Further, survival rates for adults on treatment declined after the 24-month period from 72% to 52%. Contributing challenges include:

- *The Ebola outbreak*: this eroded public trust in the health system due to the perception that health facilities were a potential point of infection. There has been a decline in the use of general health care services from 80% to 50%, including a 23% decline in PMTCT services;
- *Limited health systems infrastructure:* only 53% of health facilities have HIV services. To tackle these challenges, the National AIDS Secretariat is exploring a 'Differentiated Care Model' approach which tailors treatment to patient needs and enables access to treatment outside health facilities;
- *Reporting the number of Key Populations that access services is challenging*. Disaggregated data is not reported and verified since men who have sex with men and female sex workerss are criminalized, making data reporting difficult without legal cover. The NAS catch up plan includes activities to strengthen monitoring systems for Key Population programs;
- *Limited progress in addressing stigma:* The 2013 stigma index survey identified stigma and patient confidentiality as key challenges for the health sector. While NAS has undertaken measures to address this, there has been no validation of the adequacy or effectiveness of measures through a study or survey. Despite the creation of CARKAP (Consortium for the Advancement of the Rights of Key Affected Populations) which provides oversight and assistance to the different civil society organizations in the country, NAS has not developed an HIV advocacy strategy due to legal barrier constraints and a concern that the strategy would be counter-productive. As a result, there is a risk that Key Populations will continue to be reluctant to seek HIV testing and treatment;

Community health worker challenges: CHWs are a critical part of the "Differentiated Care Model'. However, program delays of up to 12 months on the payment of incentives, registration of CHWs, training (only 67% of HIV CHWs trained so far), and availability of reporting tools have affected HIV treatment and retention. While significant efforts have been made to harmonize community health outreach across all diseases through an integrated community management response and a CHW policy (2016-2020), the improvements are still ongoing. The three diseases continue to maintain complex arrangements and often dedicated health worker cadres, impacting the quality and cost of access to services. The Secretariat has included a grant condition in the new grant cycle of developing an overarching health workers strategy and detailed operational plan.[30]

Patient tracking challenges: No mechanism has been implemented to enable CHWs to acquire the list of lost to follow-up patients from facilities and to contact/visit and counsel them. NAS has

[25] Status of Differentiated Care Model in Sierra Leone 2018,

[26] Produced by Dalan Development Consultants Annex-14_Dalan- 2017 Survival Analysis Dalan Final Updated draft_20-3-18 (1).docx. [30] Sierra Leone has a vertical and fragmented community response and system. The CT are working to ensure clarity on how the CHW's should be managed as part of the overall HR for Health Strategy to support Primary Health Care. To support optimization of the community health response, the CT has ensured (through a grant condition) an analysis of the current CHW Strategy and its implementation by the MOHS. The analysis, with support from technical partners will inform future revisions of the strategy, establishment of an operational plan and any future revisions of the grant community health component.

initiated the integration of unique identifier code (UIC) with DHIS2 reporting, and used this for tracking. UIC is a unique code assigned to each patient to identify them while protecting their confidentiality. Once this approach is expanded and embedded, CHWs will be able to spot lost patients' identifier codes from DHIS reports, and obtain their contact details from health facilities.

Agreed Management Action

Please refer to AMA 2.

4.4. Improvements needed in quantification and supply planning to minimize expiries and stock outs

The Global Fund, through its pooled procurement, has improved the quantification tools and support available to national programs, ensuring timely supply of medicines and commodities against orders placed. For malaria and TB medicines, orders and supplies are in line with forecasts and annual procurement plans. Inventories at central level are materially aligned with supplies for all programs. However, the following issues exist in supply chain management:

Stock outs: Key HIV drugs were stocked out and had not been procured in time due to a PR misinterpreting the HIV testing algorithm. A subsequent emergency order was placed, but the quantity ordered will only provide 1.3 months of supply at the end of the year. At a district level, all three Medical Stores audited recorded stock outs for essential commodities ranging between 6 and 210 days. All three programs experienced stock outs in health facilities during 2017. Stock outs for HIV commodities resulted in treatment disruptions. The LFA's progress update for Q4 2017 highlights risks of stock outs for condoms, with only 9.6% of the annual estimated demand as stock on hand. For three essential HIV and five TB commodities there is a risk of stock outs, with remaining supply limited to between 24 days and 3.3 months. There is a risk of further commodity stock outs due to challenges with clearifng the products at port, resulting from government directives to remove waivers for payment of import duties. The LFA has requested the PR to expedite the shipment process, and the country team and Country Coordinating Mechanism (CCM) are working with the MoH&S on urgent resolution.

Expired medicines not returned and destroyed: The National Integrated Logistics Management of Health Commodities guidelines require all expired commodities to be recorded, then returned to the central level for destruction, yet this is not happening. Records are not available at central or district level to show the quantity or value of expired commodities for 2017. Expired commodities for the HIV and TB programs were found on warehouse shelves in eight of the 12 health facilities reviewed, and a container was observed with unregistered expired commodities. In all facilities reviewed, neither registers of expired commodities nor returns/claims forms for managing expiries were in place. There were no controls identified to prevent distribution of expired drugs to patients, and in two of the 12 facilities, expired HIV test kits were observed on testing tables, risking invalid HIV test results. The LFA identified eight ARV commodities at risk of expiry in the Q4 2017 progress report[27], including one ARV commodity expiring November 2017, putting HIV scale up plans at risk.[28]

These issues are mainly due to the following:

Limited availability and use of reliable data affecting quantification: The national supply chain guidelines envisage robust data reporting, requiring all consumption and inventory data to be collected at the facility level and reported through a logistics management information system (LMIS). Malaria drugs consumption and inventory data were successfully reported for all facilities visited. However, TB records were not captured for seven of the twelve months reviewed for 2017. For HIV, alternative dashboards were used to consolidate and report this data, but the reporting was limited to ARV commodities. Further, the three programs base drug forecasts on estimated number of patients, without using data on drug consumption and stock levels to inform these forecasts. This is a missed opportunity to inform and triangulate drug forecasts, especially for malaria where the data is materially complete.

Weaknesses in inventory records: For the Lakka hospital, the second line TB drugs available could not be reconciled with inventory records, since those records were materially incomplete or absent. 50% of the twelve facilities reviewed had no or incomplete stock cards or registers. Stock records were not available in 33% of the health facilities visited. Where stock cards were in use, variances between 10% and 47% were identified between the physical quantities of drugs

[27] Total cost of commodities at risk of expiries was US$279,350.
[28] AZT/3TC/NVP 300/150/200mg tabs

and stock card balances. Delivery notes were not kept in 11 out of 12 facilities, hampering any reconciliation with actual drug receipts. Similar issues were reported in the LFA's progress update for 2017, identifying delays in the printing and distribution of reporting tools due to procurement issues as a key root cause. These challenges affect drug traceability as well as the reliability of inventory data, which restricts its use for informing drugs forecasts.

Ineffective Technical Working Groups to support national quantification: A National Quantification Committee was established in June 2016 with seven disease-specific Technical Working Groups (TWGs). These TWGs are required to meet quarterly, but this did not happen for malaria and TB TWGs during 2017. The TWGs have not finalized their annual quantification reports, performance reports or quarterly supply plans, which are required by their terms of reference, and which could have increased the likelihood of identifying data inaccuracies, calculation errors and approaching expiries.

Limited integration and coordination across programs: The Directorate of Drugs and Medical Supplies (DDMS) and programs are not aggregating, analyzing and utilizing supply chain logistics data for reporting and decision making. DDMS has the mandate to aggregate the LMIS data but does not have the capacity to execute this analysis. The HIV and TB programs operate parallel supply chains within facilities, while malaria is integrated into the overall stock management system. Staff in 10 of 12 facilities reviewed indicated that they had not received any form of training on pharmaceutical storage management.

The Global Fund Secretariat has acknowledged these integration and coordination challenges and the current grants support the reform of the National Medicine Supply Agency[29], the national body for the procurement, warehousing and distribution of drugs and medical supplies, as well as initiatives for last mile distribution improvements. The grant includes investments in the Logistics Management Information System (LMIS) system (RSSH support on data collection for improved decision making) and national quantification committees. The Global Fund's HSS Unit will support Sierra Leone's Directorate of Policy, Planning & Information to implement activities such as data quality assessments, assist Health Sector Steering Group in developing national level and donor-specific M&E frameworks, institutionalize data review forums, build capacity of HMIS officers, and support use of program scorecards and dashboards.

Agreed Management Action 3

The Principal Recipients will work with the National Quantification Technical Working Group to ensure the use of data to inform decision-making for the management of Global Fund products. In particular, attention will be paid to the reporting rate of LMIS tools from health facilities to districts, and from districts to central level, and to the use of the information derived from these tools to inform forecasting.

Owner: Head of Grant Management

Due date: 31 December 2019

[29] NMSA was introduced in 2017 to replace the National Pharmaceutical Procurement Unit Act, 2012 to establish the National Medical Supplies Agency as a public service agency responsible for the procurement, warehousing and distribution of drugs and medical supplies in a transparent and cost-effective manner for and on behalf of all public institutions throughout Sierra Leone.

4.5. Data quality reviews have not effectively addressed data challenges

There are weaknesses in the accuracy, timeliness and completeness of programmatic data at the service delivery level. Despite a US$1.5m investment in the HSS grant to strengthen District Health Information System 2 (DHIS 2) as the core reporting system, integration of HIV, Malaria and TB reporting into DHIS 2 has yet to be completed. The following data issues were identified across health facilities:

- One third of the facilities reviewed reported less than 25% of the HIV and Malaria indicators across the 12 months sampled. The OIG reviewed the DHIS 2 data reported for December 2017 for HIV and TB indicators. Multiple facilities had not reported data six months later. Despite non-submissions and incompleteness, no corrective actions have been taken at the Directorate of Policy, Planning and information (DPPI), Disease programs and/or District Offices.
- DHIS2 does not include private/district hospitals and facilities, which account for an estimated 21% of the total treatments for TB, Malaria and HIV.[30] Despite the absence of clear guidance on this from the Ministry of Health and Sanitation, the national disease programs have made plans to incorporate this data from the private sector. However, financial and human resource constraints have so far prevented this.
- Cases of inaccurate reporting were noted for HIV, with inadequate integrity checks. At one hospital, a 414% monthly increase in patients was identified, due to erroneous data entry.

Inadequate quality review of program and supply chain data: in 50% of the 12 facilities visited, no data quality checks were performed prior to report submission. Similarly, the Sierra Leone Services Delivery and Readiness Assessment (SARA) 2017[31], assessing capacity at health facility and district level, highlighted the weak data quality, with health facilities scoring less than 40% on most metrics. The SARA report also highlighted that only 50% of health facilities reported having a dedicated staff member to review compiled data prior to submission, and written guidelines on reporting were found at only 30% of health facilities. Data quality audits have also not been performed by any of the three disease programs. Quality review activities were budgeted under DFID and World Bank grants during the existing grant cycle, and were affected by the closure of these programs. The new Global Fund grant has budgeted support for these activities.

For supply chain data, there is limited data quality review and analysis by the Directorate of Drugs and Medical Suppliers, which is not checking reports received from facilities. This is compounded by parallel and multiple data reporting tools, further hampering data accuracy and data submission.

Stock outs of data reporting tools: 50% of facilities reviewed (6/12) had stock outs of data collection and reporting tools in excess of a week within the past three months, leading to incomplete or inaccurate reporting. The SARA report recommended that a 'review of the mechanism by which printed data collection tools and reports are made available to health facilities should be conducted' following identification of the absence of TB reporting tools at 35% of sampled sites. The Progress Update report for December 2017 identifies that LMIS forms are not being used for the resupply of ARVs and HIV test kits to districts and facilities. NAS has an outstanding action agreed with the Secretariat to finalize the printing of HIV reporting tools and to distribute them to health facilities and districts in line with required schedules.

Agreed Management Action 4

The Principal Recipients will develop a comprehensive data quality improvement plan.
Owner: Head of Grant Management
Due date: 31 December 2019

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[30] Sierra Leone Services Availability and Readiness Assessment 2017 (Summary Report)
[31] The assessment is performed by the MoHS using tools developed by WHO with quality assurance from external partners.

5. Table of Agreed Actions

Agreed Management Action	Target date	Owner
1: The IHPAU and NAS as Principal Recipients should develop: • a procurement plan for the Global Fund grants; • a work plan for key activities under the Global Fund grants; • an activity-level donor map for all funding received by IHPAU for the current grant cycle; • an approved supplier list based on well-documented selection process.	31 December 2019	Head of Grant Management
2: The Principal Recipients should perform an analysis of the Community Health Workers program and to develop a plan to improve access to services for the three diseases.	31 December 2019	Head of Grant Management
3: The Principal Recipients will work with the National Quantification Technical Working Group to ensure the use of data to inform decision-making for the management of GF funded products. In particular, attention will be paid to the reporting rate of LMIS tools from health facilities to districts, and from districts to central level, and to the use of the information derived from these tools to inform forecasting.	31 December 2019	Head of Grant Management
4: The Principal Recipients will develop a comprehensive data quality improvement plan.	31 December 2019	Head of Grant Management

Annex A: General Audit Rating Classification

Effective	**No issues or few minor issues noted**. Internal controls, governance and risk management processes are adequately designed, consistently well implemented, and effective to provide reasonable assurance that the objectives will be met.
Partially Effective	**Moderate issues noted**. Internal controls, governance and risk management practices are adequately designed, generally well implemented, but one or a limited number of issues were identified that may present a moderate risk to the achievement of the objectives.
Needs significant improvement	**One or few significant issues noted**. Internal controls, governance and risk management practices have some weaknesses in design or operating effectiveness such that, until they are addressed, there is not yet reasonable assurance that the objectives are likely to be met.
Ineffective	**Multiple significant and/or (a) material issue(s) noted.** Internal controls, governance and risk management processes are not adequately designed and/or are not generally effective. The nature of these issues is such that the achievement of objectives is seriously compromised**.**

Annex B: Methodology

The OIG audits in accordance with the global Institute of Internal Auditors' (IIA) definition of internal auditing, international standards for the professional practice of internal auditing (Standards) and code of ethics. These standards help ensure the quality and professionalism of the OIG's work.

The principles and details of the OIG's audit approach are described in its Charter, Audit Manual, Code of Conduct and specific terms of reference for each engagement. These documents help our auditors to provide high quality professional work, and to operate efficiently and effectively. They also help safeguard the independence of the OIG's auditors and the integrity of their work. The OIG's Audit Manual contains detailed instructions for carrying out its audits, in line with the appropriate standards and expected quality.

The scope of OIG audits may be specific or broad, depending on the context, and covers risk management, governance and internal controls. Audits test and evaluate supervisory and control systems to determine whether risk is managed appropriately. Detailed testing takes place at the Global Fund as well as in country, and is used to provide specific assessments of the different areas of the organization's activities. Other sources of evidence, such as the work of other auditors/assurance providers, are also used to support the conclusions.

OIG audits typically involve an examination of programs, operations, management systems and procedures of bodies and institutions that manage Global Fund funds, to assess whether they are achieving economy, efficiency and effectiveness in the use of those resources. They may include a review of inputs (financial, human, material, organizational or regulatory means needed for the implementation of the program), outputs (deliverables of the program), results (immediate effects of the program on beneficiaries) and impacts (long-term changes in society that are attributable to Global Fund support).

Audits cover a wide range of topics with a particular focus on issues related to the impact of Global Fund investments, procurement and supply chain management, change management, and key financial and fiduciary controls.