



Audit Report

Global Fund Grants in the Republic of Madagascar

GF-OIG-19-002
25 January 2019
Geneva, Switzerland

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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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1. Executive Summary

1.1. Opinion

Despite a challenging, hard-to-access environment, low levels of human development and frequent natural disasters, program results in Madagascar have improved over the last two years. Malaria mortality has dropped by 33%,¹ and patients benefiting from MDR-TB and HIV treatment have increased. However, challenges remain: access to malaria services is low, particularly at the community level in hard-to-reach areas, HIV detection and treatment are significantly lower than prevalence estimates, and poor availability and inconsistencies in datasets affect decision-making. Program management and supervision therefore “**need significant improvement**” in providing adequate quality of services to patients.

The supply chain in Madagascar is equipped to store and distribute health products. In particular, distributions from central stores to districts are timely. There are challenges in quantification, particularly for malaria, and related data management for decision making, despite strong support from partners. All three diseases experience issues with procurement planning. These challenges have resulted in stockouts at central levels and some stockouts and disruption of services to patients at the facilities. Improvements could be achieved through effective data supervision, timely procurement planning and strengthened staff capacity for the supply chain. This area is rated “**partially effective**”.

Despite high inherent financial risks in Madagascar, the audit did not identify material financial irregularities or ineligible expenditures, based on a review of over 60% of expenditures for 2016-17. This positive outcome for financial management is due to additional financial controls and assurances over Global Fund investments, such as the presence of both a fiscal agent and a Local Fund Agent, and channeling higher-value transactions through alternate mechanisms such as the pooled procurement mechanism, International Non-Government Organizations’ procurement systems or the Global Drugs Facility. Financial procedures have also been strengthened and applied, and financial software used by PRs has been upgraded. However, whilst these controls have effectively mitigated risks over use of funds, low financial management capacity within programs has delayed some procurements and other program activities. This, in turn, has contributed to low absorption of grant funds to fully achieve program impact. The financial systems and control mechanisms are therefore rated “**partially effective**”.

1.2. Key Achievements and Good Practices

Progress on the three diseases: Between 2013 and 2016, malaria cases confirmed through testing rose by over 30% due to the enhanced use of RDTs, whilst the number of deaths due to malaria fell by 33%.¹ The number of people living with HIV on treatment increased from 750 in 2014 to 2,321 in 2017. The UNAIDS policy to test, treat and retain has been adopted, and the number of reference centers has increased from 60 to 79. With the implementation of nutritional and socio-economic support, the treatment success rate for TB exceeds 86% (against a program target of 85%).

Improved financial controls and assurance mechanism to safeguard grant funds. Due to the high financial risk environment and historical financial challenges for Global Fund grants, the Secretariat has instituted various financial safeguards. An international Fiscal Agent was introduced to review and clear expenditures by the Ministry of Health and its sub-recipients. A Local Fund Agent also reviews the financial management and controls for all

¹ <http://apps.who.int/iris/bitstream/handle/10665/259492/9789241565523-eng.pdf?sequence=1> Annex 3 - Reported malaria deaths, 2010–2016 pages 158- RDT tests increased from from 355,753 to 471,599 while mortality decreased from 641 to 443.

Global Fund grants after they are paid. In terms of procurements, HIV health commodities, which were procured through UNICEF until 2017, were transitioned to the Global Fund's pooled procurement mechanism in 2018, malaria health commodities are procured through the Population Services International (PSI), and TB health products are procured through GDF. Accounting software has been instituted by the grant recipients and additional finance staff are being introduced at sub-national levels. These measures have significantly mitigated financial risks, and no frauds or material irregularities were identified during the audit.

Support for supply chain mechanisms. The Global Fund and its partners have supported various supply chain initiatives: for example, the PAIS project², set up in 2008 in collaboration with the Ministry of Health, has integrated and improved the management of health commodities across the three diseases. The European Union has supported a supply chain project which has provided resources for health facilities and improved staff attendance. Two logistic coordination units within the Ministry of Health and the programs have improved supply chain management. Technical assistance has also been funded by the Global Fund at the Project Coordination Unit/Ministry of Health (MOH/UCP), which has developed a quality assurance plan for health commodities across the three national disease programs.

1.3. Key Issues and Risks

Access and quality of services are low for malaria: Over 60% of Madagascar's 25 million people live in hard to reach areas, accessing malaria care through the community-based case management, since they cannot access health facilities. However, malaria health care at the community level is restricted only to children under 5 years old. It excludes children aged 6-15 although this demographic group account for almost 40% of estimated malaria cases³. Up to December 2017, no programmatic data has been reported for the community-level care for the seven regions supported by the Global Fund grants⁴. As a result, the total cases treated and the quality of care at the community level are unknown. Due to long distances and the lack of travel allowances, health workers do not frequently visit facilities to replenish their stock of malaria commodities, causing treatment disruptions at community level, but these cannot be quantified as community results are not reported.

HIV detection and treatment is low: UNAIDS estimates that 35,000 people are living with HIV⁵ in Madagascar, while only 2,924 cases have been diagnosed and 2,321 are on treatment. This is mainly due to low detection in key populations. Overall, 97,241 people from high-risk key populations (men having sex with men, female sex workers and people who inject drugs) were tested cumulatively under the HIV grant, and only 0.4% were found to be HIV positive,⁶ while the prevalence is estimated by UNAIDS to be 6.2%.⁷ Possible reasons include: low outreach and coverage (diagnosis and testing are only performed by doctors and only 50% of health facilities provide HIV testing), limitations in the testing strategy (e.g. patients suffering from other sexually transmitted infections like syphilis are not systematically screened for HIV), low medical staff training on HIV, and the need for updated prevalence estimates (the current UNAIDS spectrum is from 2014).

Data and staff capacity deficiencies: Both patient and drugs consumption data are based on limited level of reporting. For example, only 39% of facilities report malaria drugs consumption, no patient data is reported for malaria from communities level, and 64% of HIV

² Programme d'Approvisionnement en Intrants de Santé - Health products supply programme.

³ Malaria National Strategic plan 2013 – 2017, page 29. This trend is confirmed through epidemiological investigation conducted by the national malaria programme in hard to reach districts (e.g:Fenoarivobe, TOLIARY II, Ifanadiana).

⁴ At community level, the 22 regions of Madagascar were shared between the Global Fund (7) and the USAID (15).

⁵ <http://www.unaids.org/en/regionscountries/countries/madagascar>

⁶ The estimated size of these three key populations is 184,241 as per the 2014 programmatic study mapping in 37 cities . 53% were tested and 410 (0.4%) were HIV positive.

⁷ As per UNAIDS – Madagascar website, - prevalence is 14.9% for MSMs and 8.5% for IDUs. .

facilities report patient data. Material inaccuracies were also found in the reported patient data for malaria. These data limitations affect drugs quantification (which is based on patient and drugs consumption, contributing to central and facility stockouts), and also impact the reliability of program performance results. A key root cause is low supervision from central and district levels. Further, the low number of trained pharmacists (only two for the four principal recipients and three disease national programmes at the national level, and only one for the 18 sub-national structures audited) contributed to inconsistent and erroneous supply chain management practices, which has delayed procurement planning.

1.4. Rating

| | |
|--|--|
| | <p>Objective 1: Program management and supervision mechanisms to ensure quality of services and provide reliable data for decision-making.</p> <p>OIG Rating: Needs significant improvement.</p> |
| | <p>Objective 2. Supply chain mechanisms in providing medicines to patients for the three diseases procured through the Global Fund programs.</p> <p>OIG Rating: Partially effective.</p> |
| | <p>Objective 3. Financial management and controls in place over grant funds.</p> <p>OIG Rating: Partially effective.</p> |

1.5. Summary of Agreed Management Actions

The Secretariat, in collaboration with the Ministry of Public Health and partners, will support efforts to develop a costed plan for extending malaria case management at community level to children beyond the age of 5 years. The Secretariat will also seek the development of a protocol and work plan for conducting an HIV prevalence survey. For data quality, the Secretariat will invest to improve and simplify the data collection tools at community level for malaria, as well as national M&E tools (dashboards, supervisions and feedback tools) for HIV and TB. The Secretariat will also support more effective and timely procurement planning and processes, and inventory management trainings.

2. Background and Context

2.1. Overall Context

Madagascar is a large island located to the east of the Mozambique Channel, with a total area of 587,047 km².⁸ The country's population is estimated at 25 million⁹, of which 64% lives in rural areas⁹ and 49% is under the age of 15¹⁰. Administratively, Madagascar is divided into 22 regions, 119 districts, 1,579 township and 17,500 fokontany (villages).⁸

Madagascar is a low income country, ranking 158 out of the 188 countries in the Human Development Index report¹¹. The country ranks 155 out of 180 in Transparency International's Corruption Perception Index,¹² and high financial irregularities have been identified in the past on grants reviewed by the OIG and other development partners. 60% of the country is hard to access due to uneven terrain, limited road infrastructure, and a rainy season lasting four to five months each year¹³. Additionally, Madagascar is vulnerable to natural disasters such as cyclones, flooding and droughts, with one quarter of the population living in high risk zones.⁶

The health system in Madagascar is weak, with a limited health workforce and access to health care.¹⁴ 60% of the population lives more than 5 km from the nearest primary health center and relies on health services at the community level.¹¹

2.2. Differentiation Category for Country Audits: Madagascar

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 choose to put in place to strengthen fiscal and oversight controls in a particularly risky environment. Madagascar is:

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

- Challenging Operating Environment
- Additional Safeguard Policy

⁸ <https://data.worldbank.org/country/madagascar>

⁹ https://www.indexmundi.com/madagascar/demographics_profile.html

¹⁰ https://www.indexmundi.com/madagascar/age_structure.html

¹¹ <http://hdr.undp.org/en/composite/HDI>

¹² As per Transparency International's Corruption Perception Index 2017- <https://www.transparency.org/country/MDG>

¹³ Concept note New Funding Model for HIV, page 3

¹⁴ Madagascar RSSH Country Profile. It mentions that 0.5 health workforce per 1,000 people while the benchmark is 5.94 per 1000, and 0.1 hospital beds per 1000 people while the benchmark is 3 beds per 1,000 people

2.3. Global Fund Grants in the Country

The Global Fund has signed grant agreements for over US\$403 million and disbursed US\$356 million in the fight against HIV/AIDS, Tuberculosis and Malaria in Madagascar since 2004.

The portfolio has the following grants as at 31 December 2017:

| Grant number | Component | Principal recipient | Signed amount (USD) | Grant period |
|--------------|--------------|--|---------------------|--------------------------|
| MDG-H-PSI | HIV | Population Service International (PSI) | 7,551,235 | 01/07/2016 to 31/12/2017 |
| MDG-H-SECNLS | HIV | Executive Secretariat of the National HIV and AIDS Committee (SE-CNLS) | 8,992,832 | 01/07/2016 to 31/12/2017 |
| MDG-M-PSI | Malaria | Population Service International (PSI) | 40,551,408 | 01/07/2016 to 30/06/2018 |
| MDG - M-MOH | Malaria | Ministry of Public Health | 18,879,934 | 01/07/2016 to 30/06/2018 |
| MDG-T-ONN | Tuberculosis | National Nutrition Office (ONN) | 6,765,890 | 01/04/2016 to 31/12/2017 |
| Total | | | 82,741,299 | |

The Global Fund also supports cross-cutting health system strengthening activities as part of the malaria grants.

The malaria and HIV programmes have dual implementers; a government entity and an international non-governmental organization. The TB programme is implemented by one governmental Principal Recipient. The implementation of programmes involve 21 sub-recipients, including the national programmes for each disease.

Approximately 59% of the Global Fund grants are spent on health commodities and supply/delivery related costs. HIV health commodities were procured through UNICEF until January 2018, and have since been transferred to the Global Fund's Pooled Procurement Mechanism (PPM). Malaria commodities are procured by the PSI headquarters (Central Procurement Unit) and TB drugs are procured through the Global Drugs Facility (GDF). The government central agency for procuring drugs (SALAMA), is responsible for the storage and the distribution of the three diseases' commodities.

2.4. The Three Diseases



HIV/AIDS: The Global Fund is the largest donor for HIV, accounting for 94% of total HIV funding in 2016-2017.¹⁵

The HIV epidemic is concentrated within key populations.

2,321 People currently on antiretroviral treatment¹⁶

HIV prevalence (General population): 0.2%. (Key populations): 6.2%
Estimated adults and children living with HIV: 35,000¹⁷

¹⁵ Funding gap analysis from the submitted funding request for period 2016 - 2017

¹⁶ Activity report from the National AIDS and STI Program (DLIS)

¹⁷ <http://www.unaids.org/en/regionscountries/countries/madagascar>



Malaria: The Global Fund accounted for 60% of total Malaria funding in 2016-2017.²³

Malaria is endemic in 90% of regions. It is the 6th biggest cause of death for all age groups¹⁸.

Estimated malaria cases in 2016¹⁹: 1,504,000
Reported malaria deaths in 2016²⁰: 443



Tuberculosis: The Global Fund accounted for 69% of total TB investments in 2016-2017.

Estimates of TB mortality in 2016: 13,000

TB cases notified²¹ in 2016: 29,385
TB treatment coverage in 2016: 49%
Treatment success rate: 86%
Estimated MDR TB in 2016: 210

¹⁸ Health Statistics Service 2013

¹⁹ http://www.who.int/malaria/publications/country-profiles/profile_mdg_en.pdf

²⁰ http://www.who.int/malaria/publications/country-profiles/profile_mdg_en.pdf

²¹ https://extranet.who.int/sree/Reports?op=Replet&name=%2FWHO_HQ_Reports%2FG2%2FPROD%2FEXT%2FTBCountryProfile&ISO2=MG&LAN=EN&outtype=html

3. The Audit at a Glance

3.1. Objectives

The audit specifically assessed the effectiveness of:

- supply chain mechanisms in providing medicines to patients for the three diseases procured through the Global Fund programs;
- program management and supervision mechanisms to ensure quality of services and provide reliable data for decision-making;
- financial management and controls in place over grant funds.

3.2. Scope

The audit was performed in accordance with the methodology described in Annex B. The audit covered all the five active grants over the period April 2016 to December 31 2017. Based on high financial risks identified in the initial risk assessment, over 60% of total grant expenditures including local procurements were reviewed.²² As part of the fieldwork, OIG visited 18 health facilities, stores and health administration offices.²³

3.3. Progress on Previously Identified Issues

OIG conducted an audit in Madagascar in 2010 with a focus on Population Service International (PSI), a Principal Recipient. The audit identified various issues including 143,738 missing long-lasting insecticidal nets, expired drugs, and ineligible expenditure of US\$215,066.²⁴

The OIG conducted an investigation covering procurements and transaction at four principal recipients from 2009 to 2012. The investigation revealed items procured at rates significantly higher than the market, with excess costs calculated at US\$462,670, as well as non-compliant expenditure estimated at US\$1.16 million, including procurement irregularities on spraying campaign tenders and laboratory equipment. As a result of these findings, three of the Principal Recipients were not selected for the subsequent grants and do not currently implement the Global Fund grants. The Country Team appointed a Fiscal Agent in 2016 to review transactions of the malaria grant to Ministry of Health, and to strengthen the capacity of the Malaria program. These and other measures have significantly improved financial controls (detailed in Finding 4.4).

Previous OIG assignment in the Republic of Madagascar

Audit of Global Fund Grants to Population Services International Madagascar- GF-OIG-10-020.

Investigation Report Procurement Activities of the Principal Recipients of the Global Fund's National Strategy Application Grant for Malaria to Madagascar - GF-OIG-13-052.

²² This included review of 2,355 financial transactions executed during 2016-17. The sample included representative number of transactions of all sizes selected from a stratified population.

²³ These included two Health Regional Directions (Direction Régionale de la Santé Publique - DRSP), three District Offices (Service de District Publique- SDPS) including district warehouses, seven primary health centers (Centre de Santé de Base- CSB), three referral hospitals (Centre Hospitalier Universitaire- CHU and Centres Hospitaliers de Référence de District- CHRD), two regional TB treatment centers (CRTL), one HIV TTR (Test Treat and Retain) center.

²⁴ These included overcharged common costs, ineligible staff bonuses and benefits, and material variances on reported data.

4. Findings

4.1. While progress has been made on programmatic results, significant challenges exist in access and quality of malaria services

The Malaria National Strategy Plan is aligned to World Health Organization (WHO) recommendations, and its implementation benefits from the support of various stakeholders who regularly meet at the Roll Back Malaria committee. Approximately 1.5 million people were tested for malaria in 2016, a two-fold increase since 2010, and over 11.8 million bed nets distributed from 2014 to 2016²⁵. However, significant challenges remain:

- **Services in hard-to-reach areas:** 14 million out of 25 million inhabitants in Madagascar live in remote areas²⁶. These populations are supposed to receive malaria care through community health workers (CHW). However, community-based case management faces several challenges preventing delivery of quality services:
 - *Low service coverage:* Malaria health care at the community level is provided only to children under 5 years old. Children aged 6–15, who constitute almost 40% of malaria cases, are excluded from community care.²⁷ This is because community health workers have been recruited under a specific program, PECIMEC²⁸, aimed at children under 5. The Malaria National Strategy Plan 2018 – 2020 will extend community health care to children above 5 years old.
 - *Lack of data on malaria care at community level:* Up to 2017, no programmatic data had been reported from the seven regions²⁹ supported by the Global Fund grant regarding the activities of community health workers. This is because incentives and supervision and reporting costs were not provided through the Global Fund grant to ensure grant efficiency. The non-availability of reporting tools at community level and the lack of involvement of primary health care facilities (CSB) in consolidating community data also represent major challenges to reporting community case management data. As a result, there is no visibility of the total cases treated at the community level, and whether malaria care is adequate in these regions.
 - *Limited capacity of Community Health Workers:* Only 46% of the 34,000 community health workers have received refresher malaria training since 2011. The refresher courses are distributed among various partners, and only 35% of the 10,176 CHWs to be trained under the Global Fund grant have actually received the training. This is mainly due to initial limited action by the sub-recipient directorate responsible for training³⁰. While trainings were subsequently outsourced to expedite their execution, this decision was only taken after a delay. This affects quality of services due to staff turnover and attrition of trained staff, changes in malaria protocols, and the need for upgraded skills.
 - *Accessibility challenges:* the long distance of communities from the nearest health center coupled with a lack of allowances prevent health workers from frequently visiting facilities and replenishing their stock of malaria commodities, causing interruption of treatments due to stock-outs at community level. In the absence of data

²⁵<http://apps.who.int/iris/bitstream/handle/10665/259492/9789241565523-eng.pdf;jsessionid=FB3517CFF2D49A1EDD007573B10AFCF2?sequence=1>

²⁶ Source: Sectorisation des 22 régions de Madagascar année 2017 (SDSP). “Hard to reach areas” are areas located at least 5 km from the nearest health center with no other way of access than walking.

²⁷ Malaria National Strategic plan 2013 – 2017, page 29. This trend is confirmed through epidemiological investigation conducted by the national malaria programme in hard to reach districts (e.g: Fenoarivobe, TOLIARY II, Ifanadiana).

²⁸ PECIMEC: Integrated case management of childhood diseases at community level. The programme is mainly co-financed by various partners including USAID and UNICEF.

²⁹ At community level, the 22 regions of Madagascar were shared between the Global Fund (7) and the USAID (15).

³⁰ Family Health Directorate.

at community level, it is impossible for the program to monitor the availability of health products and pre-empt or react to stock-outs.

- *Lack of supervision of community health care*: As per the Malaria National Strategy plan, the work of the community health workers (CHWs) is to be supervised by the primary health centers (CSB). However, this supervision is not being carried out at all, mainly due to limited resources at the CSB and the difficulty of accessing the areas covered by CHWs. As a result, there is no oversight on the community health care provided by the CHWs.
- **Supply chain problems and stockouts at the primary health centers (CSB)**: Inaccurate quantification of health commodities and procurement planning issues (refer to Finding 4.3) have led to interruption of treatments and material non-compliance with the national malaria guidelines: for example, six of the seven facilities visited were facing stock outs of ACTs of up to two weeks, leading to treatment disruptions. The average total days of stockout in the seven facilities was 87 days in 2017. This led to around 20% of uncomplicated malaria cases being treated with quinine in three of those facilities, despite quinine being a second line drug used to treat only severe malaria cases. Similarly, due to stock-outs of rapid malaria tests lasting up to 3 weeks, two of the seven visited facilities provided ACTs to all patients in that period based on clinical diagnosis, without getting confirmation of the cases through rapid tests, as required by treatment guidelines.

Agreed Management Action 1

The Secretariat, in collaboration with the Ministry of Public Health and partners, will support efforts to:

- Develop a costed plan for extending malaria case management at community level to children beyond the age of 5 years;
- Improve data collection tools at community level to facilitate data entry at district level.

Owner: Head Grant Management Division

Due date: 31 December 2019

4.2. HIV detection and treatment is significantly lower than the estimated prevalence, especially for key populations

Madagascar has made progress in the fight against HIV/AIDS by increasing the number of patients under anti-retroviral therapy from around 750 in 2014 to 2,321 in 2017.³¹ The country adopted the UNAIDS strategy of test-treat-retain (TTR) in 2016³² and the number of HIV healthcare centers has increased from 45 to 79 in March 2018. A CD4 count is no longer required to put HIV patients on treatment, leading to early initiation of treatment, and reducing risks of onward transmission by reducing viral load of the patients.

However, while improving, diagnosis and enrolment in treatment currently remains very low; of the estimated 35,000 people living with HIV³³ in Madagascar, only 2,924 people have been diagnosed with HIV, and 2,321 patients have been enrolled on treatment. There are several possible root causes for the difference between estimated disease burden and number of people on treatment:

- Low detection among key populations: Among the key populations tested in 2017, the positive cases identified remain much lower than the prevalence estimates. Only 0.4% of the 97,241³⁴ people from high-risk key populations (men having sex with men, female sex workers and people who inject drugs) tested were found to be HIV positive, while actual prevalence is estimated by UNAIDS at 6.2%. This included 1% positive tests for men having sex with other men as opposed to an estimated 14.7% prevalence, 0.4% positive tests for female sex workers compared to 5.5% prevalence, and 0.1% positive tests for people who inject drugs compared to 8.5% prevalence.³⁵ The low key population yields could be due to:
 - Low outreach and coverage: Diagnosis and testing are only performed by medical staff and are not extended to the community or peers. Communities living with HIV do not necessarily have good access to doctors or nurses, mainly due to stigma and low awareness about HIV. Further, only 50% of health facilities in Madagascar provide HIV testing.

This risk is corroborated by the OIG audit results from two HIV healthcare centers (covering 41% of the national HIV identified patients), where almost 50% of patients were diagnosed at a late stage (WHO clinical stage 3 or 4). Effective outreach could have prevented late detection.
 - Weak testing strategy: Some people at high risk of infection are not tested. For example, referrals of social contacts of HIV-positive clients are not tested. Similarly, patients suffering from other sexually transmitted infections are not systematically screened for HIV, for example, despite a high syphilis prevalence, only 8.2% of syphilis patients were tested for HIV in 2017.³⁶
 - Capacity and training: Approximately 97% of medical staff in the country have not been trained on HIV and testing requirements.³⁷
 - Need for updated prevalence estimates: The disease prevalence may be significantly different than UNAIDS estimates. The current estimates are based on UNAIDS

³¹ Annual Activity Report 2017 of National AIDS and Sexually Transmitted Infections Program.

³² UNAIDS strategy requires 90% of estimated people living with HIV to be identified, 90% of identified patients to be placed on treatment, and 90% of those initiated on treatment to be retained. Treatment is to be initiated regardless of the CD4 count of patients.

³³ <http://www.unaids.org/en/regionscountries/countries/madagascar>

³⁴ The total estimated size of key populations is 788,328, so over 12% of the population has been tested.

³⁵ The tested key population are all located in 37 towns identified in 2014 as the most risky areas. The data comes from the National AIDS/STI Direction (DLIS).

³⁶ . National AIDS and Sexually Transmitted Infections Program (DLIS) data report on Syphilis 2017

³⁷ Only 78 “medecins referents” have been trained, who account for less than 3% of the total physicians in Madagascar.

spectrum estimates from 2014; UNAIDS expects the revised estimates might be even higher due to various technical factors (e.g. regional trends, sexual debut age, tourism etc.), but they agree that an updated measurement is needed to establish the real reasons for this difference.

- Gaps in patient follow-ups: The follow up of HIV patients to assess their medical condition, which is a requirement of treatment protocols, also remains low, though it has registered some improvement over the past three years. Only 25% of HIV patients had a viral load test in 2017, mainly due to the limited number of blood collection centers (only five in the entire country). The adoption of the test–treat–retain strategy is likely to result in a higher demand of viral load tests, yet currently only one laboratory provides this service across the country.

Agreed Management Action 2

The Secretariat, in collaboration with the Ministry of Public Health and partners, will support efforts to develop a protocol and costed work plan to conduct an HIV prevalence survey.

Owner: Head Grant Management Division

Due date: 31 December 2019

4.3. Data deficiencies and staff capacity challenges adversely affect quantification and other critical decisions.

The audit found that supply chain and programmatic data are materially incomplete, due to low reporting by facilities and no reporting by communities. The data which do get reported have material inaccuracies. This impacts the quantification and measurement of program results. Further, delays and weak coordination of stakeholders in procurement planning, and insufficient staffing of supply chain at central and facility levels, also contribute to drugs unavailability and treatment disruptions.

Data availability and reliability

The quantification process for the three diseases is based on morbidity and consumption data. However, these calculations do not include data from communities, and only a limited number of health facilities report data used in calculating these statistics.

For malaria, drugs consumption is reported for only 39% of the drugs distributed and the morbidity data do not include community level cases. No data are reported on the ACTs consumed or patients treated under the Global Fund grant at the community level. In three out of the seven facilities visited, discrepancies of up to 20% were found on data reported for indicators such as the number of confirmed malaria cases treated with ACT. Untreated cases were counted as treated once a prescription was given, although ACTs were out of stock.

For HIV, drug consumption data are available. However, only 64% of health facilities submitted patient data reports for December 2017. For specific indicators such as the survival rate of HIV patients under treatment, only 31% of the 45 HIV treatment centers had provided the required data. In some instances, the reported data at central level show material discrepancies of up to 15% compared to the primary source of data at health facilities.

These data issues contribute to a gap between the assumptions used for quantifying and distributing drugs, and the actual results. For example, for rapid diagnostic tests and first line malaria ACTs, quantification assumptions by age groups were very different from actual cases treated.³⁸ This contributed to low buffer stock levels for all malaria drugs with less than three months stocks for all products as of April 2018, and stockouts at the central level of over one month for ACTs³⁹ and rapid diagnostic tests. There were stockouts at the health facilities level: six of the seven facilities visited had stockouts of ACTs and two facilities visited had stockouts of malaria rapid diagnostic tests, leading to treatment disruptions of up to two weeks. This resulted in under-reporting achievements against performance framework targets on HIV testing and treatment, as well as for community-level malaria indicators, in certain periods.

For data inaccuracies, a key root cause is the ineffective supervision of health facilities. For malaria, only 26% of the planned 224 supervision visits from regional level to districts took place. No supervision from district (SPSD) to health centers (CSB) was carried out in the three districts visited, although a budget was allocated for this activity. For HIV, no supervision missions were carried out at two health centers covering almost 41% of reported cases in 2016/2017. The main reasons for the lack of supervision activities include: difficulties in transferring supervision funds to district centers (SPSD) due to lack of bank accounts, and non-refunding of old supervision fund advances by districts preventing repeat advances to them. Central and district levels do not coordinate the scope and funding of their supervisions, which also affects supervision planning.

³⁸ As per PR quantification records for 2017, 16% was budgeted for infants, 45% budgeted for children 1-5 years old, 20% for children 6-13 years old and 19% for adults; but actual cases were 1% for infants, 25% for children 1-5 years old, 40% for children 6-13 years old and 34% for adults.

³⁹ ACTs for children aged 6-13 years old and for adults experienced stockouts.

Procurement planning and decision-making issues

For HIV drugs, procurement timeframes were not well-anticipated, resulting in orders being placed and delivered late: drugs for 2016 and 2017 were respectively received in July 2016 and September 2017. As a result, seven out of 12 antiretroviral drugs experienced stockouts between April and December 2017 at the central level, with an average stock out duration of 3.9 months (maximum 8 months), including for essential drugs. This led to low stock levels for some essential first-line drugs and brief stockouts of second-line drugs in two facilities.

The national programs and the Principal Recipients have not effectively planned procurements and deliveries, for example MDR-TB drugs delivered to port in July 2017 remained there for over six months due to delayed registration of drugs.

Lack of trained supply chain staff

At the central level, there are only two pharmacists for the four principal recipients and the three disease national programmes grant implementers. At the peripheral level, among the 18 structures visited, only one is managed by a pharmacist, while in others the staff managing health commodities were not pharmacists and have never been trained in logistics management. The supervision gaps highlighted earlier also affect logistics management.

This has contributed to supply chain deficiencies. Inconsistent quantification assumptions and orders were noted in the supply chain. For example, for the four HIV facilities visited, quantities ordered varied between three and ten months' requirement, and for the seven malaria structures visited, between one and six months. There were also instances where the quantities delivered to the treatment centers were materially different from those requested and their monthly average consumptions.⁴⁰

Agreed Management Action 3

The Secretariat, in collaboration with the Ministry of Public Health and partners, will support efforts to strengthen data and inventory management across the three disease programs. This will include:

- Contracting technical assistance through Principal Recipients, to improve M&E tools used by the national programs (dashboards, supervisions and feedback tools) for HIV and TB;
- Ensuring effective procurement planning and timely initiation of orders for HIV and MDR-TB drugs for 2019-2020;
- Developing a plan to perform inventory management trainings to be implemented by the Ministry of Public Health.

Owner: Head Grant Management Division

Due date: 30 June 2020

⁴⁰ For example, the quantity of LVP/r Sirop distributed to all facilities in 2017 was 225% of the average estimated consumption, while the quantity of TCF/3TC EFV 300+300+600mg distributed was 77% of the average consumption estimated. Further, in January 2018, the Toamasina Hospital ordered HIV second line drugs but instead received first line drugs.

4.4. Grant-level controls have effectively prevented material financial irregularities, but systemic improvements are needed to enhance grant absorption and results

Previous OIG work identified significant financial irregularities. Similar irregularities were also identified by other partner agencies who work with some of the same entities that implement Global Fund grants^{41&42} Our initial risk assessment rated financial management as a high risk, mainly due to the inherent risks in Madagascar and also the history noted above. As a result, the OIG tested over 60% of the total expenditures for 2016-17⁴³ and included verification of most national and international procurements, sample-based verification of assets, and validation of market prices for procurements with high unit costs.

Functional procurement and financial controls

The audit did not identify fraudulent payments, or irregularities such as forgery, fabricated payments, fictitious bidders, procurement over-pricing, or similar issues. Likewise, the audit did not identify material unsupported expenditures, undocumented transactions or unsettled advances, although some gaps were noted.⁴⁴ Overall, the testing results indicate generally effective controls that sufficiently prevent and mitigate the risk of misuse of grant funds. This is due to the strong financial oversight mechanisms instituted by the Global Fund, which include:

- A Fiscal Agent for the MOH/UCP grant for malaria. Since 2016, the Fiscal Agent reviews all expenditures and procurement processes under this grant before their payment. Around 25% of 542 financial transactions in 2017 were rejected by the Fiscal Agent at least once and returned to the Principal Recipient for corrective action;
- A Local Fund Agent who performs a post-facto review of key financial transactions by all principal recipients.

These controls have both a “detective” and “deterrent” impact, reducing the submission of irregular expenditures and their prevention, rejection prior to payment or detection and remedial action after payment;

- Material procurements are conducted by international NGOs; for example malaria commodities are purchased by PSI Headquarters or centrally through Global Fund’s pooled procurement mechanism, and monitored by fiscal and local fund agents.

The above measures have resulted in lower residual risks for irregular expenditures. In addition, good financial management and accounting practices were noted: all PRs have procedure manuals to help manage their daily operations, bank reconciliations are performed by all PRs on a monthly basis, and physical inventories of grant assets are performed on a yearly basis.

⁴¹ GAVI Final Audit Report September 2017 and Norwegian Red Cross press release on 18 April 2018-
<https://www.gavi.org/.../gavi.../programme-audit-and-investigations>

⁴² Direction of Health District (DDS) was a common entity between the Global Fund and GAVI. However, the operational models differed, with DDS not assigned any drugs or other major procurements for GF grants, which was the case for GAVI.

⁴³ The sample included over 2,355 transactions from 2016-17, including a representative number of transactions of all sizes selected from a stratified population, and covering 46% of non-health expenditures.

⁴⁴ However, some purchasing and contract management process issues were identified, including some cases of direct contracting, missing documents for construction works, missing physical verification of assets, some missing training attendance sheets, and delays in staff advance settlements. The amounts involved were not material.

However, while risks related to irregular expenditures are sufficiently mitigated, there are still significant gaps in the implementers' ability to fully utilize the grant funds to deliver program impact.

Delays in procurement processes

While the external controls have ensured that irregular transactions do not pass through, the principal recipients have not successfully prevented or detected all erroneous or irregular transactions. This contributed to longer reviews and rejections, and delays in executing financial transactions, particularly for key and high-value activities. For example, a critical procurement of bicycles worth US\$2.6 million, intended to facilitate health workers' access to hard-to-reach areas, was stalled since 2016 and was eventually cancelled due to material procedural discrepancies identified by the Fiscal Agent. These issues have material, adverse impact on the programs, and contribute to low grant absorption (46% up to December 2017 for the portfolio, and only 17% up to December 2017 for the malaria grant to UCP, which is subject to fiscal agent oversight). There is a need to improve controls within the implementers through stronger accountability of staff for inadequate documentation or procurement delays.

Gaps in implementers' capacity also need to be addressed through increased financial training, and enhanced initiatives to build the financial management capacity of the principal recipients. The Secretariat has capacity building initiatives budgeted to be executed through the fiscal agent and is exploring options to enhance the effectiveness of these efforts, while also evaluating other solutions for fast-tracking non-health procurements in the short term⁴⁵.

⁴⁵ Options being considered include procuring non-health items through Wambo, or through PSI, where possible.

5. Table of Agreed Actions

| Agreed Management Action | Target date | Owner |
|---|------------------|-----------------------|
| <p>1. The Secretariat, in collaboration with the Ministry of Public Health and partners, will support efforts to:</p> <ul style="list-style-type: none"> • Develop a costed plan for extending malaria case management at community level to children beyond the age of 5 years; • Improve data collection tools at community level to facilitate data entry at district level. | 31 December 2019 | Head Grant Management |
| <p>2. The Secretariat, in collaboration with the Ministry of Public Health and partners, will support efforts to develop a protocol and costed work plan to conduct an HIV prevalence survey.</p> | 31 December 2019 | Head Grant Management |
| <p>3. The Secretariat, in collaboration with the Ministry of Public Health and partners, will support efforts to strengthen data and inventory management across the three disease programs. This will include:</p> <ul style="list-style-type: none"> • Contracting technical assistance through Principal Recipients, to improve M&E tools used by the national programs (dashboards, supervisions and feedback tools) for HIV and TB; • Ensuring effective procurement planning and timely initiation of orders for HIV and MDR-TB drugs for 2019-2020; • Developing a plan to perform inventory management trainings to be implemented by the Ministry of Public Health. | 30 June 2020 | Head Grant Management |

Annex A: General Audit Rating Classification

| | |
|--------------------------------------|--|
| Effective | <p>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.</p> |
| Partially Effective | <p>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.</p> |
| Needs significant improvement | <p>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.</p> |
| Ineffective | <p>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.</p> |

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.