Audit Report

Audit of Global Fund Malaria Grant to the
Republics of Senegal, The Gambia, and the Islamic Republic of Mauritania

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9 April 2024
Geneva, Switzerland
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, enhances risk management and reports fully and transparently on abuse.

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.

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1. Executive Summary

1.1 Opinion

The OIG performed a thematic audit of the Global Fund malaria grants in Senegal, Mauritania and Gambia to provide assurance on the appropriateness of grant implementation. These countries represent 0.4% of the Global malaria burden. All of them have joined the Sahel Malaria Elimination initiative “SaME” and therefore the audit was also aimed at assessing their preparedness towards elimination.

Despite the limited funding, Senegal, The Gambia and Mauritania have made progress towards eliminating malaria by 2030, having controlled their disease burdens. The three countries have updated their national treatment guidelines and are implementing most interventions in line with these – particularly Senegal and The Gambia. All three countries implement preventive malaria activities for key populations with varying degrees of success.

However, none of the three countries are on track to achieve Grant Cycle 6 (GC6) objectives, despite grant coverage indicators being met. Incidence and mortality are increasing, in contrast with the grant objective. Inefficiencies have been observed in the countries’ responses, especially regarding vector control. The country responses are characterized by low rates of long-lasting insecticidal net (LLIN) use and the absence of post-campaign surveys to explain challenges and to inform future campaigns.

In Senegal, incidence and mortality may significantly increase in the future since geographical coverage during the next funding cycle (GC7) will drop from twelve to seven regions. In Mauritania, both the 2023 LLIN mass distribution campaign and the seasonal malaria chemoprevention (SMC) campaign will be conducted after the peak malaria transmission period. This leaves a high proportion of the population without adequate protection during the most critical time of the year, thus dramatically reducing the effectiveness of the campaign. Additional inefficiencies related to the quality of data impacted all grants, and in Mauritania most grant indicators are not yet reported on by 30% of health facilities, meaning grant performance cannot be accurately assessed. The design and adequacy of the responses in these three countries are rated as partially effective.

Senegal, The Gambia and Mauritania are working towards malaria elimination by 2030, as part of their commitment to the SaME Initiative. All national strategic plans include elimination targets and the countries have been stratified based on level of incidence. Elimination activities started in Senegal and The Gambia, with some improvement needed to maintain the momentum of this initiative. In Mauritania, apart from establishing a National Strategic Plan for elimination and the availability of health products, everything has yet to be implemented. This is primarily due to weak human resources capacity and significant funding constraints placed on the National Malaria Control Program. Country preparedness to achieve SaME objectives of malaria elimination by 2030 is partially effective.

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1 World malaria report 2022 - out of the global 181 million presumed and confirmed cases reported in 2021, Senegal, The Gambia and Mauritania reported respectively 547,000, 77,000 and 50,000 cases.
1.2 Key Achievements and Good Practices

**LLIN mass campaigns are conducted at regular intervals:** Senegal, The Gambia and Mauritania conduct LLIN mass campaigns every three years, as recommended by the World Health Organization (WHO). Senegal and The Gambia's campaigns are synchronized to better serve beneficiaries in the border areas. The campaigns in 2022 started incorporating new types of nets,² more efficient for countering the resistance to insecticides developed by certain mosquitoes,³ and a digitalization system with geolocation of households was established in all border districts. The 2023 campaign in Mauritania benefited from technical support by international partners such as UNDP, WHO and World Food Programme (WFP) and covered most at-risk areas, more specifically those interested by the floods that occurred during the year.

**Adherence to malaria case management guidelines:** In all three countries, health products for malaria were generally available. Despite some stock-outs observed in Senegal,⁴ testing and treatment worked well and the issues with data reporting from health facilities – caused by strikes of health staff – did not have a major impact on service delivery. In The Gambia and Senegal, diagnostic and treatment guidelines are available and adhered to. In Mauritania a Community and Mobile Health Directorate (*Direction de la Santé Communautaire et Mobile*) was recently created and linked to the Ministry of Health to enhance malaria services in communities.

**Commitment towards elimination:** All three countries are committed to work towards eliminating malaria through specific strategic plans. Senegal and The Gambia have divided their countries in different strata based on the malaria burden to enable a differentiated approach to malaria response and elimination. They have both started case-based surveillance and investigation activities, where each malaria case is logged, tracked and investigated. Senegal has also implemented specific testing and treatment interventions for key groups, such as seasonal workers, students and new military recruits.

**Cross-border collaboration:** Collaboration between neighbouring countries is critical to achieve progress in malaria response and elimination. All three countries participate in a wide cross-border collaborative forum called the Sahel Malaria Elimination Initiative (SaME), a regional platform to accelerate progress in the fight against malaria in the Sahel region.⁵ Senegal and The Gambia have an active and vibrant collaboration that is guided by a Memorandum of Understanding. Senegal provided useful support to The Gambia when it was preparing to start case-based surveillance and investigation.

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² PBO nets: Nets treated with piperonyl butoxide (PBO) to overcome the resistance of the Mosquitoes to the Pyrethroid insecticides.
³ Piperonyl butoxide (PBO) treated nets
⁴ Rapid diagnostic tests and malaria treatment (ACTs) are procured by another partner, the U.S. President’s Malaria Initiative (PMI), and not the Global Fund
⁵ Sahel Malaria Elimination Initiative [website](#)
1.3 Key Issues and Risks

Unclear causality factors for the increasing malaria incidence and mortality despite good program performance: Malaria incidence, cases and deaths are increasing in both Senegal and The Gambia. In Senegal, the number of malaria cases increased by 52% and deaths by 54% in 2021 compared with 2019. Incidence increased by 40% between 2019 and 2021. In The Gambia, estimated cases have more than doubled since 2019, while the mortality rate is on a long-term downward trend, the number of deaths increased from 42 in 2021 to 62 in 2022. In Mauritania, accurate estimates of cases and deaths are not available due to the extremely poor quality of data, but cases and deaths are known to occur.

Challenges with prevention interventions: All three countries show poor LLIN utilization rates. Mauritania's is extremely low at around 8%. The Gambia and Senegal respectively have 57% and 46% utilization rates, still below an effective usage of nets distributed. Ineffective communication, sensitization activities and/or absence of post-campaign studies to inform these, are some of the factors affecting use. The 2022 LLIN mass campaign in Senegal also experienced coverage limitations due to funding constraints. Twelve out of fourteen regions were covered, reaching only 64% of the population and during GC7 the coverage may be even lower (seven out of fourteen regions) due to further constraints. Finally, Mauritania faces delays in the implementation of the 2023 mass campaign and Seasonal Chemoprophylaxis campaign for children under five. Both will be conducted four months after the peak malaria transmission season, leaving people without protection during the most critical time of the year.

Data quality issues: Data quality in all three countries raises concerns. Data completeness and the number of reporting facilities have increased in The Gambia. However, this data is not necessarily accurate given the limited data triangulation and absence of quality control of the reported routine LLIN distribution data. Senegal has faced recurring and still ongoing strikes of health staff since May 2022. The country's reporting completeness fell from 98% in Q4 2021 to 23% in Q2 2023. In Mauritania, both completeness and accuracy of data reported is poor. Some 30% of health facilities, including hospitals, did not report on malaria data in DHIS2 in 2022. There were also discrepancies between patient registers and existing data in DHIS2, with grant indicators not being included in the reporting tools used by the health facilities.

Uneven implementation of malaria elimination activities: In The Gambia, case-based surveillance and investigation have started, but malaria cases are not systematically notified or investigated, and insufficient health products, necessary for investigation response, were made available. In Mauritania, malaria elimination activities have not started and there is limited operational cross-border collaboration with neighbouring countries, including Senegal.

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6 PUDR information. WHO official statistics for 2022 not available at the time of writing.
7 EDSM 2019-2021: Enquête Démographique et de Santé de la Mauritanie (EDSM) 2019-2021[FR373] (ansade.mr) - Pg249. This average is the result of disparate rates between endemic areas indicating a utilization rate varying between 32% and 41% (Gui dimagha and Gorgol) and very low rates in areas with seasonal infestation (for example: Hodh EChargui: 1.5%; Hodh ElGharbi: 1.6%; Assaba: 9.6%)
8 Enquête des Indicateurs du Paludisme au Sénégal (EIPS) 2020-2021
9 Thies and Dakar regions were the regions selected for exclusion given their more moderate incidence rate
1.4 Objectives, Ratings and Scope

This audit was part of the Office of the Inspector General’s 2023 work plan, approved by the Audit and Finance Committee in October 2022. The overall objective of the audit is to provide reasonable assurance to the Global Fund Board on the malaria grants to Senegal, The Gambia and Mauritania. Specifically, the audit assessed the objectives outlined below.

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Rating</th>
<th>Scope</th>
</tr>
</thead>
<tbody>
<tr>
<td>The design and effectiveness of malaria interventions, including vector control, prevention, and case management activities.</td>
<td>Partially Effective</td>
<td>Audit period: January 2022 to June 2023; Grants and implementers: The audit covered the Principal Recipients and sub-recipients of Global Fund malaria grants in Senegal, The Gambia and Mauritania.</td>
</tr>
<tr>
<td>Readiness of the three countries to eliminate malaria, more specifically evaluating:</td>
<td></td>
<td>Partially Effective</td>
</tr>
<tr>
<td>a. The existence and adequacy of a strategy for elimination and its integration in the relevant National Strategic Plans.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. The adequacy and effectiveness of implementation and oversight over malaria elimination activities.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. The existence and adequacy of tools, processes and resources to implement the strategic plans.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Details about the general audit rating classification can be found in Annex A of this report.

As part of the audit reviews, the audit team visited several health facilities:

- In Senegal, the team visited 15 health facilities in three regions, representing 23.5% of malaria cases in the country.
- In The Gambia, the team visited 11 facilities in three regions, representing 76% of malaria cases.
- In Mauritania, the team visited 15 health facilities in three regions, representing 25% of malaria cases.
2. Background and Context

2.1 Country Context

Senegal, The Gambia and Mauritania are all situated in West Africa and are part of the Sahel, a semi-arid region in Western and Central Africa separating the Sahara Desert from the more tropical regions further South.

While Mauritania, the most Northern country of the three, is the largest country in terms of area, Senegal is the most populous. The Gambia, the smallest country both by area and population, borders Senegal on all sides apart from the West, which borders the sea. Senegal and Mauritania are both classified as lower-middle-income countries, while The Gambia is considered a low-income country with the lowest GDP per capita of the three countries.

Out-of-pocket health spending is high in the region. In Mauritania and Senegal, it represents respectively 46.6% and 41.6% of health expenditure. In The Gambia it is lower, at 23.6% (World Bank, 2020 figures). The government is an important financer of the overall health expenditure and contributed 33.2% in Senegal, 52.2% in The Gambia and 40.2% in Mauritania (World Bank, 2020 figures).

<table>
<thead>
<tr>
<th>Country data(^{10})</th>
<th>Senegal</th>
<th>The Gambia</th>
<th>Mauritania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population (2023 estimates)</td>
<td>18,384,660</td>
<td>2,468,569</td>
<td>4,244,878</td>
</tr>
<tr>
<td>GDP per capita (2021 estimates)</td>
<td>$3,500</td>
<td>$2,100</td>
<td>$5,300</td>
</tr>
<tr>
<td>Corruption Perception Index(^{11}) ranking</td>
<td>72 (of 180)</td>
<td>110 (of 180)</td>
<td>130 (of 180)</td>
</tr>
<tr>
<td>UNDP Human Development Index(^{12}) ranking</td>
<td>170(^{th}) (of 191)</td>
<td>174(^{th}) (of 191)</td>
<td>158(^{th}) (of 191)</td>
</tr>
<tr>
<td>Government spending on health (% of GDP in 2020)</td>
<td>5.15%</td>
<td>2.61%</td>
<td>3.36%</td>
</tr>
</tbody>
</table>

\(^{10}\) Sources: UNDP Human Development Index, Transparency International, CIA factbook

\(^{11}\) 2022 ranking. The lower the ranking, the less corrupt the country is

\(^{12}\) 2021 figures. The lower the ranking, the less developed (according to the Human Development Index indicators) a country is
2.2 COVID-19 Situation in Senegal, The Gambia and Mauritania

All three countries were impacted by the COVID-19 pandemic. Senegal, with the highest population of the three countries experienced the most cases and deaths.

The COVID-19 pandemic impacted Global Fund activities in the three countries through changes in health-seeking behaviour, which impacted malaria prevention activities and diagnostics.

All three countries received funding from the Global Fund COVID-19 Response Mechanism (C19RM) to support their responses and mitigate the impact of COVID-19 on the three diseases.

<table>
<thead>
<tr>
<th>COVID-19 statistics\textsuperscript{13}</th>
<th>Senegal</th>
<th>The Gambia</th>
<th>Mauritania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confirmed cases</td>
<td>89,022</td>
<td>12,626</td>
<td>63,774</td>
</tr>
<tr>
<td>Deaths</td>
<td>1,971</td>
<td>372</td>
<td>997</td>
</tr>
<tr>
<td>Recovered</td>
<td>87,051</td>
<td>12,254</td>
<td>62,777</td>
</tr>
</tbody>
</table>

2.3 Global Fund Grants in Senegal, The Gambia and Mauritania

**Senegal**

Senegal is classified as a Core country according to the Global Fund country portfolio classification.

Malaria activities have been embedded with tuberculosis and health systems strengthening (RSSH) under a dual-track arrangement managed by two Principal Recipients: The Ministry of Health (SEN-Z-MOH) and the international non-governmental organization, Plan International (SEN-Z-PLAN).

For the current GC6 grants, the total amount of the Ministry of Health grant and Plan International grant is respectively €34.7 million and €11.6 million (grants in Senegal are signed in Euros). Under those two grants, the amounts of malaria activities (excluding program management) are respectively €18.1 million for the Ministry of Health grant and €4.6 million for Plan International.

The Ministry of Health, through the General Directorate of Public Health (Direction Générale de la Santé Publique – DGSP) and the General Directorate of Administration and Equipment (Direction de l'Administration Générale et de l'Equipement – DAGE), implements malaria grant activities through the National Malaria Control Program (Programme National de Lutte contre le Paludisme – PNLP) and the 14 regional health directorates, acting as sub-recipients. These directorates work closely with districts to ensure the implementation of program activities. LLINs for mass campaigns are procured under this grant, while most other malaria-related commodities are procured by the U.S. President’s Malaria Initiative (PMI).

Plan International has four sub-recipients, through which it implements community-based activities such as behavior change communication, community outreach for prevention and distribution of LLINs.

**The Gambia**

The Gambia is classified as a Core country according to the Global Fund country portfolio classification.

\textsuperscript{13} University of Oxford, Our World in Data, 9 November 2023
It has a dedicated malaria grant, managed by the Principal Recipient, the Ministry of Health, through the National Malaria Control Program (GMB-M-MOH). The current GC6 grant is US$19.1 million. Under this grant, malaria prevention, diagnostics and treatment activities are implemented, in collaboration with the Regional Health Directorates. The grant has one sub-recipient, Catholic Relief Services, which conducts behavior change and sensitization campaigns and distributes LLINs (both routine and mass campaigns).

**Mauritania**

Mauritania is classified as a Focused country according to the Global Fund country portfolio classification and has been managed under the Additional Safeguards Policy (ASP) since December 2010.

Malaria activities are implemented through a multi-component grant (MRT-Z-SENLS). The Executive Secretariat to fight AIDS (SECNLS) is the Principal Recipient. It supports planning, monitoring of activities, recruitment of technical assistance and purchase of health products. The Executive Secretariat also transfers funds dedicated to malaria activity implementation and is responsible for the procurement of health commodities.

The total amount of the current GC6 Mauritania multi-component grant is US$22.46 million, of which US$11.6 million is for malaria activities. Implementation is managed by the sub-recipient National Malaria Control Program.

### 2.4 Malaria in Senegal, The Gambia and Mauritania

Malaria is endemic in all three countries, with rapid diagnostic tests being the main diagnostic method used there. Almost all cases of malaria are caused by the Plasmodium Falciparum variant of the malaria parasite.

<table>
<thead>
<tr>
<th>Country</th>
<th>Reported Malaria Cases 2021</th>
<th>Cases Treatment with ACT 2020</th>
<th>Malaria Related Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Senegal</strong></td>
<td>547,773 cases (21% increase since 2020)</td>
<td>0.52 million cases treated with ACT (vs 0.44 million in 2020)</td>
<td>Estimated malaria-related deaths increased by 7%, in 2021 with 399 deaths.</td>
</tr>
<tr>
<td><strong>The Gambia</strong></td>
<td>77,287 cases (2% increase since 2020)</td>
<td>0.07 million cases treated with ACT (vs 0.07 million in 2020)</td>
<td>Malaria rapid diagnosis test is the main method of confirmation with 0.49 million tests carried out in 2021 against 0.33 million in 2020. Estimated malaria-related deaths decreased by 42%, in 2021 with 31 deaths.</td>
</tr>
<tr>
<td><strong>Mauritania</strong></td>
<td>49,560 cases (65% decrease since 2020)</td>
<td>342 cases treated with ACT (vs 760 in 2020)</td>
<td>Malaria rapid diagnosis test is the main method of confirmation with 0.05 million tests carried out in 2021 against 0.03 million in 2020. Mauritanian has not reported on malaria deaths since 2017. There were 67 in 2017 down 79% from 2016.</td>
</tr>
</tbody>
</table>

Source: WHO 2022 world malaria report

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14 Significant data quality issues with malaria indicators have been observed by the OIG and are raised in further details in the report.
3. Portfolio Risk and Performance Snapshot

3.1 Portfolio Performance

GC6 (Jan 2021-Dec 2023) grant performance and grant ratings are shown below.\textsuperscript{15,16} Grants in Senegal are signed in Euro as the local currency exchange rate against Euro is stable.

<table>
<thead>
<tr>
<th>Grant</th>
<th>Principal Recipient</th>
<th>Grant Period</th>
<th>Total Signed Amount</th>
<th>Total Disbursed Amount</th>
<th>Budget as at Dec 22</th>
<th>Expenditure as at Dec 22</th>
<th>Absorption as at Dec 22 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multi-Component SEN-Z-MOH</td>
<td>Ministry of Health of Senegal</td>
<td>1 Jan 21 - 31 Dec 23</td>
<td>€58,611,353</td>
<td>€41,972,600</td>
<td>€51,661,240</td>
<td>€29,015,420</td>
<td>54.30%</td>
</tr>
<tr>
<td>Multi-Component SEN-Z-PLAN</td>
<td>Plan International</td>
<td>1 Jan 21 - 31 Dec 23</td>
<td>€11,610,471</td>
<td>€11,610,387</td>
<td>€9,285,013</td>
<td>€8,715,743</td>
<td>93.50%</td>
</tr>
<tr>
<td>Malaria GMB-M-MOH</td>
<td>Ministry of Health of The Republic of The Gambia - National Malaria Control Program</td>
<td>1 Jul 21 - 30 Jun 23</td>
<td>$29,010,803</td>
<td>$25,250,389</td>
<td>$21,589,039</td>
<td>$21,642,411</td>
<td>85.40%</td>
</tr>
<tr>
<td>Multi-Component MRT-Z-SENL</td>
<td>Ministry of Health of The Islamic Republic of Mauritania - National Executive Secretariat for Fight against AIDS</td>
<td>1 Jan 22 - 31 Dec 24</td>
<td>$27,573,171</td>
<td>$19,830,835</td>
<td>$8,149,990</td>
<td>$2,597,523</td>
<td>31.90%</td>
</tr>
</tbody>
</table>

Programmatic Rating Level Ranges: 
- Excellent > 100%
- Good 90% - 99%
- Moderate 60% - 89%
- Poor 30% - 59%
- Very Poor < 30%

Financial Rating Level Ranges: 
- Excellent > 95%
- Good 85% - 94%
- Moderate 75% - 84%
- Poor 65% - 74%
- Very Poor < 65%

\textsuperscript{15}Effective January 2022, Global Fund Revised PU/DR and Performance Ratings with programmatic performance assessed via alphabetic ratings while financial performance assessed via numerical ratings. (Accessed 17 November 2023)

\textsuperscript{16}Effective June 2023, Global Fund updated Principal Recipient Reporting with expenditure reporting undertaken through pulse checks that are not verified by the LFA. (Accessed 17 November 2023)
### 3.2 Risk Appetite

The OIG compared the Secretariat's aggregated assessed risk levels in key categories covered in the audit objectives, with the residual risk based on the OIG's assessment, mapping risks to specific audit findings. The full risk appetite methodology is detailed in Annex B.

<table>
<thead>
<tr>
<th>Audit area</th>
<th>Risk category and sub-category</th>
<th>Country</th>
<th>Secretariat aggregated assessed risk level</th>
<th>Assessed residual risk based on audit results</th>
<th>Relevant audit issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design and effectiveness of malaria interventions</td>
<td>Malaria Program Quality</td>
<td>Senegal</td>
<td>Moderate</td>
<td>Moderate</td>
<td>Finding 4.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The Gambia</td>
<td>Moderate</td>
<td>Moderate</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mauritania</td>
<td>Not rated</td>
<td>High</td>
<td></td>
</tr>
<tr>
<td>Design and effectiveness of malaria interventions</td>
<td>Malaria Program Design and Relevance</td>
<td>Senegal</td>
<td>Moderate</td>
<td>Moderate</td>
<td>Finding 4.1 Finding 4.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The Gambia</td>
<td>Moderate</td>
<td>Moderate</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mauritania</td>
<td>Not rated</td>
<td>High</td>
<td></td>
</tr>
</tbody>
</table>

The Global Fund Secretariat does not routinely prepare an Integrated Risk Matrix for focused portfolios and there are therefore no risk ratings available for Mauritania.

The Global Fund Secretariat rated malaria program quality (both sub-categories) as ‘Moderate’ for the SEN-Z-MOH grant and ‘Moderate’ for the SEN-Z-PLAN grant. The calculated rating of the portfolio for the malaria program is ‘Moderate’.
4. Findings

4.1 Gaps in malaria prevention activities and poor data quality limit the impact of Global Fund-funded programs

Impact of malaria grant interventions is hampered by limitations in program effectiveness and data quality. Low LLIN utilization, uneven quality of treatment resulting from lack of training, weak data quality and limited governance are among key factors that contribute to the reduced impact. While relevant grant coverage indicators for Senegal and The Gambia have been achieved, grants objectives have not been met in any of the three countries.

The Global Fund invested over €51.7 million to combat malaria in the three countries. These investments are to fund case management, prevention and vector control interventions, key to malaria elimination and achievement of Global Fund objectives.

Effectiveness of malaria preventive interventions is limited by low use of LLINs, funding gaps and delays in executing activities

The LLIN use rate of nets distributed through mass campaigns in all three counties is very low. The latest Health Demographic Surveys carried out after the last LLIN distributions showed that populations were not using the nets as expected. Utilization rates in Senegal, The Gambia and Mauritania are 46%, 55% and 8% respectively. Here are some of the factors contributing to low utilization:

Limited coverage: In Senegal, due to limited funding, the 2022 LLIN mass campaign could only cover 64% of the population, while the most populated regions with moderate malaria burden were excluded. The upcoming campaign in 2025 is expected to cover only seven out of the fourteen regions.

Lack of accurate analysis to inform campaigns: In Senegal and The Gambia, the results of the Demographic Health Surveys for the 2019 LLIN campaigns, which ended in October of that year, were only issued respectively in March 2021 and January 2022. These were conducted in a season of low transmission, when the population was possibly not using the nets as regularly and ended up depicting an inaccurate picture of utilization. Furthermore, none of the three countries have conducted dedicated post-campaign surveys to understand drivers of LLIN low use or to evaluate the effectiveness of campaign activities and draw lessons for the next campaign.

Absence of communication and sensitization activities in Mauritania: Critical post-campaign communication and sensitization activities – which promote and increase LLIN use through advocacy, social mobilization and behavior change – were not part of grant activities due to insufficient funding.

Stock-out of LLINs for routine distribution: LLINs are routinely distributed to pregnant women and children under five during their visits to health centers. Nets were not available in 80% of health facilities visited in Mauritania, 66% in Senegal and 33% in The Gambia.

Issues were also noted in prevention activities targeted at vulnerable groups:

Limited coverage of Intermittent Preventive Treatment: Treatment coverage of pregnant women, especially the administration of the third dose, remains very low in all three countries: 10% in Mauritania, 33% in Senegal and 52% in The Gambia. This is the consequence of late enrollment of
pregnant women in the first antenatal consultation, loss to follow up of pregnant women after the first dose and limited community monitoring, particularly in Senegal and The Gambia.

Inadequate planning of Seasonal Malaria Chemoprevention (SMC). In Mauritania, the SMC campaign was delayed and was implemented outside the high transmission season, significantly limiting its impact in preventing malaria in children under five.

Inadequate planning of activities, limited funding and lack of strategies for Antenatal Care (ANC) attendance may hinder the effectiveness of future prevention activities. In Mauritania, the 2023 mass campaign distribution has been delayed and is unlikely to be performed during peak malaria transmission season. Late and/or low levels of attendance of pregnant women to ANC visits hinder the administration of four doses, which would ensure the most effective coverage. Further emphasis on community sensitization, to resolve existing access barriers could increase visits, but no plan exists to execute them.

These program inefficiencies may be contributing to the increase of malaria incidence and, if not resolved properly, could hamper future investment of the Global Fund in the three countries.

Sub-optimal malaria programs are contributing to increasing incidence and mortality, limiting Global Fund capacity to meet grant objectives

Grants objectives break down the overall aim of the Global Fund to support countries in defeating the three diseases, in this instance malaria. For GC6, the objectives were for Senegal to reduce malaria incidence and mortality by 75% compared to 2019, for The Gambia to reach zero indigenous transmission and deaths by 2025, and for Mauritania to stop indigenous transmission in local areas called ‘wilayahs’ with very low transmission by 2025.

During GC7 grant making, the Technical Review Panel (TRP) raised concerns around the unexplained increase of malaria incidence in Senegal and The Gambia and requested both countries perform a study that would explain the underlying reasons for this increase. While the study is yet to be performed, program gaps are contributing to the increased incidence and mortality:

- Absence of malaria grant indicators in the country health information system: 40% of Mauritania grant coverage indicators were not reported in the in-country health information system. The country started integrating these indicators in October 2021, but they are not yet cascaded to the health facility reporting tools, thereby skewing the grant performance determination.
- Absence of training and supervision: In Mauritania, non-compliance with diagnosis and treatment guidelines, resulting from the complete absence of training and supervision, was noted in an average of 67% of suspected cases tested in health facilities visited. This included simple malaria cases treated with severe malaria treatment and even cases treated despite negative test results. In The Gambia, staff in post for a longer time were trained, However, newer staff have not received training, affecting continuity of quality of care.
- Weak national program capacity: The recently established National Malaria Control program in Mauritania is not adequately staffed to monitor the appropriate treatment of malaria cases in all regions and is not able to oversee malaria interventions.
- Limited data quality: In Mauritania, quality of data is very weak because of poor staff capacity, and most indicators are not reported on by health facilities. In Senegal, due to recurring strikes of health staff since early 2022, data is not reported to the upper level and data completeness dropped from 98% in Q4 2021 to 23% in Q4 2022. This incomplete data and reporting reduce visibility of treatment adequacy and execution of corrective actions.

Consequently, none of the grants’ objectives are likely to be achieved. In Senegal, incidence and mortality increased by 40% and 54% respectively between 2019 and 2021. In The Gambia, malaria

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20 Seasonal malaria chemoprevention is the intermittent preventive administration of a curative dose of antimalarial medicine to children at high risk of severe malaria living in areas with seasonal transmission
21 Administrative division usually translated as “state”, “province” or occasionally as “governorate”
22 National Malaria Disease program established in May 2023 with one program coordinator and two consultants
cases increased by 48% in 2022 compared to 2021, with incidence increasing from 30 per 1,000 population in 2020 to 43 in 2022. Mortality also increased, reaching 62 deaths in 2022 compared to 31 in 2021. Finally, in Mauritania, indigenous transmission in the *wilayahs* with very low transmission is still being reported.23

**Agreed Management Action 1**

**Mauritania:** The Global Fund Secretariat will work with the Principal Recipient to include SBC messages in the areas where IPT is implemented to encourage early attendance to ANC. This will also include working together in partnership with programs and the National System of Health Information (Système National d'Information Sanitaire; SNIS) to ensure that data is accurately reported and documented in the DHIS2.

OWNER: Head Grant Management Division

DUE DATE: 31 December 2025

**Agreed Management Action 2**

**Gambia:** The Global Fund Secretariat will work with the Principal Recipient to undertake an analysis to understand the drivers for suboptimal ITN use in households with access to an ITN and in areas where ITNs are provided through campaigns, adapting programming to address those underlying reasons. In addition, the program will also adopt SBC messages to encourage early uptake of IPT through CHWs.

OWNER: Head Grant Management Division

DUE DATE: 31 December 2025

**Agreed Management Action 1**

**Senegal:** The Global Fund Secretariat will work with the Principal Recipient to undertake an analysis to understand the drivers for suboptimal ITN use in households with access to an ITN and in areas where ITNs are provided through campaigns, adapting programming to address those underlying reasons.

OWNER: Head Grant Management Division

DUE DATE: 31 December 2025

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23 Due to extremely poor data completeness and accuracy, reporting on malaria cases and deaths in Mauritania is not provided.
4.2 Countries achieved to varying degrees implementation of commitments towards elimination

Senegal, The Gambia and Mauritania have made important commitments towards malaria elimination through their national strategic plans, which are aligned with the commitments of the Sahel Malaria Elimination Initiative.24 There are however variances in the effective implementation of the strategies between the three countries, none of which can reasonably expect to achieve elimination without stepping up execution of their plans.

The goal of the Sahel Malaria initiative is to accelerate the attainment of malaria elimination goals by 2030 in the sub-region. This regional platform aims to combine efforts on scaling up and sustaining universal coverage of antimalarials and mobilizing financing for elimination. It also aims to fast-track the introduction of innovative technologies to combat malaria and develop a sub-regional scorecard. This scorecard is set to track progress towards eliminating malaria by 2030. All three countries have effectively joined the initiative and incorporated specific strategies into their national plans. The execution of these plans is slow but varies between the three countries.

In Mauritania, except for establishing a national strategic plan for the elimination of malaria and joining SaM, the remaining interventions have not yet commenced. There is no case-based surveillance and investigation in the country given the status of the National Malaria Control Program (PNLP), and the funding constraints burdening its malaria response, the likelihood of proper execution of the plan, thus achievement of malaria elimination by 2030, is unlikely.

Senegal and The Gambia have started to operationalize their elimination plans. They have divided their respective countries into different strata, based on the district-level malaria burden, to enable tailor-made malaria response and elimination activities. When moving towards elimination, it is crucial to systematically collect and analyze malaria data, keep track and follow up on individual cases to interrupt local transmission and investigate deaths. Both countries have started case-based surveillance and investigation activities. DHIS2 trackers have been developed and implemented to enable digital data collection and keep track of individual cases.

Senegal is the country with the most extensive elimination plan and advanced implementation. It established mechanisms for case-based surveillance and investigations, and the documentation of case investigation is adequate. However, the completion rate of death investigations remains low in health centers, where only 64% of cases were investigated.

The Gambia started case-based surveillance and investigation in the North Bank region in August 2023. Health facilities are recording malaria cases in the DHIS2 tracker and investigating them, but most investigation responses are currently on hold due to delays in quality assurance/control clearing of the drugs to be used.25

The National Malaria Control Programs in Senegal and The Gambia have an active collaboration governed by a Memorandum of Understanding regulating vector control activities, sharing of expertise, logistics and data between the two countries. The Gambia received support from Senegal when establishing its case-based surveillance and investigation processes, policies, and systems. The two countries have synchronized their respective LLIN mass campaigns to better serve beneficiaries in the border areas.

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24 Sahel Malaria Elimination Initiative
25 The Gambia has opted for a strategy to provide a preventive malaria drug to all eligible people who live within a certain radius of a malaria case
While all 3 countries have aligned their targets with the WHO GTS and the SAHEL Malaria Elimination initiative elimination target of 2030, the Secretariat recognizes this as an aspirational goal rather than one that can be attained with current interventions, funding levels, and the evolving challenges such as emerging drug resistance, widespread insecticide resistance, climate change, regional insecurity and lack of government prioritization of malaria. Further, the widespread issues across the malaria portfolio in Mauritania are due to lack of capacity of the national program. The Secretariat continues to advocate for partners to coordinate information exchange activities, strengthening effectiveness of control measures and optimizing current investments in the context of limited funding and capacity constraints at the national program level. Therefore, no AMA is proposed by the Secretariat for this finding.
## Annex A. Audit Rating Classification and Methodology

<table>
<thead>
<tr>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Effective</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>Partially Effective</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>Needs significant improvement</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>Ineffective</strong></td>
<td>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.</td>
</tr>
</tbody>
</table>

The OIG audits in accordance with the Global Institute of Internal Auditors’ definition of internal auditing, international standards for the professional practice of internal auditing 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 safeguard the independence of the OIG’s auditors and the integrity of its work.

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 is used to provide specific assessments of these different areas. 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.
Annex B. Risk Appetite and Risk Ratings

In 2018, the Global Fund operationalized a Risk Appetite Framework, setting recommended risk appetite levels for eight key risks affecting Global Fund grants, formed by aggregating 20 sub-risks. Each sub-risk is rated for each grant in a country, using a standardized set of root causes and combining likelihood and severity scores to rate the risk as Very High, High, Moderate, or Low. Individual grant risk ratings are weighted by the grant signed amounts to yield an aggregate Current Risk Level for a country portfolio. A cut-off methodology on high risks is applied (the riskiest 50% of grants are selected) to arrive at a country risk rating.

OIG incorporates risk appetite considerations into its assurance model. Key audit objectives are generally calibrated at broad grant or program levels, but OIG ratings also consider the extent to which individual risks are being effectively assessed and mitigated.

OIG’s assessed residual risks are compared against the Secretariat’s assessed risk levels at an aggregated level for those of the eight key risks which fall within the Audit’s scope. In addition, a narrative explanation is provided every Time the OIG and the Secretariat’s sub-risk ratings differ. For risk categories where the organization has not set formal risk appetite or levels, OIG opines on the design and effectiveness of the Secretariat’s overall processes for assessing and managing those risks.

Global Fund Malaria grants in Senegal, The Gambia and Mauritania: comparison of OIG and Secretariat risk levels

Overall, the updated Secretariat risk levels assessment is aligned with the OIG audit assessment for Senegal and The Gambia. The OIG rated program design and relevance, and program implementation and efficiency sub-risks in Mauritania as ‘High’ given the challenges of the National Malaria control program and its programmes, which will likely be compromising the achievement of the objectives.