



Setting Up the Strategic Initiative for the Acceleration of Malaria Vaccine Introduction and Rollout Across Africa (AMVIRA)

Concept note

1. Background

- Malaria continues to cause unacceptably high levels of illness and deaths, especially in sub-Saharan Africa. Despite progress made in the implementation of disease control measures, the disease remains the leading cause of deaths in children under five years of age in Africa. It is estimated that, globally, one child dies of malaria every minute.
- Malaria is a preventable and treatable disease. The Global Technical Strategy targets a reduction of at least 90% in malaria case incidence and mortality rates, and elimination in 35 countries, mainly in sub-Saharan Africa, by 2030. Vaccination has now been added to the available response tools, which are insecticide-treated bed nets, anti-malarial medications, and indoor spraying of the Anopheles mosquitoes that carry malaria parasites. It is important to note that all other response measures should continue, since the vaccine targets severe disease and death, and will not completely prevent malaria cases.
- Two vaccines have been prequalified by WHO and recommended as an additional tool for the prevention of Plasmodium falciparum malaria in children living in areas of moderate to high malaria transmission: RTS,S/AS01 approved in 2021 and R21 approved in 2023.
- RTS,S/AS01 was piloted in three African countries in the Malaria Vaccine Implementation (MVI) programme: Ghana, Kenya and Malawi. Over 1.7 million children in these three countries have received the vaccine since 2019.
- The pilot studies of RTS,S/AS01 vaccine demonstrated its safety and effectiveness, and its use led to a substantial reduction in severe malaria cases and a significant decrease in child deaths, even in areas where other prevention measures were present.
- Four doses are recommended for both vaccines; 3 by 9 months of age and the last dose at 18 months of age.



- At least 28 countries expressed interest in receiving the malaria vaccine in 2024. In 2023 Gavi approved the initial allocation of 18 million of doses in nine countries (Benin, Burkina Faso, Burundi, Cameroon, the Democratic Republic of the Congo, Liberia, Niger, Sierra Leone and Uganda) to enable the introduction of malaria vaccine into their routine immunization programmes. Cameroon, Benin, Burkina Faso, Liberia and Sierra Leone have already received their first shipments.

In line with the WHO strategy for Ending Disease in Africa (ENDISA), and building on WHO Regional Office for Africa's recent experiences in mounting a massive reactive COVID-19 vaccination campaign targeting all 47 Member States of the Regional Office, as well as lessons learned from the Malaria Vaccine Implementation programmes, in January 2024, the Regional Office developed the initiative for Accelerating Malaria Vaccine Introduction and Rollout in Africa (AMVIRA). This initiative will strengthen the provision of state-of-the-art technical support to Member States in their efforts to effectively and efficiently introduce and roll out malaria vaccines, while strengthening partners' coordination at national, regional and global levels.

2. Purpose

The purpose of this document is to summarize objectives, expected outputs, guiding principles and progress made to date in the set up and operationalization of the Accelerating Malaria Vaccine Introduction and Rollout in Africa (AMVIRA) initiative. The infrastructure and resource requirements for effective implementation of AMVIRA are also described.

3. Terms of reference

a. Objectives

The objective of the AMVIRA initiative is to ensure that all eligible countries in the WHO African Region establish and sustain the required capacities and capabilities for the effective introduction and rollout of malaria vaccines at national and subnational levels, aiming to reduce malaria morbidity and mortality among children.

b. Expected outcomes

- Multi-disciplinary teams of experts deployed in countries to support the malaria vaccine introduction and rollout according to needs.
- Successful introduction of malaria vaccines in all the priority countries.
- Lessons learned in readiness monitoring, vaccine rollout, strategies and actions to minimize dropout from dose 2 to dose 4, data management and use for decision-making, partners' coordination documented and disseminated.



- Post-introduction evaluation conducted in all the countries, 6 to 12 months after the introduction.
- Effective sentinel hospital surveillance of severe malaria established in each of the countries that will introduce the malaria vaccine.

c. Guiding principles

- The implementation of the AMVIRA initiative is guided by the following principles:
 - Introduction and rollout processes owned by national authorities
 - Effective use of data to inform strategic and operational decisions
 - Full integration into routine immunization combined with campaign mode management of operations
 - Coordination and alignment of international partners' support.

d. Modus operandi

i. Coordination structures and mechanisms

Given the urgency of effectively supporting the introduction and roll out of malaria vaccines in Africa, and in the face of the high morbidity and mortality associated with malaria, as well as the encouraging results seen during the MVIP pilots, the Regional Office will apply the Emergency Incident Management System (IMS) to support national efforts in the introduction and roll out of vaccines.

WHO AFRO has therefore set up an AMVIRA coordination team led by an Incident Manager, which is structured into Nine pillars. We have also external communication: Country Operations; Monitoring and Evaluation; Demand Generation; Research and Knowledge management; Logistics and Supply Chain Management; Vaccine Safety and Regulation; Program Liaison, and Administration and Finances. The adapted IMS and key functions of each pillar can be found in Annex 3.

ii. Meetings

The AMVIRA coordination Team Leads meet daily to coordinate the operations, plan meetings with countries, decide on the deployment of experts and explore ways of addressing gaps at country level.

- A bi-weekly meeting will be held with each of the countries that have scheduled introduction to monitor progress and identify gaps. This meeting is conducted at three levels – Ministry of Health-WHO Country Office, AFRO and HQ – and is open to other partners supporting the introduction and roll out of malaria vaccines.
- A weekly coordination meeting between HQ, AFRO and all the WHO Country offices who have introduced or plan to introduce malaria vaccines will take place to monitor progress made and explore ways of addressing challenges.
- AMVIRA Partner Forum, a monthly Strategic convening platform for key stakeholders and international donors, to convene and collaborate, align funding priorities, and to bridge the identified funding gap.

e. Progress made since the establishment of the AMVIRA initiative

i. Support to Cameroon

- Support provided to Cameroon in the development of a dashboard for monitoring national and district readiness. The dashboard is accessible on the following link: https://worldhealthorg.shinyapps.io/cameroon_vaccine_deployment_preparedness/

- A component that will provide updates on the vaccine rollout in terms of number of children vaccinated, and team performance by health facility, district, region and at national level, is under development. An automated daily bulletin in the form of a slide deck is being developed.
- Deployment of eight experts to support the introduction and rollout: two immunization specialists, one demand generation specialist, and two data scientists and one external communication officer M&E specialist.
- Allocation of 329,878 USD to cover funding gaps Cameroon.
- Support for the development of risk communication and community engagement plans.
- Support the development of 4W matrix (who is doing what, where and when) to ensure better coordination of partners at country level.

ii. Support to Burkina Faso

- Two three-level meetings to exchange on existing technical and funding gaps.
- Country request under review to determine the amount to be provided by WHO AFRO.
- Ongoing discussion to optimize data systems to better inform operational decisions.

iii. Support to other countries

- Three-level meetings involving WHO AFRO, WHO Country Offices and countries (Benin, Liberia and Sierra Leone).

iv. Communication

A webpage on the AMVIRA initiative is under development (<https://amvira.azurewebsites.net/>).

The Regional Director for Africa's message for the launch of the malaria vaccine introduction in Cameroon was recorded and released on 22 January 2024.

AMVIRA's strategy for the year 2024 holds immense potential for impactful public health outcomes in the African Region. However, to fully realize our goals, we face a critical need for additional resources, particularly in addressing identified gaps in our consultant pool.

This summary aims to provide a clear picture of where our budget is going, emphasizing our priorities and potential areas for optimization.

Our budget for the upcoming year focuses on key areas vital for the success of our initiatives.

- **Consultants:** We've invested in Immunization, Demand Generation, and Data Science experts. Although we planned for 64 experts, only 9 are currently available, leaving 56 gaps.
- **Workshops and program support Officers:** A lump sum for a Predeployment Briefing Workshop and various officer roles. This accounts for 7.5% of our budget, totaling 1,517,500 USD.

- **Country-specific Activities:** Significant investments in Country Missions, Country Allocation, and Post Introduction Evaluation. This takes up the lion's share at 69.3%, totaling 13,950,000 USD.
- **Running Costs:** Monthly expenses and a Stock Take Meeting make up the remaining 5.9%, totaling 1,200,000 USD.

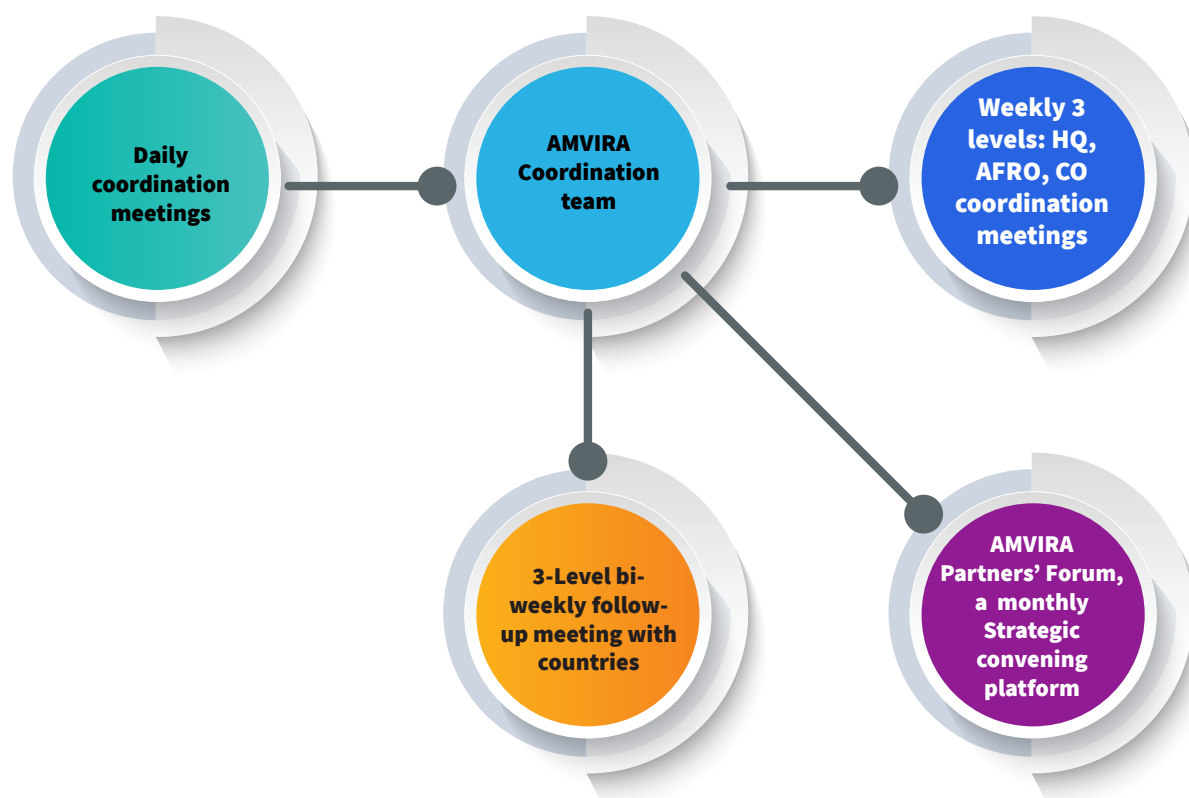
In total, our Funding Gap is 20,127,000 USD.

Expected Impact of Additional Funding:

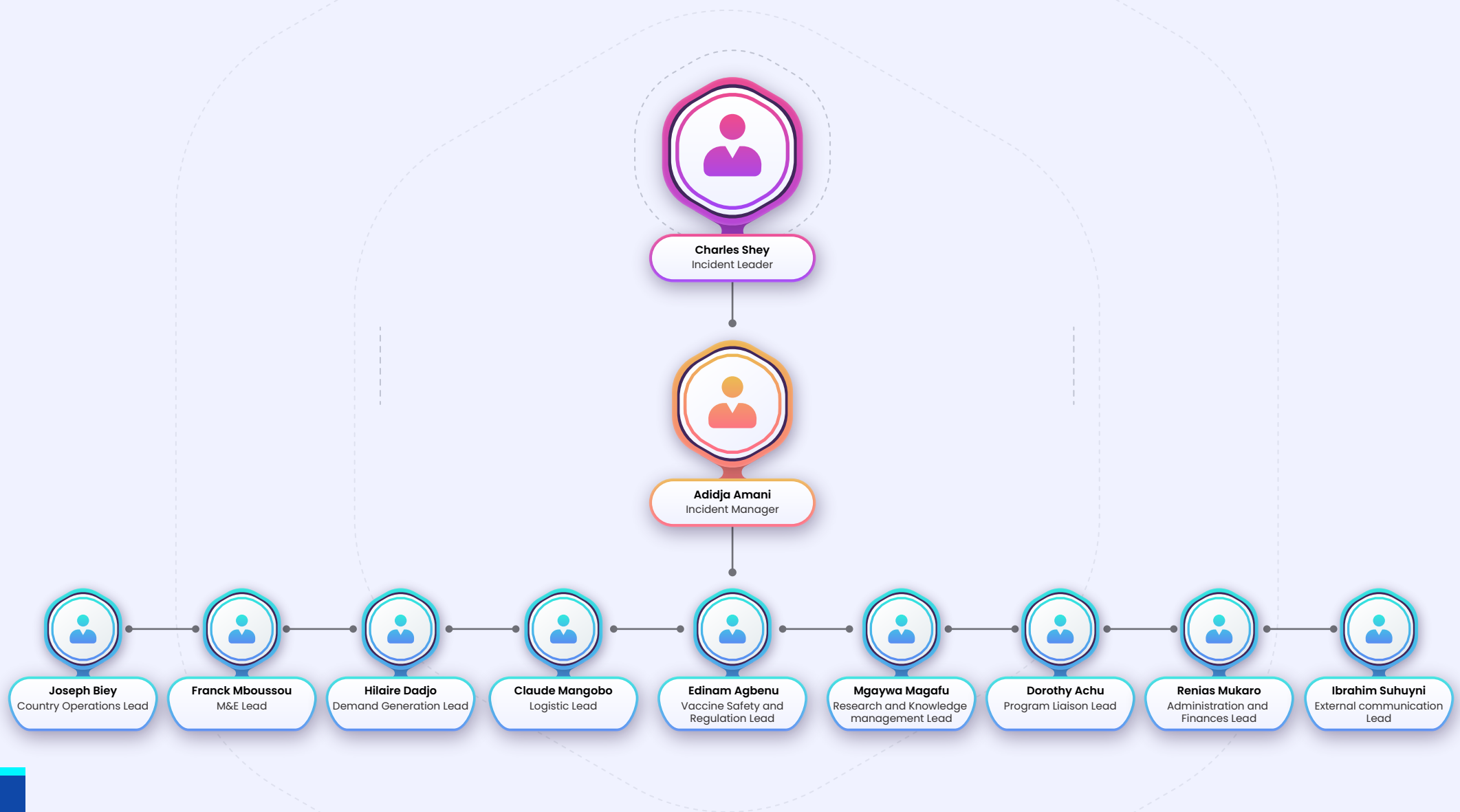
- Complete deployment of planned consultants, reducing the identified gaps.
- Enhanced effectiveness and coverage of critical workshops and officer roles.
- Strengthened execution of country-specific activities for maximum impact.
- Ensured operational continuity for the success of our initiatives.

Annexes

Annex 1: AMVIRA coordination mechanisms



Annex 2: AMVIRA coordination team



Annex 3: Key functions of AMVIRA coordination pillar

Pillar	Key functions
Incident management	<ul style="list-style-type: none"> • Coordinate the implementation of the AMVIRA initiative. • Set up coordination mechanisms with HQ and other partners. • Coordinate the recruitment of experts based on pillar needs. • Organize meetings with countries to monitor progress in readiness and implementation of malaria vaccine introductions and rollout. • Coordinate resource mobilization for the AMVIRA initiative.
Operations pillar	<ul style="list-style-type: none"> • Provide guidance to Member States on strategies and tools for readiness, introduction, and rollout of malaria vaccines. • coordinate surge deployments of experts to support readiness and rollout of malaria vaccines. • Oversee the work of experts deployed in countries to support malaria vaccine readiness and rollout. • Ensure that 4ws tools are completed and partners' coordination mechanisms set up in each country that is rolling out malaria vaccines.
Monitoring and evaluation pillar	<ul style="list-style-type: none"> • Provide the required support to Member States to ensure that effective systems are in place for monitoring country readiness and progress in malaria vaccine introduction and rollout. • Support the development of dashboard and automation of bulletin for timely monitoring of progress in malaria vaccine introduction. • Provide guidance on systems to be established for effective tracking of coverage by the 4 doses of the malaria vaccine series. • Support the establishment of sentinel hospital surveillance of severe malaria cases. • Support the preparation and implementation of post-introduction evaluations.
Demand generation	<ul style="list-style-type: none"> • Provide guidance and technical support on risk communication and community engagement to generate vaccine demand. • Coordinate surge deployments in demand generation. • Coordinate external communication activities.

Pillar	Key functions
Logistic and Supply Chain Management pillar	<ul style="list-style-type: none"> • Provide technical guidance to ministries of health to carry out country cold chain analysis at all levels. • Support the development of a plan aiming at strengthening the cold chain and ensuring proactive maintenance. • Support the development of a vaccine waste management plan.
Vaccine safety and Regulation pillar	<ul style="list-style-type: none"> • Coordinate guidance on the development and implementation of adverse events following immunization (AEFI) plans.
Program Liaison Pillar	<ul style="list-style-type: none"> • Coordinate the documentation of best practices in readiness and rollout of malaria vaccines. • Coordinate WHO support to Member States in conducting studies of vaccine effectiveness, population impact, and social studies on vaccine hesitancy, and the impact of COVID-19 on routine immunization. • Coordinate knowledge sharing with states, partners and the public.
Administration and finances pillar	<ul style="list-style-type: none"> • Manage funding allocation and awards. • Review funding requests from countries. • Track and report on financing against budgets. • Support resource mobilization. • Provide administrative support for the recruitment and deployment of staff and consultants • External Communication.
External communication pillar	<ul style="list-style-type: none"> • Coordinate external communication activities. • Align communications with key stakeholders for a cohesive message among government, NGOs, and international partners. • Strategically engage media to shape a positive narrative, swiftly addressing concerns and maintaining public support.

