RAI Regional Steering Committee

Regional Component of the Regional Artemisinin-resistance Initiative (RAI2E) Grant

CALL FOR PROPOSALS

Package #2: Stimulating operational research and innovation to guide policy

I. Context

The RAI Regional Steering Committee (RSC) is inviting proposals from Government and non-government organizations to carry out operational research in Cambodia, Lao PDR, Myanmar, Thailand, and Viet Nam. Supported research should aim to: **define optimal and sustainable approaches to prevention, diagnosis and treatment in response to the rapidly changing malaria epidemiology**; and **accelerate the transition from control to elimination by piloting new tools and optimizing surveillance as a core intervention**.

II. Background

The Regional Artemisinin-resistance Initiative (RAI) was launched in 2013 in response to the emergence of artemisinin resistant malaria in the Greater Mekong region. Funded by the Global Fund to Fight AIDS, TB and Malaria, the first RAI round was a $100-million grant covering five countries of the Greater Mekong Subregion (GMS). The RAI Regional Steering Committee (RSC), a multi-stakeholder governance body, provides strategic guidance, selects recipient implementers, and oversees grant implementation, tracks progress against program objectives and ensures funding is used in accordance with agreed strategic priorities.

Global Fund recently announced the expansion to a second phase of RAI, or the RAI2-Elimination (RAI2E), with a total of USD242.3 million over three years (2018-2020). The majority of the grant funds have been awarded across the five countries to support their country components of the RAI2E (208.3m USD). The main focus is on malaria case management through expansion of community health volunteers, strengthening surveillance systems, and scaling up elimination activities.

In addition, US$34million has been dedicated to a Regional Component that supplements the country components by addressing overarching issues affecting national strategies, enhancing country components and ensuring regional coherence. The regional component of the RAI2E has seven packages of funding, the second of which will support operational research to better define selection of interventions which will lead to the goal of malaria elimination and to increase the efficiency of implementing activities for the populations in need.

III. Geographic Scope

The countries of implementation of the RAI2E grant are **Cambodia, Lao PDR, Myanmar, Thailand and Viet Nam**.

Applicants can apply for funding for research activities in a single site/country, providing that the research will produce results that are applicable to other areas within the region, or multiple sites/countries, where similar methodologies can be tested across multiple epidemiological and health system contexts.

IV. Scope of Work: priority areas for operational research

The RAI2E Funding Request, as approved by the Global Fund, presents two high-level research areas which are considered a priority in the GMS (*sub-packages 1 & 2 below*); broad research themes have been identified within each of these areas. Following extensive consultation across the region, these themes have been further prioritized, with indicative funding allocations as set out below.

It should be noted that there is considerable overlap between several of these themes, and that proposals which address more than one research topic can be considered for funding.

The use of social science and medical anthropology approaches as part of design of studies is encouraged.

Sub-package 1: Defining optimal and sustainable approaches for prevention, diagnosis and treatment in response to the rapidly changing malaria epidemiology

1.1 Strengthening quality and sustainability of community-based services
Priority level: HIGH. Indicative funding range: up to $1.0 million

Background:

Provision of early diagnosis and treatment services by community malaria workers (CMWs) has contributed to successful reduction in malaria rates in a short period of time. It is widely agreed that these workers will continue to play an important role as countries move towards elimination. It will, however, become increasing difficult to maintain their motivation to deliver quality services and to sustain community support and relevance as the number malaria cases falls to low levels.

It is also recognized that the ways in which community-level services are organized and managed, and the content of expanded services which might be delivered by CMWs, will be country and context specific. The main focus of research should be on the development and testing of CMW program design tools which can be replicated and scaled up across a range of different situations. However, research which includes piloting and testing of context-specific and innovative approaches which could produce knowledge of wider regional applicability (e.g. testing new health insurance schemes, testing alternative incentive schemes for CMWs, testing integration of CMWs with other community health workers) will also be considered.

Proposed research projects which address the following areas will be considered for funding:

- Development and testing of guidelines for design, and protocols to evaluate, appropriate CMW packages which can be used by national programs to **support an expanded role for CMWs to provide a broader range of malaria services** (including active case detection, surveillance and case investigation, and mass or focal screening and treatment) **and to deliver other health services** whilst continuing to prioritize malaria elimination.

- **Identification of the barriers to sustained CMW effectiveness and testing of cost-effective interventions to overcome these barriers**, including:
  - o testing of innovative approaches (including IT technology – mHealth) which can be used by government services to ensure effective support for CMWs and sustain their motivation;
  - o development of innovative ways of supporting CMWs at community level; and
  - o development of appropriate CMW performance indicators.

1.2 Mitigating forest transmission
Priority level: HIGH. Indicative funding range: up to $1.0 million

Background:

Following recent successes in control of malaria in many parts of the GMS, and the subsequent move towards elimination, forest-goers are rapidly becoming the most important source of transmission. These groups are highly mobile and have low access to interventions to prevent, diagnose and treat malaria. Experience with conventional vector control tools (particularly long-lasting insecticide treated nets) suggests that they are insufficient to protect high-risk groups exposed at night time due to the nature of their work.

The core question is whether vector control interventions (including long-lasting insecticide treated nets and hammock nets, impregnated clothing, insect repellent patches and topical insect repellent, and insecticide spraying) can be used effectively by forest-goers at sufficient scale to contribute to successful interruption of transmission of infection.

Proposed research projects which address the following areas will be considered for funding:

- **Evaluation of the operational effectiveness of vector control tools** (including LLINs and innovative new vector control approaches) and ways in which this can be increased as a strategy to reduce transmission in forest settings;

- **Assessments of the reasons for failure to use vector control methods** which have been shown to be effective under controlled conditions, and ways in which these might be addressed; and

- Studies of the **use of peer outreach workers** to support and monitor the use of vector interventions.

A closely related set of issues concern the complex environmental factors leading to increased risk of infection in forest settings, and the ways in which these impact upon, and can hamper, vector control interventions.

Proposed research projects which address this will also be considered for funding as follows:

- Development and assessment of **operational tools which can be used by malaria programs to increase understanding of the dynamics of malaria transmission in forest areas** (including: information about forest goers working patterns and exposure risks; working environments and the ways in which these change over time (e.g. forest clearance, planting and harvesting); changing vectors and biting patterns) and to implement programs (including, but not only, vector control) which take account of these factors.

Consideration will be given to studies using a combination of ethnographic/qualitative, direct observation, and disease incidence studies.

1.3 Managing P. vivax cases
Priority level: MEDIUM. Indicative funding range: up to $0.6 million.

Background:

Whilst there is broad consensus that the immediate priority is to reduce *P. falciparum* infection rates, success in reducing the burden of *P. falciparum* infections is leading to an increased proportion of *P. vivax* amongst all malaria cases. National malaria programs across the region note the need to prepare for an increased focus on *P. vivax* as the elimination effort goes ahead.

Use of Primaquine for radical cure of *P. vivax* continues to be an operational challenge. There remain concerns about the risks of haemolysis in G6PD deficient patients; and there is still often inadequate follow-up of patients to ensure compliance with radical cure regimens. Increasing availability of point of care testing for G6PD deficiency offers the possibility of an increased role for CMWs and other health staff in delivery and follow-up of radical cure to patients with vivax malaria, and the timely monitoring mechanisms to identify Primaquine-induced haemolysis.

Proposed research projects which address the following areas will be considered for funding:

- Development and evaluation of **operational procedures for the use of point of care and community level G6PD deficiency testing** in the context of delivery of radical cure of *P. vivax*;

- Operational testing of **innovative approaches to ensure compliance with and safety of extended courses of Primaquine** for radical cure.

Sub-package 2: Accelerating the transition from control to elimination: piloting new tools and optimizing surveillance as a core intervention

2.1 Evaluate new tools for identifying and/or treating asymptomatic individuals to effectively halt transmission
Priority level: HIGH. Indicative funding range: up to $2.0 million

Background:

Asymptomatic *P.falciparum* infections are common in the GMS. The contribution of asymptomatic carriers to transmission remains to be quantified. However, the recent success of mass drug administration (MDA) in near elimination of falciparum malaria provides good evidence that these infections represent an important reservoir of transmission that must be targeted for successful malaria elimination. Important questions around scaling up of MDA and defining the areas where the approach should be deployed remain, as well as ethical concerns over treatment of people who might not be infected and the related potential failure to mobilize community support.

The recent introduction of highly sensitive rapid diagnostic tests (HS-RDTs) for falciparum malaria could provide a cost-effective diagnostic tool for screening populations in a rapid manner, allowing for treatment of asymptomatic parasite carriers. There is now a need to research the use of HS-RDTs for active case detection (ACD), and for mass/focal screening and treatment strategies (MSAT/FSAT), under operational conditions.

Proposed research projects which address the following areas will be considered for funding:

- The **effectiveness of ACD or MSAT/FSAT using HS-RDTs to rapidly reduce *P.falciparum* incidence rates to low levels** or to halt transmission under operational conditions. This should include identification of logistical and technical challenges, including: levels of staff training, supervision and support needed to carry out screening and to implement follow up, testing of strategies to obtain support at the community level, and economic assessment of the costs and cost-benefits of the approach;

- The **effectiveness of ACD or MSAT/FSAT using HS-RDTs to rapidly reduce *P.falciparum* incidence rates in defined populations of forest-goers**;

- Operational studies of the **effectiveness of ACD or HS-RDT based MSAT/FSAT at different stages of elimination programs**, including: as part of outbreak investigation, to rapidly reduce incidence in areas of ongoing transmission, or as final near-elimination intervention.

2.2 Optimizing approaches to active surveillance
Priority level: HIGH. Indicative funding range: up to $1.4 million

Background:

Surveillance (including case investigation, foci investigation, and routine testing of fevers) is being established as a core intervention across the region, and will become increasingly important as the incidence of malaria approaches zero and transmission is finally halted. There is a need to ensure that surveillance is carried out to the highest standards, in line with WHO technical guidelines[1], and that operational research is developed in line with these guidelines; and that

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[1] Disease surveillance for malaria elimination: operational manual, April 2012: http://www.who.int/malaria/publications/atoz/9789241503334/en/
Disease surveillance for malaria control: operational manual, April 2012: http://www.who.int/malaria/publications/atoz/9789241503341/en/

human and financial resource constraints are fully addressed, using the most affordable and simplest available methods. There is also a need to operationalize and test strategies for investigating foci around index cases, including the extent of additional testing of neighbors or those potentially co-infected, and for entomological investigation.

Proposed research projects which address the following areas will be considered for funding:

- Development and testing of **standard operating procedures to carry out surveillance under different conditions** (i.e. in low incidence areas and in areas where transmission has been halted). This could include operationalization and evaluation of the 1-3-7 approach;

- Development and testing of **innovative ways to carry out case investigation and response** (e.g. use of mHealth[2], scenario planning, rapid response teams).

V. Proposal selection criteria

National malaria control programs, NGOs and implementing agencies, academic groups and other national or international organizations can apply to this Call for Proposals; collaboration between these entities is strongly encouraged.

The focus of the operational research should be to develop the most efficient and most cost-effective programs. Strategic information will have to be generated in parallel with program development, with the two influencing each other. The emphasis is on 'learning by doing' to identify what does and doesn't work, and why.

Applications will be assessed by an independent peer review team who will make recommendations for approval by the RSC. The detailed methodologies and protocols for successful applications will be further reviewed by independent experts before implementation.

The assessment of proposals will take the following into account:

1. Proposed studies should meet **national and international research standards**, including:
   - The problem should be well formulated, and the purpose of the study should be clear;
   - The study protocol should be well designed and executed;
   - Quantitative studies must have sufficient power to produce statistically valid and generalizable results;
   - The study should demonstrate understanding of related studies, and, where applicable, should clearly build upon other relevant studies;
   - Assumptions should be explicit and justified;
   - Conclusions and recommendations should be logical, warranted by the findings, and explained thoroughly, with appropriate caveats;
   - The study should be objective, independent, and balanced.
2. Proposals should **set out clear timelines for the delivery of results**, and include plans for dissemination of these, to facilitate timely replication and scale up of successful approaches.
3. Study proposals must be include **plans for ethical review and approval** by the countries in which they will be implemented, and indicate if there are any potential obstacles to granting of approval.
4. Proposed interventions should be **consistent with national policies, strategies and plans** to control and eliminate malaria, should be discussed with the national malaria control programs in the study country(ies), and should provide evidence that there is no objection to the proposed research.
5. **Study findings should be applicable to more than one country.** Proposals should clearly present the case for broader relevance and applicability of findings. Where appropriate, multi-site studies should be carried out to compare different approaches.

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[2] mHealth: mobile health - use of portable electronic devices with software applications to provide health services and manage patient information.

6. Applicants should present **evidence of capacity to carry out research**, based upon a) experience of implementation of similar research in comparable environments and b) an assessment of the logistical and management needs to implement the proposed research.

A scoring of proposals will be conducted based on the following components:

APPLICATION COMPONENT	Maximum Points
INSTITUTIONAL CAPACITY	**30**
TECHNICAL PROPOSAL	**50**
FINANCIAL PROPOSAL	**20**
TOTAL	**100**

In addition to individual merit based on the above scoring, all proposals will be considered from a regional perspective in terms of their complementarity and overall impact.

VI. Implementation Period

The RAI2E grant period is from **January 1, 2018 to December 31, 2020;** however activities proposed under this call are expected to start in Q2 of 2018 at the earliest. Proposal activities and budget should be adjusted accordingly.

It is expected that many proposals will be for shorter implementation periods, reflecting *inter alia* the need for timely replication and scale up of successful approaches as noted above.

VII. Available Funding

The maximum available ceiling amount for this package is **6 million USD.** Value-for-money and cost-effectiveness will be a key factor in the evaluation of proposals.

Disclaimers:

1. Multiple awards may be issued. The RSC reserves the right not to award any funding through this Call or to award different funding amounts.
2. The issuance of the Call for Proposals does not constitute an award commitment on the part of the RSC, nor the Global Fund. All preparation and submission costs are at the applicant's expense.
3. Final detailed budgets and targets will be determined during grant negotiation of successful applicants with the PR and the Global Fund.
4. The applicants understand that any results of the RSC selection process are not legally binding and are subject to the final approval of the Global Fund.

VIII. Eligibility Criteria

Both international and national organizations are eligible to apply. In order to respond to this Call for Proposals, applicants must meet the following eligibility criteria:

1. The organization (and any partners/sub-grantees) must be legally registered to operate in the proposed project country/ies, with a Memorandum of Understanding with the respective Ministry.

2. The organization has demonstrated experience in the implementation of similar projects.

3. *Conflict of Interest:* The grantee's other relationships, associations, activities, and interests should not create a conflict of interest that could prevent full impartiality in implementation of the grant activities.

Any organization that does not meet the minimum eligibility criteria will not be considered.

IX. Guidance for Applicants

Applicants who wish to address more than one research topic within the context of the same project are encouraged to combine activities into a single proposal, especially if the proposed activities are inter-dependent.

In cases where independent projects are proposed for different topics, an applicant can submit more than one proposal.

Proposals must not exceed 15 pages and must include the sections listed below. A Word Template is available for applicants' use.

The RSC reserves the right to reject proposals which are incomplete or exceed the prescribed page limit. The recommended number of pages per section can be exceeded as long as the total number of pages in the proposal is within the prescribed limit. Cover page, glossary/acronyms and table of contents will not count towards the total; graphs, tables and images will count towards the total.

Additional documents or annexes will not be accepted for review except where specified otherwise in this Call.

SECTION 1 – ORGANIZATION'S SUMMARY AND CONTACT INFORMATION

1.1 Name of the Organization, Contact information and full address

1.2 Registration status of organization. If a consortium, state the status of each individual organization. *Please provide relevant documentation as Annex (registration document, MOU).*

1.3 Brief introduction on the **organizations mission, vision, and general areas of expertise** (max. ½ page)

1.4 If applicant is/was a **recipient of Global Fund grants**: a brief summary of funded project(s) (max. ½ page)

1.5 Selection of research topics (*tick as appropriate*)

1. Defining optimal and sustainable approaches for prevention, diagnosis and treatment		2. Accelerating the transition from control to elimination	
1.1 Strengthening quality and sustainability of community-based services		2.1 Evaluate new tools for identifying and/or treating asymptomatic individuals	
1.2 Mitigating forest transmission		2.2 Optimizing approaches to active surveillance	
1.3 Managing P. vivax cases			

1.6 Brief proposal summary: main study question(s) to be addressed, geographic area(s), target populations, type of study design (max. ½ page, details will be described in section 3)

SECTION 2 – INSTITUTIONAL CAPACITY

2.1 Technical Capacity (max: 2 pages)

Describe your organisation's expertise relevant to the area of operational research in the ToR, and include a brief summary of relevant previous research. In particular, please describe past and current experience in carrying out operational research in the GMS.

2.2 Geographical Presence (max: 1 page)

Briefly describe any experience your organisation has in the proposed target country(ies), including the sub-national geographical area(s) where you are proposing to work, and highlight existing relationships that can facilitate operational research. Describe your organization's current presence and infrastructure, including staff and relevant logistical capacity.

If your organization has not worked in the proposed subnational area, please describe your understanding of the area, experience working in similar contexts, how you will ensure your organization can successfully implement in the area, and any steps you have taken toward establishing partnerships in the target area.

2.3 Human Resources, M&E systems and Financial Management Capacity (max: 2 pages)

Describe your organization's national and international (if any) management and staffing structure as relevant to your proposal. If applicable, explain your plans and specify proposed resources to recruit additional staff.

Please provide a brief description of your M&E systems including reporting and data collection mechanisms.

Please specify your total annual operating budget in 2016, the amount of research funds managed by your organization and describe your organisation's capacity to manage donor funds, including Global Fund grants if applicable.

2.4 Partnerships & coordination (max: 1 page)

If your organization plans to work as a consortium or in partnership with other organizations to be subcontracted under this grant, please provide information on your key partners' relevant experience/expertise as well as the proposed collaboration/management structure (including sub-contracting arrangements).

Describe any consultations your organization had with the national program and partners prior to submission of your proposal; explain how your organization will coordinate and share information with the national malaria program(s), local authorities, and partners to ensure a consistent/complementary approach.

SECTION 3 – TECHNICAL PROPOSAL

3.1 Key research question(s) and relevance (max: 2 pages)
Describe the operational research you are proposing to carry out and include the following aspects in your description:
   a. A clear **formulation of the research problem/questions** you are proposing to examine;
   b. How the proposed research builds upon the current state of knowledge or upon existing / previous research conducted on that topic.

3.2 Target population/geographic location (max: 1 page)
Describe the targeted population and geographic area and your rationale for choosing these, including:

   a. **Geographic area**: describe the subnational target areas where you plan to carry out the research including the rationale for targeting this/these location(s) as opposed to other potential study areas;
   b. **Target population**: describe the groups who will be the subjects of your research, including the estimated target population size and characteristics that make these group(s) an appropriate target for the proposed research, referencing available data/evidence where possible.

3.3 Proposed activities and interventions (max: 4 pages)

a. A high level description of the **proposed research protocol**, including key assumptions, caveats and potential implementation risks;

b. **Key activities** you plan to implement and the **timeline** for implementation including start-up activities (government/ethical approvals, recruitment of staff, baseline studies, etc.);

c. **Expected results and impact from your activities,** including a detailed timeline for delivery of results and an explanation of how the research findings are relevant and applicable to more than one country in the GMS;

c. The **rationale** for your proposed approach and activities, including:

   o any evidence-base that supports your rationale;

   o how your proposed intervention aligns with the National Strategies and Policies of each of the countries you are proposing to implement.

SECTION 4 – FINANCIAL PROPOSAL

Please complete the detailed budget template provided in *Annex B - Budget*. Using the comment section or in a brief supporting narrative (max. ½ page), please explain:

a. What relevant resources may already be in place and available to support the proposed research
b. What additional resources are required, with a brief rationale
c. How your organization will ensure value for money during study implementation

X. Submission details

A narrative template (Word) and Annex B budget template (Excel) are available for download at the following link:

https://www.dropbox.com/sh/y20dgaedaqtbmc0/AAAA6I6s4nDs8whk55IOIkj0a?dl=0

All applications should be submitted electronically to: RAI2Eproposals@gmail.com. Documents can be attached by email or provided in a DropBox link.

Questions can be sent to RAI2Eproposals@gmail.com. A FAQ will be compiled for the most common questions and posted/updated on this website: http://www.raifund.org/en/rsc/calls-for-proposals

Submission deadline: <u>Thursday 30 November 2017</u> at 11.59PM/23h59, Bangkok/Phnom Penh time (ICT).

Applications received after the deadline will not be accepted for review.