

THE MALAKIT KIT: AN INNOVATIVE STRATEGY FOR MALARIA PREVENTION AND CONTROL IN HARD-TO-REACH POPULATIONS IN THE GUIANA SHIELD REGION



SUMMARY

The Guiana Shield region has seen great progress towards the elimination of malaria in the past ten years. This is particularly true in the countries of **Brazil, Suriname** and **French Guiana**.

The number of malaria cases in Suriname dropped from 5800 per year in 2009, to only 75 in 2021.

Despite this progress, **remote and hard-to-reach populations in the region are still vulnerable to malaria**. These include migrant populations of gold miners, moving in and around remote regions of the Amazon rainforest.

In response to this issue, and to make malaria diagnosis and treatment more accessible to these populations, a simple and effective malaria detection and treatment kit called the Malakit has been developed.

Encouraging final results in assessing the use of the kit have prompted further research into how it can be further improved. This included interviews with users in the field and a redesign of the kit to improve its understanding and ease of use. The aim, overall, is to make the Malakit even more accessible to hard-to-reach groups, thereby helping to eliminate residual malaria in the region.

The final results of the interventional study showed that, among study participants:



71% used the kit correctly



73% used the appropriate treatment, following a positive test result



What is the Malakit?





This two-part kit contains everything a remote, mobile individual might need to self-test for and treat malaria. For this purpose it includes, three rapid diagnostic malaria tests, and a full course of antimalarial treatment. A new version of the kit is being developed to further tailor components to the needs of the target population.



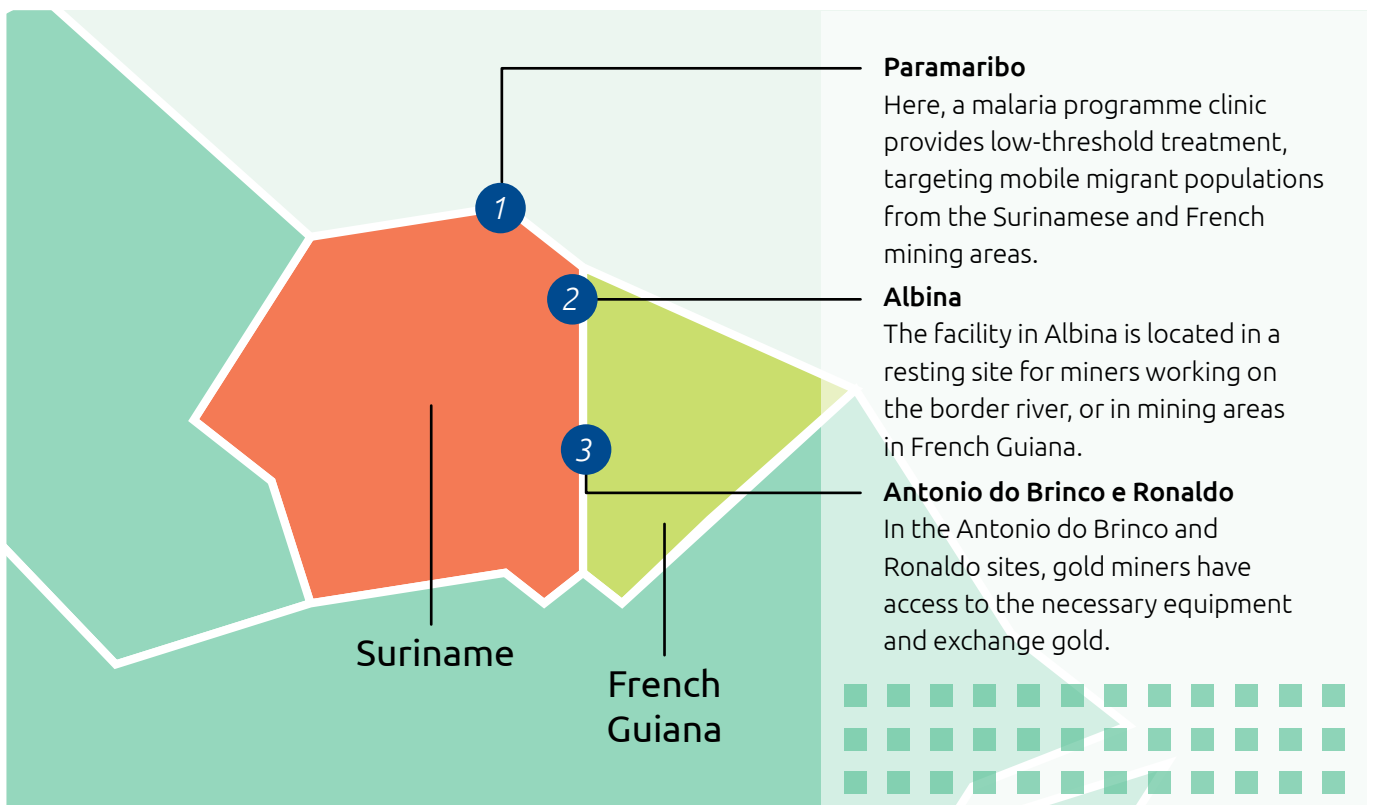
OBJECTIVES AND METHODS

The overall objective of the Malakit project is to increase the use of appropriate treatment after a positive test for malaria in order to eliminate residual malaria in the region and prevent the development of drug-resistant strains.

The Special Programme for Research and Training in Tropical Diseases (TDR) is supporting this project, which also aims to:

-  **1 Understand the local population's current behaviours and perceptions** of malaria, in order to communicate more effectively and improve knowledge on the topic
-  **2 Tailor existing training tools and generate new material** that is more responsive to the population's needs
-  **3 Identify and address challenges in the distribution of the Malakit**, in order to improve adherence to treatment and further scale the intervention
-  **4 Encourage discussion and strengthen regional partnerships** to manage residual malaria in hard-to-reach populations

Research for the Malakit project has been conducted at local Malaria Programme of Suriname facilities, located around resting sites for gold miners in the region.



PROPOSED APPROACH



1. Understand the local population's current behaviours, perceptions of malaria and use of the treatment.

This is achieved through several activities, including:

- **Qualitative research to assess the level of local knowledge** around malaria treatment, as well as the levers and barriers to compliance.
- **Development and improvement** of more adapted information, communication and education materials to be used in the framework of the upcoming CUREMA project.



2. Identify and address current challenges to the use and distribution of the Malakit, so as to improve and further scale the intervention.

A new extension of the Malakit, called CUREMA, aims to include a treatment for *Plasmodium vivax* (Pv), which is fast becoming the primary cause of malaria in the region. This treatment, however, has adverse effects for individuals with G6PD deficiency, a genetic disorder. Facilitators are therefore being trained to administer G6PD tests and evaluate the results before the treatment is included.



3. Encourage discussion and regional partnerships in order to manage residual malaria in hard-to-reach populations, and help to eliminate malaria in the region and beyond.

To this end, in 2022, an [international meeting](#) was held in Suriname to showcase innovative approaches to malaria control in mobile and hard-to-reach populations. The symposium brought together experts, technical agencies and health institutions working across the globe to share knowledge, strategies and tools for the fight to eliminate malaria in these vulnerable groups.



4. Release three educational videos to raise awareness around the treatment, prevention and management of malaria.

As part of the second phase of the project (CUREMA), three videos will be shared with the target population:

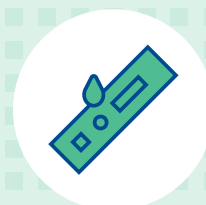
- Video 1 – Information on the challenges of malaria within the community and how it can be prevented.
- Video 2 – Step-by-step instructions on how to use the Malakit, with detailed information on how to treat and prevent malaria.
- Video 3 – Introduction to the CUREMA program and an invitation to participate.

POLICY IMPLICATIONS AND EXPECTED RESULTS

- 1 Use a community-based approach to **improve knowledge and develop impactful strategies and locally relevant training materials** to better control and manage residual malaria in other remote and hard-to-reach populations, worldwide.



- 2 Through the evaluation of the use of G6PD tests in the CUREMA intervention, **capacity can be increased to lead and manage more effective malaria-elimination interventions** in the Guiana Shield region.



- 3 Use additional evidence, and regional and global discussions, to achieve **more synchronised efforts in the bid to eliminate residual malaria in the Guiana Shield region and worldwide.**



This research brief encapsulates the planned interventions of the research project, *The Malakit kit: an innovative tool for malaria prevention and control in hard-to-reach populations in the Guiana Shield region.*

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This work is financially and technically supported by TDR (the Special Programme for Research and Training in Tropical Diseases), e Fonds europ een de d eveloppement r egional (FEDER), The Global Fund, Pan American Health Organization (PAHO), and the Ministry of Health (Brazil).