

Building Malaria Modeling Capacity in Sub-Saharan Africa

Request for Proposals

Applications due no later than January 13, 2022, 11:30 a.m. U.S. Pacific Time

Background

While mathematical modeling approaches have been used to understand malaria epidemiology and the potential impact of antimalarial interventions for some time, National Malaria Control Programs (NMCPs) across sub-Saharan Africa are showing a growing interest in working with modeling units to shape their National Strategic Plans and Global Fund applications, as well to evaluate the ongoing impact of control programs. Furthermore, R&D partners in the malaria space are also increasingly working with modelers as part of the product development process, using quantitative insights to shape target product profiles, plan trials, and understand the market for a given product.

At present, many of the malaria modeling units contributing to these efforts are based in academic institutions in the Global North. At the Bill & Melinda Gates Foundation, we believe that having local modeling expertise embedded within or easily accessible to NMCPs will improve programs' uptake of modeling as a strategic planning and evaluation tool, ultimately leading to improved data-driven decision-making by NMCPs. However, for this vision to be realized, the malaria modeling ecosystem across sub-Saharan Africa needs to be strengthened.

The Challenge

This RFP seeks innovative approaches to building a stronger malaria mathematical modeling ecosystem in sub-Saharan Africa. We are looking for 1 to 3 years projects that will achieve one or more of the objectives below:

- Increasing the number of Ph.D.-trained mathematical modelers with malaria expertise based at sub-Saharan African institutions
- Improving NMCP's understanding of and engagement with modeling approaches as a tool that can support strategic planning and/or evaluation work
- Connecting malaria Product Development Partners (PDPs) with sub-Saharan African modelers
- Bringing together discrete modeling units across sub-Saharan Africa to share expertise
- Improving modelers' access to timely, high-quality data

Funding level: up to USD \$1,000,000 per year for each project, with a grant term of 1 to 3 years depending on the scope of the project.

We are looking for proposals that:

- Are led by a PI based in sub-Saharan Africa (other global partners may be included). Teams comprising multiple African institutions will be given preference over applicants from single institutions
- Demonstrate at least 80% of the funding is going to sub-Saharan African institutions
- Focus on improving geospatial and/or mathematical modeling capacity for malaria (other related diseases may be included; for example, modelers may also work on vector-borne neglected tropical diseases)
- Articulate how the project will lead to impact in the near-term and how those benefits will be sustained past the lifetime of the project
- Demonstrate engagement with local and/or regional malaria decision-makers

We will not fund proposals that:

- Do not demonstrate that the majority of the work proposed will be undertaken by African scientists at African institutions
- Do not demonstrate a pathway to sustainable impact
- Do not engage local and/or regional malaria decision-makers
- Do not focus on expanding geospatial or mathematical modeling capacity