Malaria Anticipation Project (MAP)

Area/Type: Planetary Health, medical response, climate change
Sponsor/Support: ***MSF UK***
Length/Project Status: 18 months; **ONGOING**

MEDECINS SANS FRONTIERES
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Project Summary

Problem

Malaria related morbidity and mortality remain high in Low-resources countries. The current surveillance system limitations and rapid climate change underscore the need to anticipate malaria burden effectively. Malaria affecting 109 countries, with approximately 220 million cases and 400,000 deaths. In 2022, MSF treated over 4 million malaria cases in 37 countries.

Proposed Solution

Develop an Early Warning System (EWS) using predictive epidemiology and publicly available environmental data through machine learning. Built on 2.5 years of MSF-UK Sapling Nursery efforts, the project aims to improve decision making, timely intervention, targeted resource allocation, better coordination and community engagement to reduce malaria morbidity and mortality.

Potential Impact

- Reduce malaria attributable morbidity and mortality through anticipation.
- Improve MSF medical intervention and efficiency in operations
- Enable community and MOH participation in EWS

Viability

- Build on pilot results to inform predication and machine learning
- Integrate indigenous knowledge and practices in EWS prediction
- Engage stakeholders including field ops, community and Govt.

Risk Mitigation

- Use a phased approach and conduct risk assessments.
- Combine MSF in-house and external experts' knowledge
- Use a collaborative work approach with all stakeholders

Scalability

- Adopt methodology to various regions and testing from 2 countries (Lankien, South Sudan and Zamfara, Nigeria)
- Coordinate with medical, environmental and IT teams in toolbox design phase