



*The multisectoral initiative will support incorporating malaria activities with ongoing nutrition programming.
Photo by Mark Metzger / CRS*

Multisectoral Malaria Programming in Madagascar

TARGETING MALARIA-MALNUTRITION CO-INTERVENTIONS IN REMOTE COMMUNITIES

BACKGROUND

Catholic Relief Services (CRS) has been providing humanitarian and development relief for over 75 years. CRS provides a diverse development portfolio including agriculture, nutrition, education, humanitarian relief, and health, of which malaria elimination is a key aim. Multi-sectoral malaria programming is seen as a key approach by the WHO to meet global elimination goals. As a multi-sectoral agency CRS is well placed to test approaches of where and how multi-sectoral malaria interventions could help reduce malaria burden. CRS as a multisectoral agency has launched an ambitious 10-year strategic change platform (2020-2030) called Accelerating the End of Malaria through Multisectoral Approaches. This initiative seeks to answer new and important questions about malaria activities' ability to be linked to other programs.

Multisectoral action is about leveraging existing resources to better plan and design policies and activities so that they benefit sectoral as well as malaria reduction objectives. It is about identifying opportunities for co-benefits.

MALNUTRITION IN MADAGASCAR

In Madagascar CRS has been supporting multiple development projects including health and nutrition for over 20 years. Infant mortality, heavily affected by malnutrition, remains high at 40 per 1,000 births and has the 5th highest rate (47%) of chronic undernutrition in the world among children 6 to 59 months of age. CRS's nutrition work focuses on addressing the key factors that contribute to undernutrition, including infectious disease, nutrition and hygiene behaviors and improving access and availability to diverse and nutritious foods. CRS works closely with local leaders and communities to tailor activities that meet specific needs of each community. In rural areas of the country where CRS supports nutrition programs, high rates of food insecurity and chronic and acute malnutrition lead to increased concern about the widespread impacts of persistent malaria incidence.

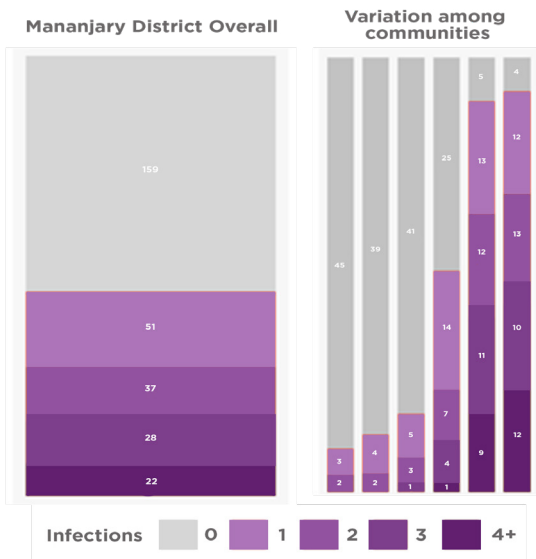
MALARIA IN MADAGASCAR

Concerningly, in Madagascar, malaria hotspots occur within communities with high risk for poor nutritional outcomes. There is therefore an opportunity for multi-sectoral efforts to coordinate monitoring for and response to malaria and nutrition burdens in these vulnerable areas.

Multi-sectoral efforts can provide a better understanding of the feedbacks between malaria and malnutrition and demonstrate optimal intervention strategies.

Preliminary data shows that malaria infection and nutritional deficiencies differ greatly between locales and differ rapidly over time within locales.

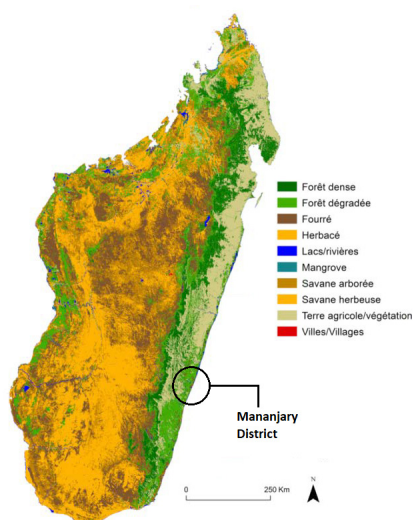
NUMBER OF HOUSEHOLDS WITH A GIVEN NUMBER OF MALARIA INFECTIONS



METHODOLOGY

The focus of this study will be rural communities in southeastern Madagascar (Vatovavy Fitovinany: Mananjary district). All individuals within households will be tested for malaria and malnutrition in order to monitor household level variables and to determine who is most at risk.

Land use in Madagascar



To this end, we have designed a program that allows rapid identification of underlying drivers and a targeted response to local malaria outbreaks as they are identified.

OBJECTIVES

1. Characterize potential mechanisms underlying the distribution of malaria risk and nutritional deficits
2. Deploy mobile clinic surveillance units
3. Demonstrate that progress towards malaria and nutrition goals can benefit from a multi-sectoral approach
4. Increase the capacity for disease and nutrition monitoring and response in Madagascar

FIELD METHODS

The project will deploy a suite of multi-method data collection and data analysis techniques that aim to rapidly and cheaply assess malaria and malnutrition risk. These techniques are incorporated into cost-effective, scalable protocols that a small team can use to assess multiple dimensions of malaria and malnutrition risk in multiple communities in parallel. To do this we will provide;

1. Malaria and anemia prevalence assessment and treatment:
2. Malaria mosquito vector ecology mapping
3. Community-led, tablet-based surveillance
4. Rapid nutritional status assessment and intervention

Lab Analysis

To characterize the potential drivers of malaria transmission in the sampled communities, and highlight them for intervention, laboratory analysis of disease burden and a target set of nutritional markers is needed to supplement the field data collected at the time of surveys. These potential drivers will include;

1. Malaria and mosquito vectors
2. Intestinal parasite burden
3. Nutritional markers

Capacity Building

Through partnerships and collaborations with the National Malaria Control Program (NCMP), local community health workers, and local clinicians, to share data collection and analysis techniques, provide trainings for students and scientists in public health, and provide improvements to infrastructure for local clinical capacity.

GOAL

By the end of this study we will be able to demonstrate the relationship between malnutrition and malaria within rural communities of Madagascar and show that cost effective multi-sectoral approaches can have dual benefits to meet malaria and nutrition goals.