

# TRANS KUNENE MALARIA INITIATIVE (TKMI): Partnering Cross Border towards Elimination

Authors: Constance Njovu,<sup>1</sup> Erin Stearns,<sup>1</sup> Jackie Park,<sup>2</sup> Matondo Alexandre,<sup>1</sup> Christopher Lourenço,<sup>3</sup> Susan Lassen,<sup>1</sup> S. Eliza Petrow<sup>1</sup>

1. JC Flowers Foundation, Isdell: Flowers Cross Border Malaria Initiative

2. Anglican Aids Programme, Namibia

3. Clinton Health Access Initiative (CHAI)



**In 2011, the Governments of the Republic of Angola and the Republic of Namibia agreed “to promote and implement a technical cooperation on the control of malaria among the Trans Kunene border regions creating an effective mechanism for malaria control and to achieve malaria elimination, beginning in northern Namibia, and eventually in southern Angola”.**

## WHY CROSS-BORDER APPROACH?

- A malaria parasite knows no borders: highly mobile populations who freely cross between porous borders contribute to the malaria burden and make elimination more complex.
- The majority of malaria cases in northern Namibia come from Angola, making cross border work essential to Namibia's elimination efforts.
- The TKMI area is inhabited by the Oshiwambo people who freely cross the border and share a culture, family, and parasites such as malaria.

**“TKMI recognizes the fact that neither Namibia nor Angola can eliminate malaria without cooperation from its neighbor”**

-Dr. Matondo Alexandre, TKMI Angola



Malaria Control Volunteers

## WHY ELIMINATION?

While malaria control programs are a critical first step in areas of high malaria prevalence and they save countless lives, elimination efforts must exist in parallel in less endemic areas in an effort to “Shrink the Map” and eliminate malaria from the margins- a long term elimination strategy advocated by the Roll Back Malaria Global Malaria Action Plan.

Further, malaria costs Africa US \$12 billion in lost GDP per year, including absenteeism, health care, and burden on families. Between 2000-2010 donors invested approximately \$US 13 billion in malaria programs. Donor dollars that are spent on malaria control each year could be directed to other causes once the disease is eliminated.

### Malaria control:

The reduction of the malaria disease burden to a level at which it is no longer a public health problem.

### Malaria elimination:

The reduction to zero of the incidence of infection caused by human malaria parasites in a defined geographical area as a result of deliberate efforts. Continued measures to prevent re-establishment of transmission are required.

### Certification of malaria-free status:

Granted by WHO after it has been proven beyond reasonable doubt that the chain of local human malaria transmission by Anopheles mosquitoes has been fully interrupted in an entire country for at least 3 consecutive years.

### Malaria eradication:

Permanent reduction to zero of the worldwide incidence of infection caused by a particular malaria parasite species.

(Source: WHO World Malaria Report 2012).

## TKMI APPROACH

The Trans Kunene Malaria Initiative (TKMI) recognizes that elimination cannot be achieved with bed nets alone and requires a continuum of interventions that extend cross border.

- To achieve elimination this program targets remote border communities in Angola/ Namibia with comprehensive interventions and invests in harmonizing services and policies between both governments.
- The majority of work is carried out in partnership with local health ministries, the Anglican Church and local non-governmental organizations (NGOs).
- Cutting edge technology such as RDTs and mapping by cell phone is employed in an effort to better target scarce resources.
- The Initiative trains Malaria Control Volunteers to deliver bed nets, participate in active surveillance, and provide BCC education to communities.

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## WHAT IS REQUIRED TO ACHIEVE ELIMINATION?

Malaria elimination is a realizable goal and we have the tools to eliminate. Elimination, however, is not as straightforward as malaria control and will require a continuum of interventions: from bed nets and community education to house to house active case detection and surveillance, indoor residual spraying, rapid diagnostic testing and

treatment. It will also require cooperation across borders given the mobile nature of both populations and mosquitos and the risk of importing the parasite across national borders. Elimination also requires high-level advocacy and commitment at national and global levels including strategic partnerships.

Malaria levels in the Trans-Kunene region 2011 & 2012

	Population	Malaria Cases 2011	Deaths caused by malaria 2011	Incidence (per 1,000)	Malaria Cases 2012	Deaths caused by malaria 2012	Incidence (per 1,000)
Cunene (Angola)	648,400	90,651	362	140	47,320	334	60.3
Oshana (Angola)	245,100	441	1	1.8	196	0	0.8
Oshana (Namibia)	242,900	729	2	3.0	410	0	1.7
<b>Total Trans-Kunene</b>	<b>1,592,700</b>	<b>91,821</b>	<b>365</b>	<b>58</b>	<b>47,926</b>	<b>334</b>	<b>30.1</b>



Namibia MOH Dr. Richard Kamwi and Angola MOH Dr. Jose Van Dunem at the TKMI Signing Ceremony, April, 2011

## TKMI METHODOLOGY

- Starting in 2011, 20 square kilometers on both sides of the border were targeted via community based malaria interventions including LLIN distribution; community education; trainings for Church leaders, malaria control volunteers and research assistants.
- Data was collected on a regular basis to evaluate the impact of the cross border program.
- Both governments agreed to the following:
  - harmonization of activities such as distribution of LLINs, IRS campaigns and larviciding;
  - removal of custom duties for malaria commodities i.e. LLITNs, IRS chemicals;
  - information sharing;
  - car identification for malaria workers to easily cross the TKMI borders;
  - identity cards for the malaria workers.

## PARTNERS

- The Coca Cola Africa Foundation
- Roll Back Malaria
- Malaria No More UK
- WHO
- USAID-PMI
- Clinton Health Access Initiative
- Global Health Group
- Harvard School of Public Health
- London School of Hygiene and Tropical Medicine
- University of Namibia
- Christian Aid
- Anglican AIDS Programme (Namibia)
- Anglican Diocese of Angola
- GBC Health
- E8 (Elimination 8)
- SADC (South African Development Community)

## RESULTS

- There has been a reported drop in malaria case burden in the TKMI areas.
- Angola reported a reduction in morbidity of 35% and a reduction of mortality of 20% in the Cunene province in the 2011 season.
- In the mirroring TKMI region in Namibia, Oshana, there was a reduction of morbidity of 47% in 2011-2012.



## DISCUSSION

- These results show cross border work is both critical to elimination of malaria and possible despite working between different national governments with language and cultural differences.
- Government buy-in and support is essential to the success of cross border initiatives and results achieved would not have been possible without cooperation across national lines.
- TKMI demonstrates best practices for surveillance and active case detection that can be shared with other countries in the region striving for elimination.

## CONCLUSIONS

- Programs for elimination must target communities on both sides of the border.
- Harmonization of interventions, government cooperation, surveillance and monitoring and evaluation are critical to the success of the program.