

Working with community malaria action teams (CMATs) contributes to malaria control

Ingabire Marie Chantal^{1,2,*}, Hakizimana Emmanuel², Kateera Fredrick², Rulisa Alexis², Rulisa Steven³, Mutesa Leon⁴

¹Department of Health Education & Promotion, Maastricht University, Maastricht, The Netherlands

²Medical Research Center, Rwanda Biomedical Center, Kigali, Rwanda

³University Teaching Hospital of Kigali, University of Rwanda, Kigali, Rwanda

⁴College of Medicine and Health Sciences, University of Rwanda, Kigali, Rwanda

INTRODUCTION

Maximization of existing malaria preventive measures through active community participation is a high priority for malaria control and elimination [1-3]. Elimination of malaria should not be the responsibility of health professionals alone. Rather health professionals should work with the community to promote their participation in malaria elimination initiatives [4, 5]. This brief shares findings from the Malaria Elimination Program for Ruhuha (MEPR). This program was funded by WOTRO (Netherlands Organization for Scientific Research/NWO Science for Global Development). It aims at showing the multifactorial conditions of malaria in a community and the role of community participation in the elimination of malaria. Specifically, the program worked with community malaria action teams (CMATs) to sensitize the community about malaria elimination and to identify and facilitate community-based solutions for malaria elimination.

KEY MESSAGES

CMATs contribute to malaria elimination by sensitizing communities about malaria control, identifying and facilitating community-based solutions and fostering a sense of community ownership.

*Corresponding author:

Marie Chantal Ingabire, MSc, PhD
Maastricht, The Netherlands
Tel: +250-788483210,
Email: cingabire7@gmail.com

(*On behalf of other MEPR research team: Van Den Borne B., Alaii J., Muvunyi C., Ingmar N., Mens P., Kempen L., Takken W., Koenraadt S., Van Vugt M.)
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Key Findings

- » Youth involvement in CMATs allowed peer dissemination of health information to high risk groups.
- » Involvement of local leaders strengthened the delivery of health messages to sector population.
- » Contribution to the health system via capacity building of a large group of community.

CMATs activities contributed to

- » The increase of community awareness on malaria transmission, treatment and prevention.
- » The increase of community acceptance of preventive measures (100 % coverage of indoor residual spraying conducted in April 2015).
- » The reduction of fever/malaria experience from 68% to 21.4% in 2013 and 2014 respectively.
- » The increase in health insurance ownership from 66.31% to 91% in 2013 and 2014 respectively.

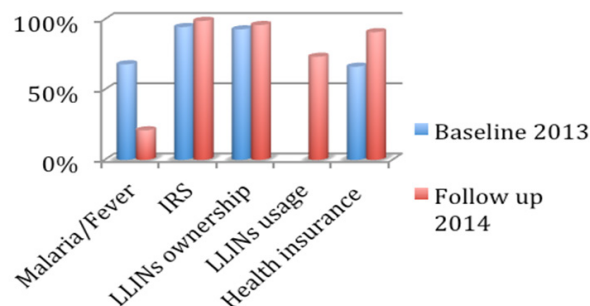


Figure 1. IRS: Indoor Residual Spraying; LLINs: Long-Lasting Insecticidal Nets

How CMATs were established

Ruhuha sector is divided into five cells with a total number of 35 villages. Each village had a CMAT, which was composed of three individuals: a village local leader, youth representative and community health worker. The total number was 105.

A meeting was held with CMATs to discuss their terms of reference, communication strategies, their initial plan of

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actions as well as the monitoring and evaluation strategy.

This section summarizes the key activities that were implemented as part of the community malaria elimination activities.

Selection and Training of CMATs

CMATs were selected in collaboration with MEPR team, Ruhuha health centre and Ruhuha sector and trained on malaria treatment and prevention including bed net use, Indoor Residual Spraying (IRS), elimination of mosquito breeding sites (rice fields and peri-domestic), larval and adults mosquito monitoring.

What CMATs did?

- » Identified local malaria related issues
- » Worked with the community to suggest solutions to the issues identified during community meetings
- » Organized home visits to promote the use of nets, acceptance of indoor residual spraying, clearance of breeding sites and ownership of a health insurance.
- » Participated in spraying against mosquito larvae in marshlands and across households.
- » Participated in mosquito monitoring
- » Tracked monthly activities and provided feedback to communities, health centers, health sector and research team.

Persistent barriers towards malaria elimination with community engagement

- » The perception that bed nets in households increased the risk of bedbug infestation
- » Specific groups (low socio economic status, males and children 6-15 years) less likely to use malaria preventive measures such as bed nets.
- » Malaria symptoms recognition and health insurance as strong predictors of prompt care seeking
- » CMATs required continued incentives to facilitate their work.

REFERENCES

- [1] President's Malaria Initiative: Rwanda Malaria Operational Plan FY2014. 2014.c
- [2] Atkinson J-A, Vallely A, Fitzgerald L, Whittaker M, Tanner M: The architecture and effect of participation: a systematic review of community participation for communicable disease control and elimination. Implications for malaria elimination. *Malaria Journal* 2011, 10:225.



Image 1. CMATs, KTNeT and MEPR Teams after MEPR research findings dissemination. Ready to share with respective communities.

"I learnt from them the benefits of sleeping under bed nets always; before I was not minding about using bed nets, and as a result my children were often having malaria; but when CMAT explained to me and emphasized proper use of bed nets, my children are no longer suffering from malaria" community member, Ruhuha

Policy recommendations

- » Scale up malaria related activities using open-wide community participation through engagement of village leaders and youth in addition to community health workers, to foster the sense of ownership and empowerment through collaborative efforts.
- » Adopt locally meaningful solutions in relation to the use of malaria preventive measures, e.g. targeting specific high-risk groups with specific messages such as recreational activities among youth in which malaria messages will be embedded.
- » Provide trainings and basic materials to enable the platforms to perform.
- » Implement a monitoring and evaluation strategy to inform effective implementation.
- » Adopt multiple strategies towards malaria elimination including community based larval source management among others.

- [3] Rwanda National Malaria Control Program: Rwanda Malaria Control Strategic Plan July 2013- June 2018.
- [4] Ingabire C, Alaii J, Hakizimana E, Kateera F, Muhimuzi D, Nieuwold I, Bezooijen K, Rulisa S, Kaligirwa N, Muvunyi C, et al: Community mobilization for malaria elimination: application of an open space methodology in Ruhuha sector, Rwanda. *Malaria Journal* 2014, 13:167.
- [5] Ingabire C, Rulisa A, Van Kempen L, Muvunyi C, Koenraadt C, Van Vugt M, Mutesa L, Van Den Borne B, Alaii J: Factors impeding the acceptability and use of malaria preventive measures: implications for malaria elimination in eastern Rwanda. *Malaria Journal* 2015, 14:136.

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