

Reversing the malaria upsurge in Uganda: The game-changing role of social and behaviour change

Geoffrey Ssenyumya,¹ Anthony Nuwa,¹ Samuel Ojok,² Eugene Odongo,² Tom Richards Opiyo,² Samuel Okot Obonyo,³ Isaac Wonyima Okello,³ Wilfred Komakech,³ Francis Abwaimo,³ Daudi Ochieng¹

¹ Malaria Consortium, Uganda

² Dokolo District Local Government

³ Nwoya District Local Government

Introduction

The prevalence of malaria in Uganda has reduced significantly, from 42 percent in 2009 to nine percent in 2018.^[1] However, in 2021, Uganda had the third highest global burden of malaria cases (five percent) and the seventh highest number of deaths (three percent). It also had the highest proportion of malaria cases in East and southern Africa at 23 percent in 2021.^[2] Between 2020 and 2021, the estimated number of malaria cases remained stable at 284 per 1,000 of the population at risk. The high prevalence of malaria contributes to morbidity and mortality, especially in children and pregnant women. Dokolo and Nwoya districts, specifically, experienced malaria upsurges shortly after the mass distribution of mosquito nets. This project rapid assessment aimed to determine how community-driven approaches can improve community engagement, in order to increase the use of mosquito nets and reduce the number of malaria cases during an upsurge in 2021. Social and behaviour change (SBC) interventions were implemented as part of Malaria Consortium's Strengthening Uganda's Response to Malaria (SURMa) project.

Methods

- The intervention was conducted in the Dokolo and Nwoya districts, known for their high malaria prevalence, especially among children and pregnant women.
- To gather quantitative data, we extracted malaria prevalence data from the District Health Information System 2 (DHIS2) to identify facilities with high rates of confirmed malaria infections. We used descriptive statistics to analyse the malaria prevalence data and make comparisons pre- and post-intervention.
- Qualitative data were collected from reviews of the facility registers to pinpoint the villages with the highest number of confirmed cases of malaria and understand the reasons behind the malaria upsurge. We conducted a thematic analysis on the feedback from community dialogues and facility register reviews to understand community perceptions and challenges.
- Malaria Consortium's SURMa project implemented SBC interventions including:
 - targeted home visits
 - community dialogues
 - dissemination of tailored messages through community radios, radio talk shows and other channels
 - demonstration and implementation of mosquito net hanging
 - intensified health education at health facilities and the community level during test-and-treat outreaches.
- Post-intervention data were collected to evaluate the effectiveness of the SBC interventions in reducing malaria prevalence in the targeted districts. This included data on mosquito net usage, environmental management practices and malaria positivity rates.
- All study participants provided informed consent, and the study was approved by the relevant ethical review boards. Confidentiality of participants was maintained throughout the study.

Results

Results of Malaria Consortium project rapid assessment :

- Malaria positivity rates dropped significantly post-SBC intervention: 55 percent to 16 percent in Dokolo and 41 percent to 14 percent in Nwoya within eight weeks.
- Mosquito net usage surged post-intervention: 30 percent to 70 percent in Dokolo and 37 percent to 69 percent in Nwoya.
- Over half of the households in both districts enhanced their environmental management to combat mosquito breeding post-intervention.
- The community dialogue approach garnered high participation, leading to an increased understanding of malaria prevention and a positive reception of SBC interventions.
- Despite initial community health worker challenges, medicine redistribution ensured that malaria treatment was accessible, with more households seeking early treatment for symptomatic children under five.

Reach:

- Total of 94,000 individuals in five sub-counties received malaria awareness messages through targeted outreaches, meetings and home visits. This includes 50,000 from three sub-counties in Dokolo and 44,000 from two sub-counties in Nwoya.
- Community-driven efforts in Dokolo reached over 140,000 individuals across 11 sub-counties, while in Nwoya, over 110,000 were reached in eight sub-counties.
- A massive outreach of over 600,000 individuals was achieved through radio campaigns in the Acholi and Lango sub-regions, with some radios reaching multiple districts.

Targeted interventions in Dokolo and Nwoya drastically reduced malaria prevalence, showcasing the power of community-driven health strategies



Lessons learnt

- Effective outreach requires a multi-faceted approach, combining home visits, community meetings and radio campaigns.
- Community-driven efforts can significantly amplify the reach and impact of health interventions.
- Radio remains a powerful tool for mass communication, especially in regions with multiple districts.
- Tailored messaging, based on regional needs and characteristics, enhances the effectiveness of awareness campaigns.
- Collaboration with local leaders and influencers can boost community engagement and participation.

Conclusion

The SBC intervention has demonstrated a transformative impact on malaria control in Dokolo and Nwoya districts. Through strategic community engagement, improved mosquito net usage and enhanced healthcare access, there has been a significant reduction in malaria prevalence. The success of this approach underscores the importance of tailored community-driven strategies in addressing public health challenges, especially in regions with high disease prevalence.

Supplementary visuals

Figure 1: Number of malaria cases before and after rollout of social and behaviour change activities

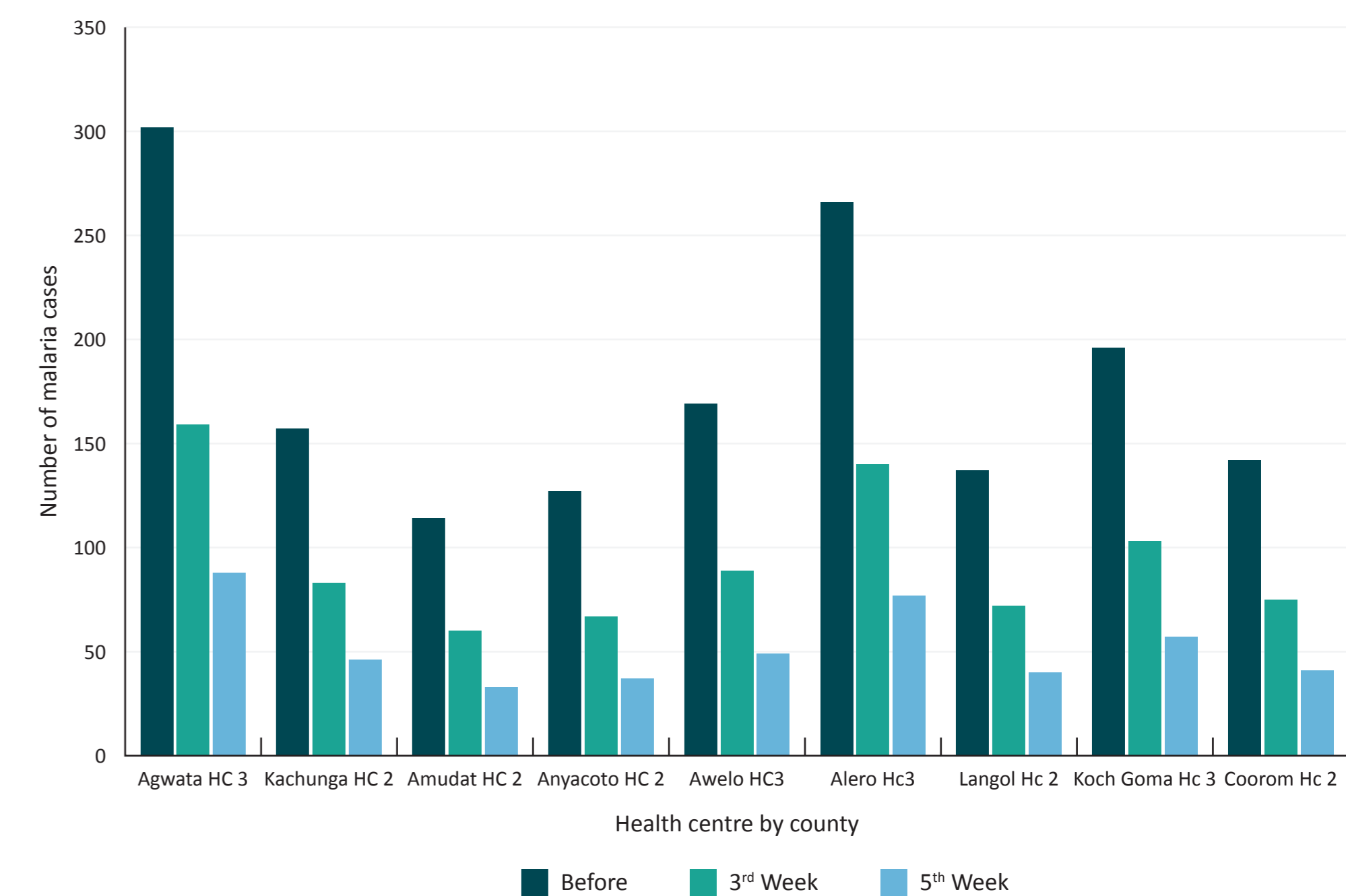
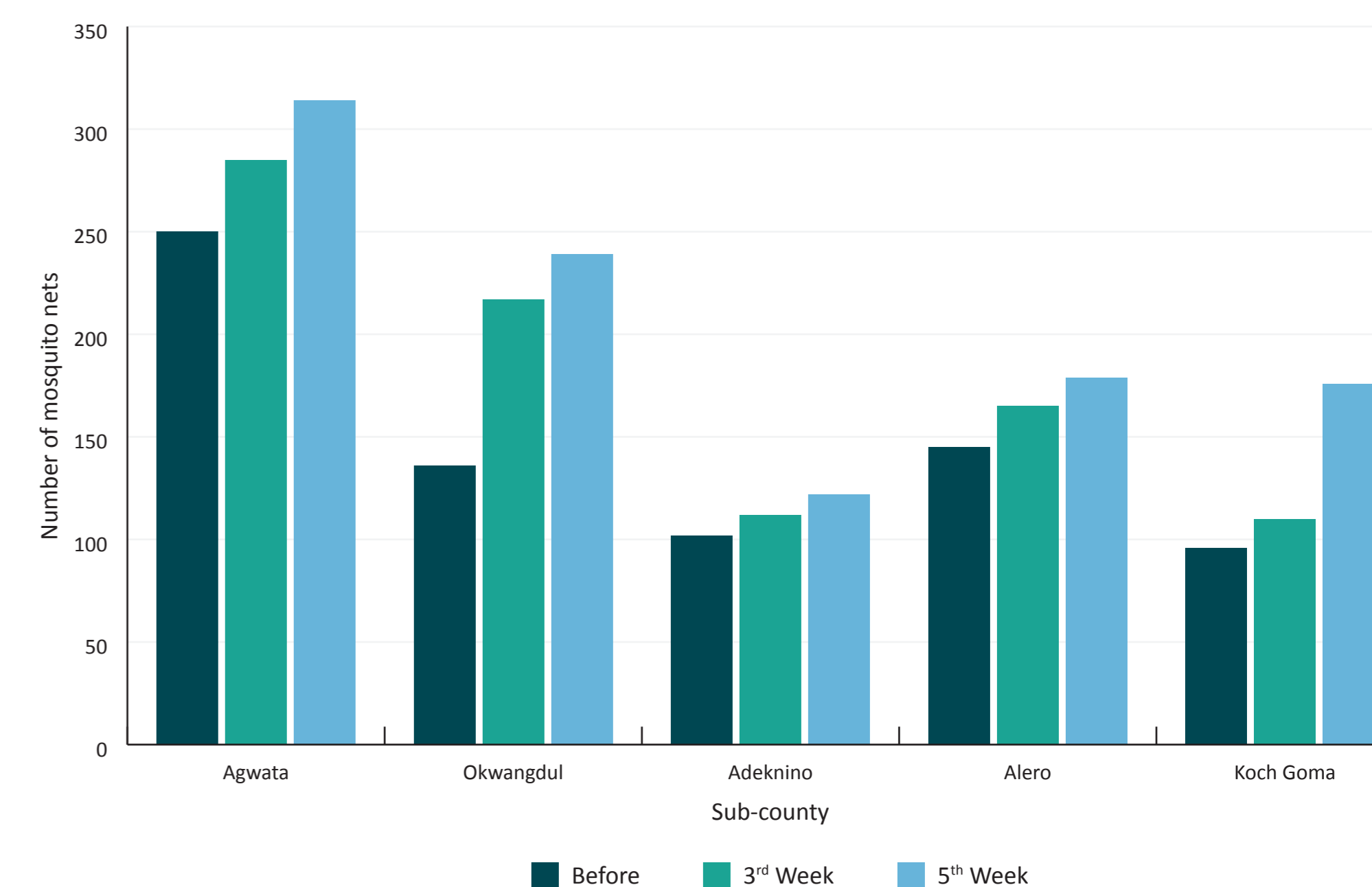


Figure 2: Mosquito net use in 100 randomly selected homes from five sub-counties before and after social and behaviour change activities (10 homes/village)



References

- Uganda Ministry of Health. Uganda Malaria Indicator Survey 2018–2019. Kampala: Ministry of Health; 2020.
- World Health Organization. World Malaria Report 2021. Geneva: WHO; 2021.