Plasmodium falciparum Malaria, Bed net Ownership and Utilization in Kwamgwe, Tanga, Tanzania

Debora Kajeguka¹ Emmanuel Mkumbo¹ Francis Mponela¹
Anna Kaaya¹ Robert Kaaya²

¹Kilimanjaro Christian Medical University College, Tanzania,
²Pan-African Malaria Vector Control Consortium, Tanzania

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Background

Malaria remains one of the most important Vector borne diseases imposing an enormous burden of suffering in Tanzania. Several interventions have been made to eliminate Malaria in Tanzania including use of insecticide-impregnated bed nets and artemisinin combination therapy. Nevertheless, malaria is still high in some parts of the country. We assessed the burden of malaria in terms of prevalence as well explored about bed net ownership and utilization.

Material and Methods

Three community based cross sectional surveys were conducted in June-2021, September-2021 and January-2022. A total of 457 participants were recruited. The study included children aged between 2-10 years and adolescents/adults aged 11-70 years. The study was conducted in four villages at Kwamgwe ward, Handeni-Tanga Tanzania.

A face-to-face interview were conducted. A pre-tested questionnaire was used to collect demographic information, bed net use, bed net ownership and factors for malaria exposure. The blood sample from the finger-prick was used to test malaria parasites using malaria rapid diagnostic test.

Results

The prevalence of malaria was 32.8% (150), 21.7% (99), and 22.1% (101) in cross-sectional 1,2 and 3 respectively. Seventy percent (106), 66.7% (66) and 68.3% (69) who were malaria positive (by MRDT) used a Insecticide-treated bed nets in cross-sectional 1,2 and 3 respectively, p<0.05.

Conclusion

This study highlight that Insecticide-treated bed nets usage were significantly associated with malaria positivity. In order to achieve malaria elimination, we advocate malaria campaigns targeting proper usage of Insecticide-treated bed nets in areas of moderate malaria Transmission.