

Beyond Garki: monitoring changes in the epidemiology of malaria in the era of large scale interventions

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In the past decade, a general downward trend in the burden of malaria has been reported worldwide, predominantly but not exclusively as a result of massive intervention scale-up. However, the trend is far from uniform. Thus to optimise intervention targeting and to prevent resurgence, it is essential to continue monitoring impacts of control strategies and the changing patterns of malaria, and to improve further our understanding of the factors driving transmission across a range of settings. Beyond Garki is a project led by Malaria Consortium to monitor long- and medium-term changes in the epidemiology of the disease within the context of the implementation of interventions, to assess necessary conditions to reduce transmission below its critical level, and to make recommendations that adapt prevention and control measures to observed changes.

Five sites, ranging from high transmission to pre-elimination settings, are being monitored in Uganda, Ethiopia and Cambodia, and more will be added from Nigeria, including areas monitored in related studies. The first surveys were conducted between September 2012 and February 2013. Household, malariometric and serological surveys were implemented in all sites to gather data on scores of important variables that will be monitored biannually or annually. Anaemia, stunting, morbidity and mortality data were collected together with coverage and use of interventions. Entomological surveys and drug efficacy studies were carried out in Ethiopia and Uganda, and data was collected on the situation of malaria in hard-to-reach migrant populations in Cambodia using response-driven sampling. Meteorological stations were set up to monitor climatic changes.

Preliminary results from the first survey will be discussed focussing on patterns of prevalence in relation to coverage and use of prevention and control measures, and observations in emerging transmission and morbidity patterns.

The increase in international support for scale up of interventions, and changes in demographic, socioeconomic, political, technological and environmental factors have had impacts on malaria, in addition to changes in vector and parasite populations, resulting in changing patterns of transmission. The inevitable interactions between these factors will necessitate periodic and timely changes in strategies. Beyond Garki will continue monitoring these changes to provide evidence-base to guide policies.