

Title: Maternal use of insecticide-treated nets in the prevention of malaria among children under five years in Nyamira District, Kenya

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Abstract: Malaria continues to be a major public health problem in most countries in the tropics and subtropics. In search for sustainable malaria control measures, studies have shown that the use of insecticide-treated-bed-nets is an effective malaria control strategy. However, although a lot of progress and promotion is being made, the World Health Organization has reported a very low usage of ITNs by mothers with young children. This prompted for a cross-sectional study aimed at determining the mothers' knowledge and use of insecticide treated nets in the protection of children under five years from malaria in Nyamira district, Kenya. Data was collected from 400 mothers who had children under five years using an interview guide, focus group discussions and observation checklists. The data were then analysed using statistical packages for social sciences (SPSS) and summarised using frequency tables and bar charts. Chi-square test and relative risk (RR) were used to determine the relationships between different variables and net acquisition and its use. Results from the study indicated that the use of mosquito nets and insecticide treated nets were very low being determined at proportions of 33.3% and 23.8% respectively. This was attributed to lack of money to purchase them, unavailability in the nearby shops/kiosks, forgetting to purchase, drunk husbands unwilling to purchase the nets, ignorance, dependence on parents to provide them and use of other mosquito repellents. Also most mothers did not treat/retreat their nets using insecticides, which was due to ignorance and lack of the insecticide. Approximately 63.7% of mothers were unable to define what malaria was; as for them it could cover a number of diseases. However, 91.8% (367/400) of the respondents associated malaria with mosquitoes. It was clear from the study that mothers were knowledgeable on malaria symptoms such as headache (70%), fever (68.8%), cold (65%), body/joint pain (61.5%) and abdominal pain/vomiting (0.5%). Their knowledge was associated with previous attacks and awareness created through radio turned in the vernacular language. However 59% (236/400) of the mothers did not identify children under five years as one of most vulnerable groups to malaria. The study showed that only 50% of the maternal child health clinics (MCH) had bed net/ITN posters mounted within their premises. In addition, health care providers in the MCH clinics did not inform and educate mothers on the use of insecticide treated nets for their children under five years. Fifty percent of the MCH clinics had bed net/ITN posters poorly positioned and hence, would not be easily seen and read. The majority of the women (63.8) who attended MCH clinics had never seen bed net/ITN posters. This was all attributed to absence of posters, poor positioning of the posters and some mothers did not know how to read which made it difficult to identify the posters. These results will assist in increasing and sustaining ITNs coverage. This, in addition will be useful to policy makers and programme developers in implementing projects on malaria control using ITNs