Exploring the Gap between Coverage, Access, Utilization of Long Lasting Insecticidal Nets (LLINs) among the People of Malaria Endemic Districts in Bangladesh

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Abstract: Introduction: Over the last decades, the world has achieved a noticeable success in preventing malaria. Nevertheless, malaria, a vector-borne infectious disease, remains a major public health burden globally as well as in Bangladesh. To achieve the goal of eliminating malaria, BRAC, a leading organization of Bangladesh in collaboration with government, is distributing free LLIN to the 13 endemic districts of the country. The study was conducted with the aim of assessing the gap between coverage, access, and utilization of LLIN among the people of the 13 malaria endemic districts of Bangladesh. Methods: This baseline study employed a community cross-sectional design triangulated with qualitative methods to measure households' ownership, access and use of 13 endemic districts. A multistage cluster random sampling was employed for the quantitative part and for qualitative part a purposive sampling strategy was done. Thus present analysis included 2640 households encompassing a total of 14475 populations. Data were collected using a pre-tested structured questionnaire through one on one face-to-face interview with respondents. All analyses were performed using STATA (Version 13.0). For the qualitative part participant observation, in-depth interview, focus group discussion, key informant interview and informal interview was done to gather the contextual data. Findings: According to our study, 99.8% of households possessed at least one-bed net in both study areas. 77.4% households possessed at least two LLIN and 43.2% households had access to LLIN for all the members. So the gap between coverage and access is 34%. 91.8% people in the 13 districts and 95.1% in Chittagong Hill Tracts areas reported having had slept under a bed net the night before interviewed. And despite the relatively low access, in 77.8% of households, all the members were used the LLIN the previous night. This higher utilization compared to access might be due to the increased awareness among the community people regarding LLIN uses. However, among those people with sufficient access to LLIN. 6% of them still did not use the LLIN which reflects the behavioral failure that needs to be addressed. The major reasons for not using LLIN, identified by both qualitative and quantitative findings, were insufficient access, sleeping or living outside the home, migration, perceived low efficacy of LLIN, fear of physical side effects or feeling uncomfortable. Conclusion: Given that LLIN access and use was a bit short of the targets, it conveys important messages to the malaria control program. Targeting specific population segments and groups for achieving expected LLIN coverage is very crucial. And also, addressing behavior failure by well-designed behavioral change interventions is mandatory.

Keywords: long lasting insecticide net, malaria, malaria control programme, World Health Organisation

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