ABSTRACT

A cross-sectional household survey on dengue transmission (KAP and larval survey) was conducted in 400 households of 4 selected clusters in urban area of Hpa-an in October, 2009. The study aimed to detect the determinants of knowledge scores of householders, and associations between container management practices, quality of breeding sites (location, presence of lid covers and shade) and larval indices: house index (HI), container index (CI) and Breteau Index (BI) and factors influencing key premises (households with â‰¥ 3 positive containers). Almost all 99.5% (398/400) of respondents ever heard of dengue. Around 89% (353/398) knew mosquito bite as major mode of transmission and 84.7% (337/398) knew that mosquitoes developed from larval stages. But only 23.1% (92/398) correctly mentioned the duration of development from eggs to adult mosquito as (5-10) days. Only 42.2% (168/398) could mention the local name of Aedes mosquito. Around 36% (144/398) answered incorrectly, unclear water as the breeding site of Aedes mosquito. Nearly 76% (302/398) knew proper covering of water containers, and changed water at least once a week (52%) can prevent breeding of mosquitoes. Highly significant associations with knowledge scores were found with education level of middle school and above, source of information from print media and health personnel. However, proper container management practices did not have any associations with high knowledge scores. Of 400 households, 42% (168/400) were positive with Aedes immature stages (HI = 42) but key premises were only 7% (28/400). Altogether 3172 containers were examined (CI = 9.0). Container indices were highest in water retaining discarded materials (CI-37.9) compared to other targeted containers. BI ranged from 39-98 across 4 clusters. Key premises were more likely in households with high percentages of outdoor containers but inconsistent with reported container management practices. The role of lid covers in reducing larval infestations was not prominent in this study. Key premises although few, required repeated and frequent inspections by trained persons so as to eliminate hot spots important in dengue transmission. Household members required adequate support to perform effective larval control measures. The role of traditional Stegomyia indices in evaluating current vector control services needed to reconsider for substitution with quantitative measurement of pupae count within available resources.