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Urban malaria and associated risk factors in Jimma town, south-west Ethiopia

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Malaria kills millions around the globe and until recently it was believed to be a disease of rural areas, since the *Anopheles* mosquito, which transmits *Plasmodium* species between people, breeds in stagnant waters. Urban malaria is emerging as a potential, but "avertable" crisis, in Africa. Malaria is also a leading public health problem in Ethiopia where an estimated 68% of the population lives in malarious areas. In Ethiopia, particularly in Jimma, there is scarcity of studies which could provide recent information on the prevalence of malaria. Therefore, the aim of this study was to estimate malaria prevalence and associated risk factors in Jimma town.

A cross-sectional study was carried out in Jimma town from April 1 to May 28, 2010. A total of 804 individuals from 291 households were included in this study. Blood samples were collected by finger prick; both thick and thin blood film was prepared, stained by Giemsa and examined by 100X objective of compound light microscope. All the data were entered and analyzed by using SPSS-15 database programme.

From a total of 804 study participants in current survey only 42 (5.22%) were positive for malaria parasites in which *Plasmodium vivax*, *Plasmodium falciparum* and mixed infection accounted 71.42% , 26.19% and 2.38%, respectively. Most of the respondents (71.8%) replied that *Plasmodium* is the causative agent of malaria and (67.4%) of respondents replied that malaria is transmittable disease. Large proportion of respondents (78.4 %) had awareness about breeding site of *Anopheles* mosquitoes, that is stagnant water, but 45.7 % respondents did not know the biting time of *Anopheles* mosquitoes. Variation of household socio-demographic variables did not show statistically significant association with malaria prevalence in the study area. Of different risk factors assessed, only presence of stagnant water and ITNs usage were statistically significantly associated with malaria prevalence in the study area.

Malaria is still a major health problem with *P. vivax* becoming a predominant species. Human activity plays a major role in urban malaria ranging from creating breeding sites, 'importing' cases, or through treatment-seeking choices. Solutions therefore, must also focus on human behavior.