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## Characterization of a Dengue Positive Population in Colombo Municipal Council (CMC) Medical Officer of Health (MOH), Colombo

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Dengue that has caused 29,777 suspected infections in 2015 has emerged the most challenging health issue faced in Sri Lanka. Approximately 51% of dengue infections are reported from the Western Province. The susceptibility of a population to dengue is influenced by a combination of socio-economic, environmental and epidemiological factors. The current study was conducted to characterize a population of dengue patients residing in a high dengue risk area in terms of their socio-economic appearance. An interviewer administrated questionnaire was used to collect information on the socio-economic aspects of a group of 140 randomly selected dengue positive patients residing in Colombo Municipal Council (CMC) Medical Officer of Health (MOH) area. Out of 140, a majority (63.6%, n=89) were females, while the age groups of 31-40 and 21-30 years were recognized as the most susceptible age groups for dengue. High proportion of the patients (79.3%, n=111) were having an educational level below secondary school (O/L) with a total family income below 20,000 LKR (80.7%, n=113). All the homesteads were smaller (<5 perch) in size, with small roads for access (77.1%, n=108) and/or a footpath (22.9%, n=32) as the access route. Majority of the households (69.3%, n=97) were temporary with moderate conditions (51.4%, n=72), that were mainly utilized for both residential and commercial purposes (63.5%, n=89) at once. In a majority of households' solid waste was disposed within 7 days (62.1%) via the Municipal Council or by keeping near the main roads (37.9%). Source separation of waste, home gardening and composting by the study population was minimal (n=137, 97.9%). Pipe water remained as the only water source while approximately 27.9% (n=39) households were lacking sanitary facilities. Use of mosquito coils and bed-nets were the most preferred mosquito biting prevention methods. Low educational level, income, poor living conditions and limitations in solid waste disposal methods were recognized as potential risk factors for high infection rates of dengue in this population. Special focus should be given to these key areas by the relevant vector controlling authorities in order to facilitate controlling of dengue outbreaks within the CMC area.

Keywords: Dengue, Socio-economic, Colombo Municipal Council

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