DEMOGRAPHICAL CHARACTERIZATION OF DENGUE INFECTED PATIENTS IN AKURANA MEDIAL OFFICER OF HEALTH AREA, CENTRAL PROVINCE OF SRI LANKA

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Dengue has been recognized to be one of the major threats on the public health of many tropical countries including Sri Lanka. Controlling of the high rate of mortality caused by dengue, which remains without being altered regardless of the immense efforts and control strategies of the relevant authorities, has remained as a major challenge for the Sri Lankan health sector. Vulnerability assessment of communities to dengue infection is of higher importance in drafting and implementation of management plans to ensure effective management and controlling of dengue epidemics at the regional scale. Therefore, a statistic based analysis of the dengue patient characteristics was carried out to determine the susceptibility of population to dengue infection in Akurana Medical Officer of Health (MOH) area. Monthly records of reported dengue cases from 2010 to 2014 of the Akurana MOH division were collected. Normal Chi square test coupled with Paired-Chi square test was devised to investigate the impact of sex and age on the infection. MINITAB (version 14.12.0) software package was used for statistical analysis. In accordance with the results of the normal Chi square test, the Percentage Infected Male: Female Ratio (PIMFR) remains significantly altered throughout the period of study (p=0.001<0.05 at 95% of significance). Males tend to indicate relatively high susceptibility for dengue infection than females (with 61.19: 38.81 of average PIMFER). The vulnerability of age groups for dengue infection was analyzed among different age groups as year 0 - 5 (8.18 %), 6 - 10 (18.89 %), 11 - 20 (33.85 %), 21 - 30 (17.19 %), 31 - 40 (7.98 %), 41 - 50 (9.59 %), 51 - 60 (2.48 %), and > 61 (1.84%). However, according to the Paired-Chi square test, the vulnerability of age groups tend to shift significantly throughout the study period [>X2 (7, 0.95) = 14.067]. In conclusion males tend to indicate relatively high susceptibility to dengue. Age groups of 6 - 10, 11 - 20 and 21 - 30 could be recognized as highly vulnerable age groups in the community for dengue, while age group of >61 emerge as the least vulnerable age group for the infection of dengue in the Akurana MOH.

Keywords: Dengue, Akurana, Infection.