

Spatial inequalities of elderly population and homes for the elderly in Sri Lanka: A statistical approach

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Sri Lanka is experiencing a period of rapid ageing, which increases the need of long-term care services in the country. Homes for the elderly have been an important alternative mechanism for dealing with the increase of elderly population in the country, with services supplied by a mix of for-profit and nonprofit providers. The study aims to ascertain the determinants of the geographical location of elderly population living in homes for the elderly in Sri Lanka. This study was based on secondary data obtained from the Department of Census and Statistics. It focused on spatial and statistical analysis tools to identify the concentration of elderly population and population characteristics and to estimate the determinants of availability and coverage of homes for the elderly in the country. The analysis was based on Dissimilarity Index, location quotient, location coefficient and Anova (Analysis of Variance) test. Both the Anova test and the dissimilarity index revealed a spatial inequality of the distribution of elderly population as well as the population in homes for the elderly. Especially the dissimilarity index value of 0.67 demonstrated a significant inequality of elderly population within the districts. Moreover, the Anova test results emphasized the same level of results in the 0.05 significant level. Further, the location quotient results exposed a different level of concentration of elderly population in homes for the elderly compared to the overall distribution of elderly population. The results revealed the clusters of homes for the elderly according to elderly population. Anuradhapura, Kurunegala, Kaluthara, Rathnapura and Galle demonstrate the highest values for homes for the elderly population compared to the overall elderly population. The results reveal the importance of proper regional planning of homes for the elderly to ensure equal opportunities. Further, the results can be used to enhance the quality of the service in homes for the elderly as well.

Keywords: *dissimilarity index, elderly homes, elderly population, location quotient*