

Spatial Patterns of Chronic Kidney Disease (CKD) of Unknown Etiology in Anuradhapura District

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Chronic Kidney Disease (CKD) of unknown etiology is a form of progressive, decreased kidney function and uniqueness of this disease is that its victims do not share the same history as other kidney patients who have had it either due to diabetes, high blood pressure, past snake bites or urinary tract infections. In the case of CKD, the kidney shrinks to a very small size. In recent years, a significant increase in patients of CKD has been observed in some parts of Sri Lanka, especially in North Central, North Western, Uva and Eastern Provinces.

Under this context, this study was carried out with special reference to Anuradhapura district with objectives to identify the spatial pattern in CKD patients in Medical Officer Health (MOH) area level and within "Medawachchiya" MOH area of Anuradhapura district in Grama Niladhari (GN) level and to determine the relationship between population and CKD patients during 2003-2012. Secondary data collected from Regional Director of Health Service Office in Anuradhapura district, MOH office and Deputy .Secretarie Office of Medawachchiyawas used for this study. The data analysis was mainly based on quantitative method and the ArcMap10 software version was used for that.

According to the findings, it could be observed that the number of CKD patients have gradually increased during 2009-2012 period than 2003-2008 period. It can be identified as a regular spatial pattern of CKD patient. While the Northern parts of the district can be considered as the extremely affected area, Southern parts of the district can be considered as less affected areas. Also, Western, Central and North Eastern parts of the districts are distinguished as intermediately affected areas from the CKD.

Furthermore, Medawachchiya is one of the highly affected MOH areas from CKD, but, a variation could be identified in GN level within the area as well. 1946 patients have been confirmed as total patients in Medawachchiya MOH area in 2012. Although there are 4 GN divisions – Mahadivulwewa, Puhudivula, Thammenna Elawaka and Yakawewa are shown as

highly affected, after normalizing these data by total population of each GN division, only MahaDivulwewa area can be considered as highly affected.

Key words: *Chronic Kidney Disease of Unknown Etiology; MOH Area; Spatial Pattern*

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