

## **Mapping the prevalence of non-communicable disease in Ghana: 2003 – 2007**

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Chronic non-communicable diseases (NCDs) continue to pose significant burden on the health system and economy of most developing countries. Differential access and utilisation of health services has perpetuated and increased this burden. Attaining effective health system intervention and individual level behavioural change to management disease burden is pivoted on spatial and temporal analysis. This study investigates the spatial and temporal prevalence of NCDs in Ghana using geospatial units and self-reported diagnosis framework. In particular, this framework can be used to understand the role and influence of contextual factors in the prevalence and the clustering of NCDs across geographical space. The study triangulates two nationally representative probability sample surveys: World Health Survey (WHS) 2003 and Study of Global Ageing and Adult Health (SAGE) 2007. The empirical analysis in this study focuses on geospatial location as a factor in prevalence and clustering of NCDs. The role any given socio-demographic factor plays in producing difference in the overall prevalence of NCDs is also adjusted for. The significant differential in density of health service delivery and facilities in favour of urban areas, education, occupation and other socio-economic determinants are the major drivers of clustering of NCDs across Ghana. Health system intervention that will drive equal access and utilization of health facilities will be distinctive in minimizing the burden of NCDs on the population.

**Key words:** Clustering, chronic disease, spatial analysis, and temporal analysis,