Spatial Patterns of Bilharzia in Ghana with Focus on Communities in Ga West District: A Spatio-Temporal Approach

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ABTRACT

Schistosomiasis, a tropical disease that currently affects about 200 million people worldwide with a population of 652 million at risk globally including Ghana. Even though schistosomiasis is known in Ghana to be an important infectious disease, its management has been problematic. Public health approach focused on preventive environmental management practices was recognised by experts to complement the usual practice of giving drugs to infected people. The approach adopted to study schistosomiasis in the municipality ranged from hospital data analysis, community awareness analysis to water contact analysis. An integrated spatial database showing locations of settlements, water bodies, roads, and water contact sites was developed. Questionnaires were administered randomly to selected localities in the Ga West Municipal Assembly to solicit information on the knowledge, attitude, and management of schistosomiasis in the municipality. Geographic Information Services was employed in modelling the study areas; one of such models was the slope and elevation model which gave a pictorial presentation of water contact sites. The model showed that all samples sites are topographically favourable for the formation of snail colonies. The Municipality was observed to be heavily troubled in terms of prevalence with schistosomiasis cases in Kojo Ashong as the hot spot. The research concluded by giving recommendation for the eradication of the disease in the municipality and Ghana at large. This includes; the need for intervention by Government of Ghana to address the problem by providing good drinking water and good sanitation facilities. It also recommended that sustainable behavioural approaches mainly through community education on schistosomiasis is needed urgently.

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