

Spatial analysis of Schistosomiasis in Endemic Communities in Southern Mindanao, Philippines

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Schistosomiasis remains a major public health problem in some endemic communities in the Philippines. The major endemic areas are located in agricultural areas and marshlands in the Southern regions in the country. Spatial analytical techniques are often used in epidemiology to identify spatial clusters in disease regions. This study assessed the spatial distribution of schistosomiasis and explores high-risk areas in Southern Mindanao to provide guidance on schistosomiasis control in the region.

In this study, spatial distribution using QGIS was utilized to describe and map spatial clusters and areas where human *Schistosoma japonicum* infection is prevalent. In addition, logistic regression model was used to determine the characteristics of spatial distribution. Results revealed that high prevalence was observed in areas near irrigations and marshlands. In addition, the knowledge, perception, and practice such as playing and helping in the rice field, presence of farm animals, and housing management of water buffalo showed significant association. The findings indicated that spatial surveillance of *S. japonicum* transmission plays a significant role in schistosomiasis control. Timely and integrated prevention should be continued, especially in marginalized endemic communities.