

Development of a framework for planning of emergency medical services location: a case of emergency obstetric care services in Kisarawe and Kinondoni districts, Tanzania

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The absence of basic emergency medical services (EMS) is a major impediment to rural and urban quality of life improvement in Tanzania. Moreover, the imbalance in EMS distribution patterns within rural areas may be significant, especially when government service provision objectives are related to delivery patterns. Two major factors are responsible for these. One, the absence of a coherent EMS location policy for the delivery of services and two, the lack of a normative framework for EMS facility location planning. The selection of EMS development sites involves a complex array of decision criteria including environmental, technical, economic, and social issues related to life saving. This research used the Emergency Obstetric Care services (EOC) as a case study to explore the criteria, location models, policies, frameworks and technologies used to support planning of the existing EOC facilities at district level. The framework developed proposes improved DHIS2 based GIS module to be used rather than adapting other separate software application to support spatial analysis. The framework developed simplifying and improving planning practices of location- based health services by integrating Multi-criteria Decision Making (MCDM) with GIS techniques. This study presents a new framework for planning emergency medical services location; where the optimal EMS location solution ensures the individuals' life is saved by having the quality service within proximity.