Malaria Risk Map for Jaffna District: a GIS Approach

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The transmission of malaria in Sri Lanka is unstable and fluctuates over the years with outbreaks occurring periodically. A drastic decline in malaria incidence has been reported in the island, including the Jaffna district during the last few years. Geographic Information System (GIS) is a powerful tool to overlay many factors to create disease-risk maps.A study was designed to create a malaria-risk map for the district of Jaffna. Secondary data of malaria incidence for the year 2000 and vector density, resident population, house type and Samurthi (government social aid) recipients were obtained from the Anti-Malaria Campaign and the Department of Statistics of District Secretariat in Jaffna. Digital map of land use pattern was extracted from the map of Department of Survey, Sri Lanka.The layers created for each factor associated with malaria transmission were overlaid in the Arc View GIS Software to create a malaria risk map. The map would help health authorities in Jaffna to prioritize risk areas for control activities in order to minimize the morbidity and mortality during an outbreak.