GIS Application In Health Data Management System For Disease Surveillance And Monitoring: Understanding Innovative Approaches In Data Development

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Presented at GeoHealth 2002
Victoria University of Wellington
December 3-5th 2002

ABSTRACT

The area of GIS and Public Health gained importance in recent times with the recognition in Public Health particularly in health surveillance practices and health service allocations need to become more sensitive to the needs of people in different geographic areas at various levels. The collection, storage and manipulation of geographic information has undergone a major revolution in the last few years with the application, development and widespread availability of GIS software. A large number of health professionals can benefit from further education in this area and with their new knowledge they can influence the progress of health surveillance, environmental health assessment and geographic allocation of health resources. GIS can perform rapid adoption in the case of health information systems - the increasing the efficiency in the availability of geo-coded health data; generate digital geographic files that facilitate different layers of geographic information; to determine the environmental exposure information and also use of different methods of spatial analysis with the application of GIS soft wares in a better manner since most of the modules are embedded in GIS. The present paper attempts to analyze the Disease pattern of Tuberculosis in India with the application of GIS techniques with special reference to Tamilnadu state in India. The Objectives of the study are as follows: To analyse the spatial variation on the distribution of TB in Tamilnadu with GIS operated cartographic databases. Creating multiple layers of information for different variables with reference to disease surveillance along with the application of GIS as a database management system will provide rapid analysis leading to local calculations of types of risk factors and also draw out spatial correlations under different social and environmental situations.