Geoinformatics & Geostatistics: An Overview

Opinion

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Geographical Information Systems and Health Care System

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Abstract

GIS use in health care is before identifying the barriers to more pervasive use of GIS in health making recommendations for the direction of health GIS research over subsequent decade and concludes with a call to action to health informatics researchers to prevent ignoring a tool and methodology that has such immense potential for improving the health of our communities. the appliance of geographical information systems (GIS) to health service planning & provision would appear a logical progression.

Keywords

Geographical, Health Care System.

Introduction

However, whilst the utilization of GIS publicly health & epidemiology (for example, to map incidence and prevalence of disease) is fairly well developed [1] the utilization of such technology's health service access, utilization and demand remains to be explored. When wont to the complete extent of its capability, GIS can "inform and educate (professionals and therefore the public); empower deciding in the least levels; help in planning and tweaking clinically and cost-effective actions, in predicting outcomes before making any financial commitments and ascribing priorities during a climate of finite resources; change practices; and continually monitor and analyse changes [2]. Benefits of applying GIS technologies, their use in health service planning and provision remains greatly underutilized.

A GIS may be a "computerized system that relates and displays data collected from a geographic entity within the sort of a map. the power of GIS to overlay existing data with new information and display it in colour on a display screen is employed primarily to conduct analyses and make decisions associated with geology, ecology, land use, demographics, transportation, and other domains, most of which relate to the human use of the physical environment [3]. GIS had been in development for over many years, it had been only then that such systems had become readily usable for those not extensively trained in their use. Their review 'On epidemiology and geographic information systems: a review and discussion of future directions [4]' specifically addressed the disciplinary crossover between GIS and public health and epidemiology. They provided a summary of GIS functionality in terms of knowledge storage, data capture, data retrieval and data display. They also identified variety of applications of GIS in health like the surveillance and monitoring of water-borne diseases, environmental health.

modelling exposure to electro-magnetic fields, predicting child pedestrian injuries and therefore the analysis of disease policy and planning, conducted an integrative literature review during this area that presented the results from nine articles. She found that GIS had been utilized in a good sort of health applications, which GIS had been shown to be effective in relating health outcomes to the extent of access to health care. GIS use in health access and planning usually relates on to analysing market segmentation and network analysis. That is, developing an understanding of the physical location of health services and therefore the distance and skill to travel between them. this is often a neighbourhood where GIS has been used extensively in both developed developing countries. Health GIS is additionally getting used in projects depicting key indicators of drug policy development over time general access & quality of services studies [5], developing a model for determining the acceptable means of trauma transport understanding the connection that proximity to medical care clinics has on health outcomes in an urban setting [6], nursing workforce distribution planning ,travel related health the supply of vision services sledding injuries, trauma management, injury research and modeling ambulance response times [7].

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