The Roles of Geographic Information System on the Distributional Pattern of Health Care Facilities in Ilorin, Kwara State of Nigeria

By

Jimoh, H.I. and Azubike, J.O.
Department of Geography and Environmental Management
University of Ilorin, Nigeria

Abstract

This work is on the assessment of the distributional pattern of health facilities using GIS in Ilorin, Kwara State of Nigeria. The locations of 79 health care facilities which consist of hospitals, clinics and pharmacies were ascertained using Global Positioning System (GPS) and their addresses were collected from the Ministry of health to create a database using Microsoft excel. Parameters such as ownership and category were also included in the database. The analogue map was collected from geospatial solutions ltd. ArcGIS 9.3, was employed in analyzing these data. The database created was imported from Microsoft excel to ArcGIS environment where attribute data was linked to the spatial data. The linking of these two types of data made it possible to examine the spatial distribution of the facilities which in turn revealed their patterns. A query was conducted to ascertain the healthcare facilities that are privately owned. The creation of zones of interest also known as buffering was carried out to determine the facilities that are within 1km walk. Finally, after analyzing the data, the healthcare facilities were seen to be unevenly distributed. The facilities were concentrated in the core indigenous areas of Ilorin. This spatial distribution of healthcare facilities in Ilorin gave rise to a nucleated pattern. This therefore means that since the health service providers cluster at a point, people needing the health services will have to travel through all forms of stress to utilize the health services. Thus, the location of subsequent health facilities should be encouraged to spread out so as to minimize the friction of distances to the health seekers.

Keywords: *Roles, GIS, Spatial Pattern, Healthcare Facilities, Ilorin, Nigeria*