

A Dynamic predictive model for efficient emergency health care centre placement and resource allocation: a case of Kenyan healthcare system

Titus Tunduny

Faculty of Information Technology, Strathmore University, Nairobi, Kenya.

Health is one of the cardinal areas of focus for a functioning society and is one of Kenya's goals for the Vision 2030 goal. Kenya lacks an effective healthcare system, falling way below the recommended ratio of 23 healthcare practitioners for 10,000 people, with the current ratio of 17 per 100,000. Limited resourcing and poor placement of hospitals further compounds to the marginalization of some communities, some of whom are greatly disadvantaged and make great candidates for terror sympathizers. The constitution of Kenya (2010) devolved healthcare management to the county governments, but there is lack of an efficient framework/ model that can aid in the placement of the healthcare centers and first level POC for emergency situation, coupled with the resource allocation to operationalize them. This proposed research aims to develop a neural network model that can identify and place healthcare centers to areas of need, while also identifying the resourcing needs and capacitation for the healthcare centers.

Keywords: Kenya; Healthcare; Emergency; Vision 2030.