

Urban growth modeling for new healthcare service location: case study on shiraz metropolitan area

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Abstract

Statement of the Problem: According to the World Health Organization (WHO), “the world urban population is expected to grow approximately 1.63% per year between 2020 and 2025, and 1.44% per year between 2025 and 2030”. Rapid and often unplanned urbanization leads to conditions that affect human health in a negative way. One of the most important services that can be encountered with deficiency in number and disparity in distribution are hospitals. Therefore, it is necessary to have a precise plan to increase the number of these facilities concurrent with urban population growth. Shiraz as a main center for health related service in south and west south of Iran, had experienced rapid growth in recent decade in demand for new hospital and health care service with fair access is a necessary need for citizens and contiguous regions.

Methodology & Theoretical Orientation: Urban as dynamic phenomena need to monitor to distinguish the physical growth. RS and GIS help to analysis and

simulate urban area. MCDM as decision making approach help to known main factors and criteria in urban growth and also urban service efficient. This study used of them to model urban growth, explore main factors for healthcare sit selection in Shiraz urban region for new hospital location.

Findings: Most of Shiraz residents has not fair access to hospital and healthcare service. Most of hospitals clustered in Shiraz CBD and new regions and neighbor's population access to healthcare service need to pay more time and cost.

Conclusion & Significance: Considering the views of experts, the standards of the Ministry of Health and the criteria used in related studies, study determined and prioritized comprehensive list of criteria for the allocation of an appropriate location for hospitals. Then, the open-access path to the hospital and light density has achieved the highest priority for the construction of a hospital.