
Factors affecting the technical efficiency of rural primary health care centers in Hamadan, Iran: data envelopment analysis and Tobit regression

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Studying and monitoring the efficiency of service providers in the health system has a special place and although studies have been conducted in this field in Iran, but so far a study that examines the efficiency of rural health centers by data envelopment analysis and determining the factors affecting The inefficiency of these centers has not been done in Iran

The aim of present study was estimate the technical efficiency of Health houses and ascertain factors that affect this efficiency. This is a Longitudinal study of rural primary health care centers in Hamadan province (2002-2016). Data Envelopment Analysis was employed to estimate technical efficiency of sampled health facilities while Panel Tobit Analysis was applied to predict factors associated with efficiency levels. The outputs were child mortality rate under one year of age and child mortality rate one year to five years of age. The input was Behvarzes (rural health workers). The results of efficiency analysis showed that the average efficiency scores of the centers had a fluctuating trend during the period of the study, but the average performance scores generally decreased in 2016, as compared with 2002. Number of physicians and rural primary healthcare centers per population had a positive statistically significant and the number of midwives and the total fertility per population had a negative statistically significant effect on efficiency. The findings suggest some level of wastage of health resources in primary health centers.. Behvarz functions in providing primary care services can be considered in the reallocation and optimal use of available resources at the level of rural health centers.

Keywords: Resource Allocation; Efficiency, Organizational; Regression Analysis; Primary Health Care; Rural Health Services.

Biography:

He was born in 1989 in Mashhad. I received a bachelor's degree in health service management from Isfahan University of Medical Sciences. After that, I received a master's degree in health services management from Mashhad University of Medical Sciences. I am currently a PhD student in Health Economics at Iran University of Medical Sciences.