

## Aim of Achieving Citizens' Equal Access to Health Care Centers (Case study: Ardebil City)

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### Extended Abstract

#### Introduction

Equality in distribution of health facilities is one of the main indicator for increasing the availability of the general health index to the society. So, equitable access to health services for all people in a community leads to promote health and equal opportunities in the society. DEA is a non-parametric method to estimate the technical efficiency of DMUs from a database contains input-output; and by virtue of the unique features in different fields of science has penetrated. Therefore, DEA methods used in various fields such as education systems, health, agriculture, transportation and logistics. Thus, in evaluating the efficiency of space, we have included a broad scope for performance evaluation; (Assessment of human development countries), (ranked in terms of human development indicators); (evaluating the performance of development programs), (the performance of municipalities), (the efficiency of urban projects and evaluation of urban lines). The aim of this study is the evaluate of equity in health by assessing people's access to health centers using the Geographic Information System (GIS) and data envelopment analysis (DEA) in Ardebil (with Descriptive and analytical Methods).

#### Methodology

DEA methods used in various fields such as education systems, health, agriculture, transportation and logistics. Thus, in evaluating the efficiency of space, we have included a broad scope for performance evaluation; (Assessment of human development countries), (ranked in terms of human development indicators); (evaluating the performance of development programs), (the performance of municipalities), (the efficiency of urban projects and evaluation of urban lines). Data Envelopment Analysis (DEA) is a mathematical technique used to evaluate the efficiency of a productive units group, called Decision Making Units (DMUs). DEA involves the use of Linear Programming (LP) models to determine the relative efficiency of each DMU. A group of DMUs represents productive units that, with the same targets and with the use of the same kind of resources (inputs), generate products (outputs). ). DEA is one of the useful tool in understanding decision-making milieu, with the primary information processing. Thus, provided the spatial index with taking advantage of the GIS. Hence, will be evaluated the access quality of the ARDEBIL citizen's to health centers by using of the spatial indicators in the structure of CCR-O model.

#### Results and discussion

According to the results, the average efficiency of the urban core is the 0.45. Among the urban cores of Ardebil, only the three core of urban Have the perfect efficiency and scale efficiency (Includes a range of SHOHADA Square, SHARIYATI and 15 KORDAD, and SHAHRIYAR neighborhoods, AZADEGAN and the GARAPACHE garden and the area around SHORABIL). In Division of the efficiency to 3 categories in format of Quite efficient ( $1 = \mu$ ), acceptable ( $0.7 \leq \mu$ ) and unacceptable ( $0.7 \geq \mu$ ), areas in about 1,000 hectares with a 30 thousand residents of South-Central corridor position

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with over 6.5 km Have the perfect and acceptable efficiency; of the total area of 6031 hectares and 421069 spectators of urban cores.

### Conclusion

Equality in distribution of health facilities is one of the main indicator for increasing the availability of the general health index to the society. So, equitable access to health services for all people in a community leads to promote health and equal opportunities in the society. The aim of this study is the evaluate of equity in health by assessing people's access to health centers using the Geographic Information System (GIS) and data envelopment analysis (DEA) in Ardebil (with Descriptive and analytical Methods). DEA is one of the useful tool in understanding decision-making milieu, with the primary information processing. Thus, provided the spatial index with taking advantage of the GIS. Hence, will be evaluated the access quality of the ARDEBIL citizen's to health centers by using of the spatial indicators in the structure of CCR-O model. According to the results, the average efficiency of the urban core is the 0.45. Among the urban cores of Ardebil, only the three core of urban Have the perfect efficiency and scale efficiency (Includes a range of SHOHADA Square, SHARIYATI and 15 KORDAD, and SHAHRIYAR neighborhoods, AZADEGAN and the GARAPACHE garden and the area around SHORABIL). In Division of the efficiency to 3 categories in format of Quite efficient ( $1 = \mu$ ), acceptable ( $0.7 \leq \mu$ ) and unacceptable ( $0.7 \geq \mu$ ), areas in about 1,000 hectares with a 30 thousand residents of South-Central corridor position with over 6.5 km Have the perfect and acceptable efficiency; of the total area of 6031 hectares and 421069 spectators of urban cores. The average efficiency of the urban core is the 0.45. Among the urban cores of Ardebil, only the three core of urban Have the perfect efficiency and scale efficiency (Includes a range of SHOHADA Square, SHARIYATI and 15 KORDAD, and SHAHRIYAR neighborhoods, AZADEGAN and the GARAPACHE garden and the area around SHORABIL).

**Key words:** Equity in Health, Geographic Information System (GIS), Data Envelopment Analysis, Ardebil City