XXII JORNADAS ECONOMÍA DE LA SALUD

THE IMPORTANCE OF SPATIAL EQUITY IN HEALTH CARE

A.L. Godoy-Caballero [1] L.R. Murillo-Zamorano [1]

[1]University of Extremadura, Department of Economics, Badajoz, Spain

anagodoycaballero@unex.es

Introduction

In 1985 the World Health Organization established a set of targets. The first of them, related to equity in the health care, established:

> *"By the year 2000, the actual differences in health status between countries and between groups within countries should be reduced by at least 25%, by improving the level of health of disadvantages nations and groups"* (WHO, 1985).

Since then, health is viewed as a basic human right and its comprehension becomes one of the most important social targets. In this sense, as pointed out in Hall and Taylor (2003) there is a need for a change in the delivery of healthcare services. Moreover, this change should emphasise equity and access to health care at an affordable cost while providing appropriate curative services.

Despite the fact that a lot of attention has been paid to it, even today there still are significant differences between countries and between regions within a country. The general observed pattern is that those people with the greatest needs for medical care are the least probable to receive a high standard of services (Whitehead, 1992). In order to avoid this, and therefore get an equitable health care, it is important to account for these differences.

When defining equity, a lot of dimensions have been considered. In this sense, a big amount of research has been focused on aspects related to finance, others have paid attention to differences due to gender, race, etc. However, less research exists related to the disparities concerning geographical aspects.

In this research we will consider that dimension of equity. Therefore, the objective of it is to, according to the main existing literature, analyse the importance of Spatial Equity (SE) in the delivery of health care.

Concepts involving Spatial Equity

The study of spatial equity includes the consideration of two main concepts: Equity and Access. Some of the definitions presented on the literature are exposed below:

EQUITY (**social justice**):

• Kinman (1999): equity refers to a fair distribution of services according to needs; given that there will be people who require more services than their equal share (equality).

• World Health Organization (WHO): it is concerned with creating equal opportunities for health while trying to reduce health differentials to the lowest possible level.

• Anselin and Talen (1998): it focuses on "determining what factors account for, or are correlated with, territorial variation in service delivery". This concept is related, to some extent, to spatial equity.

•Whitehead (1992): equity is related to three main aspects; (i) equal access to available care for equal need (accessibility), (ii) equal utilization for equal need (quality) and (iii) equal quality of care for all (acceptability).

ACCESS:

When defining access a lot of researchers have agreed with the importance of considering a series of **dimensions** that affect how much patients use the health care services, facilitating or preventing them from obtaining those services.

• Bureau of Health Planning (1979): access is related to the ability of individuals to get the available resources. This ability is influenced by economic, cultural or geographical aspects, among others.

• Haynes at al (1998): factors concerning the access to health care are related to overcome costs, time constraints, social inconveniences and psychological barriers when travelling to hospitals, such as distance. However, a more interesting way of explaining those dimensions is explained in Gualiardo (2004). He points out the existence of five dimensions divided as follows:

Aspatial Aspects	Spatial Aspects
✓ Affordability ✓ Acceptability ✓ Accommodation	✓ Availability ✓ Accessibility

***SPATIAL EQUITY*: it refers to the fact that all the patients should be equally treated regardless of where they live (Tsou et al., 2005). There are three implicit ideas in the concept of spatial equity (Aday and Andersen, 1981):**

1. **The consideration of health as a right.**
2. **The concern of scarcity of available resources for allocating health care.**
3. **The consideration of health policies which should use just mechanisms when allocating resources.**

As a summary of all the definitions studied, we can establish that SPATIAL EQUITY DEALS WITH A FAIR PROVISION OF HEALTH SERVICES BASED ON THE GEOGRAPHIC ASPECTS WHICH CHARACTERIZE PATIENTS.

Evidence on Spatial Inequities

Although the literature considering the geographic aspects of equity of access has not been as copious as the literature analysing other dimensions of it, some researches have examined the current disparities that many patients have to face in order to obtain health care.

These studies have been performed in developed countries (Tsou et al., 2005; Jordan et al., 2004; Haynes et al., 1999) as well as in developing countries (Rosero-Bixby, 2004; Perry and Gesler, 2002); for different specialities (Jones et al., 1998); etc. Although their characteristics in terms of population analysed, methodology used, etc. can be very different, the results obtained are sometimes very consistent.

In this sense, these studies show that, generally, most of the areas analysed face important physical barriers as a consequence of the existing inequities when acceding to health care. The literature also reveals that some progress can be made to improve the situation.

For example in Perry and Gesler (2002) some measures are proposed in order to make health care more accessible to a population characterized for having a extreme topography and a disperse and rural population. In Rosero-Bixby (2004) a developing country is analysed, showing the improvements in spatial equity achieved as a result of a reform in the health system.

Probably the most interesting results emerge when the populations being analysed are disperse or/and rural. Those populations have to travel long distances when acceding to health services and they are normally associated with less developed areas. Although some evidence (Jordan et al., 2004) have found no differences between urban and rural areas, these cannot be generalized, especially when, for instance, rurality has been considered as an approximation of inaccessible.

Given these disparities the Declaration of Alma Ata created the Primary Health Centres (PHC), as a way to obtain a comprehensive, universal and affordable health system for all countries (Hall and Taylor, 2003). PHC in the spatial context will bring health care closer to where people live.

However and according to the evidence sometimes these systems has not worked as it should as some disparities still remain in many countries. Nevertheless, as pointed out in Benyousseff and Christian (1977) if we have to choose between PHC and nothing the option is clear.

Conclusions

The studies examined have provided evidence about the existing disparities among the countries. Although solutions have been proposed, we cannot linger on that step. It is important to know if those solutions work, because as it has been shown enhancements can be made to the health systems. If we do not account for this aspect, we will live an inequitable society which could be harmful in many aspects, for instance, economically, socially, psychologically and physiologically (Braveman and Tarimo, 2002).

Therefore, we can establish that an effort can be made in those countries and regions with an unequal distributed health care. If we do that, we will be able to provide a more equitable service with an optimal access, which as Roger et al. (1999) mention can be achieved it by offering the best service at the right time in the right space. This fact would allow us to; ultimately, provide a better service with a better quality perceived by patients.

REFERENCES:

Aday, L. A., and Andersen, R. (1981). Equity of Access to Medical Care: A Conceptual and Empirical Overview. *Medical Care , 19* (12), 4-27.
Anselin, L., and Talen, E. (1998). Assesing Spatial Equity: an evaluation of measueres of accessibility to public playgrounds. *Environment and Planning* , 595-613.
Braveman, P. and Tarimo, E. (2002). Social inequalities in health within countries: not only an issue for affluent nations. *Social Science & Medicine*, 54, 1621-1635.
Benyoussef, A., and Christian, B. (1977). Health care in developing countries. *Social Science & Medicine* , 399-408.
Bureau of Health Planning (1979) in Khan, A. A., and Bhardwaj, S. M. (1994). Access to Health Care: A Conceptual Framework and its Relevance to Health Care Planning. *Evaluation & the Health Professions* , 60-76.
Guagliardo, M. F. (2004). Spatial accessiblity of primary care: concepts, methods and challenges. *International Journal of Health Geographics* , 1-13.
Hall, J. J., and Taylor, R. (2003). Health for all beyond 2000: the demise of the Alma-Ata Declaration and primary health care in developing countries. *MJA , 178*, 17-20.
Haynes, R., Bentham, G., Lovett, A. and Gale, S. (1998). Effects of distance to hospital and GP surgery on hospital inpatient episodes, controlling for needs and provision. *Social Science and Medicine*, 425-433
Jones, A. P., Bentham, B. D., Harrison, B. D. W., Jarvis, D., Badminton, R. M. and Wareham, N. J. (1998). Accessibility and health service utilization for asthma in Norfolk, England. *Journal of Public Health Medicine*, 20 (3), 312-317.
Jordan, H., Roderick, P., Martin, D. and Barnett, S. (2004). Distance, rurality and the need for care: access to health services in South West England. *International Journal of Health Geographics*, 3:21
Kinman, E. L. (1999). Evaluating health services equity at a primary care clinic in Chilimarca, Bolivia. *Social Science and Medicine* , 663-678.
Tsou, K.-W., Hing, Y.-T., and Chang, Y.-L. (2005). An accessibility-based integrated measure of relative spatial equity in urban public facilities. *Cities* , 424-435.
Perry, B. and Gesler, W. (2002). Physical access to primary health care in Andean Bolivia. *Social Science & Medicine*, 50, 1177-1188.
Roger, A., Flowers, J. and Pencheon, D. (1999). Improving access needs a whole systems approach. *British Medical Journal*, 319, 866-867.
Rosero-Bixby, L. (2004). Spatial access to health care in Costa Rica and its equity: a GIS-based study. *Social Science & Medicine*, 58, 1271-1284.
Whitehead, M. (1992). The concepts and principles of equity and health. *Health Promotion International* , 217-228.
WHO. (1985). *Targets for Health for All (European Health for All Series No. 1).* Copenhagen: WHO Regional Office for Europe.

Acknowledgements
Ana Luisa Godoy-Caballero is grateful for the FPI grant obtained by the *Gobierno de Extremadura* (Decreto 146/2010, de 2 de julio, DOE nº 130, de 08/07/10).