A model to measure the efficiency of hospital performance

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Abstract

The establishment of specific and thoroughly researched criteria to evaluate hospitals’ activity is very important because there is a huge and increasing amount of public resources dedicated to healthcare. Therefore, it is necessary to design a system to evaluate healthcare performance in order to discover and improve potential inefficiencies. With this goal in mind, the purpose of this paper is to analyse efficiency in three healthcare service units in Valencian hospitals to establish appropriate guidelines for efficiency performance.

Three healthcare service units of 22 hospitals in the Valencian Community (East Spain) with a waiting list higher than average were selected (general surgery, ophthalmology, traumatology–orthopaedic surgery). In this study, a non-parametric methodology, known as the DEA model [Data Envelopment Analysis], was used along with two efficiency indexes which were specially designed. Discriminant analyses proved the effectiveness of these two indexes, therefore the indicators are an easier and effective methodology for measuring efficiency than the DEA Model. In addition, the discriminant analysis offers a function which classifies new health services as efficient or inefficient.

In conclusion, this paper offers tools for evaluating the performance of hospital activity which are useful for both hospital management and health administration controlling hospital performance.

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1. Introduction

One of the basic objectives pursued by most countries is to improve their health system both in terms of quality services and efficiency and the extent to which its resources are put to good use.

So one fundamental reason to promote research into the efficiency of publicly financed hospitals in the Valencian Community is the need to establish the bases for the best distribution and use of healthcare resources (optimum planning) and to detect the set of problems of various kinds which affect their efficiency and capacity to offer top-quality services to the population [1].

The current Spanish health system came about as a result of the General Health Law in 1986 and the old Healthcare Social Security model gave way to the National Health System model. Since then, this new system has been financed by general taxes and offers practically universal coverage.

Since the General Health Law came out, the Spanish Healthcare System has undergone profound changes, of which the most outstanding has been the transfer process to the Spanish Autonomous Communities (AC), which concluded in 2002 [2].

In the Valencian Community, the change introduced was the private management of certain health districts, known as “Administrative Allowance”. That is, public financing is maintained but a private insurance company manages the healthcare district (Department). The management agreement (Administrative Allowance) is allocated by public bidding.

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