

**Do economies of scale exist in the Portuguese hospital sector?**Céu Mateus<sup>1</sup>, [Helda Azevedo](#)<sup>1</sup><sup>1</sup> Escola Nacional de Saúde Pública, Lisboa, PORTUGALContact: [helda\\_azevedo@hotmail.com](mailto:helda_azevedo@hotmail.com)

**Objectivos (Objectives):** Driven by the current pressure on resources due to budget cuts, the Portuguese Ministry of Health is changing the management model and organization of NHS hospitals. The most recent change is based on the creation of Hospital Centres that are the result of administrative mergers of existing hospitals. In less than 10 years the number of hospitals was reduced from 90 to around 50 institutions, without necessarily a change in the number of existing physical structures. According to the political discourse, one of the main goals expected from this measure is the creation of synergies and a more efficient use of available resources. However, the merger of hospitals has been a political decision and not based on the support or evaluation of the first experiments. The aim of this study is to measure the results of this policy by looking at economies of scale, namely through reductions in expenditures, as expected and sought by the MoH.

**Metodologia (Methodology):** The data used covers 7 years (2003-2009) and 75 hospitals, a number that has been reduced by the numerous mergers during the last decade. This work uses a stochastic frontier analysis through the translog cost function to examine the gains from mergers, using technical efficiency and economies of scale. These effects were analyzed when considering the creation of three specific hospital centres, using a longitudinal approach to compare the pre-merger period (2003-2006) with the post-merger period (2007-09). The function selected allowed us to compare it to previous studies done in Portugal: Paiva (1993), Carreira (1999), Franco (2001), Lima (2003), Menezes et. al (2006). To measure inpatient care, the volume and length of stay are considered as done by Vita(1990) and Schuffham et. al. (1996). For outpatient services, the number of consultations and emergencies are considered (Vita, 1990, Fournier e Mitchell, 1992, Carreira, 1999). Total variable costs are the dependent variable as used in the above-mentioned studies.

**Resultados (Results):** After a review of the literature the expected results point to benefits from the mergers, namely a reduction in total expenditure and in the number of duplicated services. Preliminary results extracted from our data point in the same direction, which seem to justify the existence of some economies of scale.

**Conclusões (Conclusions):** Economies of scale exist in Portuguese hospitals when they are small in size.