



## Letter to editor: about the impact of Public Hospital Unions (PHUs) on the efficiency of hospital in Turkey

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Şahin and İlgün analyze the efficiency of hospital under the Ministry of Health (MoH) before and after implementation of Public Hospital Unions (PHUs) or associations at the provincial level in Turkey [1]. The study which examines the impact of PHUs on hospital efficiency makes an important contribution to the literature. However, it is considered to be useful to make some explanations about the methodology of this study and to evaluate the results accordingly.

In this study, the provinces were selected as decision-making units to evaluate the efficiency of hospitals. In 2012, eighty-nine PHUs were established in Turkey provided that there would be at least one in each province. Considering the size of the service, multiple PHUs were established in several cities (6 in Istanbul, 3 in Ankara and 2 in Izmir) [2]. Therefore, analysis of hospitals at the provincial level may lead to overlook the PHUs performance. Also after 2012, all MoH hospitals were not brought together under the umbrella of PHUs. Hospitals affiliated to “Public Hospitals Administration of Turkey” gathered under the umbrella of PHUs. However, small-scale integrated county hospitals which were managed by the “Public Health Institution of Turkey” were excluded from the PHUs. For example, 159 out of 854 hospitals in 2013, 171 out of 866 hospitals in 2014, and 173 out of 865 hospitals in 2015 were outside of the PHUs umbrella [3]. Therefore, all MoH hospitals should not be taken within the scope of the study.

In this context, using the same data set taken from MoH Directorate General for Health Information Systems, analysis of the PHUs was conducted for 2014–2015. The efficiency of

PHUs was analyzed according to the BCC method and Malmquist Total Factor Efficiency Index. The efficiency score averages of all PHU hospitals were found to be 0.91 at the provincial level. This shows that there is a minor change between the MoH hospitals score (0.90) and the score of the PHUs hospitals (0.91). However, at province level, there is a moderate change in Afyonkarahisar (9), Sivas (7) and Erzincan (6) provinces where there are more integrated county hospitals outside of the PHU umbrella. The efficiency scores of the PHUs were found to be 0.85 instead of 0.82 in Sivas; 0.88 instead of 0.85 in Afyonkarahisar and 0.82 instead of 0.76 in Erzincan. There was no major change in other provinces. As a result, if 89 PHUs were chosen as a decision-making unit (DMUs) instead of 81 provinces, a more healthy assessment before and after the PHUs could be made.

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