

Do Differentiated Wages Improve Polyclinics Performance in Kazakhstan?

Yelzhas Kadyr¹

Abstract

This paper evaluates the impacts of differentiated wage system on polyclinics performance of Kazakhstan. I used data for 259 polyclinics for 2014 and compared their performance with polyclinics which did not implement the differentiated payment system based on their efficiency scores. Using data from Ministry of Health and Social Development of Kazakhstan it is possible to see the differences of two types of polyclinics, with and without differentiated wage system. There are two stages of analysis. In the first stage efficiencies of polyclinics will be measured by using Data Envelopment Analysis (DEA) with bootstrapping method. Inputs in the DEA method are number of physicians and number of nurses. DEA outputs are number of polyclinic visits and number of home visits. Using inputs and outputs I estimated efficiency scores for each polyclinic. In the second stage, the effects of organizational and environmental variables on efficiency are analyzed. After estimating efficiency score Tobit regression is used to determine what environmental factors can affect polyclinics performance. The independent variables are location, differentiated wage, population with disabilities, health budget, capacity, and type. The differentiated wage is dummy variable and results of the regression analysis shows significance of differentiated wage system on polyclinics efficiency. In this study I am interested in the hypothesis of whether the polyclinics with differentiated wage system are more efficient or not. The results suggest that wage differentiation has negative effect on efficiency scores.

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¹ Nazarbayev University, Kazakhstan