

## Health Reforms in Central and Eastern European Countries: Results, Dynamics, and Outcomes Measure

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**Abstract :** Background: A number of approaches to assess the performance of health system have been proposed so far. Nonetheless, they lack a consensus regarding the key components of assessment procedure and criteria of evaluation. The WHO and OECD have developed methods of assessing health system to counteract the underlying issues, but they are not free of controversies and did not manage to produce a commonly accepted consensus. The aim of the study: On the basis of WHO and OECD approaches we decided to develop own methodology to assess the performance of health systems in Central and Eastern European countries. We have applied the method to compare the effects of health systems reforms in 20 countries of the region, in order to evaluate the dynamic of changes in terms of health system outcomes. Methods: Data was collected from a 25-year time period after the fall of communism, subsetting into different post-reform stages. Datasets collected from individual countries underwent one-, two- or multi-dimensional statistical analyses, and the Synthetic Measure of health system Outcomes (SMO) was calculated, on the basis of the method of zeroed unitarization. A map of dynamics of changes over time across the region was constructed. Results: When making a comparative analysis of the tested group in terms of the average SMO value throughout the analyzed period, we noticed some differences, although the gaps between individual countries were small. The countries with the highest SMO were the Czech Republic, Estonia, Poland, Hungary and Slovenia, while the lowest was in Ukraine, Russia, Moldova, Georgia, Albania, and Armenia. Countries differ in terms of the range of SMO value changes throughout the analyzed period. The dynamics of change is high in the case of Estonia and Latvia, moderate in the case of Poland, Hungary, Czech Republic, Croatia, Russia and Moldova, and small when it comes to Belarus, Ukraine, Macedonia, Lithuania, and Georgia. This information reveals fluctuation dynamics of the measured value in time, yet it does not necessarily mean that in such a dynamic range an improvement appears in a given country. In reality, some of the countries moved from on the scale with different effects. Albania decreased the level of health system outcomes while Armenia and Georgia made progress, but lost distance to leaders in the region. On the other hand, Latvia and Estonia showed the most dynamic progress in improving the outcomes. Conclusions: Countries that have decided to implement comprehensive health reform have achieved a positive result in terms of further improvements in health system efficiency levels. Besides, a higher level of efficiency during the initial transition period generally positively determined the subsequent value of the efficiency index value, but not the dynamics of change. The paths of health system outcomes improvement are highly diverse between different countries. The instrument we propose constitutes a useful tool to evaluate the effectiveness of reform processes in post-communist countries, but more studies are needed to identify factors that may determine results obtained by individual countries, as well as to eliminate the limitations of methodology we applied.

**Keywords :** health system outcomes, health reforms, health system assessment, health system evaluation

**Conference Title :** ICAHNHAM 2018 : International Conference on Adult Health Nursing, Health Assessment and Management

**Conference Location :** Tokyo, Japan

**Conference Dates :** September 10-11, 2018