

# Inequality and Inequity in Financing Out-of-Pocket Health Expenditures: An Applied Econometric Approach

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#### **Extensive Summary**

#### 1. Introduction

Poverty alleviation strategies have been on top of the agenda of policymakers and practitioners in health care (Atun et al., 2016). Because of the close relationship between economy and health system, an effective health system is essential for developing a strong economy (Leach-Kemon et al., 2012). Simultaneous poverty alleviation strategies supported by strong health and economic policies have helped in reducing poverty and improving the health status (Atun et al., 2016). Health care reforms that took place in several countries during the past decade have led to improvement in health outcomes and helped in creating an equitable financing system (WHO, 2005). Out-of-pocket health expenditures have shown an increasing trend in the course of recent years. To fight against this increasing trend of out-of-pocket health expenditures, policymakers have focused on and implemented health transformation programs (HTPs) to reduce such payments (Shen and McFeeters, 2006) Within the wave of the health care reforms that took place in several countries, Turkey had initiated its own health reform in 2003 (Atun et al., 2013). Developing countries such as Turkey should make it a priority to improve their health care services. Current evidence states that in Turkey, the impact of government expenditure on health has a positive effect on the economic growth (Yılmaz, 2013). A rapid decline in poverty parallels with a growth of middle-income class, and the access to basic services such as health and education has been improving in Turkey. Significant changes in the health system were initiated since the establishment of the Health Transformation Program (HTP) in 2003 (Yardım et al., 2014). The primary aims of this transformation program were to improve the effectiveness and the efficiency and to establish equality of access to health care services and unification of health financing system (Yilmaz, 2013). Previous evidence state that out-of-pocket health expenditures has a progressive pattern in Turkey.

However, there is a deterioration in progressive pattern of out-of-pocket health expenditures (Yardım et al., 2014). To the best of our knowledge, existing previous literature provide a lack information about distributional pattern of out-of-pocket health expenditures in Turkey after health reforms about unification of health financing system. This study conducted to fill this void by analysing distributive pattern of out-of-pocket health expenditures under the effect of current reforms in Turkey.

### 2. Methodology

Data came from Turkish Statistical Institute (TURKSTAT) Household Budget Survey for the years 2003, 2009 and 2015. Descriptive statistics, index and curve approaches are used together to determine the level of households contribution to the health financing system. All expenditure variables are deflated by using 2003 as a base year. Sampling weights are provided from TURKSTAT to enable national representation of the dataset. Out-of-pocket health expenditures are used to calculate Gini and Concentration indices in terms of inequality. The level of departure of Concentration curve from Lorenz curve examined to determine the level of equity in the distribution of out-of-pocket health expenditures.

## 3. Findings

Study findings show that, mean out-of-pocket health expenditures have an increasing trend for the years 2003, 2009 and 2015. It is seen that, mean out-of-pocket health expenditure per household was 16.44 ₺ for the year 2003, 25.46 ₺ for the year 2009 and 54.49 <sup>‡</sup> for the year 2015. Gini index results indicate a decreasing trend in the level of inequality in distribution of out-of-pocket health expenditures [2003 (0.75), 2009 (0.71) and 2015 (0.69)]. Moreover, there exist a progressive pattern in terms of distribution of out-of-pocket health expenditures considering departure of Concentration curve from Lorenz curve. The level of departure of Concentration curve from Lorenz curve is decreasing from 2003 to 2015. In other words, the level of progressivity is decreasing from 2003 to 2015 and there exist a deterioration in the level of progressivity in terms of distribution of out-of-pocket health expenditures. Study results show that there is a difference between poor and rich population groups in terms of burden of outof-pocket health expenditures. Overall, study findings show that, health financing system regulations have a decreasing effect on inequality in health financing system in terms of distribution of out-of-pocket health expenditures. However, there is a decrease in the level of progressivity and the burden of out-of-pocket health expenditures increasingly come on the shoulders of vulnerable groups.

# 4. Conclusions

The results of this study provide a revealing picture of the increasingly regressive pattern of out-of pocket health expenditures in Turkey. It is hoped that, this study constitute a basis for further studies to examine and eliminate wide gaps among households from different wealth status. It is advisable for future studies to analyse the level of inequality and inequities by focusing chronic diseases and continues monitoring of inequality and inequity trend of out-of-pocket health expenditures in Turkey is necessary.