



How Does the Increase in Health Expenditures Affect Main Health Indicators?

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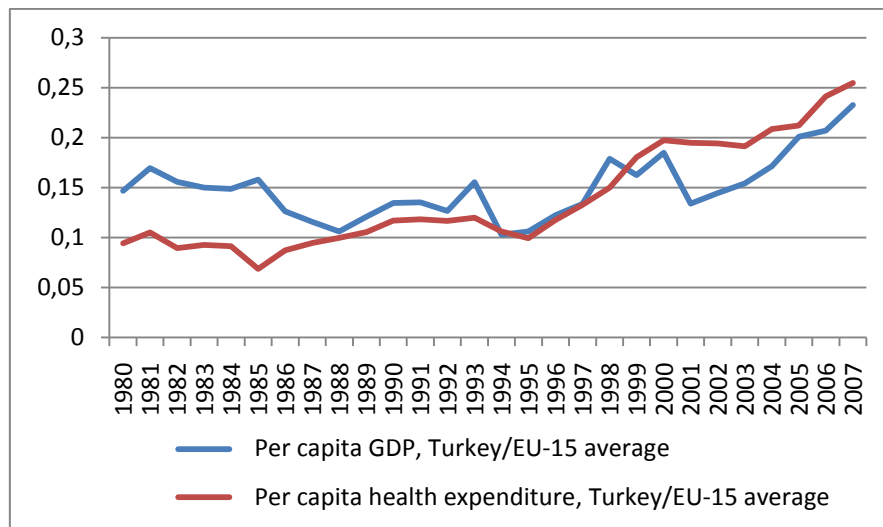
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Turkish health system has recently been going through a transformation process. This process was dominated by the reforms attempted before 2003 and the “Transformation in Health” program initiated in 2003. Health expenditures tend to increase along with the changes in the health system. In fact, the mentioned upwards trend in health expenditures can be traced back in 1995. Main health indicators are commonly used to assess the efficiency of health expenditures and the performance of the health system. This research examines how the health expenditures and leading health indicators over the last three decades changed in comparison with EU-15 countries and other selected countries and reveals that Turkey converges to the EU-15 average considering both expenditures and indicators.

1. After 1985, pace of increase in per capita health expenditures for each year exceeded the EU-15 average. Pace of increase in health expenditures was the highest in 1995-2000 period whereas a slowdown was observed in 2000-2003 period. Expenditures tended upwards again after 2003. As of 2007, per capita health expenditures in Turkey correspond to 26% of the EU-15 average while per capita GDP reached 23% of the EU-15 average.

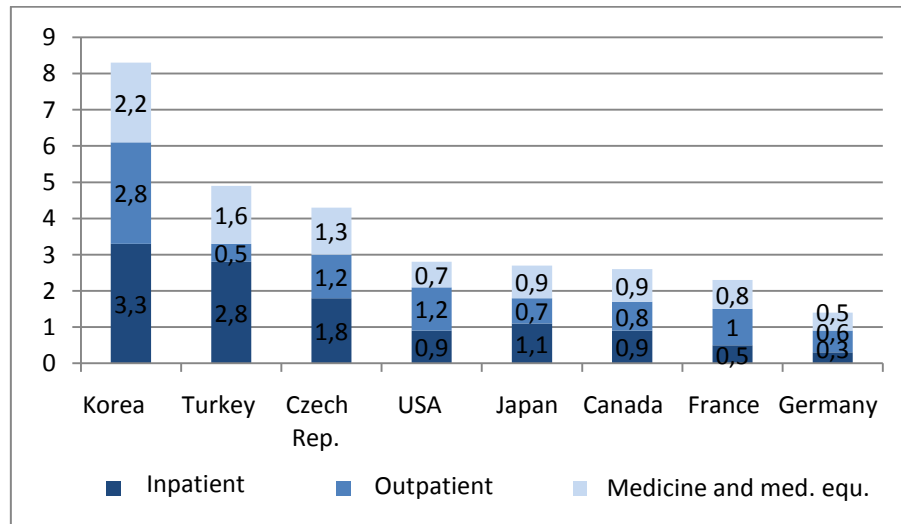
Figure 1. Per capita health expenditures and GDP, Turkey/EU-15 average (1980-2007)



Source: WHO-HFA Database and Ministry of Health Statistics 2008.

2. Although there are a number of factors that have a role in the increase in health expenditures, three main components, mainly out-patient treatment, inpatient treatment and expenditure on medicine and medical equipments are generally examined.¹ Medicine expenditures, which proved relatively steady compared to the previous periods, showed a rapid increase over the recent years in many countries. From 1995 to present, total per capita health expenditures in OECD countries rose annually by 4 percent whereas medicine expenditures increased by 4.6 percent. Expenditures on medicine make a growing contribution to the increase in total health expenditures over the recent years while the main component is still treatment services. Recently in many countries, inpatient treatment expenditures tend to be replaced by outpatient treatment expenditures. Nonetheless, such a trend cannot be observed in case of Turkey and the number of patients applying to hospitals continues to rise rapidly. While the number of hospital applications tends to remain steady and even decrease since 1980's in EU-15 countries, applications in Turkey keeps increasing. Therefore, in 1995-2006 period, inpatient treatment expenditures made the biggest contribution to the rise in per capita health expenditures

Figure 2. Composition of elements that affect the annual average pace of increase in per capita health expenditures (1995-2006)



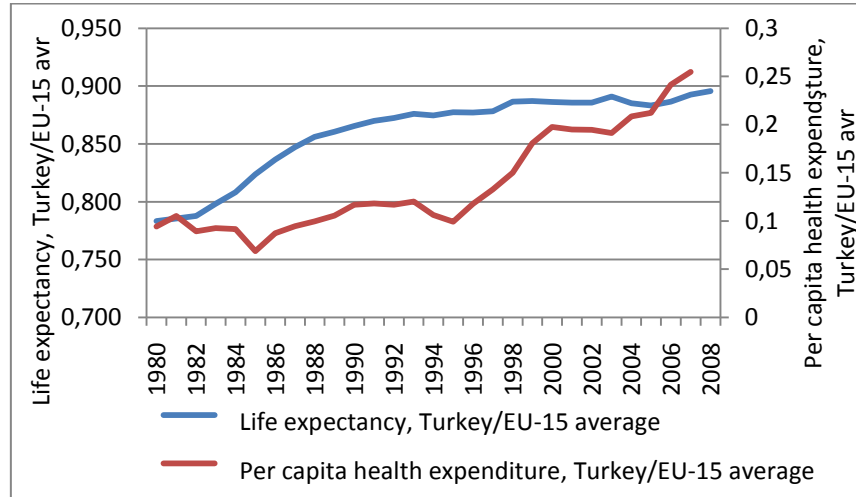
Source: OECD Health Data, 2008

¹ OECD, Achieving Better Value for Money in Health Care: Patterns of Health Care Spending Growth, 2009.

3. Life expectancy and infant mortality, although determined by many factors, are the main indicators used to assess the performance of health systems and underlined that in 1980's life expectancy in Turkey was 58.1 years despite the EU-15 average of 74.2 years.

In the 1980-2008 period, life expectancy in Turkey rose more rapidly than the EU-15 average reaching 72.1 years. Pace of growth of life expectancy slows down after a certain level. In this context this trend is recently observed in Turkey similar to the change in the EU-15 average. Even though Turkey/EU-15 average ratio tends to vary between years, the convergence can be observed for life expectancy as well as for per capita health expenditures.

Figure 3. Per capita total health expenditures and life expectancy, Turkey/EU-15 average (1980-2008)²



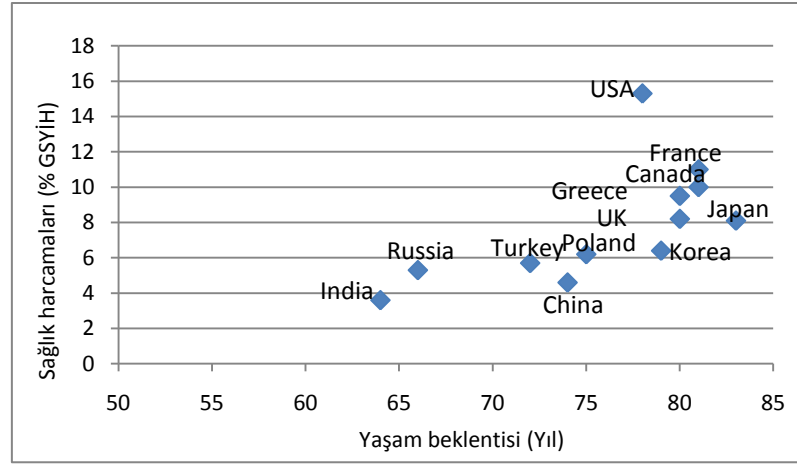
Source: WHO-HFA Database and Ministry of Health Statistics 2008.

4. It is observed that for some countries with high share of health expenditures in GDP life expectancy does not stand at the expected level. USA is the most striking example for this. As Figure 3 also suggests, in USA, which allocates the highest share to health expenditures, life expectancy is low compared to UK, France, and Japan. This phenomenon is closely related with the efficiency of health expenditures and the structure of the health system. Russia, Poland and Korea, which are in a similar income

² Total per capita health expenditures in Turkey are calculated until 2007. Therefore, the Figure shows the expenditure data up to 2007.

group with Turkey, allocate similar shares to health expenditures. However, life expectancy is quite low in Russia and higher than Turkey in Poland and Korea.

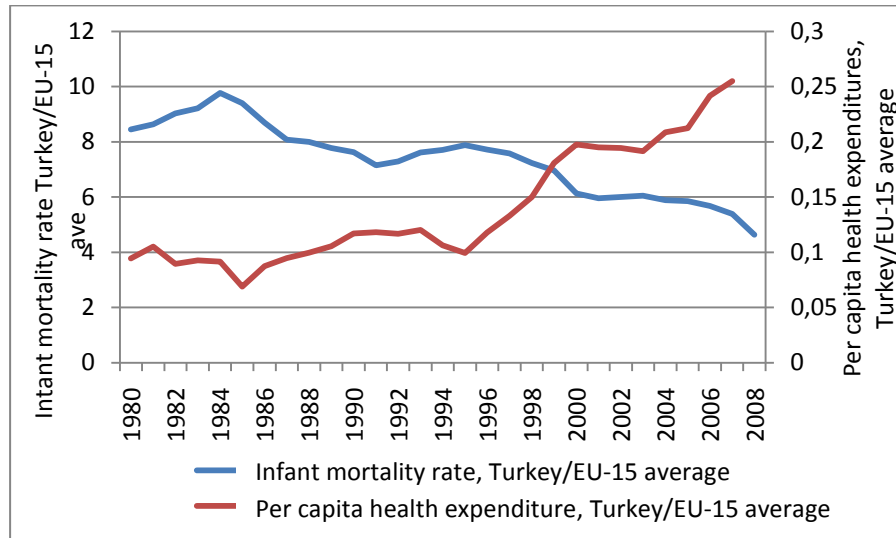
Figure 4. Health expenditures (% GDP) and life expectancy, 2007



Source: World Health Statistics, 2009

5. Another main health indicator is infant mortality rate. In 1980, infant mortality rate in Turkey was eight times that of the EU-15 average. Though following 1980 infant mortality rate in EU-15 continued to fall down, Turkey achieved much steeper reductions in infant mortality rate. For the period between 1980 and 2007 health expenditures and infant mortality rate in Turkey demonstrate a similar convergence to the EU-15 average. Patterns differed only in the 1995-2000 period where health expenditures increased more rapidly while the pace of fall in infant mortality rate slowed down.

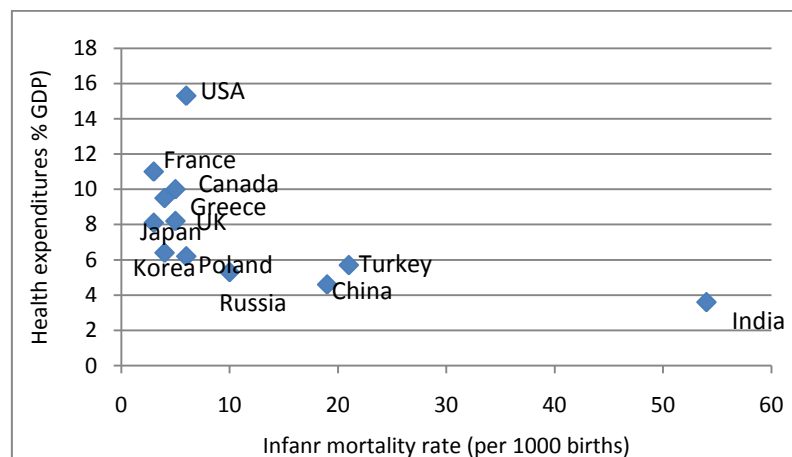
Figure 5. Infant mortality rate (per 1000) and per capita health expenditures



Source: WHO HFA Database

6. As can be expected, in countries where the share of health expenditures in GDP is high, infant mortality rates are low. Nonetheless, in the USA, similar to the life expectancy performance, infant mortality rate is higher compared to countries that spend less on health. Moreover, though the share of health expenditures in Russia, Poland and Korea are similar to that of Turkey, infant mortality rate is higher for the latter. The importance attached to and the share allocated for preventive health services is the most critical factor that affects infant mortality rate.

Figure 6. Health expenditures (% GDP) and infant mortality rate, 2007



Source: World Health Statistics, 2009

7. As a result, Turkey converges to the EU-15 average considering health expenditures as well as main health indicators. In the period between 1980 and 2008 health expenditures in Turkey increased, life expectancy rose and infant mortality rate reduced significantly. When data for other countries and particularly for the USA is assessed, it is seen that it is not sufficient to allocate high shares to health expenditures and that it is the efficiency of use of funds that makes the major contribution to the improvement of health indicators. For the sustainability of the improvements in main health indicators the importance attached to and the funds allocated for preventive health services shall be improved and maintained that this way the economic burden of inpatient treatment services can be reduced while the improvements in the main health indicators will be furthered. Therefore efficient use and sustainability of health expenditures are of vital importance. This note makes a comparison and assessment on the basis of two main health indicators. In order to examine the efficiency of the reforms in the health sector and the sustainability of health expenditures, detailed analysis on each reform component must be conducted.