Chapter 12
Efficiency of Turkish Provincial General Hospitals with Mortality as Undesirable Output

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ABSTRACT
The authors present a directional distance model where quality of care is brought in by treating mortality in each hospital as a strongly disposable “bad output.” After deriving pure technical and scale inefficiencies under strong disposability, the authors derive “congestion” inefficiencies via allowing weak disposability. A second stage, “seemingly unrelated” regression of these inefficiencies against hospital level variables like spare capacity, inpatient-to-outpatient ratio, and bed turnover rate allows pinpointing the critical areas for hospital performance improvement. Evidence shows that the smallest hospitals are operating on an inefficient scale. Moreover, allocation of specialists should be done very carefully, as shortage of specialists seems to cause congestion inefficiency, while having too many specialists causes technical inefficiency.

INTRODUCTION
An underperforming healthcare system is a persistent problem in Turkey. Despite significant improvements over recent years, the country lags behind the developed world. Life expectancy at birth is 73.8 years, about 6 years less than the OECD average of 80; while infant mortality of 13.1 deaths per 1000 live births is three times as high (OECD, 2011).

Living in a healthy environment is a basic right according to the Turkish Constitution of 1982. The previous constitution enacted in 1961 contained an article that obligated the state to provide healthcare for all citizens. However governments were unwilling to provide and the public was reluctant to demand healthcare for many years. According to Kisa, Kavuncubasi & Ersoy (2002) 25% of the population did not have health insurance.
not have any healthcare coverage. Moreover, even covered households, could end up with high health expenditures. Yardim, Cilingiroglu & Yardim, (2010) show that 0.5% of households with coverage and 1.0% of those without coverage incurred catastrophic health expenditure, defined as having to spend more than 40% of the households’ capacity to pay on healthcare.

In 2003, the Government launched the Health Transformation Program (HTP) with the goal of “Health for Everyone”. The express purpose was to remedy the long standing problems of the health care system. By common consent these are: poor access, inequalities between rich and poor regions, inefficient management and high out of pocket costs.

Health Transformation Program mainly focuses on providing primary health care to improve the level of overall health and reduce inequalities. Typhoid and malaria are nearly eradicated through vaccination programs, moreover, diseases due to poor nutrition such as iron deficiency anemia and rickets have been reduced 75% and 98% respectively (Akdag, 2008).

Kisa et al. (2002) report that out of pocket payments constituted 32% of the national health spending whereas contributions from general budget and insurance agencies, including private institutions, were 43% and 25% respectively. The tax money that went to healthcare was partly in the form of reimbursement of civil servants and green card holders, but mostly involved subsidizing expenses of health care institutions, such as paying the salaries of physicians. This is a socially undesirable method of spending government funds because poorer households had no insurance coverage, and had very limited access to healthcare institutions.

Prior to HTP, both the finance and delivery of healthcare services were a patchwork of different organizations and programs. There were three different public social security organizations: Social Insurance Institute (SII, SSK in Turkish) for private sector workers and retirees, Tradesmen, Artisans and Independent Workers Social Security Institution (TAIWSSI, BAGKUR in Turkish) for the self-employed workers and retirees, Pension Fund (PF) for retired civil servants; while expenses of the public sector workers were covered from the general budget. Moreover, a green card scheme was instituted in 1992 for low income individuals needing continuous or frequent care. Finally various private health insurance companies offered services to those willing and able to pay their premiums. Control of hospitals was also fragmented. The Ministry of Health owned and operated most public hospitals. However SII, which was supervised by the Labor Ministry, had an extensive network of hospitals to provide for its members. In addition, some municipalities also owned hospitals, military hospitals were (and still are) under the control of Ministry of Defense, while teaching hospitals of public universities are largely autonomous.

A key part of the HTP was the overhaul of the public insurance system. SII, TAIWSSI and PT were merged under the newly founded Social Security Institution (SSI) in 2006. Furthermore, ownership of all public hospitals (except military and university hospitals) was transferred to the Ministry of Health. Separation of service from finance of healthcare and unified management of these services allowed better coordination and more equitable entitlements.

Akdag (2011) reports that share of out of pocket expenses in total healthcare expenses have decreased from 32.1% to 11.7% from 2003 to 2010. As of 2012 the entire population is covered by the General Health Insurance Scheme and supplementary private insurance is still available.

Further healthcare system reforms include the establishment of city hospital campuses, which are large hospital complexes that will add over 40,000 beds to the hospital system’s existing capacity of approximately 200,000 beds; and founding public hospital associations, which will operate hospitals with greater autonomy and accountability (Akdag, 2011).