



Out-of-pocket health care expenditure in Turkey: Analysis of the 2003–2008 Household Budget Surveys



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ABSTRACT

This paper analyses the prevalence of ‘catastrophic’ out-of-pocket health expenditure in Turkey and identifies the factors which are associated with its risk using the Turkish Household Budget Surveys from 2003 to 2008. A sample selection approach based on Sartori (2003) is adopted to allow for the potential selection problem which may arise if poor households choose not to seek health care due to concerns regarding its affordability. The results suggest that poor households are less likely to seek health care as compared to non-poor households and that a negative relationship between poverty and experiencing catastrophic health expenditure remains even after allowing for such selection bias. Our findings, which may assist policy-makers concerned with health care system reforms, also highlight factors such as insurance coverage, which may protect households from the risk of incurring catastrophic health expenditure.

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1. Introduction

Out-of-pocket health care expenditure, where individuals and households pay for health care out of their own resources, is an important feature of health care systems all over the world. Furthermore, the impact of health care financing systems on the welfare of households, particularly poor households, is regarded as an important issue faced by policy makers when developing health care systems and insurance mechanisms (Xu et al., 2003). It is widely accepted that financial protection against high levels of out-of-pocket health expenditure should be one of the primary goals in designing health sector reform strategies since it has been argued that high levels of out-of-pocket health expenditure violate the vertical equity principle, which requires that payment should be related to ability to pay (World Health Organization, 2000).

It is apparent that, in order to reform health care systems in line with this objective, it is necessary to define what is meant by an unacceptably high level of out-of-pocket health expenditure, frequently referred to as ‘catastrophic’ in the existing literature. There is, perhaps unsurprisingly, no consensus over the specific definition of catastrophic health expenditure in the existing literature. Russell (2004), however, does provide a comprehensive definition of catastrophic health expenditure: ‘the term catastrophic implies that such expenditure levels are likely to force household members to cut their consumption of other minimum needs, trigger productive asset sales or high levels of debt and lead to impoverishment.’ (p. 147). The premise is that households should not

spend more than a specific percentage of their income on health care to allow them to maintain other basic needs (Wagstaff and van Doorslaer, 2003).

The most common approach is to set a threshold in terms of out-of-pocket health expenditure as a percentage of income (e.g. Berki, 1986; Wyszewianski, 1986). However, it is not clear what threshold levels of income can be considered catastrophic. As Wyszewianski (1986) argues, high out-of-pocket health expenditure is not always catastrophic in terms of imposing a severe financial burden on a household, whereas a small amount of expenditure on health care can be financially devastating for poor households. Therefore, in the existing literature, a range of threshold values has been commonly used. Health care expenditure has typically included co-payments, consultation fees, purchase of medicine, hospital bills and other types of out-of-pocket expenditure on health and generally excludes insurance premiums (e.g. Ranson, 2002; Wagstaff and van Doorslaer, 2003).¹ A further area of debate concerns the choice of denominator used to define the catastrophic level of expenditure. Some studies use total household income as the denominator (e.g. O’Donnell et al., 2005; Pradhan and Prescott, 2002), whereas other studies use disposable household income

¹ The reason for excluding insurance premiums and taxation is that this type of health expenditure is arguably not made at the time the household received the service and, moreover, can be anticipated in advance. Any reimbursement from a health insurance scheme is also deducted from the out-of-pocket health expenditure of households. However, there are some studies which do include insurance premiums and social insurance contributions in the numerator (e.g. Knaul, 2000; Murray et al., 2000).

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defined as household income remaining after the deduction of food expenditure (e.g. Xu et al., 2003).

This paper contributes to the existing literature on catastrophic health expenditure by analysing the prevalence and determinants of catastrophic health expenditure in Turkey using the Turkish Household Budget Surveys (HBS) from 2003 to 2008. Turkey is a particularly interesting case for investigating such issues due to two main reasons. Firstly, out-of-pocket health expenditure accounted for 22% of total expenditure on health care in 2007, which decreased sharply to 17% in 2008 (Turkish Statistical Institute, 2011). Although this ratio is below the WHO European Region average of 30% in 2008 (WHO, 2010), it is higher than the OECD average of 16% and countries with advanced social security systems, for example, 7% in France, 13% in Germany, 6% in Netherlands and 11% in the UK in 2008 (OECD, 2010). Secondly, the Turkish health care system has been restructured with the Health Transformation Programme (HTP) and ongoing health reforms since 2003, which potentially affect out-of-pocket health care expenditure. However, the first health policies related to financial protection were implemented in 2004. One of the most important health reforms is related to improved access to private health care facilities through contracts with private hospitals for all members of the various health insurance schemes. In 2005, for example, the members of the Social Insurance Organisation (SSK) and the members of the insurance scheme for self-employed individuals (Bag-Kur) have obtained access to outpatient and inpatient services in contracted private hospitals.² However, with the Law on Social Security and Universal Health Insurance in 2006, in order to encourage the private sector to contract with the Social Security Institute (SSI), private hospitals are allowed to charge up to 30% of the SSI tariff and extra charges for amenities (OECD, 2008). Thus, even if access to private facilities has been improved with the health reforms, extra payment to use private care is still required.

Furthermore, in 2006, a single social security organisation was established to unify all insurance schemes under the SSI. In 2007, it was accepted that all citizens of Turkey would have access to free primary health care even if they are not entitled to any health insurance scheme.³ The implementation of a Universal Health Insurance system was started in 2008 but unifying all insurance schemes has not yet been completed and a large proportion of the population still does not have adequate financial protection. In light of these reforms, it can be argued that the time period of the study is particularly interesting.⁴ In this regard, Erus and Aktakke (2012) investigated the effect of health care reforms on out-of-pocket health expenditure for public insurees in Turkey using the Household Budget Surveys for 2003 and 2006. They found that health reforms improved access to health care facilities and decreased the incidence of high levels of health care expenditure but these reforms were found to particularly benefit the households with higher income levels. It should also be stated that informal payment is a common phenomenon in the Turkish health care system. Tatar et al. (2007), using a questionnaire adopted from a wider international study, found that informal out-of-pocket health expenditure accounts for 25% of total out-of-pocket expenditure in Turkey in 2002. This finding indicates that out-of-pocket health expenditure may be higher than the official statistics suggest.

Our paper makes a potentially important methodological contribution to the literature on catastrophic health expenditure by controlling for the potential selection bias related to health care seeking behaviour.

Arguably, one of the most important shortcomings of many of the existing studies (including Erus and Aktakke, 2012) is the failure to account for the potential selection problem which may arise if poor households choose not to seek health care due to concerns regarding its affordability. Although the potential selection problem may bias the estimation results, most of the existing studies ignore households that do not seek treatment and this measurement problem is accepted as a limitation (e.g. Russell, 2004; Xu et al., 2003). As Kawabata et al. (2002) emphasise, the highest proportion of catastrophic health expenditure is not always experienced by the lowest income group, which may reflect the fact that catastrophic health expenditure can only be incurred if the household seeks and spends money on health care.⁵ Ignoring such issues may bias the estimation results since poor households, which arguably have the most need of financial protection, are essentially excluded from the measurement (Pradhan and Prescott, 2002). In this respect, this paper makes a methodological contribution by investigating the determinants of the probability of incurring catastrophic health expenditure in Turkey whilst attempting to adjust for the medical care seeking behaviour of households by using the sample selection approach introduced by Sartori (2003).

No clear pattern of the socioeconomic distribution of health expenditure within developing countries has been found in the existing literature. For example, Mäkinen et al. (2000) reviewed household survey data from eight developing countries and countries in transition and found that there was no distinctive pattern in health expenditure as a proportion of income by income quintiles. In Burkina Faso, Paraguay and Thailand, regressive trends were found (i.e. the wealthier quintiles spend a lower percentage of their total consumption on health care than poorer quintiles), whereas in Guatemala and South Africa, progressive trends were identified. Moreover, wealthier households were found to be more likely to seek health care when they need it than poorer households, which may reflect concerns regarding its affordability amongst the poor.

In a similar vein, Xu et al. (2003) used household survey data from 59 countries to investigate the levels and determinants of catastrophic health expenditure.⁶ The findings indicated different patterns of catastrophic health expenditure across countries. In countries with advanced social protection systems such as Canada, the Czech Republic, Denmark, the UK, Germany and France, the proportion of households incurring catastrophic health expenditure was less than 0.1%. Catastrophic health expenditure was found to be common in some countries in transition, middle-income countries, in certain Latin American countries and several low-income countries with over 10% in Vietnam and Brazil. Lower income groups were generally found to be more likely to incur catastrophic health expenditure as compared to higher income groups. However, the highest rate of catastrophic health expenditure was not observed in the lowest income group, which may again reflect issues regarding the affordability of health care.

With respect to the factors that are likely to be associated with the risk of catastrophic health expenditure, in general, catastrophic health expenditure is associated with poverty or low income, unemployment, low levels of insurance coverage and having disabled, chronically ill or ageing household members. Wyszewianski (1986), for example, found that ageing, unemployment and poverty were the most important risk factors in the U.S. for incurring catastrophic health expenditure.

² With this change, the benefits of the members of these insurance schemes were improved to the level of the members of the civil servants' insurance scheme (Government Employees Retirement Fund, GERF).

³ In addition, the members of the Green Card scheme have officially obtained the same benefits as enrollees in other health insurance schemes in 2008 (OECD, 2008).

⁴ The Turkish health care system is aligned with that of the EU countries (OECD, 2008) and the area of financial protection in terms of responding to the health needs of the population on the basis of financial accessibility is amongst the important issues in Turkey's EU membership negotiations (European Commission, 2010).

⁵ Pradhan and Prescott (2002) used a simulation model to construct a distribution of needed health expenditure using household survey data for Indonesia. Catastrophic health expenditure was defined as out-of-pocket health expenditure exceeding 10% of the household's total expenditure. The distribution of catastrophic health expenditure by expenditure quintiles indicated that richer households are more likely to spend 10% of their income on health care as compared to poor households in Indonesia. The results of their simulation analysis indicated that subsidising inpatient care would result in the greatest decrease in the proportion of households with catastrophic health expenditure whilst subsidising outpatient care would provide benefits particularly for the very poor segment of the population.

⁶ Turkey was not included in the analysis, which may reflect a lack of suitable data.

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