Reviewer's report

Title: Factors Determining Catastrophic Health Expenditure: Evidence from Georgia and its Policy Implications

Version: 2 Date: 14 August 2008

Reviewer: David Hotchkiss

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This is a well done study on an important topic – the prevalence of catastrophic health expenditure in Georgia. The questions posed by the authors are clear and well-defined, the data and methods used to execute the study are appropriate, and the results are framed in the context of other published literature on this topic. Below are comments and suggestions for further improving the paper, mostly what I hope are straightforward suggestions to provide more details on the methods used, and to improve the rationale for authors’ definition of catastrophic health expenditure.

Major Compulsory Revisions

1. On page 4, the authors state “...we defined health expenditure as being catastrophic if a household’s financial contributions to the health care system equals and/or exceed 40% of household’s Capacity to Pay.” The selection of the threshold for health expenditure being catastrophic seems arbitrary. Could the authors provide a rationale for this threshold? What thresholds are used by other researchers? Given the arbitrary nature of the prevalence and intensity of catastrophic expenditures, would it make sense to present descriptive findings with alternative threshold values? An article that may be helpful to the authors is Van Doorslaer et al, Catastrophic payments for health care in Asia, Health Economics, 2007, 16(11): 1159-84

2. In addition to evaluating the prevalence of catastrophic health expenditures, one of the stated objectives of the paper is to investigate its determining factors. To do this, the authors estimate a logit model to predict the probability of catastrophic health expenditure occurrence. The text indicates that the explanatory variables include the presence of a household member with 1) a chronic disease and 2) a hospitalization, while Table 8 indicates that the occurrence of fees for 1) treatment of chronic disease and 2) a hospitalization were used. Could the authors reconcile this discrepancy? Also, did the authors estimate models using other household- and individual-level characteristics included in their data set, such as educational attainment, household composition, and coverage by the medical assistance program for the poor, which the authors report being implemented one year prior to the time their data was collected?

Minor Essential Revisions
1. In the methods section, I suggest that the authors should describe the types of health expenditures that are measured in the study (i.e. consultations, tests, drugs, travel, etc), and provide more details on how the Fairness of Financial Contribution Index is constructed.

2. On page 5, the authors state “The probability of catastrophic health expenditure was calculated by Greene’s logit equation....” I would suggest replacing “Greene’s logit equation” with “a logit model”, as I don’t believe Greene developed this method.

3. In general, the article is well written, but needs a careful edit for the proper use of English and to ensure adherence to the guidelines of the journal. Editing checks should include:
   a. Ensuring consistency in the use of ‘percentage’ vs. ‘%’ (i.e. first paragraph of paper)
   b. Proper use of definite and indefinite articles (i.e. “a” and “the”)
   c. Omitting the list of acronyms and insert in the text acronyms in instances in which the term is used two times or more

Discretionary Revisions

1. On page 7 and 8, the authors state that “Table 1 shows that while more than 20% of households from lowest income quintile are beneficiaries of the poverty health benefit, at the same time 6 to 12% of “rich” households representing the highest income quintiles are also recipients of the same program. Could the authors briefly discuss somewhere in the paper the reliability and validity of the measure of overall health expenditure from the household budget survey? How accurate do the authors think their measure captures household expenditure? Do the authors think there is any reason to believe that there are biases in the data?

2. On page 6, regarding the first limitation of the study, is it correct to state that health expenditure may be underestimated because many households may be deterred from using health care, and spending money on health care, as a result of financing considerations? While I agree that high prices for health care may deter usage, this seems to me to be a negative consequence that is in addition to catastrophic health expenditure, not something that results in bias.

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
I declare that I have no competing interests.