

# Econometric Game 2016

## Case A

### Socioeconomic inequity in health care use among elderly Europeans

#### Background

Most European health care systems aim at ensuring an equitable distribution of health care. (Horizontal) Equity is often interpreted as equal use for equal need (Van Doorslaer et al., 2004) and, accordingly, socioeconomic (horizontal) inequity is typically measured as the extent to which health care use is associated with socioeconomic status (SES), controlling for differences in needs (Wagstaff and Van Doorslaer, 2000b). In most existing studies, health care use is measured as the number of doctor visits (and sometimes also as the number of hospital stays/nights) by an individual in a certain reference period (Van Doorslaer et al., 2004, 2006). The empirical literature on utilization of health care commonly uses count data models (Pohlmeier and Ulrich, 1995; Deb and Trivedi, 1997, 2002; Jiménez-Martín et al, 2002).

#### Research Question

The goal of this case is to assess the extent of socioeconomic inequalities in health care use among elderly Europeans. This question might be approached in many alternatives ways. It is up to you to decide which approach provides the most interesting insights.

#### Data

The data available for this study comes from the first wave (2004, 2005) of the Survey of Health Ageing and Retirement in Europe - SHARE. This is a cross-national panel database including data on health, socio-economic status and social and family networks of individuals from 11 countries aged 50 or older. The data provided here include two measures of health care use and several measures of socioeconomic status and of health status.

## Modelling issues

Previous studies of socioeconomic inequity in health care use have had to deal with several issues:

- How to measure health care use? Namely, which of the available measures of health care use and should be considered? And should be analysed separately or combined in some way?
- What control variables shall be included?
- How to measure socioeconomic status and need for health care?
- We have a multi-country dataset, how should country differences be accounted for?
- How should special features of health care use data be taken into account? In particular, how to model the number of visits to the doctor and to take into account the possible large number of zeroes? Should one allow zeroes and positives to be driven by two different processes? Or, more generally, should one allow for different effects in different parts of the distribution of health care use?
- Should conclusions be based directly on results of econometric models for health care use or on inequity indices based on results of those models?

Not all of these issues have to be addressed in this case but it is nevertheless required that you: a) justify clearly the options taken in your analysis; b) clearly interpret your results; and c) discuss the limitations of your analysis and the possible implications of them.

## References

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