On Equality of Opportunity in Health in the Caucasus

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Using data available in the Caucasus Barometer, this paper will determine the respective contribution of circumstances, efforts and lifestyle, and demographic variables to the overall inequality in health in the Caucasus area (Armenia, Azerbaijan and Georgia) in the years 2006, 2010 and 2016. Health will be measured via the answers given to a question on self-assessed health and will be considered as an ordinal variable. The educational level of father and mother, the ethnicity and religion of the individual will be considered as circumstances. Effort and lifestyle variables will be proxied by information on the educational level of the individual, whether he/she smoked and whether he/she was currently having physical activity. Sex and age will be considered as demographic variables. To solve the issue of correlation between circumstances and effort and lifestyle the estimation will be implemented in two stages. In a first stage, each effort and lifestyle variable will be regressed in a separate equation against the vector of circumstances and demographic variables and, in a second stage, the individual health status will be regressed against the vector of circumstances and demographic variables along with the estimated residuals of the effort equations described previously. The respective impacts of the three categories of explanatory variables (circumstances, effort and lifestyle and demographic variables) on health inequality will be derived via a Shapley decomposition of the likelihood ratio of the health ordered logit regression.