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# Inequality of opportunity in health in the Netherlands: contributions of choices and opportunities regarding health care utilization and lifestyles

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**Objectivos (Objectives):**

Inequality of opportunities in health is attracting increasing attention in the theoretical and empirical literature on health inequalities (e.g., Trannoy et al, 2008, Rosa Dias, 2008). While some recent empirical analyses of inequality of opportunities in health have focused on parental characteristics and childhood circumstances as illegitimate determinants of health inequalities, little or no attention has been devoted to the contribution of illegitimate disparities in health care utilisation.

**Metodologia (Methodology):**

In this paper, we apply the framework proposed by Fleurbaey and Schokkaert (2008) to examine unfair inequality in health in The Netherlands and the contribution to it of inequality of opportunities in health care use. We estimate a structural model relating mortality to previous health care use (hospitalisations, GP and specialist care), lifestyles (smoking, exercise and obesity) and socioeconomic status (income and education). We control for unobserved factors (such as health preferences) driving health care use, lifestyles and health outcomes by allowing the first two to be endogenously determined. These are modelled as functions of individual characteristics that can be seen as legitimate and illegitimate sources of inequality in health outcomes. Our data possesses unique features for these purposes. A population survey on living conditions containing extensive health, health care use (GP and specialist visits) and socioeconomic information is linked to hospital admission records and administrative individual data on mortality by cause of death. The structural model makes it possible to disentangle the causal effects of individual characteristics in the types of health care use and lifestyles considered. We use the estimated model to assess the extent of unfair inequalities in health, following the egalitarian-equivalent method proposed by Fleurbaey and Schokkaert, whereby the effect of illegitimate sources of variation in health outcomes is removed through indirect standardisation. The framework enables different normative choices of legitimate and illegitimate factors and comparison of results deriving from those choices. We also compare the resulting measured unfair inequalities in health with the traditional income-related inequality, measured by means of the concentration index.

**Resultados (Results):**

Our results show the importance of normative choices about legitimate and illegitimate sources for the measurement of unfair inequalities in mortality using the Fleurbaey and Schokkaert's framework. For example, allowing for the lifestyle choices to be only partially a legitimate source of inequality (while the remaining contribution, determined by socioeconomic status, is considered illegitimate), points at larger unfair inequalities in mortality risk. Furthermore, the application of this framework - using several alternative normative choices - leads to larger estimates of unfair inequalities than the traditional concentration index.

**Conclusões (Conclusions):**

We estimate a structural model relating mortality to previous health care use, lifestyles and socioeconomic status and apply the Fleurbaey and Schokkaert's framework for measurement of unfair inequalities. This produces results very different from those given by the traditional approach to measuring income-related inequality. Our application also shows the importance of normative choices about legitimate and illegitimate sources of inequality.