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Measuring and decomposing pharmaceutical consumption inequality in Portugal

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Objectivos (Objectives):

The Portuguese National Health Service aims to guarantee equitable access to medicines irrespective of socioeconomic or geographical factors. However, despite the increasing importance of medicines in health care there is not much information about socioeconomic inequities in pharmaceutical consumption in Portugal. This study aims to determine the existence of income inequality in drug consumption and decompose this inequality by quantifying the contributions attributable to need, enabling and predisposing factors.

Metodologia (Methodology):

Data was drawn from the cross-sectional Portuguese National Health Survey (NHS) 2005/06 that covers mainland Portugal and the Autonomous Regions of Azores and Madeira archipelagos. The survey was carried out between February 2005 and January 2006. For this analysis individuals aged less than 25 years were excluded and 30,206 remained eligible for inclusion in the study.

Pharmaceutical consumption was estimated based on expenditure, type of drug consumed and reimbursement level. Income related inequality in pharmaceutical consumption was measured using the concentration index. The inequality was then decomposed in terms of its possible determinants, as predisposing factors (education level, occupation and other variables related to social structure), enabling factors (income, insurance and access to health care) and need factors (chronic diseases, co morbidities, physical limitation and risk factors). The decomposition method is the same developed by Wagstaff et al (Journal of Econometrics, 2003), in which the concentration index can be expressed as the sum of contributions of each determinant to inequality in pharmaceutical utilization. The contribution of each determinant is given by the elasticity of drug use in respect to each determinant and from income-related inequality in the determinant itself.

Resultados (Results):

The concentration index for pharmaceutical consumption was negative, which means that lower income groups have a higher degree of utilization. However the decomposition of this inequality shows that most of the need factors, like a high level of co-morbidities and physical limitation, are concentrated on these groups and have also a significant effect on drug utilization. Hence, the preliminary results show that after controlling for the distribution of need and other factors the horizontal inequity index seems to be slightly positive, favouring the higher income groups, which means that for the same level of need

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the better-off use more medicines. Enabling factors particularly income distribution account for a significant contribution to pro-rich inequality, but the contribution of predisposing factors does not seem to be significant because of its low impact on drug utilization.

Conclusões (Conclusions):

The decomposition method distinguishes if a determinant contribution to inequality arises from its effect on utilization, from its unequal income distribution or both, which is essential to support political decision making. Pharmaceutical policies as well as public health programmes should target the groups at greatest risk in order to reduce social inequalities in drug utilization.