Limited health status awareness and biased equity estimates in LMIC

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Background

Equity in primary health care delivery is an important step on the path towards UHC and is a pivotal research topic for health economists. A common approach to quantify equity is to measure the extent to which health care utilization is related to the measure of interest, such as income, education, age or gender after controlling for differences in needs. Health economists rely heavily on self-reported measures of general health status or specific conditions to proxy these needs. However, the validity of this technique depends largely on the adequacy of this self-reported health.

Aim

This study aims in the first place to determine the extent to which respondents are aware of their own ill health status, second to identify the potential bias in self-reported health status and finally to indicate whether the bias in self-reported health status differs systematically by age, gender, income or education level.

Methods

Using three unique datasets from the Health Insurance Fund collected in Nigeria (Kwara State, n = 2325 households), Tanzania (Dar es Salaam, n = 674 households) and Kenya (Nandi district, n = 1242 households). We match self-reported with objective measures (anthropometrics and/or biomarkers) for five conditions: hypertension, diabetes, underweight, overweight and malaria. We use the associated household survey data to measure age, gender, consumption expenditure as a proxy for income and education level.

Key findings

Preliminary results show that respondents significantly underestimated their own ill health, with regard to hypertension (15% was hypertensive but did not report this) and overweight (20% did not report this), while they overestimated the prevalence of malaria (8% incorrectly reported) and underweight (5% incorrectly reported). We find that people above 40 years of age, males and those with no or only primary education are more likely to incorrectly report no ill health. Preliminary results suggest further that there is no significant income gradient in false negatives.

Conclusion

With eighty percent of mortality caused by cardiovascular diseases occurring in low and middle income countries and hypertension and overweight among the main risk factors of this disease, these findings show the importance of improve primary health care access. This is also a cautionary tale for health economists, using self-reported health status as a proxy for health, which may lead to an underestimation of inequity in the health care system, especially towards men, the elderly and those with limited levels of education.