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Generating composite indices as a proxy for consumption expenditure

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Introduction

Measures of socio-economic status are frequently used in identifying specific population groups (such as the deprived) for policy targeting. In the health sector, such measures have also provided the basis for assessing equity in the distribution of access, utilisation, financing and benefits of health care services. The accurate measurement of socio-economic status (SES) in low income settings presents challenges. Self reported income has been found to be unreliable and the measurement of total household expenditure can be prohibitively expensive and time consuming. Consequently, in recent years, wealth indices have become increasingly popular as a proxy measurement for SES, enabling the ranking of households in terms of wealth. Such indices have traditionally focused on the inclusion of assets and housing particulars in the form of categorical variables. However, there is some evidence that indices derived in this way may not be well correlated with consumption expenditure.

Objective/Methods

The aim of this study is provide an alternative approach to measuring socio-economic status using a composite index that is a better approximation of consumption expenditure to the traditional wealth indices. The study compares the performance of two indices that measure SES. The first comprises conventional assets and housing particulars measured as categorical variables. The second index includes a broader range of socio-economic and demographic variables (such as educational level and gender of the household head), that are routinely collected in household surveys. The two indices will be generated using Principal Components Analysis and compared in terms of their strength of association with consumption expenditure and the reliability of the resulting ranking of households into quintiles.

The analysis will be carried out for the sample as a whole and for urban and rural populations. The data will be drawn from the most recent national household surveys in Ghana, Tanzania and South Africa, and the findings contrasted across countries.

Results

Data analysis is currently underway and results are therefore preliminary. However, we hypothesise that using a broader range of variables for generation of composite indices of relative SES and increased variability achieved by using some continuous variables will allow for greater correlation between the index and consumption expenditure, especially in lower income settings where variability in asset ownership is more limited.