Series

Developmental potential in the first 5 years for children in developing countries

Sensitivity analysis on treatment of missing values in stunting and poverty

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The major characteristic of the countries with no prevalence data for stunting or absolute poverty available is that they are small countries. The average under-5 population sizes are 5·9 million for countries with no missing values, 1·2 million for countries with missing poverty data, 2·4 million for countries with missing stunting data, and 0·2 million for countries with both data missing. Because of their small size, the estimation of the number of disadvantaged children is insensitive to the treatment of the missing values. As a sensitivity analysis, we imputed prevalence of stunting by (1) linear regression analysis of the prevalence of stunting on the prevalence of absolute poverty using data from countries with complete data, and (2) applying the regression equation obtained to predict the prevalence of stunting in countries with missing data for stunting but available data for absolute poverty. The same procedure was done to impute the prevalence of absolute poverty using available data for stunting. This leaves only 24 countries with a total under-5 population of about 5 million that had both data missing and require the use of regional averages to replace the missing values. Use of this alternative procedure gave almost identical results: 218·6 million instead of 218·7 million disadvantaged children.