Effect of payments for health care on poverty estimates in 11 countries in Asia: an analysis of household survey data

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Summary

Background **Conventional estimates of poverty do not take account of out-of-pocket payments to finance health care. We aimed to reassess measures of poverty in 11 low-to-middle income countries in Asia by calculating total household resources both with and without out-of-pocket payments for health care.**

Methods **We obtained data on payments for health care from nationally representative surveys, and subtracted these payments from total household resources. We then calculated the number of individuals with less than the internationally accepted threshold of absolute poverty (US$1 per head per day) after making health payments. We also assessed the effect of health-care payments on the poverty gap—the amount by which household resources fell short of the $1 poverty line in these countries.**

Findings **Our estimate of the overall prevalence of absolute poverty in these countries was 14% higher than conventional estimates that do not take account of out-of-pocket payments for health care. We calculated that an additional 2·7% of the population under study (78 million people) ended up with less than $1 per day after they had paid for health care. In Bangladesh, China, India, Nepal, and Vietnam, where more than 60% of health-care costs are paid out-of-pocket by households, our estimates of poverty were much higher than conventional figures, ranging from an additional 1·2% of the population in Vietnam to 3·8% in Bangladesh.**

Interpretation **Out-of-pocket health payments exacerbate poverty. Policies to reduce the number of Asians living on less than $1 per day need to include measures to reduce such payments.**

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Introduction

Out-of-pocket payments continue to be the most important means of financing health care in most developing countries. Large and unpredictable health payments can expose households to substantial financial risk and, at their most extreme, can result in impoverishment. But standard measures of poverty are not adjusted for these costs. On the contrary, households that sell assets or incur debt to pay for health care will not be counted as poor if high medical expenses raise their total expenditure above the accepted poverty threshold. Failure to recognise variation in out-of-pocket health payments could also result in misinterpretation of trends in poverty over time or of differences between countries. For example, a reform of health-financing policy that reduced reliance on out-of-pocket payments could produce an apparent rise in poverty. Failure to account for the impoverishing effect of out-of-pocket health payments could also hinder monitoring of progress toward the first Millennium Development Goal, which is to reduce by half the proportion of individuals living on less than $1 per day by 2015.

In the USA, a National Academy of Sciences panel[1] has recommended that poverty be assessed after deduction of health-care payments, as most of these payments cover essential needs that are not fully incorporated in the poverty threshold. (Alternative estimates of poverty in the USA are available.[2,3]) The variability and unpredictability of medical expenditures make it very difficult to establish a poverty threshold that incorporates them. Some have criticised the recommendations of the National Academy of Sciences panel on the basis that health-care expenditures vary (eg, according to incomes and prices), indicating that some health-care spending is discretionary.[4] Nonetheless, some households probably make great sacrifices to pay for vital health care. The high medical expenses of such households might raise their total spending above the poverty line, causing them to be classed as non-poor, even though their spending on food, clothing, and shelter might more accurately classify them as below the subsistence level.

The World Bank has developed two international absolute poverty lines—US$1·08 and $2·15 per head per day (adjusted to represent purchasing power parity in relation to the 1993 consumer prices of each country).[5–7] The lower of these thresholds was calculated as the median of the ten lowest poverty lines used in a sample of low-income countries,[8] and represents a very low living standard, often referred to as extreme poverty.[9] This threshold was calculated without any specific allowance for health-care needs. Of the 11 countries we examined, the World Bank assessed that Indonesia, Bangladesh, Nepal, and the Philippines had national poverty lines that were very close to this lower poverty threshold in 1993.[8]

Typically, poverty lines are calculated from estimates of the cost of nutritional requirements for each country plus