

Aidspan Reviews an Academic Study on the Effect of Investment in Malaria Control on Child Mortality

A new publication from Aidspan, by Dr David McCoy, reviews a published academic study on the impact of Global Fund grants for malaria prevention. The study indicates that the cost per child life saved through using bednets and conducting indoor residual spraying is much higher in "low-burden" countries (where malaria causes less than 10% of all under-five child deaths) than in high-burden countries.

The aim of the study, which was conducted by Yoko Akachi and Rifat Atun of the Global Fund, was to examine the relationship between a set of inputs, outputs and outcomes related to malaria control and child health in 34 sub-Saharan African countries between 2002 and 2008.

The inputs were disbursements of official development assistance (ODA), including Global Fund grants, for malaria control. The outputs consisted of insecticide-treated bed nets (ITNs) and indoor residual spraying (IRS). (The actual <u>treatment</u> of malaria was not analysed because of the lack of data, changes in recommended treatment over time and limited levels of treatment during the period studied). The outcomes were mortality rates, and the number of lives saved from malaria, among children under five years old. Data on other variables that affect child health outcomes were also analysed.

Using regression analysis and computer-based modelling, the study was able to show, across 34 countries, a relationship between, on the one hand, increased ODA disbursements for malaria control and increased ITN/IRS coverage and, on the other hand, decreased child mortality.

McCoy's review explains the study's methodology and summarises its findings. McCoy notes that the findings suggest that the cost per life saved of expanding ITN/IRS coverage in low burden countries may be about six times higher than the cost in high burden countries. He also says that the findings suggest

that increases in the coverage of routine immunisations or increases in access to clean water would save more child lives than would similar percentage increases in ITN/IRS coverage. (However, this does not automatically mean that increasing immunisation coverage or access to clean water is more cost-effective than expanding ITN/IRS coverage.)

However, according to McCoy, while the Global Fund is "leading the way in assessing the value and impact of external development assistance for health," studying the impact of external ODA on health impact is difficult and constrained by a number of data-related and methodological challenges that need greater appreciation.

For example, McCoy argues that while analysing aggregated data from multiple countries has "some uses in providing a broad and single overview of the relationship between inputs, outputs and outcomes," countries and programmes vary to such a degree that "there can be no universal pattern in the relationship between inputs, outputs and outcomes." In this case, McCoy suggests that it is important to accept this variation and instead to "study the reasons why there is variation." This would emphasise less the quantitative and statistical relationships between inputs, outputs and outcomes; and instead provide a better qualitative understanding of the relationship between inputs, outputs and outcomes in a particular country.

"Aidspan Review of a Study by Y. Akachi and R. Atun on the Effect of Investment in Malaria Control on Child Mortality" is available on the Aidspan website here.

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