

World Bank Matrix (Malaria Booster Program)¹ **An analysis for Africa Fighting Malaria**

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Background

The World Bank is one of the founding partners of the Roll Back Malaria Partnership (RBM). In spite of commendable recent efforts to remedy some of RBM's faults, there remain significant and persistent inherent problems in the various organizations comprising RBM. In an attempt to revitalize its malaria work in 2005 the World Bank launched its Booster Program.

Since then, however, the Bank has been criticized variously for promoting malaria control interventions which are known to have failed; for not fully disbursing funds allocated to malaria control; and for not measuring the impact of disbursements it did make to malaria control. Partly in response to these criticisms, the Bank developed a malaria matrix, designed to capture information on spending, inputs and outcomes. The matrix is also intended to help guide internal reforms, as indicated to this author by the President of the Bank and his senior staff.

The matrix consists of economic, population, disease and health intervention variables for the 20 African countries within the booster program - Angola, Benin, Burkina Faso, DR Congo, Eritrea, Ethiopia, Ghana, Kenya, Liberia, Malawi, Mali, Mozambique, Niger, Nigeria, Rwanda, Senegal, Sudan, Tanzania, Uganda, and Zambia.

While the figures presented may be useful for effective analysis and to assist future programming, the matrix exposes myriad problems for aid delivery, from the fungibility of money, to the lack of field measurement of inputs, to the difficulty of demonstrating performance. Through no fault of Bank staff, and while the data make matters a little clearer, the matrix poses challenges to all disease-focused groups, including Africa Fighting Malaria, and also to the Bank itself.

Before analyzing the matrix, it bears noting that the World Bank is not alone in failing to monitor and measure the effect of its spending in malaria control. Although the most relevant measure of aid success or failure is impact on malaria cases and deaths, surprisingly little donor effort has gone into measuring them (or indeed the causes of all child mortality, which is a more significant metric in many locations, where children who survive malaria will likely die from other causes). Instead, measurement has focused on the procurement of commodities, such as drugs and insecticide-treated nets (ITNs).

Perhaps one of the overarching problems with malaria control is that the agency that should be setting malaria control policy, the World Health Organization (WHO), has

¹ For a copy of the matrix see http://coburn.senate.gov/ffm/index.cfm?FuseAction=OversightAction.View&ContentRecord_id=32dc7994-802a-23ad-4cf4-c34d3d36fd7e

suffered from a lack of effectual leadership for many years. For instance it was only in 2006 with a new head of the WHO's malaria department that for the first time in 20 years, the WHO issued new treatment guidelines, which had long been required due to increasing parasite resistance to existing drugs. After bowing to pressure from environmentalist groups and donor agency contractors, the WHO and its RBM partners declined to fund to any significant degree malaria prevention interventions other than ITNs. This one-track method of malaria control has not been successful (one of the reasons that RBM has been called a failing public health program).

But the situation has improved. In the recent past USAID has overhauled its malaria support, to include the purchasing of the newer better drugs as well as encouraging the use of indoor residual spraying (IRS) which, where appropriate, has been shown to be a very successful intervention. Furthermore, WHO has issued guidelines promoting both new drugs and IRS. With the changing sands of malaria control policy, it is right that agencies review their remit. Perhaps it was acceptable for the Bank to believe it had to undertake disease control when other agencies, more obviously skilled at combating disease were failing to do so; but if the ultimate goal is improved health, and the control of diseases like malaria, it is essential that agencies focus on activities in which they have a comparative advantage. It seems that with the World Bank's malaria control program, the attitude of senior management (that other agencies are failing to combat malaria so the Bank must fill the void) has been infused into their malaria matrix, and little thought has been given to comparative advantage. Key agencies are no longer failing and the Bank should change.

It bears noting as well that evidence continues to mount of technical bungling on the part of the Bank in Booster Program countries. In a paper I published two weeks ago, I reported that the Bank was financing chloroquine/Sulphadoxine-pyrimethamine combinational drug therapies in Eritrea and the Philippines in contravention of WHO's treatment guidelines. In those countries the Bank also discouraged IRS in spite of historical success against malaria using insecticides in both countries. In Benin the Bank recognized the need to move over to ACTs but allowed four years to make the transition – twice as long as Zambia needed to make the transition with help from the Global Fund to Fight AIDS, TB and Malaria.

Coupled with reports from Geneva that the Bank is side-stepping technical negotiations with WHO before financing its Booster Program proposals, these flawed projects reveal the Bank's disinterest in cultivating its comparative advantage in health systems financing. Instead it wants to act as an expert body for disease control, doubly financing sector-wide health initiatives and specific malaria control projects and keeping its own notes on outcomes.

Analysis

Column one of the matrix tallies domestic expenditures on malaria across 20 African nations which all have a significant problem with the disease. The total pledged by all nations is a tiny \$9.6 million, which is well under 0.5% of the total of domestic and

international funds pledged to combat the disease over the next five years (\$2,793.7m). Only three African nations apparently spend money directly on malaria. While this implies that the African nations rely almost exclusively on western taxpayer largesse to care for their pregnant women and children who die from this disease, the reality is a bit more complicated.

The first problem is that the World Bank has not been able to produce data on government expenditure on malaria or in fact any disease. This is because most African national governments only establish expenditures according to services, such as primary care, hospitals, clinics, and so on, rather than on diseases like malaria, TB and HIV. Diseases simply do not have visibility in national accounting – however, they are of primary importance to those interested in disease control.

An extension of this is that the disaggregated data that is a basic requirement for any analysis or evaluation are not collected as routine or standard procedures. Even the sex of AIDS patients is not uniformly or reliably available to authorities. Collecting data is expensive of time, labor and requires rigorous administrative systems – all unimaginable luxuries in most rural third world clinics. As one Bank economist put it, this is “not the way the world works”. The pharmacist who sells a thousand products does not keep a notebook on who buys malaria drugs or ITNs just because the World Bank or US congress or groups like Médecins Sans Frontières want to know annual expenditures.

Perhaps belatedly, the international donor community is coming to realize that this lack of information not only prevents or obscures assessment of how programs have been implemented, it prevents donors knowing *whether* a program has been implemented and may even be the ultimate cause of program failure.

Congress and others have made a renewed push for expenditure data on specific diseases from the Global Fund and USAID and these data are now more comprehensive, because the donors have been driven to account for their donations that way. Of course, this approach raises questions of national sovereignty which plague aid givers – do donors have a right to dictate how their money is spent or must they trust nations to spend aid as they see fit?

As demonstrated in the matrix, direct domestic spending on disease control is very low. This may be the unintended result of donors specifying that their money is spent on a specific activity, such as disease control. Because money is fungible, it is a relatively simple matter for a recipient nation to divert domestic funds which may have been earmarked for disease control to another purpose – possibly to one which would probably not attract donor support. Zimbabwe using Government funds, including previous aid funds for development, to buy Chinese armored personnel vehicles to suppress their own people springs to mind.

One way around this fungibility question is for aid-recipient countries to agree to total expenditure figures on health, so that expenditures are assured. For example, one target,

set at Abuja, was for countries to spend 15% of their expenditure on health - only Botswana even approaches this figure in Africa.

Data for the malaria-specific Abuja targets are provided in the matrix for the 20 countries, and generally speaking do not provide a great deal of encouragement that the disease is being combated with much vigor. There are input figures, the percentage improvement figures for ownership and use of bed nets (although as I have discussed elsewhere 'use' of a bed net is subject to massive variation, and hence efficacy). Only one country of the 20, Eritrea, actually attempts to measure IRS and shows an increase in use – an irony as the World Bank has tried so hard to reduce DDT use in Eritrea, and has been no fan of IRS anywhere.

When it comes to the key indicator of mortality, the Bank provides death rates for all 20 countries. The Bank relies on WHO figures, (recent estimates by Bob Snow in Nature magazine suggest that perhaps these figures are too low), which provide a stark picture of the damage caused by malaria in these 20 nations. The total I estimate from the figures presented for these 20 countries is over 980,000 deaths, from a population of over 568 million. Nigeria alone accounts for over 185,000 of those deaths. (N.B. I assume that the death rate from malaria is the same in 2006 as it is in 2000 – available evidence has not shown a decline in rates, so this seems fair.)

Unfortunately what is missing from these data are the outcomes relating donations to performance. One of the frustrations for those who have advocated the use of IRS is that where specific vertical IRS malaria programs have been undertaken significant success has been achieved (with malaria reductions of over 70% achieved within two years). Starkly successful programs have been run in isolation by countries, such as South Africa, and companies, such as the Konkola Copper Mines in Zambia, and could have been promoted and replicated more than they have been. Yet at the same time as these small successes with IRS one sees malaria rates generally rising or at least not falling, and where the main interventions have been bed nets and IPT for pregnant women. And no pilot programs using ITNs or IPT have shown the same remarkable results as with IRS.

Of course it has been unfair, and rather naïve for the most aggressive IRS/DDT advocates to assume that one can show massive falls in malaria from mainstream loans and grants to general health systems (since massive quick falls can really only come from specific vertical programs, and general health systems expenditure is often the best way to allocate vast sums of aid money). A World Bank loan to improve child health in an African country will never lower malaria rates as much as a vertical malaria control program, but may nevertheless be the best use of the funds.

Mind you donors have been their own worst enemies in promoting approaches (ITNs over IRS) that have no comparable measure of success where studied and without even measuring whether they work or not in the field. Yet donors continue, and implicitly so with this matrix, to pursue methods that probably don't work as well. So since

performance measurement is difficult, pursuing approaches with proven track records would provide more cover for lender and recipient.

All in all this matrix exposes more problems than it provides answers. It took a lot of talented statisticians and economists much work to even put together this rather paltry list of malaria data, and one wonders if this effort can be sustained at the Bank given other priorities. As a result, we are better informed of funding to malaria from various bilateral and multilateral donors, we have a better gauge on the state and the lack of success of bed net distribution, but we know nothing of the success of IRS such as in Zambia. When it comes to therapeutic drugs (and IPT for pregnant women) simply outlining the data is useful, but the matrix is even here not that helpful. Unfortunately, we know from previous work that the Bank has continued to promote drugs such as CQ and SP where resistance is high, so it is quite uncertain whether the figures presented here on access to medicines refer to highly useful ACTs or the less efficacious alternatives. With the Bank probably biting off a lot more than it can chew and apparently not cooperating well with the WHO, and not accepting its comparative advantage, reductions in malaria, the goals of RBM are not very likely.