



## **AFRICA MALARIA DAY 2007: TIME FOR A CHECKUP**

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**Africa Fighting Malaria Working Paper**

**April 23, 2007**

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# AFRICA MALARIA DAY 2007: TIME FOR A CHECKUP

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*Funding for malaria control has increased significantly over the past decade, but it is still unclear whether that funding is actually saving lives. Setting targets has emerged in recent years as a key fundraising tool for disease-control programs. However, available evidence shows that most health targets are immeasurable or not measured. Unless performance is measured in a meaningful way and successful policies followed thereafter, current and future malaria funding may not help to save lives and may even be counterproductive. It is time to stop setting meaningless targets.*

Efforts to improve the global awareness of malaria intensified in the 1990s. In 1998, with almost no new funding, the World Health Organization (WHO), together with other UN agencies presented the Roll Back Malaria (RBM) Partnership with the goal of halving the burden of malaria by 2010.<sup>1</sup> But as commentators explained at the time and have done so repeatedly since, the RBM initiative from the beginning never established how many people actually die from the disease. Promising to halve an unknown number is impossible and setting a target (for fund-raising and motivational purposes) with no intention of measuring it is both cynical and a betrayal of those who suffer from the disease.

The damaging consequence of RBM's target-setting was two-fold: it promoted ineffectual policies, which were copied by other donors and the private sector, with the assumption that given the bold target such interventions must work;<sup>2</sup> and it furthered a trend to set meaningless targets, which have now been widened to the entire UN development enterprise. Under the threat of losing foreign aid, many African nations reluctantly followed RBM's lead and abandoned house-to-house spray programs to rely solely on bed nets to try to prevent malaria infection. International donors frowned upon using insecticides, even indoors, but offered little evidence that bed nets were the best public health intervention. It wasn't until 2006 that the WHO finally promoted indoor residual spraying (IRS) again, and notably promoted Dichloro-Diphenyl-Trichloroethane (DDT), the first modern and best known insecticide for malaria control.

While RBM has been roundly criticized<sup>3</sup> and reformulated, the trend of setting meaningless and unmeasurable targets has been enthusiastically taken up by other organizations and initiatives, apparently with the blessings of the international community.

## **Millennium Development Goal to Halt Malaria by 2015 - The Illogical Target**

In its [2000 Millennium Declaration](#),<sup>4</sup> the United Nations set eight goals for development, called the Millennium Development Goals (MDGs). These goals set in motion an ambitious agenda for improving the welfare of humans by 2015. Numerical targets and deadlines to measure performance were established for global problems, including illiteracy, gender inequality, poverty and disease. The eight MDGs are further broken down into 18 quantifiable targets that are supposed to be measured by 48 indicators.

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Recognizing the enormous health, social and economic burden that infectious diseases, including malaria, can impose on the development of many nations, the sixth goal and related eighth target pledges to “[h]alt and begin to reverse the incidence of malaria and other major diseases” by 2015.<sup>5</sup>

Year after year, the WHO and its UN partner agencies publish reports dotted with glossy graphics of malaria control programs conducted around the world. These reports often highlight the sales and/or distribution of bed nets, concluding from these efforts that progress is being made towards achieving the goals of disease reduction. However, as many have pointed out, the reports belie the questionable quality of the underlying data sets and indicators used for measurement. To measure progress on malaria for example, the MDGs rely on World Health Organization- and UNICEF-generated indicators 21 and 22:<sup>6</sup> the rates of prevalence and death associated with malaria, and the proportion of the population in malaria-risk areas using effective malaria prevention and treatment measures, respectively.<sup>7</sup>

However, the inadequacy of these, and many other MDG indicators, are pointed out in the latest progress report from 2006<sup>8</sup>:

(ref. 2006Report p28)

"Since the periodic assessment of progress towards the MDGs began five years ago, the international statistical community has been concerned about the lack of adequate data to compile the required indicators in many parts of the developing world. At the same time, the monitoring requirements themselves have focused attention on this shortcoming and raised awareness of the urgency to launch initiatives for statistical capacity-building. Though there have been many steps in this direction, much remains to be done until all countries are able to produce a continuous flow of social and economic data needed to inform their development policies and track progress"<sup>9</sup>.

In fact, says the Report, many countries do not collect the required data and the indicators used are based on surveys sponsored and conducted by international agencies and scaled up to country level based on estimates. The data presented in the Report are aggregates of estimates. Scientists and experts agree that many of the health MDGs suffer from a troubling lack of scientifically valid data.<sup>10</sup> Amir Attaran of the University of Ottawa has extensively studied this gap in performance and points out that often the subject matter’s baseline condition—in this case, malaria incidence and mortality—prior to the MDGs is so poor that it is hard to know if the desired trend of “halting” malaria by 2015 is actually occurring.<sup>11</sup>

### **Defunct Indicators and Failing Measurement Systems**

From a statistical and scientific standpoint, such indicators rely too heavily on self-reporting to make them entirely credible. UN organizations under the RBM partnership’s malaria monitoring and evaluation group agrees for example, that “malaria-specific mortality [cut this and insert ellipsis? should not be monitored routinely, as this] can not be measured in malaria-endemic Africa.”<sup>12</sup>

Moreover, the UN MDG assessments are based on a potpourri of different types of data, making aggregation and analysis of the incomplete data even more complicated.<sup>13</sup> The lack of coordination leads to conflicting results, putting undue pressure on the national

statistics offices of poor countries that may have only collected mediocre epidemiological information. On this point, Amir Attaran has noted, "...most of the available data on the health MDGs come from methods of estimation, censuses, specialized household surveys, or all of these together. There are many—too many—household surveys." They are at best "crude tools" for measuring progress.<sup>14</sup>

Another source of worry regarding the UN MDG for malaria is that the target set for its progress is benchmarked for the period 1990 to 2015, during which the effort promises to establish clear and measurable improvement on standards, prevailing in 1990, by the end of 2015. While decent data exist for some indicators – child mortality and poverty rates in some countries – few developing countries (particularly in sub-Saharan Africa) have had reliable health data over the last decade, let alone since 1990, the baseline year. Claiming that the 2015 MDGs can be credibly measured given existing evaluation methods is misleading.

Nevertheless the Progress Report's section on malaria presents a chart indicating a ten-fold increase in bed net purchase and distribution between 1999 and 2003 in sub-Saharan Africa. It is not entirely clear from the chart, but it looks like this is from a baseline of near-zero. Furthermore, the text points out that rich, urban dwellers are many times more likely to have bought a net than poor, rural dwellers.

Beyond this there is little to indicate progress. The absence of reliable data has resulted in an unfortunate tendency to focus on inputs rather than outcomes. The number of bed nets distributed is not a success in itself - that they had reduced infection would be the appropriate figure.<sup>15</sup>

On the other hand, the Progress Report notes that "[a] growing awareness of malaria's heavy toll has been matched with greater commitment to curtail it. Increased financial flows from the Global Fund to Fight AIDS, Tuberculosis and Malaria [GFATM], the World Bank's Global Strategy and Booster Programme, the United States President's Malaria Initiative [PMI] and the Bill and Melinda Gates Foundation... are expected to spur key malaria control interventions..."<sup>16</sup> But is it wise for donors to continue to give financial support to agencies whose efforts are so poorly evaluated?

### **Supporting the MDGs**

Each year, malaria perhaps claims the lives of about 2.8 million people<sup>17</sup>; many of these victims are pregnant women and children under five residing in sub-Sahara Africa. Malaria is also estimated to account for perhaps 40 percent of public health expenditures in Africa and to cause an annual loss of \$12 billion from the continent's gross domestic product.<sup>18</sup> In spite of these dismal figures, malaria is a largely preventable and curable disease.

At a meeting in Abuja, Nigeria, in 2000, African leaders pledged to significantly scale up malaria control efforts in their countries. Since that time, the international aid community has responded by increasing funding for malaria control in sub-Saharan Africa largely through many well-publicized partnerships. More recently, the PMI has emerged as a key player in improving malaria control. In addition financial auditing from the GFATM means continuous misuse of malaria funding is prevented (GFATM has not undertaken performance evaluation as adequately as PMI though). In 2002, the GFATM, a public-

private partnership, became the largest financier of malaria control programs by providing two-thirds of all international publicized financing.<sup>19</sup>

Many of the Global Fund's contributions come from wealthy western nations, although pledges have also been received from poorer countries. Uganda, directly affected by some of these infectious diseases, for example, has pledged \$2,000,000 to the Fund, while Burkina Faso has given \$75,000.<sup>20</sup> To date, the GFATM has approved grants with a total value of US\$ 2.6 billion over five years to 117 programs in 85 countries to support interventions against malaria. US\$ 833 million has been disbursed so far.<sup>21</sup> The largest single donor country is the United States, whose donations make up for approximately 33 percent of the funds pledged every year.<sup>22</sup> Many development agencies of the Organization for Economic Cooperation and Development (OECD) countries seem to have relinquished their responsibilities to the Global Fund,<sup>23</sup> who they believe will ensure that funds are well spent. To this end, these donor agencies rely heavily on supporting the Global Fund to achieve the health MDGs.

Bilateral funding has also contributed to the effort. In June 2005, President George W. Bush, recognizing the need for greater global efforts to reduce the burden of malaria, launched the President's Malaria Initiative (PMI). This is a five year, \$1.2 billion plus initiative to cut malaria mortality by 50 percent in 15 African countries. At the initiative's inauguration, President Bush noted "[t]he toll of malaria is even more tragic because the disease itself is highly treatable and preventable. Yet this is also our opportunity because we know that large-scale action can defeat this disease in whole regions. And the world must take action."<sup>24</sup>

In addition to those from national governments, contributions to the UN MDGs have come from various multilateral and large organizations. These contributors include: the World Bank Malaria Booster Program, RBM Partnership, International Olympic Committee, the Bill and Melinda Gates Foundation, private sector partnerships (such as PRODUCT RED) and fund raising events (such as a 2002 Real Madrid Soccer Match that raised a grand total of \$112,487).<sup>25</sup>

Making such vast financial commitments to eradicate malaria is admirable, but these must be supported by accountability of chosen measurement systems.

So while increased financial commitments to eradicate malaria show the result of good intentions, it is problematic to assume that success would be achievable by making vague references to the largely immeasurable MDGs. From the above-mentioned points, the MDGs are far from the being the "zeitgeist"<sup>26</sup> of the global development enterprise that many portray them to be. Since their birth, they have been plagued by repeated admissions to the lack of adequate data in the developing world. It is thus important to remember how obviously fallible they are. Scientific and evidence-based assessment tools would be much better.

### **Policy Recommendations and Conclusion**

As fund-raising efforts and urgent press statements are prepared for yet another Africa Malaria Day, we are confronted by certain harsh realities. After all this time, tracking the progress of the UN Millennium Declaration's efforts towards its MDGs and the effectiveness of measures taken still remains elusive. Has the existence of the MDGs changed pre-existing trends in performance? Currently, one can only guess. Blind donor

support for the MDG malaria initiative, which still shows no progress with scientific precision towards significant malaria control after a seven year life-span, is thus both irresponsible and wasteful. Only the PMI is tracking whether its specific interventions are lowering malaria incidence and death, and the data they generate while useful, will not suffice to establish whether an MDG target has been hit for a particular country. Those whose lives depend on western aid, currently fixated on the MDGs, have not been well served and deserve better. Donors must remember that it is highly risky to continually throw funds toward any organization without serious consideration of its effectiveness or to continue to support and promote a target that is not being measured properly.

It is time for groups such as the GFATM and the PMI to seriously reconsider their support for the malaria MDGs. These groups and other donors need to decide whether they are serious about measurement and goals of the MDGs or not. If donors are serious they will have to fund the collection of detailed and coordinated information regarding malaria death rates<sup>27</sup>. On the other hand, donors could, and probably should, abandon the MDGs and simply be more honest with the international community about what is measurable and achievable and then promote their success stories. But staff at donor agencies are undoubtedly concerned that their political and financial backers will not appreciate such honesty in a field that thrives on obfuscation and good intentions.

Those seriously working towards the fruition of the MDGs must work harder to better address the challenges of on-ground realities and inadequate data. Otherwise, come 2015, Africa's malaria woes could still be featured prominently on the global development radar and the MDGs would be referred to, if at all, as yet another well-intentioned target leading to another unsuccessful development effort. By then, the GFATM and the PMI may have continued to do good work but could have lost their credibility and support because of aid fatigue due to MDG failure.

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<sup>1</sup> Roll Back Malaria, "Looking Forward: Roll Back Malaria" available at [http://rbm.who.int/docs/rbm\\_brochure.pdf](http://rbm.who.int/docs/rbm_brochure.pdf), accessed April 17, 2007

<sup>2</sup> For more on the RBM Partnership program's shortcomings, please see: "Roger Bate, "The World Bank and Disease Control: A Bad Combination" Opinion-editorial, The World Bank: Health Nutrition and Population, available at

<http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/AFRICAEXT/EXTAFRHEANUTPOP/0,,contentMDK:20905156~pagePK:34004173~piPK:34003707~theSitePK:717020,00.html>, accessed April 17, 2007. Also see Amir Attaran, Karen I. Barnes, Roger Bate, Fred Binka, Umberto d'Alessandro, Caterina I. Fanello, Laurie Garrett, Theonest K. Mutabingwa, Donald Roberts, Carol Hopkins, Sibley Ambrose Talisuna, Jean-Pierre Van geertruyden, William M. Watkins., "The World Bank: False Financial and Statistical Accounts and Medical Malpractice in Malaria Treatment," *The Lancet (Viewpoint)*, published online at [www.thelancet.com](http://www.thelancet.com) on April 25, 2006.

<sup>3</sup> Amir Attaran's "Where Did it All Go Wrong?" *Nature*, 2004, vol. 430 (7002), pp. 932-933. Available for purchase at: <http://www.nature.com/nature/journal/v430/n7002/full/430932a.html>

<sup>4</sup> United Nations, "Resolution Adopted by the General Assembly, UN A/res/55/2" available at <http://www.un.org/millennium/declaration/ares552e.htm> accessed April 9 2007

<sup>5</sup> United Nations Development Programme, "The Millennium Development Goals: MDGs Targets and Indicators" available at <http://www.undp.org/mdg/goallist.shtml> accessed April 9, 2007

<sup>6</sup> Indicators were adopted from the World Health Organization's (WHO) *Prevalence and Death Rates Associated with Malaria* and United Nations International Children's Education Fund's (UNICEF) *Proportion of Population in Malaria Risk Areas Using Effective Malaria Prevention and Treatment Measures*

<sup>7</sup> United Nations Statistics Division, "Millennium Development Goals:" available at <http://mdgs.un.org/unsd/mdg/Host.aspx?Content=Indicators/OfficialList> accessed April 9, 2007

- <sup>8</sup> United Nations Department of Economic and Social Affairs, “ The Millennium Development Goals Report 2006” available at <http://unstats.un.org/unsd/mdg/Resources/Static/Products/Progress2006/MDGReport2006.pdf>, accessed April 11, 2007
- <sup>9</sup> *ibid.* p28.
- <sup>10</sup> Amir Attaran, “ An Immeasurable Crisis: A Criticism of the Millennium Development Goals and Why They Cannot Be Measured” PLOS Medicine, available at <http://medicine.plosjournals.org/perlserv/?request=get-document&doi=10.1371/journal.pmed.0020318>, accessed April 10, 2007
- <sup>11</sup> *Ibid.*
- <sup>12</sup> World Health Organization, Second Meeting of the RBM Partnership Monitoring and Evaluation Reference Group. November 2003. Geneva.: World Health Organization, available at [http://rbm.who.int/partnership/wg/wg\\_monitoring/docs/MERG\\_Nov03minutes270104final.doc](http://rbm.who.int/partnership/wg/wg_monitoring/docs/MERG_Nov03minutes270104final.doc)
- <sup>13</sup> “Millennium Development Holes,” *Nature* (editorial), Volume 446 Number 7134 pp347.
- <sup>14</sup> Amir Attaran, “An Immeasurable Crisis”
- <sup>15</sup> Roger Bate and Richard Tren, “DDT Saves Lives in Fight Against Malaria” CEI On Point, November 1, 2005, available at [http://www.aei.org/publications/filter.all.pubID.23409/pub\\_detail.asp](http://www.aei.org/publications/filter.all.pubID.23409/pub_detail.asp), accessed April 18, 2007.
- <sup>16</sup> *Ibid*
- <sup>17</sup> Estimates on malaria deaths differ, ranging from 1 million to 3 million deaths per year. Robert Snow offers the best estimate in his 2005 study. For more see, Snow RW, Guerra CA, Noor AM, Myint HY, Hay SI. The Global Distribution of Clinical Episodes of *Plasmodium falciparum* malaria. *Nature* 2005; 434: 214-17.
- <sup>18</sup> Roll Back Malaria, “Malaria in Africa” World Health Organization, available at [http://www.rbm.who.int/cmcc\\_upload/0/000/015/370/RBMInfosheet\\_3.htm](http://www.rbm.who.int/cmcc_upload/0/000/015/370/RBMInfosheet_3.htm), accessed April 17, 2007
- <sup>19</sup> The Global Fund, “ A Force for Change” Malaria Information Sheet, available at [http://www.theglobalfund.org/en/files/malaria\\_information\\_sheet\\_en.pdf](http://www.theglobalfund.org/en/files/malaria_information_sheet_en.pdf), accessed April 11, 2007
- <sup>20</sup> “The Global Fund to Fight AIDS, Tuberculosis and Malaria” Avert. Org, available at <http://www.avert.org/global-fund.htm>, accessed April 11, 2007
- <sup>21</sup> The Global Fund, “ A Force for Change.”
- <sup>22</sup> “The Global Fund to Fight AIDS, Tuberculosis and Malaria” Avert. Org, available at <http://www.avert.org/global-fund.htm>, accessed April 11, 2007
- <sup>23</sup> **Africa Fighting Malaria, “The Malaria-Donor Score Card” AFM, April 25, 2007, Washington DC, Available at [www.fightingmalaria.org](http://www.fightingmalaria.org)**
- <sup>24</sup> The United States Agency for International Development (USAID) “The President’s Malaria Initiative: Saving the Lives of Mothers and Children in Africa” First Annual Report, March 2007 available at [http://www.fightingmalaria.gov/resources/pmi\\_annual\\_report.pdf](http://www.fightingmalaria.gov/resources/pmi_annual_report.pdf), accessed April 11, 2007
- <sup>25</sup> “The Global Fund to Fight AIDS, Tuberculosis and Malaria” Avert. Org, available at <http://www.avert.org/global-fund.htm>, accessed April 11, 2007
- <sup>26</sup> *Ibid*
- <sup>27</sup> One of the legitimate ways to track malaria control is through the analysis of the numbers of deaths – and this effort requires manpower. Some have suggested that tracking malaria deaths be incorporated into church-provided services, such as faith-based health centers and community churches that “have universal distribution throughout the country, can mobilize significant numbers of volunteers, and draw people who have credibility in their communities. Churches are also good record-keepers, a key asset when countries track mortality rates and the impact malaria control efforts are having on saving lives.”<sup>27</sup> By finding out who is dying where, due to which coupled social and economic factors, policymakers, scientists, and non-governmental organizations (NGOs) working in country-led programs would be able to target more effectively populations with appropriate action.