



**Monitoring and Evaluation Reference Group (MERG)**

**Mortality Task Force Meeting  
30-31 January 2006  
New York City, USA**

**Developing a User-Friendly Software Package to Model  
The Mortality Impact of Malaria Control Efforts**

**Background Note**

The main purpose of the malaria MERG mortality task force meeting (January 30-31, 2006) was to make recommendations on how best to assess the mortality impact of malaria control efforts. At this meeting, there was broad agreement that the MERG should establish a minimum standard for assessing the mortality impact in all high burden countries, and then further define any additional analyses that could potentially be undertaken.

In line with this recommendation, it was further agreed that all high burden countries, at a minimum, should monitor the coverage of key malaria interventions (i.e. ITN use and antimalarials) collected through DHS, MICS, MIS and other national-level household surveys. Coverage estimates of key malaria control interventions, as well as their known efficacy, could then be used to derive an estimate of the mortality impact of malaria control interventions using a model-based approach.

At the meeting, Gareth Jones presented a model that assesses the impact of child survival interventions (including those for malaria) on under-five mortality, and which can also derive an estimate of malaria deaths averted. It is important to note that there are many advantages of linking the malaria assessment to the broader context of child survival. These benefits include the political saliency of linking these two efforts; the ability to ensure that estimates of malaria-specific and all cause mortality are in line with one another; and, finally, that this approach is practical, cost-effective and provides immediate outputs.

This note briefly describes this model, and sets out a preliminary timeline for its development into a user-friendly software package for wider distribution and use.

## **A Brief Description of the Model ('Lancet' model)**

The methodology described by Gareth Jones was first published in the Child Survival Lancet Series (paper 2), which is available at:

[http://www.who.int/child-adolescent-health/New\\_Publications/CHILD\\_HEALTH/CS/CS\\_paper\\_2.pdf](http://www.who.int/child-adolescent-health/New_Publications/CHILD_HEALTH/CS/CS_paper_2.pdf)

This paper provides an overview of the methodology used for determining under-five deaths that could be averted if coverage of a package of interventions were increased. This methodology was implemented for 42 countries where 90% of worldwide under-5 deaths occur, using the mortality distribution by cause also reported in the Child Survival Lancet Series (paper 1). It is important to note that the methodology was initially implemented via a computer-based spreadsheet.

In the period since the publication of this methodology, there has been considerable interest shown in the application of the model in a variety of circumstances. For example, the 'Lancet' model has been used by the UNICEF supported Accelerated Child Survival and Development (ACSD) program to assess the impact of scaling-up coverage of basic health interventions (including those for malaria) on under-five mortality. In addition, new data have become available both for under-five mortality estimates, as well as background information on efficacy of specific interventions. There is a need therefore to update the model and the resulting estimates for the potential numbers of lives saved as a result of specific child survival interventions. Based on this demand, the Child Health Epidemiological Reference Group (CHERG) has recently decided to update the model as part of their work. In addition, UNICEF has contacted members of the CHERG to explore the possibility of using the updated model in the development of a user-friendly software package for wider distribution and use. This proposal was well-received and a preliminary timeline for developing this software package is presented below.

### **Preliminary Timeline**

May	CHERG to finalize updating of the 'Lancet' methodology
July-August	Preliminary model available for testing ('beta version')
Late Fall/Early Winter	Completed model available, with accompanying package and training materials
2007 and beyond	Continued updating of the model

We will be able to further develop a timeline and budget once the CHERG meets again in May to finalize the model. It is important to note that a preliminary budget has already been developed by the CHERG, and a funding source for developing the software has been identified. Further discussion, however, is needed on how best to 'roll out' the model, as well as the process for its continued updating.