Editorial

Millennium Development Goals national targets are moving targets and the results will not be known until well after the deadline of 2015

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The Millennium Development Goal 4 (MDG-4) was agreed upon at the United Nations Millennium Summit in September 2000 to accelerate national and international efforts to reduce child mortality, and improve development by setting explicit targets. However, there is very little awareness among global health data experts, let alone policymakers, that in reality, the Millennium Development Goals related to mortality outcomes are moving targets that may change every year.

The MDG-4 target is the under-five mortality rate (U5MR, deaths in children less than 5 years of age per 1000 live births) in 2015 given a two-thirds reduction in the rate compared with 1990. The target is set for each country of the world and at the global level and is determined by the estimated baseline mortality levels for year 1990.

We explain why MDG-4 targets are moving and summarize indicators of progress, quantify how much national and global targets have moved and outline key policy implications and considerations for tracking country progress. Our aim is to strengthen the process of evaluating progress and to inform the debate on a next generation of goals that are likely to succeed when the MDG period ends in 2015.

The UN-IGME, comprising the United Nations Children’s Fund, World Health Organization, United Nations Population Division and the World Bank, was formed in 2004 with a brief to produce annual updates of child mortality levels and trends for all 195 UN member states in order to facilitate consistent tracking for MDG-4. UN-IGME has identified the annual rate of change as the indicator of choice for tracking progress towards the MDG-4 target. A two-thirds reduction in U5MR between 1990 and 2015 amounts to an annual rate of change of 4.4%, so if a country’s annual rate of change is 4.4% or greater, the country is said to be on target. With lower rates than this, the country is off target.

Both the progress between 1990 and today and the required change going forward to reach the MDG target are changing every year as these are determined by mortality levels for both 1990 and today. Paradoxically, this means that the required change today to reach the MDG target may differ from previous years even if the 1990 level and thus the MDG-4 target stay the same; or it may mean that the required change fluctuates between years even if the mortality level in recent years stays constant but the estimated 1990 level changes.

Moving targets

National and global MDG-4 targets move whenever the 1990 estimate of U5MR is updated or recalibrated, which is done annually by the UN-IGME as new data are received and as prediction methods improve. At the global level, the MDG-4 target for 2015 has moved only a little, from a required U5MR of 31.3 deaths per 1000 live births at the time of the Millennium Summit in 2000, to 29 today. However, significant changes in targets have occurred for some countries (see Figure 1). Of the 184 countries with estimates published both in 2000 and 2010, 60% have seen their MDG-4 U5MR target reduced—and the higher...
Data come from civil registration systems in the In low child mortality countries, the majority of household surveys performed around every 5 years. The MDG-4 target for a country is expected to stabilize as new prediction rounds add less and less data for historic periods. However, tracking of MDG progress through the annual rate of change remains quite uncertain, since predictions of U5MR for the most recent years are often based on very limited data, which means that the required change in the annual rate of change can be highly uncertain. This is exacerbated in countries with high child mortality rates where the primary data sources tend to be household surveys performed around every 5 years. In low child mortality countries, the majority of data come from civil registration systems in the form of vital statistics that are collected annually. For example, for the UN-IGME’s most recent year of prediction (2011), 45 of 46 countries with good vital statistics data had U5MR data more recent than 2006. In contrast, only 63% of countries without good vital statistics data and 63% of sub-Saharan African countries had data after 2006.

**Policy implications**

A change in MDG target for a country is due to new data and/or improved statistical prediction methods, and does not necessarily reflect changes in efforts to improve child mortality in the country. The annual re-estimation of 1990 levels, and the ensuing re-calibration of targets, progress and required change, make scientific sense in that latest data and improved statistical methods are applied, and in that they provide feedback to countries on their performance to date and on the performance required in order to meet the target, but is it good for policy?

The MDGs have undoubtedly garnered more momentum than any previous national progress goals because of the specificity of the goals. We believe that annual adjustment of health MDG targets is essential, as it improves understanding of past, current and future mortality levels via increased precision in estimates from new data and improvements in prediction methods. However, policymakers need to know that MDG-4 targets, progress and required change may change every year, and that the most recent mortality estimates are the best available evidence to date of mortality levels and trends and supersede previous estimates.

Misclassification of countries’ MDG track performance, which may arise owing to the uncertainties in estimating the annual rate of change progress indicator, may have direct negative influence on political and programmatic decisions on investment in health programmes. This policy uncertainty could be minimized if prediction uncertainty is taken into account in the form of direct statistical hypothesis-testing that evaluates whether a country’s estimated annual rate of change can be assumed to be greater or less than 4.4% given uncertainties in estimates for 1990 and the most recent year of estimate. In addition, or as an alternative, the probability that a country is on target to meet the MDG-4 target by 2015 can be calculated. We recommend that these practices be adopted for future MDG tracking.

Even once policymakers and technical specialists advising them understand that targets are moving, there is no justification for complacency. Both MDG-4 and MDG-5 stipulate the desired pace of progress between 1990 and 2015, but a country is undoubtedly judged, and should consider, the absolute levels of mortality risk and deaths. High risk reflects a higher number of child and maternal deaths from very preventable causes and paradoxically greater potential for...
rapid reduction. Estimates of mortality levels in 2015 will be uncertain in 2015 for the majority of countries. For countries that have seen a consistent trend in mortality levels, which are more likely to be developed countries, assessment of which countries that have met MDG-4 will be clear in 2015. However, for countries close to their MDG-4 target, or with rapidly accelerating U5MR reductions towards 2015, which are more likely to be developing countries, evidence of MDG accomplishments will be highly uncertain in 2015, but it will become clearer with every recalibration of mortality levels and trends thereafter.

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References