

# Maternal mortality: surprise, hope, and urgent action



The apparent failure to reduce maternal mortality during 20 years of the Safe Motherhood movement has been one of the most deforming scars on the body of global health. Despite strong advocacy efforts,<sup>1</sup> political leaders have either ignored the call or failed to make the health of women in pregnancy their priority. This striking lack of progress, despite maternal mortality reduction being awarded its own Millennium Development Goal (MDG-5) in 2000, has been a source of puzzlement and embarrassment to global health leaders. A sense of failure has triggered deeply reflective analyses to isolate its causes.<sup>2</sup>

Meanwhile, maternal health advocates, facing the prospect of missing MDG-5 targets badly, have tried to reframe the predicament women face in order to galvanise action. One strategy was to integrate maternal health with programmes to reduce newborn and child mortality—the continuum of care.<sup>3</sup> Another was to position maternal health as part of an even broader stage—women deliver for development.<sup>4</sup> The Women Deliver movement was launched at a conference in London in 2007. Its second gathering will take place in Washington, DC, in June this year.

The number that has challenged the maternal health community is 500 000. That is, the number of estimated maternal deaths (to be precise, for 2005, 535 900)<sup>5</sup> occurring annually. But a new analysis—new methods as well as the latest and, the authors believe, the most accurate estimates—now indicates that in 2008 maternal deaths had fallen from 526 300 in 1980 to 342 900 in 2008.<sup>6</sup> There are wide uncertainty intervals around these numbers. But the overall message, for the first time in a generation, is one of persistent and welcome progress.

There are additional important findings emerging from this work. Six countries account for over half of maternal deaths (India, Nigeria, Pakistan, Afghanistan, Ethiopia, and the Democratic Republic of Congo). Afghanistan has the highest maternal mortality ratio; Italy has the lowest. Over time, maternal mortality has concentrated in sub-Saharan Africa. Meanwhile, HIV has been a major cause of paralysis. Without HIV, annual maternal deaths would have been 281 500 in 2008. Maternal mortality has the strongest associations with fertility and GDP. And finally, several high-income countries, partly though maybe not wholly through better reporting, show an increase in

maternal mortality ratios (notably the USA, Denmark, Austria, Canada, and Norway).

What lessons can be drawn from these new data? First, the latest figures are, globally, good news. They provide robust reason for optimism. More importantly, these numbers should now act as a catalyst, not a brake, for accelerated action on MDG-5, including scaled-up resource commitments. Investment incontrovertibly saves the lives of women during pregnancy.

Second, the intimate connection between HIV and maternal health is now explicitly laid bare. Such an association, including tuberculosis, has been gaining important recent ground.<sup>7</sup> This latest evidence therefore supports growing calls<sup>8</sup> to integrate maternal and child survival programmes into vertical funding mechanisms for the MDGs, such as the Global Fund to fight AIDS, Tuberculosis, and Malaria. The Global Fund is the best model we have for effective development financing in the 21st century. Maternal, newborn, and child health offer a unique opportunity to give the Global Fund a fresh and expanded mandate, rewarding its already great success. New evidence of progress towards MDG-5 only underlines the importance of this more comprehensive approach—a replenished Global Fund for all the health MDGs.

Third, these results will provoke intense debate among the global health measurement community. This much was clear during the peer review process. For example, although reviewers concluded that this study was “well designed...[and] well explained”, “a very important contribution to our understanding of the epidemiology of maternal mortality”, and “seeks to make a crucially important contribution to the global monitoring of maternal mortality”, concerns about uncertainty estimates, in particular, were common. Understanding the varying approaches to measuring maternal mortality—their strengths, weaknesses, advantages, and disadvantages—must now be a priority for all those concerned with translating global health numbers and country estimates into policy.

Fourth, there needs to be serious reflection among the global health community about how it responds to new data. Even before the paper by Hogan et al was submitted to us, we were invited to “delay” or “hold” publication. The justification for this concern was several fold: potential political damage to maternal advocacy campaigns;



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confusion among countries, policymakers, and the media, given the difference between this maternal mortality estimate and the previous UN number; undermining progress on global commitments to maternal health; and the risk of an unproductive academic debate while women continued to die. Although well-intentioned, these requests to slow the pace of scientific discussion for political considerations are likely to be far more damaging than fostering a serious debate about progress in reducing maternal mortality as and when new data appear. Is the global health community unable to accommodate diverse voices and sources of evidence? Is it unable to create constructive ways to bring scientists and policymakers together to reach agreement about the meaning of new research findings?

Fifth, given the dramatic difference between the results of these estimates and those last reported by the UN, a process needs to be put in place urgently to discuss these figures, their implications, and the actions, global and in country, that should follow. Ban Ki-moon is currently leading a Joint Effort on Women's and Children's Health. The purpose is to plan measures for the MDG Summit in September. One outcome of the UN Secretary-General's important initiative might be to convene a high-level, intergovernmental MDG preparatory meeting as a satellite event at Women Deliver in June. The goal of such a preparatory meeting would be to bring the best available data to bear on formulating policies to launch in September.

What Hogan et al have shown is that programmes to reduce fertility rates, increase individual incomes, expand maternal education, and widen access to skilled birth attendants are having a measurable effect—saving the lives of women during pregnancy. Two decades of concerted campaigning by those dedicated to maternal health is working. Even greater investment in that work is likely to deliver even greater benefits. Women have long delivered for society, and, slowly, society is at last delivering for women. This is a moment to celebrate—and accelerate.

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## Can endoscopy protect against colorectal cancer? An RCT

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To understand how much screening endoscopy (sigmoidoscopy or colonoscopy) reduces colorectal cancer incidence and mortality, there has been no evidence from a randomised trial of sufficient size and duration to draw strong conclusions. The reduction in colorectal cancer mortality of 60–70% for lesions within reach of the sigmoidoscope is based on case-control research.<sup>1</sup> The reduction in the incidence of colorectal cancer of 76–90% for colonoscopy is based on a study that used historical controls,<sup>2</sup> a design that can inflate estimates of benefit.<sup>3</sup>

In *The Lancet* today, Wendy Atkin and colleagues<sup>4</sup> report the UK randomised trial of once-only flexible sigmoidoscopy screening (in which polyps are removed

at sigmoidoscopy), and provide strong evidence about how well endoscopy works in the left colon. The study was large and representative (170 432 individuals randomised; 71% uptake in the sigmoidoscopy group), monitored endoscopy quality, avoided contamination, and provided thorough follow-up averaging 11 years. The mortality and incidence of colorectal cancer were quantified in both intention-to-treat and per-protocol analyses.

The incidence of colorectal cancer was reduced by 36% in the left colon in individuals randomly assigned to receive sigmoidoscopy, and by 50% in those who received it. Colorectal cancer mortality was reduced by 31% and 43%, respectively, for colorectal cancer