

Is estimating maternal mortality useful?

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In this issue, Hill, AbouZahr & Wardlaw (1) present new estimates of maternal mortality for 1995. They have carefully adjusted the data for underreporting, and used statistical models in countries lacking relevant data. They have obtained a global estimate ranging from some 303 000 to 822 000 maternal deaths. This very large range is mostly the consequence of the limited quality of available data. In only 17 countries were the data based on Reproductive Age Mortality Study (RAMOS), one of the best methods to measure maternal mortality. Many country-specific estimates presented by the authors are based on assumptions that are generally conservative. For example, they mainly used an adjustment factor of 1.5 to estimate maternal mortality ratios in 48 countries with a good registration system, including the USA. However, the number of maternal deaths in the USA could be more than twice as high as the reported number (2). The estimates presented here might thus be lower than the actual values. Maternal mortality remains an extremely important problem, and might be worse than we suspect. It is not impossible that one million maternal deaths occurred in the world in 1995.

The authors carefully discuss the limitations of their data, and emphasize that no valid conclusions can be drawn from them about trends: the data are too imprecise to provide a basis for such analyses, and the method used is slightly different from the one used to make the estimates for 1990. Interestingly enough, the relative imprecision of the estimates is of similar magnitude in industrialized and in developing countries. For example, the point

estimate of maternal mortality ratio for Europe is 28 per 100 000 live births, with a lower uncertainty bound of 18 per 100 000 live births. For Africa, the point estimate of maternal mortality ratio is 1006 per 100 000 live births, with a lower uncertainty bound of 544 per 100 000 live births. The lower bound in Europe is thus 36% lower than the point estimate, while in Africa it is 46% lower. Few programmes would be expected to have a measurable short-term impact that is larger than the imprecision of the estimates. These data, once again, demonstrate that maternal mortality ratios are not useful for the monitoring or evaluation of Safe Motherhood programmes (3). Thus the recommendation to use process indicators (such as caesarean section rates) for monitoring and evaluation purposes is well-founded.

Despite these limitations, estimating maternal mortality is useful. Disparities between the ratios are so huge that even imprecise data allow us to see their persistence. In 1995 the maternal mortality ratio was almost 400 times higher in Rwanda (2318 per 100 000 live births) than in Finland (6 per 100 000 live births). Interventions that can reduce this mortality are available, and include better access to emergency obstetrical care (4). Our objective must thus be to achieve what is known to be possible: the large and rapid decrease of maternal mortality. The estimates presented by Hill and collaborators show that this is not happening. To document such a tragedy is useful, supports our advocacy efforts, and shows the urgency of the issue.

Every effort should be made to have high quality data on maternal mortality. Industrialized countries could use enhanced registration systems on a regular basis, and RAMOS at least every 10 years. Enhanced registration should include routine linkage of death and birth certificates. In developing countries, high quality data could be derived

from a variety of methods, including RAMOS studies and new census questions (5). Measuring maternal mortality is the only way to ensure that its reduction remains a top priority. ■

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2. Berg C et al. Pregnancy-related mortality in the United States, 1987–1990. *Obstetrics and Gynecology*, 1996, **88**: 161–167.
3. Graham W, Filippi V, Ronsmans C. Demonstrating program impact on maternal mortality. *Health Policy and Planning*, 1996, **11**: 16–20.
4. Maine D, Rosenfield A. The Safe Motherhood Initiative: why has it stalled? *American Journal of Public Health*, 1999, **89**: 480–482.
5. Stanton C et al. Every death counts: measurement of maternal mortality via a census. *Bulletin of the World Health Organization*, in press.

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