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Questions and Answers
Interagency estimates of maternal mortality levels and trends: 1990-2008

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What is new about these estimates?

WHO, UNICEF, UNFPA and the World Bank work together to produce global, regional and country estimates of maternal mortality periodically. The current update represents levels and trends for 1990-2008 and uses all available national data on maternal mortality as well as improved methods as compared to those used in previous interagency estimates published for 2005, 2000 and 1995.

How has the methodology changed and are the new figures still comparable with figures published previously? Why a larger decline in maternal mortality noted with the new analyses was not shown in previous estimates

The new analysis involves a larger dataset than the previous estimates and a different methodology that uses the all available and eligible data from a country rather than the single most recent estimate for a particular country. Additionally, for the current estimates, a definitional adjustment to studies, that have measured deaths during pregnancy rather than maternal deaths exclusively, was made in order to exclude deaths incidental to pregnancy. Household surveys using sibling history (like the Demographic and Health Surveys (DHS)) and census are among the studies measuring pregnancy related mortality, and not maternal mortality in its exact sense. The new figures thus, should not be compared with the previous Interagency figures due to the change in the methodology.

It might be possible that availability of more data points might have led to detecting the decreasing trend in maternal mortality within the current analysis that has not been possible to detect before.

Why are the inter-agency estimates different than those used by countries?

Global estimates have to be internationally comparable. In order to achieve international comparability, it is necessary for all the national estimates, with their different degrees of under-estimation, to be adjusted to a level that makes them comparable and that is likely to be close to the true maternal mortality level. This also makes it possible to compare estimates for the same country derived from distinct data sources such as civil registration systems, censuses and DHS surveys, something that cannot be done if these sources are affected by different degrees of under-estimation. Some countries already apply a correction factor to their own civil registration data and in this case the issue is not one of arguing that the raw data should be adjusted, but rather if the adjustment factor applied by the country is based on evidence on the extent of under registration.

How do you estimate maternal mortality in countries that lack death registration systems? Can the numbers be trusted if there are no data?

We are using the data available and if there are no data we have to resort to using modelling based on the experience in other countries and use other predictors of maternal mortality such as economic development. For Afghanistan, Bhutan and Burundi we have no national data and therefore modelling is used to provide an estimate which is used for regional and global totals. But not even the best modelling can give us the real figures and therefore we advocate for greater investments to generate better data on maternal deaths: every maternal death must be counted.

How are the maternal deaths due to HIV accounted for in the estimates?

For countries with high HIV/AIDS prevalence, HIV/AIDS has become a leading cause of death during pregnancy and the postpartum period. There is also some evidence from community studies that women with HIV infection have a higher risk of maternal death, although this may be balanced by lower fertility. If HIV is prevalent, then there will also be more incidental deaths among pregnant women (i.e., those due to HIV/AIDS, not related with pregnancy). It is thus important to address the issue of incidental and indirect maternal deaths among HIV-positive women in estimating maternal mortality for these countries. The current estimates used an approach that involves first analysis of "maternal, non-HIV-related" deaths that includes only "maternal" deaths properly defined but excludes all HIV associated deaths from "pregnancy-related" deaths and then the estimated number of indirect maternal deaths due to HIV/AIDS was added back to obtain the total number of maternal deaths.

Why is there much disagreement on maternal mortality figures?

Maternal mortality is one of the most difficult indicators to measure reliably. Not only does it require a correct assessment of the number of deaths of women of reproductive age, which in itself may be a challenge in many developing countries, but it also requires the correct classification of these deaths by cause. Maternal deaths are more often misclassified than others, not only because they are easily confused with deaths due to other causes, but also because health institutions may prefer to attribute them to such other causes, due to the stigma of inadequate treatment associated with maternal death. This is particularly the case of indirect obstetric causes. Consequently, even in the best civil registration systems in the world, it has been found that maternal causes can be substantially under-reported. Given that different data sources will not necessarily yield the same results and that common adjustments to those data involve assumptions, variations in the estimates that can be produced for the same country can be considerable. Obviously this creates problems for both countries and for agencies as the estimates serve for monitoring and evaluation purposes that can have important political implications.

How does maternal death rate as a health problem in comparison to others?

Maternal deaths are relatively rare events (as compared to under-five mortality). The point is that no woman should die from the complications of giving birth. In the developed world the risk of dying from pregnancy related causes for a woman during her adult life time is 1 in 4300, while it is 1 in 120 for women in the developing countries.

What is the reason for the drop by one third in maternal mortality worldwide?

Several reasons, from improvement in health systems to increased female education, could account for the decline in maternal mortality during 1990–2008. In developing regions, not only has the maternal mortality ratio declined but also other MDG 5 indicators have improved during the same period. For instance, in developing regions the proportion of deliveries attended by skilled health personnel rose from 53% in 1990 to 63% in 2008. Similarly, the proportion of women attended at least once during pregnancy by skilled health-care personnel increased from 64% to 80%, while the proportion of women aged 15–49 who are using any method of contraception also increased from 52% to 62%. Countries are increasingly adopting strategies to increase access to effective interventions which may have contributed to improved outcomes.

Why does UN agencies produce own figures? Shouldn't they leave this task to an academic institution?

UN agencies do not do this alone. As is done in many other health areas, we invite experts from academic institutions to work through expert groups to develop and review the best possible methods of estimation. Collaboration with and technical support from academic institutions is essential to develop better methods. Agencies also work closely with countries. All numbers go through a process of country consultation, in which new data are uncovered, estimates are discussed and improved as necessary. The aim is to come up with the best estimates that can be used by countries. We are welcoming the efforts of other groups to improve the estimation methods and are looking forward to collaborate with all interested parties to share data, sort out different methods and develop tools that can be used by countries.