

Using process indicators to monitor maternal health

For years the maternal mortality ratio was the main indicator available for measuring maternal health. This indicator, requiring large household surveys in the absence of vital registration systems, is expensive to generate, subject to many types of errors and particularly unsuitable for monitoring recent changes. Even in countries with good vital registration, maternal mortality can be seriously underestimated as a result of misclassification of deaths. Moreover, while this indicator provides a snapshot of the problem, it gives no indication of what to do about it.

In 1991 Columbia University and the United Nations Children's Fund (UNICEF) developed a set of process indicators (later issued in UNICEF, WHO and UNFPA 1997) to address these problems. While the maternal mortality ratio is an impact indicator and reflects the level of deaths, process indicators show changes in the circumstances known to contribute to maternal death, such as non-availability of medical treatment. Process indicators are therefore useful for planning and monitoring projects to avert maternal deaths (for information on projects using these indicators, see <http://www.amdd.hs.columbia.edu>).

The process indicators make visible the reality that many health facilities in developing countries do not offer the care women need if they develop obstetric complications. Of every 100 pregnant women, according to the World Health Organization (WHO 1994), at least 15 are likely to develop complications—

whether they live in Dhaka or New York. But in New York women can get the life-saving medical treatment they need, such as antibiotics, blood transfusions and caesarean sections. These procedures have been common for decades. And yet the lifetime risk of a woman dying in pregnancy or childbirth is 1 in 16 in Africa, 1 in 65 in Asia and 1 in 3,700 in North America.

Using the process indicators, planners can determine the minimum health facilities needed in a population area (the amount of emergency obstetric care available and the geographic distribution of these services), whether the women who need the services are using them (the proportion of all births in emergency obstetric facilities, the met need for emergency obstetric services and caesarean sections as a share of all births) and whether the quality is adequate (the case fatality rate). The answers can then guide investment in upgrading the facilities for emergency obstetric care.

Compared with the maternal mortality ratio, the process indicators are:

- Less expensive—they do not require surveys but instead are based on facility records and available data or estimates of the population and birth rate.
- More valid—data can be cross-checked.
- More likely to promote action—they emphasize functioning facilities and population coverage.
- More useful—they show change relatively quickly, highlighting needs and progress.