

JOURNAL REVIEW

Alternative strategies to reduce maternal mortality in India: a cost effective analysis

Goldie SJ, Sweet S, Carvalho N, *et al.*
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This is a very interesting and indeed a 'wake-up call' article highlighting the high maternal mortality and morbidity prevalent in India and what can be done to reduce the enormity of the problem. The data are alarming, revealing that of the half million women dying worldwide every year from pregnancy or childbirth-related problems, a quarter of these deaths occur in India alone.

In 2005, the maternal mortality rate (MMR) in India was 450 deaths per 100 000 live births, compared to 8 per 100 000 in the UK. The United Nations pledged, in 2000, as its fifth Millennium Development Goal (MDG 5) that the global MMR would be reduced to a quarter of its 1990 rate by 2015. At present, it seems unlikely that the target will be reached as

between 1990 and 2005, global maternal deaths only decreased by 1% per annum, compared to the 5% per annum required to reach MDG 5.

In this study, a computer-based model was used to simulate the natural history of pregnancy and childbirth, and its complications. Separate models were used for urban and rural India. Model validation compared projected maternal indicators with empirical data. Intervention strategies used were increased family planning access for spacing or limiting births, antenatal or prenatal care (and treatment of anaemia), safe abortion, intrapartum care (e.g. active management of labour), emergency obstetric care (both basic and comprehensive) and postpartum care. Intervention pathway during labour and delivery included location (home, health centre or hospital), attendant (family member, traditional birth attendant or skilled birth attendant) and potential barriers to effective treatment in event of complications (e.g. recognition of referral need, transfer facilities and time to transfer).

The most effective single intervention to reduce pregnancy-related mortality

was increased family planning. If this model could be used in the next 5 years, more than 150 000 maternal deaths would be prevented and at least half of abortion-related deaths averted. An integrated and stepwise approach could eventually prevent nearly 80% of maternal deaths. Hence, increased access to family planning and safe abortion, increasing numbers of skilled birth attendants, reducing home births and improving emergency obstetric care would go a long way. All the strategies suggested would eventually be very cost effective too.

Overall, this is a very extensive publication (although not very easy reading!) and the data suggest that MDG 5 may be within reach in India, and this should help to mobilise political support for this worthy goal.

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