CASE STUDY RESPONSE

Maternal mortality - the need for a comprehensive systems approach

B SUBHA SRI

Reproductive Health Clinic, Rural Women's Social Education Centre, Tamil Nadu, INDIA email : subhasrib@gmail.com

The two accounts of maternal deaths narrated here (1, 2) reveal several systemic issues that contribute to the huge problem of maternal mortality in developing countries. While the two incidents happened in different settings, they have several common themes.

Five major direct complications of pregnancy and childbirth account for more than 70% of maternal deaths in Asia. These are: haemorrhage, sepsis, unsafe abortion, eclampsia and obstructed labour (2). It has been understood for some time that the problems of maternal mortality are somewhat different from the problems of other public health issues. While several underlying causative factors could cumulatively contribute to something like child mortality, the cause of maternal mortality is essentially binomial – a pregnant woman either does or does not develop a life threatening complication and her survival then depends on whether she does or does not get prompt, adequate care (3). This is not to take away from important underlying issues like nutritional anaemia, gender hierarchies and the power to make decisions. Since most obstetric complications cannot be predicted, every pregnant woman needs to be able to gain access to emergency obstetric care if and when required. The operative word here is "every" (4). Thus, unless the system is geared to tackling such emergencies, it can never provide a truly "safe service", and will therefore fundamentally compromise the rights of all who approach it. The "three delays" model (5) focuses on the factors that contribute to the time interval between the onset of a complication and its care. The first delay is the delay in deciding to seek care, the second is the delay in identifying and reaching an appropriate health facility, and the third is the delay in receiving adequate and appropriate care.

Safe motherhood and maternal mortality have been on the global health agenda for some time. The fifth Millennium Development Goal is to reduce maternal mortality by three-fourths between 1990 and 2015 (6). One of the key strategies envisaged for achieving this goal is provision of a skilled birth attendant at every delivery – in fact, this is one of the indicators to measure global progress towards reducing maternal mortality (7). But what these two cases bring out very starkly is how the mere presence of a skilled birth attendant cannot be of very much help unless backed by adequate and functioning support systems. Indeed, a skilled attendant was present in both cases. While in one case the complication of intrauterine death was identified quite early in the chain of events, and in the other the seriousness of the woman's presentation with bleeding per vaginum was recognised, the healthcare providers in both cases were totally unsupported by the system. The woman in the rural area was appropriately referred to a higher centre and provided transportation, but lack of skilled personnel to handle the complication and lack of adequate infrastructure like availability of blood led to multiple referrals back and forth and a tragic chain of events that led to her death almost 24 hours later. In the other case, in spite of the woman being in a tertiary care facility, delays both in diagnostic investigations and in life saving measures like availability of blood and blood products led to her death – this, despite all the efforts of the author and his colleagues to work through the gaps in the system. These cases bring home to us the difference between a skilled attendant and skilled attendance.

While the term "skilled attendant" refers to people with midwifery skills who have been well trained in the skills necessary to manage normal deliveries and diagnose, manage, or refer complications, the term "skilled attendance" is defined as "the process by which a woman is provided with adequate care during labour, delivery and the early postpartum period".(8) The latter suggests both the presence of a skilled attendant and an enabling environment for the skilled attendant to work in, including the availability of adequate supplies, equipment and infrastructure, as well as efficient and effective systems of communication and referral. More broadly, this would also include socio-cultural factors, policy and programme contexts and financing issues. This broadening of the scope, from the mere presence of a skilled person attending the birth to a whole range of systemic issues, clearly calls for reform of the health system. Historical evidence from countries like Sri Lanka and Malaysia points to the fact that skilled birth attendants working within functioning health systems – in other words skilled birth attendance – can significantly bring down maternal mortality (9).

The present policy climate in India is clearly in favour of institutionalisation of births. Maternity benefit schemes like the Janani Suraksha Yojana are clearly linked to this policy framework and the government health workers at the grassroots, including the accredited social health activist and the auxiliary nurse midwife, are being used to push this strategy (10). It is assumed that giving birth in a healthcare facility will lead to better obstetric care and reduce mortality. But this assumption is not backed by hard evidence. Experiences from

several states in India show that several things can go wrong in the pathway leading from institutionalisation to mortality reduction – as for example lack of adequate personnel and infrastructure at various levels of healthcare institutions and compromises on the quality of services.

The third District Level Household and Facility Survey reveals large gaps in these areas (11). Less than 50% of 24-hour primary health centres in most states have referral services for pregnancy/delivery, very few first referral units offer caesarean sections, and only a handful of them actually have blood storage facilities. Overburdening an already creaking system by pushing for institutionalisation could worsen the already poor quality of care. Asking women to deliver in institutions in such a scenario, and holding out the hope that this will improve the quality of care during delivery, is nothing short of unethical. This is reflected in both the cases narrated here, where women who reached the system in time to avoid obstetric complications were failed by the system. In time, this policy could prove counterproductive, with women losing trust in the health system itself.

An important issue that one of the cases highlights is the absence of an information system to report maternal deaths. The death of Vaishali, who lived in a rural area, was totally unknown to the health system. Other studies have also shown this lack of reporting of maternal deaths (12). The opportunity to study the system's failures and institute corrective measures is thus lost. Both cases also reveal a total lack of accountability to women. In Vaishali's case, there was no accountability to accompany the woman during referral and ensure continuity of care, and in the other case, accountability was pinned on the intern who actually was not directly involved in decision making or provision of care. Earlier, studies had shown that blame is usually pinned on traditional birth attendants or ANMs in the case of a maternal death and this usually leads to their resorting to defensive practices (12).

My own experiences in working with maternal healthcare in rural Tamil Nadu reveal other issues in the healthcare system that results in poor quality of care. Rampant corruption in public healthcare institutions means that families end up paying large amounts for services that are supposed to be essentially free. This compromises access to services, especially for the economically marginalised for whom they are meant. Physical and verbal abuse of women in delivery units of public institutions is another factor that compromises the quality of care offered. While these may seem to have no direct relation to maternal mortality, they severely compromise women's ability to be informed partners in healthcare and are also a violation of their right to health and right to dignity.

Under the Indian constitution and also under international law, every woman is assured of the right to life and, consequently, the right to health. Although the right to health is to be progressively realised, the state is expected to provide a core set of minimum obligations at the outset, and emergency obstetric care is one of them (13). The Indian government is therefore ethically bound to ensure the provision of services that would help realise this right to health. That these two women were met with failures at several levels of the health system when accessing emergency obstetric care points to a failure of the state to provide a core set of minimum obligations to every citizen as required through international human rights instruments. The fact that those who approach the public health system are invariably from the poorest sections of society, and this is the only service that is available to them, makes the violation of this right even more poignant.

The components of emergency obstetric care are simple interventions that have been scientific knowledge for several decades now. They include the use of antibiotics and the provision of caesarean section and blood transfusion. All of these can very easily be delivered by a functioning health system with infrastructure that is supposed to be already available. The tragedy is that despite these being simple interventions that could be delivered at extremely low cost, policies and programmes have focused on individual components like institutionalisation of deliveries instead of looking at service delivery in a comprehensive manner. The lives of these two women, and countless others like them whose stories we do not know, could have been saved by putting in place systems that would ensure delivery of these interventions at all levels to women who need them, when they need them.

References

1. Songara D. Maternal mortality in Gujarat. *Indian J Med Ethics*.2009 Oct-Dec;6(4):208.
2. Contractor T. A fateful night and a life. *Indian J Med Ethics*.2009 Oct-Dec;6(4):209-10.
3. UNICEF. Maternal and perinatal death inquiry and response [Internet]. New Delhi: UNICEF India country office; 2007 [cited 2009 Aug 31]. Available from: www.mapedir.org
4. Maine D.What's so special about maternal mortality? In M Berer, TK Sundari Ravindran, editors. *Safe motherhood initiatives: critical issues*. Oxford (UK): Blackwell Science for Reproductive Health Matters; 1999: p.175-82.
5. Donnay F. Maternal survival in developing countries: what has been done, what can be achieved in the next decade. *Int J Gynecol Obstet*. 2000 Jul; 70:89-97. Cited in PubMed; PMID 10884537.
6. Thaddeus S, Maine D. Too far to walk -maternal mortality in context. *Soc Sci Med*. 1994 Apr; 38(8):1091-110. Cited in PubMed; PMID 8042057.
7. World Health Organisation. Health in the millennium development goals[Internet]. Geneva: World Health Organisation; [cited 2009 Aug 31]. Available from: http://www.who.int/mdg/goals/en/index.html
8. Making pregnancy safer,World Health Organisation. Making pregnancy safer: the critical role of the skilled attendant : a joint statement by WHO, ICM and FIGO[Internet]. Geneva: Department of reproductive health and research, World Health Organisation;2004[cited 2009 Aug 31].18p. Available from: http://whqlibdoc.who.int/publications/2004/9241591692.pdf
9. Graham WJ, Bell JS, Bullough CH. Can skilled attendance at delivery reduce maternal mortality in developing countries? *Studies in HSO&P* .2001;17:97-130.
10. Pathmanathan I, Liljestrand J, Martins JM, Rajapaksa LC, Lissner C, de Silva A, Selvaraju S, Singh PJ. Investing in maternal health - learning from Malaysia and Sri Lanka[Internet].[place unknown]: The World Bank Group;2003 Dec 31.206p.Report No.: 25901. Health, nutrition and population series. Available from: http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2007/08/28/000020439_20070828164038/Rendered/PDF/259010REPLACEM10082135362401PUBLIC1.pdf
11. Maternal health division, Ministry of health and family welfare. Janani

Suraksha Yojana- features and frequently asked questions [Internet]. New Delhi: Ministry of Health and Family Welfare, Government of India; 2006 Oct [cited 2009 Aug 31]. Available from: http://mohfw.nic.in/dofw%20website/JSY_features_FAQ_Nov_2006.htm

13. District level household and facility survey [Internet]. Mumbai (India): International institute for population sciences.1998- [cited 2009 Aug 31]. Available from: http://www.rchiips.org/state-fact-sheet-rch3.html
14. George A. Persistence of high maternal mortality in Koppal District, Karnataka, India: Observed service delivery constraints. *Reproductive Health Matters*. 2007 Nov; 15(30):91-102. Cited in PubMed; PMID 17938074.
15. Hunt P, Backman G. Health systems and the right to highest attainable standard of health. *Health and Human Rights*.2009;10(1):81-92.