EXPERT OPINION

Home Deliveries: Not a Safe Alternative in the Developing World

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It was estimated by the World Health Organization in 2005 that over half a million women die every year due to complications in pregnancy or due to childbirth, and that the level of maternal mortality is disproportionately higher in Africa with a regional maternal mortality ratio of 820 per 100,000 live births. As most of these maternal deaths occur during childbirth, the presence of trained health personnel have the potential to reduce these maternal deaths. There is need to understand the determinants of why some people deliver at home most of the time, with no trained personnel, while others choose to deliver at a health facility with trained personnel.

The fact is that most women deliver at home rather than at a health facility in developing countries. Previous studies have approached this issue by examining the influence of socio-demographic factors such as education, age, level of wealth on the choice of place of delivery. In the developed world, delivery at home is a choice where the woman is well monitored and arrangements put in place for quick evacuation to an equipped health centre in case of complications. On the other hand in the developing world, delivery at home is not a choice but caused by different delays. These include delay by the family to decide to go to health centre, delay to reach health centre for various reasons and also delay to receive medical attention when they have reached the health centre.

One of the complications of home deliveries is obstetric haemorrhage. Obstetric hemorrhage continues to be the leading cause of maternal death in low-resource settings, representing an estimated 34% of maternal deaths in Africa. Most hemorrhage occurs postpartum (PPH), which is defined by a post-delivery blood loss exceeding 500 mL; the largest proportion of PPH is attributed to uterine atony in which the uterus fails to effectively contract and retract once the baby is delivered. Active management of the third stage of labor (AMTSL) is effective at preventing 40%–60% of these atonic PPH cases, but this requires skilled delivery attendance. When PPH or PAH does occur, obtaining treatment quickly is essential to save the life of the mother; a woman bleeding from PPH due to uterine atony can die within 2 hours. Moreover, once a woman has bled sufficiently to go into shock, fluids and blood must be administered rapidly to restore haemodynamic stability and prevent irreversible damage or tissue death. All these interventions are not possible in the home environment

One other complication of note is that of vesico-vaginal fistula formation following prolonged labour. This is especially so following delivery after prolonged labour at home that ends up with an intervention at a health facility. Again there are several factors associated with these fistulae. Preliminary impressions can be obtained from surveys taken of fistulae patients in hospitals in several countries. The overall impression is that fistula patients come from poor areas where infrastructure development is rudimentary and access to health care – particularly access to basic midwifery and emergency obstetric services –is lacking. Fistula patients tend to be young women, many of whom married very early ,of short stature, poorly educated, married to farmers or petty traders who themselves have little or no formal education. They typically have little or no access to prenatal care, and even if they had access to antenatal screening, they have often nonetheless delivered at

home attended to by family members or traditional birth attendants. If they sought help from trained midwives or medical doctors, this often occurs late in labour after serious complications have already set in.

Studies on the safety of home deliveries have only been conducted in developed nations among low risk mothers with assistance at delivery present all the time and ready access to hospital if a complication occurred at home. However most deliveries that occur at home in developing countries do so without being planned but because of certain influences such as access to health centers and being delivered by skilled staff. In some rural areas of the developing world only one third of deliveries occur in a health center. The choice of place of delivery has however been consistently associated with maternal and neonatal outcomes. Policies about place of delivery have tended to be formulated without either looking at existing evidence or carrying out research into the relative safety of women and babies in relation to delivery in different settings.

The best practice for choice of place of delivery in developing countries should aim at stepping up institutional capacity of already existing centers. Efforts should be made to enable provide good quality care and increased demand for health centers**.** There is generally a positive association between socioeconomic status of women and the use of maternal health care services.