How can motherhood be made safer in Nepal ? More than hospitals are needed

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Abstract

The United Mission to Nepal (UMN) has been involved in health work in the Okhaldhunga District of eastern Nepal for more than 30 years. UMN's Okhaldhunga Hospital, which is the only hospital in the district has been providing emergency obstetric services (EOS) since 1979. The Community Health Section of the project has been involved in maternal and child health care, community health education, and nonformal education since 1977. During the last ten years, the absolute number of deliveries presenting to the hospital has increased almost three fold. Yet, the number of women presenting with complications has not increased proportionately, and still only represents a very small percentage of the women in the district who experience obstetric complications every year. The Community Health staff conducted focus group discussions among women attending antenatal clinics and literacy classes to ascertain local beliefs and practices concerning pregnancy and childbirth, and to improve our understanding of why women do or do not seek obstetric care at the hospital.

These focus group discussions revealed that many women in the community know about high risk conditions in pregnancy (eg, prolonged labour, bleeding, breech position), but they still wait 2-3 days before seeking help. Going to the hospital is frequently delayed due to issues of finance, transport, family beliefs and decision making. Most women said that they did not make use of local health resources because they were unreliable and staff were often absent from their posts. Women in all groups said that the first person called for obstetric complications is still a traditional healer. The results of this experience in the Okhaldhunga District display that a limited focus on strengthening hospitals would not be enough to significantly change maternal mortality and morbidity. People need education about maternal health. Community-level health workers at health posts need training, support and supervision. Functional systems of transport and referral need to be established if motherhood, and the health of women, is to be made safer in places like the Okhaldhunga District of Nepal.

Keywords: Safe motherhood; unmet need; maternal mortality

Background information

The safe motherhood initiative worldwide

Over the past two decades, the importance of maternal health has become an increasingly important topic of discussion and planning in international health circles. In 1987, the first international conference specifically focusing on Safe Motherhood was held. The World Health Organization, The World Bank, and the United Nations Fund for Population Activities joined hands to review the causes of maternal morbidity and mortality worldwide and to develop strategies to ensure safer pregnancy and delivery services for all women. The primary objective of the Safe Motherhood Initiative was "to reduce levels of maternal mortality
by an estimated 50% in one decade."1 In
the ten ensuing years, multitudes of programmes, schemes, and frameworks have been formulated to meet this objective. There has been much emphasis on the need for accurate health statistics and proven indicators concerning maternal health.2,3,4 The potential of antenatal care to reduce maternal mortality has been explored and researched.5 It has been clear that the women who seek antenatal care are often better educated and at lower risk than the women who don't and efforts to provide mobile antenatal services, and services at the community level have been suggested.6,7 Repeatedly, long-term improvement of women' status has been voiced as being an essential component of any sustainable impact.7,8 Conceptual frameworks for all levels of programmes have been developed and tested.9,10 More recently, efforts have been aimed at defining essential obstetric services and improving the quality

of health care at the hospital level.11,12

Nepal and the Okhaldhunga District

In 1996, the total population of Nepal was estimated at 21.1 million people with a crude birth rate of 39.5/1000 population.13 Statistics from the 1996 Nepal Family Health Survey show that 92% of Nepali women live in rural areas, where electricity, motorable roads, and appropriate health care services are still not available. In rural Nepal, as in many less developed countries, most women do not have access to antenatal care through an established medical system, and most deliveries occur in homes. National statistics report that only 24% of women receive antenatal care, and 16% of women receive two doses of tetanus vaccine during pregnancy.13,14 Surveys of rural areas of Nepal have indicated that TBAs (traditional birth attendants) attend from 25% to 85% of deliveries in some village areas.14,15,16,17 This percentage varies considerably between ethnic groups. A national average has been calculated at 23%.14 The Ministry of Health has an active programme of training TBAs for 52 districts in Nepal. This is an important commitment as for the foreseeable future, TBAs will continue to have an active role in assisting deliveries in Nepal.

Estimates of maternal mortality in various regions of the country range from a low of 119 maternal deaths/100,000 live births for hospitals deliveries to an alarmingly high ratios of more than 1300 maternal deaths/100,000 live births in some remote areas.18 In 1995, UNICEF quoted the Maternal Mortality Ratio for Nepal as a whole at 830 maternal deaths/100,000 live births, but in the 1996 Progress of Nations report, UNICEF quoted a recalculated MMR of 1550/100,000 live births.19,20 The Nepal National Safe Motherhood Programme currently estimates the country-wide Maternal Mortality Ratio of 539 deaths/100,000 live births based on the 1996 Nepal Family Health Survey.14 The Nepal National Safe Motherhood Programme was initiated in 1993, and initial steps are now being piloted in ten districts; one of these selected districts is Okhaldhunga. The primary goal of the Safe Motherhood policy is to reduce maternal and neonatal morbidity and mortality through action at all levels of the health care system. The initial steps in this programme have focused on strengthening district hospitals and improving the district-level reporting of maternal mortality.

The Okhaldhunga District of eastern Nepal is one of the remotest areas of the country. The population of Okhaldhunga District is approximately 140,000.21 There are two government Primary Health Centres and 37 health posts/sub-health posts in the district. United Mission to Nepal's Okhaldhunga Hospital is the only hospital in the district, and the only site of emergency obstetric or surgical care for this population. The hospital, which has 32 beds, is situated one half hour walk north of the district centre and is a three-day walk from the nearest road. In addition to an outpatient centre for basic health care, the hospital, offers inpatient medical care and general surgical services. The hospital also operates a Nutrition Rehabilitation Centre for children and a Maternity Waiting Home for women at high risk of obstetric complications. The Community Health Section of the project has been working in a number of rural communities throughout the district since 1977. The programme has focused on antenatal care, tuberculosis and leprosy control, under five child care, nutrition, immunizations and family planning. Activities have included MCH Clinics, non formal education classes, establishment of drinking water systems, and community education through schools and ward meetings.

Status of delivery services at Okhaldhunga Hospital

In the last ten years, the number of deliveries performed at Okhaldhunga Hospital has gradually risen from 47 (in 1987-88) to 143 (in 1996-97). The number of women presenting with complications requiring emergency obstetric services has also risen, although not nearly threefold. More importantly, these numbers represent only a fraction of the need for caeserian sections and other emergency obstetric interventions that women in the Okhaldhunga District experience every year.

Based on a district population of approximately 140,000 and a national estimated MMR of 515/100,000 live births, the National Safe Motherhood Programme has estimated 5,686 live births per year and 32 maternal deaths per year for the Okhaldhunga District.13 Approximately 15% of women will experience a pregnancy-related, life threatening complication requiring emergency obstetric services, and 5% of

women will require a caeserian section to deliver safely. Extrapolating from this, approximately 850 women in Okhaldhunga should experience complications every year, and 285 women probably need a caesarian section to safely deliver. The maximum number of women with any type of obstetric complication presenting to Okhaldhunga Hospital in any recent year is 53 (1996-1997). Out of 32 expected maternal deaths in 1996-1997, only two deaths have been reported thus far to the District Health Office. Limited numbers of women may seek health care outside of the district, but the vast majority cannot or do not. These data indicate that despite good quality obstetric services, and an increasing number of hospital deliveries, unacceptably high rates of unidentified maternal mortality and morbidity must exist in the Okhaldhunga District. Clearly most women with obstetric complications are still not seeking or receiving appropriate health care in this district.

Findings of focus group discussions

In order to understand the obstacles women face in learning about obstetric complications and seeking services when necessary, the Community Health staff of the Okhaldhunga Health Project conducted focus group discussions among village women to discuss local experiences and practices of antenatal and delivery care. The discussions were facilitated by a female staff member (a literacy class supervisor) and were conducted in geographical areas where the programme has been working. These village areas are approximately a two-day walk from the hospital. Four of the discussions took place in local homes where literacy classes are normally conducted, and one took place at an MCH clinic. Six to twelve women participated in each focus group and no discussion lasted more than one hour. The women who participated were all of childbearing age, but a number of them had not yet given birth. They were from a number of different ethnic backgrounds and castes, and all lived within a few hours walk from the MCH Clinic site. Verbatim questions were not asked but a checklist of topics to be covered for each group was used. The text of the focus groups was recorded by a silent observer who later transcribed the text from Nepali into English. A summary of the discussions in the five focus groups is included below.

1. Who normally looks after a pregnant woman during delivery ?

All women in all groups confirmed that there is no agreed upon person who cares for all deliveries in a village or cluster of houses. Almost always a female relative (eg, sister, mother-in-law) provides help. Husbands are usually too embarrassed and would probably not be allowed to help. One woman reported delivering her own baby, and this is not uncommon. Some women stated that social customs prohibit higher caste women from handling the blood of lower caste women and this occasionally limited the choices of who might help during delivery. In the communities in which these focus group discussions were conducted, TBA assisted deliveries were not common.

2. What is done if the baby is not being born easily ?

Various practices were reported: hot oil is rubbed on the back, hot fluids are given, the hands of the labouring woman may be suspended by a rope to the ceiling to assist in pushing the baby out, the traditional belt is usually removed. All discussants reported that a traditional healer or "Dami Jankri" is called who often administers spices, and food that has been "magically" treated.

3. When is a health post worker called to assist with delivery ?

This question was not well understood and from the discussion it was clear that it is not the practice to call local health workers for delivery. Women reported that if the traditional healer could not diagnose the problem and the woman was almost dead, they might call a health post worker. Others stated that the lack of continuous presence of midwives and other health post staff made them think twice before looking for help. In one group a government-trained Community Health Volunteer (CHV) was present and she reported that CHV's only find out about poor delivery outcomes after the fact. The general impression was that health workers are not generally called, and if they are it would be only be after 1-2 days of unproductive labour or if the woman was in extremis.

4. In what situation, and for what conditions should a woman go to hospital ?

Two groups, based in communities two days walk from the hospital, reported that if a woman did not deliver for three days, if the traditional healer could not help, and if 10-12 porters would agree to go, a woman might be taken to the hospital. A variety of complications were listed as reasons to go to the hospital: breech presentation, uterine prolapse, hand or breech presentation, retained placenta, excessive bleeding or prolonged labour, or if the woman becomes unconscious or the baby stops moving. All groups said it would be unlikely for a woman to be taken to the hospital before two days had passed, and then that most families could not afford to go.

5. How do you know if bleeding is excessive during a delivery ?

Participants of two groups responded that if two floor mats were soaked, this was excessive. One woman stated that bleeding was usually a sign that something has happened to the baby; another responded that some bleeding is normal during late pregnancy.

6. When and why are you attending the antenatal clinic ?

All groups reported a variety of reasons: to learn if they were pregnant, to be sure the pregnancy will go well, to see if the baby will be born easily, and many other reasons. One woman complained that she had gone to the clinic regularly and yet had a stillbirth. Another woman stated that she had not come on time and did not receive the delivery kit usually distributed during the last month of pregnancy.

Discussion

Several methodological issues should be noted regarding these focus group discussions. As mentioned, four of the five discussions took place among groups of fairly young women, some of whom had not yet had their own children. The presence of a silent observer and the setting of the clinic site for one focus group might have been distracting. It is also possible that the perceptions of the limited number of women who participated in these focus groups
may not be representative of all women in their own villages or in the Okhaldhunga District. Nonetheless, a number of important observations were made.

If women do not normally call a trained helper, but a female relative or friend, perhaps much greater emphasis needs to be placed on educating all women about obstetric care and complications through mother's groups, literacy classes, and mass media. Although well-trained health workers need to be present at health posts to
treat and refer women with obstetric complications, women first need to know how and when to seek care. Attention needs to be given to identifying and training the right local health person, and to promoting that person's role in the village response to an obstetric crisis. Traditional healers appear to be called early and whenever there is an obstetric problem. Although it maybe logistically and culturally difficult, it would be useful to include traditional healers in a training programme, and to use them as a source for local morbidity and mortality information.

The overall knowledge of the reasons for taking a woman to the hospital was impressive, and corresponded fairly closely to referral criteria established by many authorities. Reference to the number of floor mats soaked by blood maybe a good basis for devising a local health message about excessive postpartum bleeding. Clearly, appropriate referral criteria need to be established and followed in health posts and the basic messages about when and how to seek help for these conditions need to be taught to community women.

Focus group participants seemed to have unclear ideas about why a woman should attend the antenatal clinic. Some of the women seemed to ascribe almost magical qualities to clinic attendance, as if the act of attendance could protect a woman from a bad outcome. Others were more realistic, indicating that obstetric complications might be discovered at the clinic. There have been many questions about standard prenatal care practices and the usefulness of prenatal care over the last few years. In places such as rural Nepal, it is one of the few times that a woman seeks health care for her own benefit. Antenatal visits

should not be an opportunity for clinical care alone (i.e. tetanus immunization, foetal assessment, diagnosis of complications by a trained health worker). Antenatal clinics also provide opportunities for health education and community organization. They are important links in establishing systems of referral and transport services.

It appears that help from either health posts or hospitals is sought very late. From these observations of local practices, this seems to be the major obstacle to overcoming maternal mortality and morbidity in rural Nepal. There is often an automatic delay of at least two days after a problem arises and before help is sought. Although many women could identify obstetric complications, it was clear that their significance, and the benefits of seeking emergency care for these life threatening conditions, was not understood. In addition, the obstacles of a poor referral system, lack of maternal transport services, and financial need all contribute to delay in seeking health care.

In regards to the hospital data, there are a number of issues to consider. Although the total numbers are limited, the records from this period are quite complete. Emergency Obstetric Services as documented in Figure 2 include forceps or vacuum deliveries, treatment for pre/eclampsia, manual placenta removal, abnormal foetal presentations and postpartum haemorrhage. It is realized that some of these cases are true maternal complications, some are probably related to foetal complications, and some are actually procedures, not complications. Important complications that have not been as well recorded during this time include: sepsis, severe anemia, hepatitis, and antepartum haemorrhage. These statistics also do not include complications of incomplete abortions because these procedures were not recorded as related to pregnancy in
the surgical records during the years of
the study. There is now a system of documenting early pregnancy complications and procedures related to maternal health that will be more reliable and complete in the future.

Statistics from UMN Okhaldhunga Hospital: July 15, 1987 to July 15, 1997

* Unmet need represents the difference between total number of caesarean sections performed, and an estimated 5% of all live births requiring C/S for safe delivery (Ministry of Health Safe Motherhood Statistics - 1996)

Figure 1: Unmet need for Caesarean section in Okhaldhunga District.

Statistics from UMN Okhaldhunga Hospital: July 15, 1987 to July 15, 1997

* Unmet need represents the difference between the total # of emergency obstetric services provided, and an estimated 15% of all live births requiring emergency obstetric services (Ministry of Health Safe Motherhood Statistics - 1996)

Figure 2: Unmet need for Emergency Obstetric Services (EOS) in Okhaldhunga District

Conclusion

Almost ten years have passed since the Safe Motherhood Initiative was launched in 1987. In this time, the international health community has learned much about measuring maternal mortality, identifying women who are more likely to have an obstetric complication, and programme development for strengthening health services. Globally, people are more aware of women's health issues, the tragedy of maternal deaths

in less developed countries, and strategies needed to change the future. It seems that in the midst of all the research and planning, there has been a gradual shift away from communities and towards hospital and district level services. Although high quality essential obstetric services are obviously a necessary component of safe obstetric care, reducing our efforts to just this area would be short sighted.

In countries such as Nepal, where nine out of ten women live in rural areas, where roads and telephones are virtually nonexistent and where less than five percent of births occur in hospitals, a limited focus on strengthening hospital services will not meet the needs of women. Essential obstetric services are definitely needed but women and communities in poor, isolated areas need the education and empowerment to be able to use these services. Harmful attitudes and practices need to be changed, and this type of change will be necessarily slow. This experience in the Okhaldhunga District of eastern Nepal demonstrates that improving district-level services will not be enough to save women's lives. Women and communities need to know when, how and where to seek health care, and need assistance in developing locally appropriate strategies to help them do so.

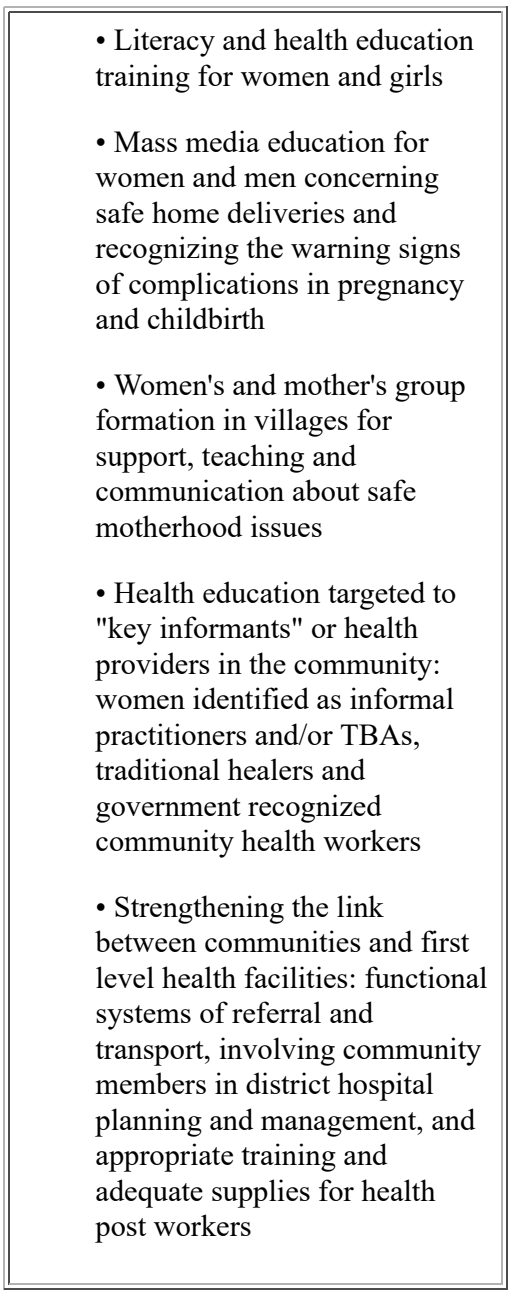

Fig. 3: Suggestions for Community Level Safe Motherhood Strategies

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