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Scaling up safe motherhood program at Dang district: Impact of programmatic intervention

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Abstract

Introduction: Safe motherhood has been a national priority programme and this article highlights the impact of a good programmatic approach to improve safe motherhood services in a district of mid west region of Nepal.

Method: Interventions included strengthening of program- Emergency Obstetric Care Services (EmOC) at district hospital and Primary Health Care Center level (basic and comprehensive), Skilled Birth Attendance (SBA) at Health Post level and Community Based Safe Motherhood interventions at community level. In addition, improved family/community practices for birth preparedness and referral of mothers through building the capacity of individuals and families to demand and utilize health services were also implemented.

Results: Met need of Emergency Obstetric Care increased from 2% in 2000 to 27.58 % in 2005/06. Number of births increased in hospital from 1078 (2003/2004) to 1753 (2005/2006). Number of caesarean sections was 10 in 2003/04 whereas it has risen to 174 in 2005/06. Similar trends were noticed in other obstetric procedures such as instrumental deliveries and manual removal of placenta. There has also been a significant increase in utilization of EmOC services among the poorest castes- Dalits and Janjatis (from 6.3% in 2000/01 to 12.7% in 2003/04). Twenty four hours blood transfusion services are made available at district hospital. EmOC fund has saved the life of 676 women who utilized EmOC fund and watch group has referred total 559 women to health facilities.

Conclusion: Data from Dang district suggests that if interventions are delivered simultaneously and effectively at community level and health facility level, there is definite impact on various indicators of safe motherhood program. However, frequent turnover of staff, vacant post, lack of provision of 24 hours SBA services, limited budget for construction, training and equipment supports, lack of transportation and communication in remote Village Development Committees are barriers of effective safe motherhood program.

Key words: Safe motherhood, district Hospital, programmatic intervention

Introduction

The year 2007 has marked the 20th year of launching safe motherhood program globally. Much improvement has been made but many challenges remain. This article is an attempt to share the impact of a good programmatic approach to improve safe motherhood services in a district of mid west region of Nepal.

Safe motherhood has been a national priority programme and is highlighted in all major health related policies and plans. The Millennium Development Goals (MDG) specify a two thirds reduction in the under-five mortality rate and 75 percent reduction in the maternal mortality ratio by the year 2015.[1] The NHSP-IP draws on the Millennium Development Goals and has incorporated safe motherhood among essential health care services (EHCS).[2]

Dang district is one of the five districts of Rapti zone in Nepal's Mid-Western Development Region with its district headquarters at Ghorahi, Tribhuvan Nagar Municipality. The total area of the district is 2955 sq. km. which is divided into four constituencies, thirteen

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Ilakas, two Municipalities and 39 Village Development Committees (VDCs). The district has a total population of 462,896 (228,763 male and 234,133 female) which is growing at an annual rate of 2.67 percent and the average household size is 5.6 (Census, 2001). Of the total population, 99 percent are Hindus, 0.1 percent are Buddhist and one percent Muslims. Tharu (31.5%), Brahmin (10.8%), Chhetri (23.2%) and Magar (11.0%) are among the most prevalent caste groups. Dang is a multi-lingual society. According to 1991 Census, 29 different languages are spoken in the district. Among them, the most used language is Nepali, spoken by 66 percent. Tharu is spoken by 30 percent of the population.[3]

Interventions

In order to address high maternal and newborn mortality in Dang district, following approach were adopted with program interventions at three different levels with UNICEF supports.

- Emergency Obstetric Care Services (EmOC) at district hospital and PHCC level (basic and comprehensive)
- Skilled Birth Attendance (SBA) at HP level
- Community Based Safe Motherhood interventions at community level

The Women's Right to Life and Health Project of UNICEF, a component of the DACAW Programme aims to promote the rights of women of access to quality maternal health services through reducing the three delays based on the following strategies:

- Focus on skilled attendance at birth and essential obstetric care (EOC) for women with complications of pregnancy and delivery.
- Improved family/community practices for birth preparedness and referral of mothers through building the capacity of individuals and families to demand and utilize health services.

Skilled birth attendance

The SBA program was initiated from 2004 at the Health Post and Primary Health Centre level where Auxiliary Nurse Midwives is available to perform skilled birth attendance. In district, there are 4 primary health care centers, 3 health posts and one sub health posts providing 24 hours delivery services through skilled birth attendants. One month long Midwifery Refresher Training was provided to almost all the ANMs to upgrade their skills so as to provide SBA intervention for 24 hrs at the community level.

Community based interventions: Watch Groups

Community based safe motherhood watch groups were established at ward level. The main objective of the Watch Groups is to provide outreach services at community level linking with services of government health facilities. The Watch Groups consist of a Female Community Health Volunteer (FCHV), Traditional Birth Attendant (TBA) and Community Mobilizer (CM) who are trained to identify danger signs of complicated pregnancy. They kept track of all the pregnant women in their catchment area, kept records, sent them for ANC/PNC check-ups at health facilities, and advised them on the use of iron folate and for Tetanus Toxoid immunization. The Watch Groups also manage the Emergency Obstetric Care Fund at the ward level which is established with money from UNICEF as well as funds from the community.

A total of 207 Watch Groups were established in 23 VDCs with the support of UNICEF. UNFPA also supported watch group intervention in 10 VDCs (No VDC duplication). An Emergency Fund of NRs. 4400+ was established in 207 wards of 23 VDCs

EmOC service strengthening

EmOC (CEmOC at Mahendra Hospital, BEmOC at Lamahi PHCC) services strengthening was commenced in the year 2000 aiming to reduce the third delay and was linked with the existing Community Based Integrated Maternal and Child Care Project which addressed the first two delays. Caesarean Section services commenced in Dang district for the first time in March 2003 but these services were intermittent as there was only one trained provider. A Gynecologist was posted to the district only in Jan 2005, followed by provision of 24 hour CEmOC services in the facility.

In 2003, Mahendra Hospital Dang was developed as a centre for midwifery refresher training and was accredited by the National Health Training Centre. Construction of birthing centers was approved in 2 HPs/ PHCCs and Hospital Operation Theatre was constructed by Government of Nepal with the support of UNICEF. Micro-planning workshop was conducted at hospital level to create an enabling environment for district skilled birth attendance. Female Community Health Workers were trained for empowering communities on Maternal and Newborn Health.

The DACAW Programme of UNICEF

The DACAW Programme of UNICEF Supported implementation of the Local Self Governance Act through building capacity of Local Governance and line agencies for strengthening decentralized planning, implementation and monitoring.

Impact of interventions

Since the Emergency Obstetric Care services started in 2000, the following achievement has been made:

- The district hospital is now providing a comprehensive EOC services and basic EOC services is available in one Primary Health Care Center (Lamahi).
    1. Met need of EOC has been increased from 2% in 2000 to 27.58 % in 2005/06.
    2. Number of delivery taken increased in hospital from 1078 (2003/2004) to 1753 (2005/2006).
    3. Number of caesarean sections was 10 in 2003/04 whereas it has risen to 174 in 2005/06. Similar trends were noticed in other obstetric procedures such as instrumental deliveries and manual removal of placenta.
    4. There has also been a significant increase in utilization of EmOC services among the poorest castes- Dalits and Janjatis (from 6.3% in 2000/01 to 12.7% in 2003/04).
    5. Twenty four hour blood transfusion services are made available at district hospital.

- EOC fund has saved the life of 676 women who utilized EOC fund and watch group has referred total 559 women to health facilities

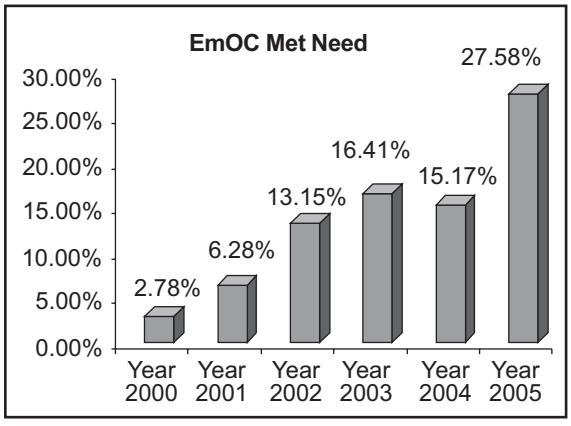

Figure 1. The bar chart showing the increase in met need of Emergency Obstetric Care with time period.

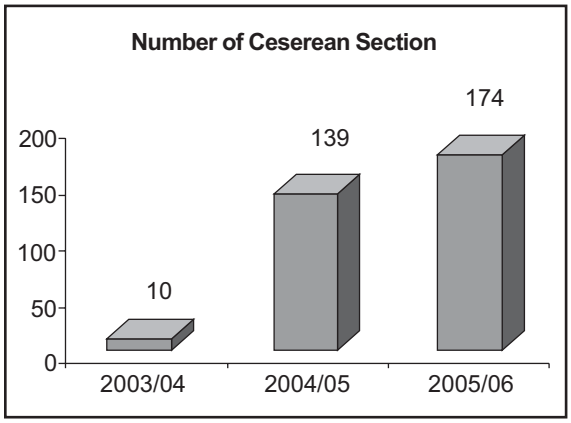

Figure 2. The bar chart showing increase in number of caesarean sections with time period

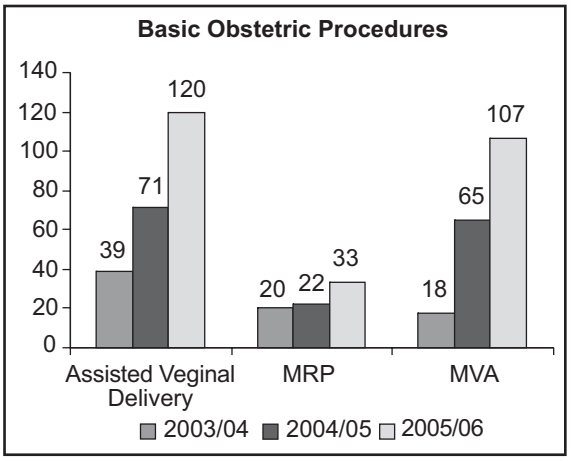

Figure 3. The bar chart showing increase in basic obstetric procedures with time period.

Discussion

Maternal mortality ratio is not only a key health indicator but also reflects women's status in the society. Nepal has been recognized for one of the world's worst levels of maternal mortality. In 2001, the official maternal mortality rate (MMR) for Nepal was recorded at 539 maternal deaths per 100,000 live infant births. But the Demographic and health survey from the Ministry of Health and Population has found current levels to be much lower, putting MMR for 2006 at 281 per 100,000 – a dramatic 48% reduction within just five years. There could be some element of underreporting but data clearly reflects improvement in maternal health status in Nepal. This could be the result of various reasons such as increasing Contraceptive Prevalence Rate, better education and awareness etc. but impact of programmatic interventions by the government and other stakeholders can not be underestimated.

The Nepal Safer Motherhood Project (1997-2004) was one of the first large-scale projects to focus on access to emergency obstetric care, covering 15% of Nepal. There was an average annual increase of 1.3% per year in met need for emergency obstetric care, reaching 14% in public sector facilities in project districts in 2004. Infrastructure and equipment to achieve comprehensive-level care were improved, but sustained functioning, availability of a skilled doctor, blood and anesthesia, were greater challenges. In three districts, 70% of emergency procedures were managed by nurses, with additional training.[4]

Data from Dang district suggests that if interventions are delivered simultaneously at community level by increasing demand and health facility level with better supply by putting emphasis upon SBA and EmOC, proxy indicators of safe motherhood program definitely improves. However, there are some constrains as experienced at Daang district in safe motherhood program such as frequent turnover of staff, vacant post, not enough sanctioned post to provide 24 hours SBA services, Limited budget for construction, training and equipment supports, lack of transportation and communication in remote VDCs, lack of extra ANMs to operate 24 hours delivery services by SBA, lack of 24 hours power back up supply in Hospital, Lack of space and equipments for quality maternity services at health post level etc.

There is growing consensus that strengthening health systems is an essential element to improve women's health, as well as the health of other populations. In the area of maternal health, for example, working local health systems are crucial to the delivery of EmOC. Rural health centers and referral hospitals must be upgraded with the necessary supplies and equipment, such as blood for transfusions, drugs to treat infections, hemorrhage, and convulsions, and surgical equipment to perform cesarean deliveries. Facilities need to be appropriately managed, including having trained health care workers available to provide care 24 hours a day, seven days a week. Strong referral systems between communities and facilities must also be in place, including mechanisms for communication and transport.[5]

Developing countries, along with donor agencies, must make substantial investments in recruiting, training, and retaining health care workers. This includes increasing pay scales to better support workers. There is scope of innovations such as expanding the responsibilities of various categories of providers in low resource countries. In Mozambique, Tanzania, and Malawi, where physicians are extremely scarce in rural areas, non-physicians have been trained to perform emergency obstetrical surgery, including cesarean deliveries. This approach has been shown to be safe.[6] Increasing investments in women's health and diverting greater resources to develop health systems capable of providing essential services to all women is the only way in valueing women as individuals and acknowledging there role in the development of nations.

Comprehensive EmOC- consists of 9 life saving signal functions, including neonatal resuscitation, caesarean section, blood transfusion. Basic EmOC- consists of a mid-level of EmOC care, which includes provision of minor procedures such as newborn resuscitation, vacuum delivery, manual vacuum aspiration and manual removal of retained placenta.

Conclusion and Recommendations

- The evidence from Daang district clearly indicates that the most important factor affecting service utilization is the presence of skilled service provider (Doctor for hospital/ CEmOC and nurse for BEmOC) and Delegation of BEmOC services to nurses has been effective in increasing coverage and utilization of services

- Establishing skilled attendance and CEmOC services and establish the hospital as a training centre for skilled attendants and train the nurses/ midwives in sub- district health facilities takes altogether 7-8 years but sustainability depends on appropriate health sector policies.

- Mahendra Hospital Dang is a nationally accredited training centre. While UNICEF supported the training activities of this hospital through the Women's Right to Life and Health Project, this is not a part of the current Maternal and Neonatal Health Project. It is recommended that UNICEF should continue to provide support to the training activities.

- The MNH Project is working with FHD/DHO to scale up the scope of the MNH district project to establish midwifery services at all appropriate primary health centers, health posts and selected sub-health posts, as well as strengthening newborn care services at all levels.

- Mahendra Hospital Dang should be strengthened as a referral centre for the sub-district health facilities and referral systems should be strengthened.

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