

## Maternal Health Care Practices and Factors Associated With Service Delivery and Sub-health Post in Dadeldhura District of Nepal

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### ABSTRACT

**Introduction:** Sub-health Post is the peripheral unit of the existing health service delivery system in Nepal that provides preventive, promotive services and treatment of minor ailments and is facilitated by three technical personnel namely Auxiliary Health Worker, Village Health Worker and Maternal and Child Health Worker. Main aim of this study was to identify the maternal health care practices and factors associated with service delivery at Sub-health Post Level in Dadeldhura District of Nepal.

**Methods:** A descriptive cross-sectional study was conducted from 1st January 2007 to 28th February 2007. Out of 15 Sub-health posts of the district, seven were selected randomly and all (20) service providers of the selected Sub-health posts and 35 beneficiaries from catchments area of these sub-health posts were interviewed by administering structured, pretested interview schedule. Data were analyzed by SPSS 12.

**Results:** Study revealed that majorities of service providers were poorly skilled to provide maternal health services. There were several barriers such as lack of equipments and drugs supply (90%), limited transport facilities (79%), delay in decision-making by community to seek care (92%), lack of supportive supervision (>60%) which act against service delivery. At the same time they were lacking in career development opportunities and promotional avenues. Beneficiaries reported that lack of need based services (60%); poor response towards the need of beneficiaries (51.4%) and difficulty in reaching to sub-health post (40%) are the major factors to access services.

**Conclusion:** The regular supply of necessary equipments and drugs should be ensured at the sub-health post and frequent in-service trainings to be given to health workers to maintain the enthusiasm and devotion towards the profession.

**Key words:** Antenatal care, Post natal care, Practices, Factors, Barriers.

### INTRODUCTION

An international conference on primary health care (PHC) in 1978 AD formulated the concept of essential health care with consideration of community participation, accessibility and affordability at the highest potential.<sup>1,2</sup> In order to provide the primary health care services to the people of country, National Health Policy (1991) was formulated with a new concept of service provision to its community people through PHC approach by establishing one sub-health post (SHP) at each Village

Development Committee which is the peripheral unit of the existing health delivery system in Nepal.<sup>3</sup>

SHP basically provides preventive and promotive health services with treatment of minor ailments. Health workers at sub-health posts are Auxiliary Health Worker (AHW), Village Health Worker (VHW) and Maternal and Child Health Worker (MCHW). These are expected to provide primary health care; particularly MCHW

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provides maternity services, VHWs oversee the child health services and AHW supervise all types of services at this level.<sup>3</sup>

National Maternity Guideline 1996 listed the package of maternity services to be provided through sub-health post. MCHW is expected to identify the status of being pregnancy, physical check up, provide iron and folic acid tablets to pregnant women, identification of complications and advices on nutrition, rest, personal care and referral service, support in delivery of baby, care of new born baby. She is also expected to monitor the progress of mothers in regaining health and development of new born in post partum period. The major services to be provided include Vitamin A capsule supplementation to mother and advices on family planning. Thus, this study is particularly focuses on antenatal services, intranatal services, postnatal services and maternal immunization services.<sup>4</sup> Principal objectives of the study was identification of maternal health care practices of service providers and factors associated with service delivery.

## METHODS

A descriptive cross sectional study was conducted in Dadeldhura district of Nepal during 1<sup>st</sup> January 2007 to 28<sup>th</sup> February 2007. There are 15 Sub-health Posts, 9 Health posts and one Primary Health Care Centre and a District Health Office (district public health office plus district hospital) in Dadeldhura district. Besides these there is one Missionary hospital, one Ayurvedic health centre, one eye care centre and other external development partners such as UNICEF, UNFPA, etc have been involving health sector.<sup>5,6</sup>

The study was carried out in seven sub-health posts among all health care workers (total health workers= 20) of Dadeldhura; working under government health care delivery system, under the department of health service at sub-health post level and 35 mothers having child below one year who were residing under the catchment area of each SHP. Beneficiaries of services were selected in 1:5 ratios with each sub-health and taken purposively from the records of each SHP.

Seven SHPs were selected randomly by lottery method from a given alphabetically listed institutions and corresponding numbers of health workers were counted and then all health workers were taken as respondents.

To select the beneficiaries, the official record of each sub-health post was followed. Then five beneficiaries per Sub-health Post were listed. Then their addresses were followed. Data were collected by face-to-face interview with health workers and beneficiaries using pre-tested structured schedule and records of each sub-health post were reviewed to assess the adequacy of logistics, essential medicines and equipments at these institutions. MCHWs were interviewed for maternity service, VHWs for immunization services and Auxiliary health workers were interviewed for both components and services records.

Data were analyzed by computer software SPSS (12) to interpret the results in the light of objectives. Permission was taken from District Health Office before conducting the study. Verbal consent was taken from health workers and beneficiaries before data collection respectively.

## RESULTS

The study had assessed the maternal health care practices offered by health workers at sub-health post level as guided by national health policy and national maternity guideline of Nepal.

**Table 1: Health workers by their practices (n = 14)**

Practices	No.	%
<b>Advice on rest hours/ day</b>		
4 – 6	2	14.28
More than 8 hours	12	85.72
<b>No. of IFA tablets to be taken during pregnancy</b>		
100-200	4	28.58
200	3	21.42
225	7	50
<b>Referral practices of workers on suspected abnormal pregnancies</b>		
Referred to higher centers	10	71.42
Not referred to higher centers	4	29.58

Very limited (14.28%) health workers advised correctly about time to take rest during pregnancy and one in every two practiced the IFA tablet distribution as prescribed by national guideline. Even in suspected high risk cases of pregnancy, more than a quarter had not referred to the higher centers for further diagnosis and management.

**Table 2: Health workers by their practices related to delivery care (n = 14)**

Practices of cleans of delivery		
Practices	No.	%
Five	5	35.7
Four	3	21.4
Three	2	14.3
Nil	4	28.6
Cord cutting practices of health workers		
New blade	7	50
Safe delivery Kit blade	7	50
Cord care practices of health workers		
Nothing applied	7	50
Antiseptics	5	35.71
Dry cotton	2	14.28

There are more than five 'cleans' of delivery services to be observed for safe delivery. Surprisingly, they had poor knowledge about all cleans of delivery to be observed while engaging in intranatal care services. All used safe items for cord cutting and half of them practiced the use safe delivery kits.

**Table 3: Post natal care practices (n=14)**

Practices	No.	%
Advice on care of baby		
Advised	12	85.71
Not advised	2	14.28
Advice on maintenance of health		
Advised	11	78.57
Not advised	3	21.42
Advice to mothers on Family Planning		
Advised	13	92.85
Not advised	1	7.14

Most of the health workers advised to care baby by promoting frequent breast feedings, assessment and maintenance of body temperature, prevention of infections and identification of abnormalities and seeking of care. Nine out of every ten advised for family planning services to post natal mothers to all contacted post natal mothers.

**Table 4: Problems in referral of high-risk cases of pregnancy (multiple responses)**

Problems	Response				Total
	Yes		No		
	No.	%	No.	%	
Lack of transportation facilities	11	78.57	3	21.43	14
Distant location of SHP	9	64.28	5	35.72	14
Delayed decision by family	13	92.85	1	7.18	14
Others	2	14.28	12	85.72	14
Problems to provide outreach services (multiple responses)					
Inappropriate site	9	45	11	55	20
Transportation	8	40	12	60	20
Lack of equipments	18	90	2	10	20
Others	2	10	18	90	20

Almost health care workers had reported that the problems of transportation and remoteness of location of health facilities as factors acting against service delivery.

**Table 5: Supervision and monitoring of Sub-health posts by supervisors (n=20)**

Supervision status	No.	%
Not at all	2	10
Regular supervision	6	30
Uncertain	8	40
Haphazard	4	20

Most of the health care workers reported poor supervision however they were satisfied with the behaviors of the supervisors.

**Table 6: Services related problems of health workers (multiple responses) (n=20)**

Problems	Response				Total
	Yes		No		
	No.	%	No.	%	
No promotion	16	80	4	20	20
Frequent transfer	3	15	17	85	20
No salary in time	4	20	16	80	20
Lack of career opportunities	10	50	10	50	20
Low salary	10	50	10	50	20
Others	4	20	16	80	20



Most of the health workers felt that there were services related problems, that led to dissatisfaction and lowering the morale in their work. These include low salary structure, no promotional avenues and lack of opportunities for career development.

**Assessment of services from beneficiary's perspective (n = 35)**

Most of the beneficiaries were utilizing the services provided by sub-health post. It was reported that most of the health workers behave friendly and most accepted health workers were Auxiliary Health Workers. The practices of health workers and responses of beneficiaries in most of the services such as cord cutting and care practices were found to be similar.

**Table 7: Health worker's behaviors towards beneficiaries**

Description	No.	%
<b>Behavior of health workers</b>		
Friendly	27	77.14
Irritable/angry	5	14.28
Can't say	3	8.57
<b>Convenience feeling by beneficiary with workers</b>		
AHW	16	45.71
MCHW	8	22.85
VHW	4	11.42
Can't say	7	20
<b>Quality of services provided by health sub posts</b>		
Excellent	2	5.71
Good	19	54.28
Satisfactory	10	28.57
Not satisfactory	4	11.42

**Table 8: Problems faced by the beneficiaries to access services from SHPs**

Response of beneficiaries	Yes		No		Total
	No.	%	No.	%	
Difficult to reach	14	40	21	60.0	35
Non availability of services	21	60	14	40.0	35
Poor attention given by health workers	18	51.4	17	48.57	35
No problems at all	14	40	21	60	35

There were multiple problems that hinder the accessibility and acceptability of services among beneficiaries. Nearly 60 per cent of the respondents felt

that there were no services when they strive for need for services. More than half respondents replied that the health workers give less attention to the needs of client/patients.

**DISCUSSION**

According to the national maternity guideline of Nepal, AHWs and particularly MCHWs are authorized health workers to provide delivery care services at sub-health post level. It was found that less than half of the health workers followed five cleans of delivery. Five cleans of delivery are clean surface, clean hand of birth attendant, clean cord tie, clean cord cutting and clean cord stump. Rest of them had lesser or even they did not know whether he/she had observed the clean practices or not. More than 71 percent of health workers had taken care of newborn baby by following the steps such as clearing the airway and assessing respiration, wrapping a baby with warm cloths. All used safe instruments to cut cord particularly safe delivery kit blades but 35 per cent of them had applied antiseptics to the cord. A similar study found that only 50 per cent of health workers had correct knowledge on type of postnatal cord care.<sup>7</sup>

More than 70 per cent health workers advised to take newborn bath on second day of birth or before two days. Only 30 per cent advised for more than four days. This was the incorrect practice of health workers that leads the newborn to develop hypothermia that is very fatal condition and a major cause of neonatal deaths. They had advised to breast feed soon after following the births, particularly within one hour of birth which is rather very good practice. Almost all health workers distributed vitamin A capsule to post partum mother and majorities of them provided counseling services for family planning. Health workers in the district encountered many problems while engaged in maternal health service work. Such problems include denial of pregnant women to receive the services (>40 %), lack of transportation facilities and necessary drugs (78.57%), remoteness and distant location of health facility (> 64%), delay in decision making by family member to refer the high risk cases of pregnancies though health workers want to refer it timely (> 92%). Similar findings were reported that the facilities in developing countries faced shortage of equipment, drugs and basic supplies, so the health workers lost their faith and credibility. It was revealed that more than 60 per cent of workers faced problems of poor community support. Difficulty in cold chain maintenance, lack of equipments and transportation services were major hurdles to reach peripheral areas. Similar findings were reported that the drugs and supplies are insufficient for



out reach clinic so beneficiaries less likely to visit these clinics. Most of the health workers faced many services related problems such as they had no promotion, lack of career opportunities, very low salary and benefits. A similar study revealed that the main cause of poor performance of Village health workers were lack of trainings and capacity building programs such as no provision of further study, lack of drugs, supplies and poor supervision.<sup>8,9</sup> Nearly 66 per cent of them quote job due to pay related reasons, dissatisfaction with levels of payment and promotion, lack of community support and mistreatment by seniors. Similarly, studies showed that community health workers were paid less, which led to low morale and motivation that is likely to influence the quality of services provided.<sup>10</sup> More than 70 per cent of the health workers reported that there was no supervision or haphazard or irregular supervision from senior officers. Studies reported that there were only 0.45 visits /VHW/years and for the MCHW, the frequency was 0.4/MCHW/Year which was very less.<sup>11</sup>

The acceptance of health services was assessed by drawing the views of beneficiaries towards the services provided from Sub-health Post. It was reported that services provided were convenient to nearly 75 percent and mostly accepted health workers were AHWs (45.71%). This is due to the influence of his behavior, higher qualification, skills and higher level of responsibility than other workers. Beneficiaries encountered many problems to access services such as difficulty in reaching to the facility (40%), lack of needed services (60%), and poor attention by health workers towards the needs and problems of client (51.4%). They reported that most of the workers had good and supportive behavior (77%) and the services quality was good among the availed services (60%). Beneficiaries reported that more than half of health

workers paid less attention to the need of beneficiaries and 14.28 per cent of them experienced the misbehavior of health workers and similar study showed that only 14.1per cent reported that they had visited because of good behaviors.<sup>9</sup>

## CONCLUSION

In most aspects of the services the health workers had well knowledge while the pattern of practices was rather poor. There were multiple problems that hinder the delivery of services; of them lack of essential drugs and supplies were major factors. The acceptance of services was satisfactory among beneficiaries.

Frequent in-service trainings should be organized. There is need to provide the career development opportunities and trainings so that the skilled workers can perform well. Develop and implement the periodic system of supervision. The system of minimum balance of essential drugs in the sub-health post and timely demand and supply of the items required to be ensured.

In order to increase the public acceptance of services, the services should be available to them as per their need and communication between health workers and beneficiaries to be emphasized. Further research regarding the cost effectiveness of health service and other components of primary health care should be conducted.

**Acknowledgement :** I would like to extend sincere gratitude to Honorary Professor Dr. Gyanendra Singh and Professor and Dean Dr. Vinita Dayal, Faculty of Health and Medical Sciences AAI-DU Allahabad, India for their academic guidance and all the participants of the study for their kind cooperation and support during study.

## REFERENCES

1. Goel SL. Primary health care management. Deep and Deep Publications Pvt. Ltd. F-159 Rajouri Garden, New Delhi, 2004.
2. Park K. Park's Textbook of Preventive and Social Medicine. 18<sup>th</sup> edn. 1167, Prem Nagar Jabalpur: M/s Banarasidas Bhano, India, 2002.
3. Dixit H. Nepal's Quest for Health. Kathmandu, Nepal, 2005.
4. Ministry of Health. National Maternity Guideline of Nepal. 1996.
5. District Health Office. District Health Profile of Dadeldhura, Nepal, 2004.
6. Department of Health Services. Ministry of Health and Population, Nepal. Annual Report. 2004/2005.
7. Obimbo E, Musoke RN and Were F. Knowledge, attitudes and practices of mothers and knowledge of health workers regarding care of the newborn umbilical cord. East African Journal of Medical Science, Aug. 1999. 76(8): 425-9.
8. Serene T and Deborah M. Too Far To Walk: Maternal Mortality in Context, Social Science and Medicine 1994. 38: 1091.
9. Paudel S. "Factors Involved In Health Service Delivery": In Context of Decentralization of Sub-Health Post to the Local Bodies in Rupandehi District of Nepal. Faculty of Health and Medical Sciences, Allahabad Agricultural Institute, Deemed University Allahabad, India 2003.
10. Marie T, Karen L and Peter W. Community Health Workers Incentives and Disincentives: How They Affect Motivation, Retention, and Sustainability. Aug. 2000. [USAID, basics II project: hm-c-00-99-00007-000].
11. Bhatta SK. Supervision Status and Its Determinants below District Public Health Office in Kanchanpur District of Nepal, 2000.

