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Awareness and Utilization of Village Health and Nutrition Day (VHND) Services- 'A Community Based Study'

Barua Kabita[1], Baruah Rupali[2], Saikia Anku Moni[3]

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ABSTRACT

Village Health and Nutrition Days (VHND) were introduced by the National Rural Health Mission (NRHM) to improve access to essential maternal, newborn, child health and nutrition services at village level. Purpose of the study was to assess awareness of VHND services among rural mothers in Kamrup district of Assam and to estimate utilization of the services in beneficiaries and any gap(s) thereof. A cross-sectional study with multistage random sampling design was undertaken in rural areas of Kamrup from August 2013 to July 2014 among 387 mothers with infants. They were interviewed using a pre-designed and pre-tested semi-structured interview schedule. 86% of the respondents were aware of services provided in VHND, 73% respondents ever attended a session, 76% attendees availed antenatal check-up in VHND. Only 44% availed postnatal check-up. 77% of the infants were reportedly weighed in VHND. Only 48% infants had their weights plotted in growth chart. 47% beneficiaries attended Nutrition Health Education Counselling and Demonstration (NHED) sessions. Services in VHND were not utilized to the optimal extent by beneficiary mothers in rural Kamrup. Gaps in utilization of services were found mainly in relation to postnatal care, growth monitoring, counselling for family planning and NHED.

***Keywords**: Maternal, newborn, NRHM, rural, beneficiary*

INTRODUCTION

Healthcare in rural areas where the majority of the country's population live has been one of the greatest challenges faced by the Government of India. Village Health and Nutrition Days (VHND) were introduced by the National Rural Health Mission (NRHM) to improve access to essential maternal, newborn, child health and nutrition services at village level.[1] Organised by the Village Health Sanitation and Nutrition Committees (VHSNC) across the country, they are intended to work as common platform for convergence amongst service providers of Health, Integrated Child Development Services (ICDS) and the community.[2] VHNDs are required to provide a basket of health and nutrition services and counselling to the community on a pre-designated day (preferably on Wednesdays and for those villages that have been left out, on any other day of the same month) and place (usually at the Anganwadi centre). If regularly and effectively organized they can bring about the much needed behavioural changes in the community and induce health-seeking behaviour leading to better health outcomes.[3] Along with the rest of the states, the Government of Assam has also adopted the concept and

Address for correspondence and reprint:
[1]Post Graduate Trainee (**Corresponding Author**)
Mobile: 8761873177
Email: barua.kabita.28@gmail.com
[2]Professor and Head, [3]Associate Professor, Department of Community Medicine, Gauhati Medical College

guidelines have been issued regarding the planning and the conduct of the sessions.[4]

Maternal and child mortality levels in India are high compared to that of a developed nation. United Nations estimates suggest that in 2013, India contributed to 17% (5000) of world's maternal deaths.[5] Assam has the ignominy of having the highest Maternal Mortality Ratio (MMR) in the country at 300 per 100,000 live births.[6] Infant Mortality Rate (IMR) in Assam in 2013 was among the highest at 54 per 1000 live births.[7] Evidence is growing that primary care strategies centred on community based interventions are effective in reducing neonatal and maternal deaths in countries with high mortality rates, even if institutional approaches are necessary.[8] Full participation of the community in the planning and implementation process of the interventions is considered among the prerequisites of the primary care approach.[9] VHND being one of the recommended processes for increasing community involvement and communitisation can be successfully used as an effective platform for provision of first-contact primary health care.[2] Accredited Social Health Activists (ASHAs) along with Anganwadi Workers (AWWs) are responsible for mobilising the community for VHND with support from Panchayati Raj Institutions (PRI) and holding health education sessions. Auxiliary Nurse and Midwives (ANMs) provide maternal, newborn and child health services such as antenatal care and routine immunisation.[1]

It has been found that under nutrition causes 35% deaths among children under five and 11% of the total global disease burden.[10] National Family Health Survey in India in 2005-06 showed that 40% children under five years old were underweight for age.[11] Implementation of Growth monitoring and promotion specially focusing in the younger age group of 0-36 months is crucial to prevent malnutrition.[12] AWWs are responsible to provide growth monitoring services in VHND and referral of children with Severe Acute Malnutrition (SAM) along with distribution of supplementary nutrition.[1] The sessions have been organized in Assam since 2007. However, community-based data regarding the awareness of the beneficiaries about the available services in VHND and any gap in utilization of the services are not well known. Present study was initiated with the objectives to assess the awareness of VHND services among rural mothers in Kamrup district of Assam and to estimate the utilization of services and any gap(s) thereof.

METHODOLOGY

Study type, area and population:

Kamrup district is situated in the western part of Assam in India and comprises of twelve health blocks. A community-based cross sectional study was undertaken in rural areas of three health blocks of Kamrup namely, Boko, Hajo and Sualkuchi. The study was conducted from August 2013 to July 2014 among 387 mothers with infants. Eligibility criteria for the study population: mothers who had delivered within the past one year prior to the study and were residents of the study area. The subjects were selected after obtaining verbal and written informed consent.

Sample size and sampling design

As per Annual Health Survey (2010-11) in Assam, utilization of full antenatal care (three Antenatal check up) in rural areas of Kamrup district was 68.1%.[6] Assuming an expected utilization of full antenatal care in VHND setting of 68.1% (P=68.1%) and with 95% confidence interval and 7% permissible error (E) of P and applying the formula $4\ Pq/E^2$, the minimum sample requirement was 383. A multistage sampling design was adopted. A total of twelve health blocks in Kamrup district was the first stage unit out of which three were randomly selected using lottery method. List of the villages in the blocks were obtained as second stage units. From the list, 43 villages were selected by simple random sampling using random number table. To get desired sample of 383 beneficiary mothers, nine sample units were required from every village finally giving a sample size of 387 which was adequate for the study. List of mothers (who had delivered in the past one year) in a village was obtained from the ASHA; from the list, sample units were selected by simple random sampling.

Ethical clearance and data collection

The study proposal was approved by the Institutional Ethics Committee. Data collection was done through house to house visits and interview of mothers using a pre-designed and pre-tested semi-structured interview schedule. Among different variables were: demographic variables (maternal age, religion, caste, education) and information pertaining to awareness and utilization of services in VHND.

Statistical analysis: Data entry and analysis were done using SPSS for Windows software (Version 20.0; SPSS Inc, IL, Chicago, US). Results were expressed in terms of percentages and proportions.

OBSERVATION AND RESULTS

Study subjects

Out of the 387 respondents in the study area, majority (36.7%) were in the age group of 20-24 years. More than half (51.2%) mothers were Hindus while Muslims and Christians constituted 36.4% and 12.4% respectively. Majority of the mothers (31.8%) belonged to Scheduled Tribe (ST) followed by 25% mothers in Scheduled Caste (SC). 77 % of the respondents were literate as shown in **Table 1**.

Table1 Selected demographic variables of the respondents (n=387)

Variables		Frequency	Percentage (%)
Age group (years)	<20	27	7
	20-24	142	36.7
	25-29	136	35.1
	30-34	66	17.1
	>35	16	4.1
Religion	Hindu	198	51.2
	Muslim	141	36.4
	Christian	48	12.4
Caste	SC	97	25.1
	ST	123	31.8
	OBC	87	22.5
	General	80	20.7
Education	Illiterate	89	23
	Up to Primary School	127	32.8
	Middle to High	109	28.2
	Above High School	62	16

Awareness and participation in VHND

Out of the 387 beneficiary mothers interviewed, 86%(333) were aware of the services provided in VHND. Source of information in the majority was the ASHA and/or the ANM. 73%(283) of the respondents ever attended VHND session held in their village. Only 32% of them reported the presence of PRI members, school teachers and Self-help group (SHG) members from the community in the last session attended. 77% of the attendees reported the presence of all three frontline health workers (ASHA, ANM and AWW) in the last session as shown in **Table 2**.

Table 2 Awareness and participation in VHND by respondents

Particulars	Frequency	Percentage (%)
Awareness of services (n=387)		
Yes	333	86
No	54	14
Source of information (n=333)*		
ASHA and/ or ANM	290	87
AWW	218	65
Relative/neighbour	170	52
Ever attended VHND session (n=387)		
Yes	283	73
No	104	27
Reported presence of PRI/SHG members/teachers# (n=283)		
Yes	911	32
No	92	68
Reported presence of all three# (ASHA/ANM/ AWW) (n=283)		
Yes	218	77
No	65	23

** Multiple responses were cited# (in the last VHND session attended)*

Reasons for not attending VHND

Of the 104 respondents, who did not attend VHND, 32% responded that they didn't have prior information about the observation of the day in their village, which reflects deficiency in the part of the concerned health workers to pass on the information **Table 3**.

Table 3 Reasons for not attending VHND in respondents (n=104)

Reasons	Frequency	Percentage (%)
Unaware about VHND	54	14
Didn't have prior information about observation of the day	33	32
Preferred private practitioners/ hospitals for the services	17	16

Utilization of services in VHND

76% of the beneficiary mothers who attended VHNDs utilized full antenatal check-up (during antenatal period) while only 44% availed post natal check-up. 85% of the mothers availed TT immunisation and 98% availed immunisation of their 0-12 months aged children. 77% mothers reported that weight was measured in their infants (taken to a VHND session). It was found that only in case of 48% of the infants, weights were plotted in growth chart of Mother and Child Protection (MCP) Card. Receipt of Iron folic acid (IFA) tablets and contraceptives by beneficiaries was less at 31% and 27% respectively. Counselling for family planning was availed by only 25% beneficiaries. Only 44% beneficiaries attended the Nutrition Health Education and Demonstration (NHED) sessions as shown in **Figure 1** and **Table 4**.

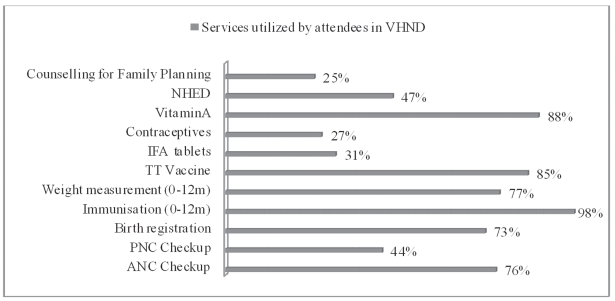

Figure 1 Bar Diagram showing utilization of different VHND services by attendees

Table 4 Service utilization in VHND by attendees* (n=283)

Services utilized	Frequency	Percentage (%)
Antenatal Check-up	215	76
Post natal Check-up	124	44
Birth registration	206	73
Immunisation (0-12 months)	277	98
Weight of infant measured	218	77
Weight of infant plotted in growth chart of MCP card	136	48
Received contraceptives	76	27
Received TT	241	85
Received IFA	87	31
Vitamin A supplementation	250	88
Counselling for Family Planning	70	25
Nutrition, Health Education and Demonstration	134	47

**Multiple responses were cited*

DISCUSSION

VHND can be an effective platform for provision of comprehensive primary care to the beneficiaries at their doorstep if organised with full involvement from the community. Comprehensive primary health care would reduce morbidity and mortality greatly at much lower costs to the system and the individual than any other approach, and would significantly reduce the need for secondary and tertiary care.[13]

In the present study, 86% of the beneficiaries were found to be aware about services being delivered in VHND, (majority were informed by the ASHA and/or the ANM). 73% of the beneficiaries ever attended a session. Of the mothers who didn't attend, 32% responded that they didn't have prior information about observation of the day. The above finding is a matter of concern as it reflects deficiency in the part of the concerned health workers to convey the message about organising the day in their village. 14% of the beneficiaries were unaware about VHND which indicate inadequacy of Information, Education and Communication (IEC) activities by frontline health workers. Similar findings were observed in VHND assessment conducted in six districts of Orissa in 2011.[2]

Presence of all the three frontline health workers (ASHA, ANM and AWW) is critical for provision of the intended package of services in VHND. In the current study, only 77% of the mothers reported the presence of all the three health workers in the last session they attended. PRI members have to ensure that members of the VHSNC are available to support the sessions, also they have to ensure a convenient approach to the AWC for participation in the VHND by one and all.[3] However, only 32% attendees reported the presence of PRI and SHG members and school teachers from the community which indicate inadequate community participation in the sessions.

Present study found that utilization of antenatal care in the beneficiaries was comparatively better than postnatal care with 76% of the attendees availing full ANC check-up while only 44% availed PNC check-up. Counselling for family planning was availed by only 25% of the attendees. This gap reveals a lack of focus on the part of the service providers to motivate the beneficiaries for uptake of PNC and related counselling services.

The study further revealed that 77% of the infants taken to VHND were reportedly weighed; however on examination of the MCP Card only in 48% of them, the weights were plotted in growth chart. Children aged 0-3 years should be the main focus at the monthly VHND meetings since children aged 3-6 years are provided services on daily basis at the AWC. The study finding reflects the absence of growth monitoring and analysis of this vulnerable group. Also, considering the fact that malnutrition is substantially high in rural areas as found by NFHS-3 in India, this is a matter of serious concern.

Coverage of beneficiaries was good for immunisation services as 85% of the mothers' availed TT immunisation and 98% availed immunisation of their 0-12 months aged children. Receipt of Iron folic acid(IFA) tablets and contraceptives by beneficiaries was less at 31% and 27% respectively. Counselling for family planning was availed by only 25% beneficiaries in a session. The above findings are in concordance with that of the VHND assessment conducted in Lahowal block of Dibrugarh district.[14] The VHND monitoring in Assam (in April 2013) under NRHM however found that IFA tablets were distributed to the beneficiaries in 96% of the sessions covered in rural areas of Kamrup. They also found that contraceptives were available on site in 94% of the sessions.[15]

Nutrition Health Education and Demonstration(NHED) sessions are a crucial component of VHND. They can help to have direct interaction with the beneficiaries to promote improvement in knowledge and health behaviour while clarifying myths and misconceptions on health and nutrition issues.[2] Many topics can be discussed in VHND with active participation from PRI members and school teachers like: balanced diet for pregnant and lactating women, breastfeeding, complementary feeding and child feeding practices during and after illness.[3] In our study, out of the total 283 VHND attendees, less than half or only 47% reported attending the NHED sessions after obtaining their individual services. Similar finding was reported in other studies.[2, 9] Major reasons of non-attendance elicited from the respondents were: 'inconvenient timing of these sessions' (towards the end of VHND in the afternoon) and 'didn't feel necessary'. A section of the attendees reported that no such education sessions were being held. It implies that NHED sessions were not considered essential by beneficiaries as well as service providers. This gap in service delivery and utilization demands attention.

CONCLUSION

The present study leads to the conclusion that the complete packages of services in VHND were not utilized to the optimal extent by beneficiary mothers in rural Kamrup. Presence of all the three frontline health workers in any session was reportedly found lacking. Gaps in utilization of services in beneficiaries were mainly found in relation to postnatal care, growth monitoring, counselling for family planning and nutrition and health education. Participation of community members in VHNDs was reportedly found inadequate. Greater community involvement is required to generate demand for essential services like growth monitoring and nutrition and health education. Monitoring and supervision need to be regularized for effective organisation of VHND. Skill building training of the frontline health workers with emphasis on quality of care in service delivery can be useful to optimize the utilization of the available services in VHND.

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