Availability of Village Health and Nutrition Day services in Uttarakhand, India

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ABSTRACT

Background: Village Health and Nutrition Day (VHND) was identified to provide primary care services (health, nutrition and sanitation) at village level under National Rural Health Mission. Aim: The study aimed to assess availability of health, nutrition and sanitation services, required instruments/equipment and medicines at VHND with client satisfaction from the VHND services. Materials and Methods: A cross-sectional study was conducted in three districts of Uttarakhand at Nainital, Tehri-Garhwal and Chamoli involving 24 villages in six blocks using multistage stratified sampling using predesigned pretested observation checklists (quantitative data). All the concerned functionaries of health, Integrated Child Development Services and Panchayati Raj Institution were interviewed (qualitative data) to understand the gap in services and remediation. Results: Of the 24 VHNDs observed, blood pressure measurement was done at 11 (45.83%) and weight at 13 (54.17%) sites in ante-natal care services; non-availability of blood pressure instrument and adult weighing machine were 45.83% and 41.66% sites, respectively. Immunization for children was provided at 22 sites; however, availability of other services were poor-vitamin A (three), growth monitoring of children (seven); supplementary nutrition (five); identification of households for construction of toilet (eight). Yet, one-third of clients provided three and four for satisfaction from VHND services on the scale score of 1–5. Conclusion: It was noted that none of the VHND site was providing all the stipulated services, though immunization was provided mostly. Anganwadi centers were lacking availability of various essential instruments and equipment. So regular orientation of village functionaries for ensuring all the VHND services with the availability of required logistic is recommended.

Keywords: Availability of health services, client satisfaction, supplies and equipment, village health and nutrition day

Introduction

National Rural Health Mission (NRHM) was launched by Government of India in 2005 to improve health outcomes for millions of rural people, especially those belonging to marginalized and vulnerable communities that encompassed health, nutrition and sanitation services to provide health care to all in equal proportions. Village Health and Nutrition Day (VHND) was identified as an important tool to provide a unique platform at village level to bring about the convergence of health, nutrition and sanitation services at primary care level. Ministry of Health and Family Welfare, Government of India (MOHFW, GOI) issued a guideline for its effective implementation in 2007.

As per the guidelines, VHND need to be organized once every month (preferably on Wednesdays and for those villages that have been left out, on any other day of the same month) at the Anganwadi centers (AWCs) in the village to ensure uniformity in organizing the VHND. The AWCs were identified as the hub for service provision in primary health care services as a platform for intersectoral convergence as interface between the community and the health system. VHND Guidelines suggested provision of package of services including registration of pregnant women and vaccination for all eligible children especially focusing on drop out cases of pregnant women and children, growth monitoring and appropriate management of malnourished children, family planning services, and health education among others. Uttarakhand being one of the empowered action group states has been in special focus under NRHM. Many state health
indicators were better than national average, yet quite long to achieve the targets of millennium development goals or 12th planning commission goals.\cite{6,7} In this scenario, the present study was planned to assess the availability of various health, nutrition and sanitation services along with the availability of basic equipment/instrument and medicines for the services with an attempt to understand the view point of various concerned functionaries and officers to find the shortfalls in the provision of services and recommendations for the improvement of the situation.

**Materials and Methods**

The present research paper had been developed out of the comprehensive Indian Council of Medical Research (ICMR)-funded research project entitled “A study to evaluate Village Health and Nutrition Days’ implementation in Uttarakhand.” After approval from the Institutional Ethics Committee, the study was conducted over a 10-month period from 15 February to 15 December 2013.

Sample size of 24 VHNDs was decided based on the consideration of time and financial resources available, yet it was attempted to ensure the complete representation of the state variability. Interviews of all the available functionaries were conducted.

A cross-sectional study was conducted using multistage stratified random sampling. In the state of Uttarakhand, geographical location is one of the key factors for ensuring the availability of services; hence, this has been taken as the criterion for stratification at different stages of sampling.

Stage-I – Uttarakhand has 13 districts and 95 blocks, spread out in three distinct zones as per altitude, i.e. foot hill region (Dehradun, Haridwar, Udham Singh Nagar and Nainital), middle Himalayan region (Tehri-Garhwal, Garhwal, Almora, and Champawat) and upper Himalayan region (Uttarkashi, Chamoli, Rudraprayag, Pithoragarh and Bageshwar). One district from each of these regions (Nainital from foot hill region, Tehri-Garhwal from mid-Himalayan region and Chamoli from the upper Himalayan region) was randomly selected to ensure adequate representation of geographical variability in availability of services across the state.

Stage-II – Two blocks were selected from each of the selected district. One of them being the headquarter block and another being the most distant block of the district (Haldwani and Bheemtal blocks were selected from Nainital district, Chamba and Narendranagar blocks were selected from Tehri Garhwal district, Karnpraya and Narayanbagar blocks were selected from Chamoli district). So a total six blocks were selected.

Stage-III – From each of the selected block, four villages (4 VHND sites) were selected. These four villages were selected on the basis of distance from the road. This included a road head village, while other three were at a distance of 2–5 km, 5–10 km and beyond 10 km from road, respectively.

Total three districts were selected as per the original plan, but because of the calamity that happened in Uttarakhand on 14 June 2013, the road connectivity to many blocks had been disrupted making it impossible to access the Narayanbagar block of Chamoli district within the given time duration of the project. Hence, another block of district Bageshwar within the same altitudinal zone was included for data collection after due approval from ICMR.

Informed consents were collected from all the study participants prior to interview and observation of VHND sites. Both quantitative and qualitative data were collected using predesigned and pretested tools as follows:

1. Study included review of various government orders and guidelines to see if there is any difference between GOI guidelines and the state guidelines, as GOI guidelines suggest Wednesday to be preferred as VHND, whereas in the state Saturday is declared as VHND. Other documents reviewed were the reports sent from one level of health system to another about to the organization of VHND activities and the delivery of services.

2. Total 24 VHNDs were observed, i.e. four in each of the selected block. Each VHND site was visited by a team of two investigators. Observation of VHND activities was conducted based on a checklist. This checklist was developed as per the Monthly Village Health and Nutrition Guidelines of MOHFW, GOI (2007).\cite{11}

3. Target group interviews were conducted as per the details given in Table 1. These interviews were conducted to understand the gaps in the conduction of VHND services and the possible measures for improving the situation.

Data was collected by the principal investigator and co-investigators who were the faculty members of Community Medicine department from different medical institutes. One-day orientation with field practice was organized for all the investigators.

Quantitative data was analyzed using Microsoft Excel 2007. The categorical variables were presented as frequency and percentages. Qualitative data from interview was first translated into English, and then analyzed, based on recurrent themes and patterns.

**Results**

(I) Observations based on availability of services and equipment/instruments and medicines at VHND sites (quantitative data)

Across the state VHNDs were conducted on Saturdays. A total of 24 VNHD sites were observed for the assessment of availability of various health, nutrition and sanitation services and availability of equipment/instruments and medicines. It was observed that
out of 24 selected VHND sites, 1 site did not organize the scheduled VHND activities on the day of visit; however, at rest 23 sites VHND activities were organized as per their routine plan.

**Maternal health services**

Registration of pregnant women was carried out at all the 23 sites. Among antenatal care (ANC) services, blood pressure was measured at less than half of the VHND sites, abdominal examination and hemoglobin testing was done at only two sites (8.33%) and seven sites (29.17%), respectively. At 19 sites (79.17%) pregnant women were informed for follow-up visit [Table 2]. An assessment of the availability of logistics for providing the above services showed blood pressure measuring instrument was available at 13 sites (54.17%), examination table at 3 sites (12.50%) and hemoglobinometer was available at 9 sites (37.50%) only. Adult weighing machine was not available at 10 sites and iron folic acid (IFA) large tablets were not available at 5 sites [Table 3].

**Child health services**

As far as the child health services are concerned, immunization services were provided at almost all the sites (N = 22), one site did not have any eligible beneficiary on the day of visit so immunization was not carried out at that site. Out of 22 (95.83%) sites where immunization was provided, at 17 sites auxiliary nurse midwives (ANMs) were ensuring immunization of dropout children also; however, vitamin A was given only at three sites. At 14 sites (58.33%) parents were informed about the side effects of vaccination and at 12 sites (50.00%) they were also informed about follow-up visits for subsequent vaccination [Table 2]. The availability of vaccines was uneven for different vaccines. The availability of BCG vaccine and hepatitis B vaccine was limited to only half of the sites. The status of availability of vitamin A solution was even poorer with its presence recorded only at three sites. Eight sites had all the vaccines [Table 3].

Growth monitoring of children was conducted at least one third of the sites (N = 7) while weighing scale was available at almost 50% sites (N = 12). Parents’ counseling for appropriate nutrition for children was conducted at only one fifth of the sites (N = 5). Supplementary nutrition was provided to underweight children at four sites [Tables 2 and 3].

Family planning services were available at less than half of the sites as oral contraceptive pills (OCPs) and condoms were not available at almost 50% sites [Tables 2 and 3].

At eight sites, Accredited Social Health Activists (ASHAs) had identified the households for construction of sanitary latrine; however, at none of the sites any community action was taken for safe waste disposal.

Regarding availability of medicines, at none of the sites cotrimoxazole was available, even paracetamol was available at only seven sites (29.17%).

Exit interview of clients revealed that 64% clients took less than 15 min time to reach at VHND site and 60% clients waited less than 30 min to avail the services. Almost one third of clients rated the services “fair” (score-3) and good (score-4) on the scale of one to five of ascending satisfaction level [Table 4].

**(II) Observations based on interviews (qualitative data)**

Data collected from the interview was analyzed on two basic themes; one was the reasons for not organizing VHND or not providing certain services and second was the suggestions for the improvement.

**State-level observations**

Interview of the State Nodal Officer/Additional Director (NRHM), Department of Health and Family Welfare, Uttarakhand revealed that state had organized 90% of the planned VHNDs, which summed up to a total of 54,000 VHNDs during the year 2012–13. The reason for the deficit in the number of VHNDs organized was the 4-month long strike of ANMs. It was also reported that although most of the VHNDs were organized as per the schedule, but only immunization was conducted at most of the places. It was also informed that regular interdepartmental coordination meetings between Health and

### Table 1: Details of number of interview conducted from state to village level

| Level                     | Participants of the interview | Number of participants |
|---------------------------|------------------------------|------------------------|
| State level interview     | State NRHM Nodal officer (Additional Director, NRHM) | 1                      |
| District level interview  | Chief Medical Officers 3, District Programme | 9                      |
| Garhwal, Chamoli          | Officer (DPO) 3, District Panchay Adhikari 3       |                        |
| Block level interview     | Block Medical officer 6,     | 14                     |
| (Haldwani and Bheemtal,   | Child Development Project Officer/Mukhyasevika 6    |                        |
| Narendranagar, Karnprayag & Bageshwar | Block panchayat officer 2    |                        |
| Village level interview   | Auxiliary Nurse Midwife 22, 62                  |                        |
| (functionaries of selected 24 VHND sites) | Anganwadi worker 18 |                        |
|                           | Accredited Social Health Activist 20             |                        |
|                           | Pradhan 2                                     |                        |
| VHND-Exit Interview       | Beneficiaries/clients 109*                   |                        |

*Although target was 120 but client turn up for availing the services was very low, hence only 109 beneficiaries could be interviewed at all the 24 VHND sites visited. NRHM: National Rural Health Mission, VHND: Village Health and Nutrition Day.
Table 2: Status of village health nutrition day services (N=24)

| Indicators                                      | No. | Percent |
|------------------------------------------------|-----|---------|
| Maternal health                                |     |         |
| Registration of pregnant women                 | 23  | 95.83   |
| Tracking and provision of service to dropout cases of pregnant women | 17  | 70.83   |
| Provision of testing of urine for confirmation of pregnancy | 3   | 12.50   |
| ANC services                                   |     |         |
| Measurement of blood pressure                  | 11  | 45.83   |
| Measurement of weight                          | 13  | 54.17   |
| Tetanus toxoid immunization                    | 19  | 79.17   |
| Abdominal examination                          | 2   | 8.33    |
| Estimation of hemoglobin                       | 7   | 29.17   |
| Counseling of pregnant women on health, hygiene and nutrition | 15  | 62.50   |
| Information to pregnant women for follow-up visit | 19  | 79.17   |
| Child health                                   |     |         |
| Vaccination of all eligible children against six vaccine-preventable diseases | 23  | 95.83   |
| Immunization for dropout cases of children     | 17  | 70.83   |
| Administration of vitamin A in oil solution of all eligible children | 3   | 12.50   |
| Information to parents about adverse/side effect of vaccination | 14  | 58.33   |
| Information to parents about next visit of subsequent vaccination | 12  | 50.00   |
| Weighing of children and plotting of weight on the card | 7   | 29.17   |
| Counseling of parents for appropriate management of children on how to combat under-nutrition | 5   | 20.83   |
| Provision of supplementary nutrition to underweight children | 4   | 16.67   |
| Case management of those suffering from diarrhea | 7   | 29.70   |
| Case management of those suffering from acute respiratory infections | 3   | 12.50   |
| Adolescent health                              |     |         |
| Health education/monthly meeting               | 16  | 66.66   |
| Tetanus toxoid immunization                    | 4   | 16.67   |
| Family planning                                |     |         |
| Information to clients on use of contraceptives | 11  | 45.83   |
| Distribution and provision of contraceptive (OCPs and Condoms) | 11  | 45.83   |
| Sanitation                                     |     |         |
| Identification of households for the construction of sanitary latrines | 8   | 33.33   |
| Mobilization of community action for safe disposal of household refuse and garbage | 0   | 0.00    |
| Communicable disease                           |     |         |
| Collection of blood film for malaria parasite and presumptive treatment of malaria | 4   | 16.67   |
| Provision of anti-tuberculosis drugs to patients | 1   | 4.16    |
| Health promotional activities                  |     |         |
| Availability of communication and counseling material | 3   | 12.50   |
| Provision of health education                  | 5   | 20.83   |

Table 3: Availability of instruments and other items of village health nutrition services

| Indicators                                      | No. | Percent |
|------------------------------------------------|-----|---------|
| Maternal health                                |     |         |
| Instrument of blood pressure                   | 13  | 54.17   |
| Weighing scale for adult                       | 14  | 58.33   |
| Iron folic acid (IFA) tablets                  | 18  | 75.00   |
| Examination table                              | 3   | 12.50   |
| Bed screen/curtain                             | 1   | 4.17    |
| Hemoglobinometer                               | 9   | 37.50   |
| Kits for urine examination                     | 4   | 16.67   |
| Gloves                                         | 4   | 16.67   |
| Fetoscope                                      | 4   | 16.67   |
| Family planning                                |     |         |
| Condoms                                        | 11  | 45.83   |
| Oral contraceptive pills (OCPs)                | 12  | 50.00   |
| Child health                                   |     |         |
| BCG vaccine                                    | 11  | 45.83   |
| DPT vaccine                                    | 21  | 87.50   |
| OPV vaccine                                    | 18  | 75.00   |
| Hepatitis B vaccine                            | 13  | 54.17   |
| Measles vaccine                                | 19  | 79.17   |
| Vitamin A solution                             | 3   | 12.50   |
| AD syringes                                    | 19  | 79.17   |
| Vaccine carrier with ice packs                 | 22  | 91.67   |
| Vaccine with correct VVM status (N=22)          | 22  | 100     |
| ORS packets                                    | 7   | 29.17   |
| Zinc tablets                                   | 2   | 8.33    |
| Weighing scale for children                    | 12  | 50.00   |
| Measuring tape                                 | 1   | 4.17    |
| Communicable diseases                          |     |         |
| Co-trimoxazole tablets                         | 0   | 0.00    |
| Anti-helminthic medicine                       | 1   | 4.17    |
| Chloroquin tablet                              | 4   | 16.67   |
| Anti-TB drugs                                  | 1   | 4.17    |
| Paracetamol tablet                             | 7   | 29.17   |
| Stains for blood films                         | 4   | 16.67   |

Integrated Child Development Services (ICDS) departments were organized and required government orders were issued for effective implementation of VHNDs in the state.

**District-level observations**

Interviews with the Chief Medical Officers (CMOs) of all the four districts added the information regarding the problems encountered in the implementation of VHNDs. Major reasons cited for under performance were ANMs strike for 4 months in the year 2012–2013, difficult climatic conditions especially during rainy season, shortage of staff, transport problems and organization of various trainings for village functionaries on Saturdays. CMOs have also emphasized that supervisory cadre of staff is getting retired and no new recruitment had been done for many years, which is resulting into insufficient monitoring and supervision of services.

CMOs suggested regular visit by Medical Officer (MO), Lady Health Visitors (LHVs) and Block Program Managers (BPMs) for supportive supervision, regular conduction of meetings for improved coordination among Health, ICDS and Panchayati Raj Institution (PRI) departments. **Block-Level Observations** interview with MO of the six study blocks provided additional information about the challenges faced in the implementation of VHNDs. It was informed that most of the part of the state has scattered population and the terrain is very difficult. In addition...
to this there is constant inadequacy of the staff; however, in spite of these challenges they ensure coverage of at least those outreach villages from where client turnover is poor. They also emphasized that the budget for transportation should be increased or transport facilities should be provided for covering the outreach area. Medical officers suggested that BCG vaccine should be provided in one dose vial so that even if one child is available, he can be vaccinated. They also mentioned that it is important to orient Pradhan at regular interval so that they can support the VHND activities at village level.

### Discussion

NRHM was launched with the aim to bring about dramatic improvement in the health system and the health status of the people, especially those who live in rural areas of the country. VHND was identified as an important tool for providing primary care services at village level to improve health outcomes of marginalized and vulnerable rural communities.

In the state of Uttarakhand, with 16,826 villages (80% with population less than 500), VHNDs offer a special opportunity to access a range of health, nutrition and sanitation services, which otherwise is difficult due to hilly terrain, poor road connectivity and limited resources, especially the manpower.

State's current maternal mortality ratio and infant mortality rate required tremendous reduction to reach the national MDG goals. In maternal health indicators full ante-natal care was 17% and percentage of institutional delivery was 53.5%. In child health indicators, percentage of fully immunized children was 71.5%, percentage of children with diarrhea receiving ORS in last 2 weeks was 13.4%, percentage of children with ARI/fever sought treatment/advice in last 2 weeks was 83.2%. These indicators clearly indicated toward the need of strengthening some of the basic primary care services.

In Uttarakhand, total 60,000 VHNDs were targeted for the period of 12 months (2012–13). State annual report (2012–2013) showed that 67.68% VHNDs were held in the state during this period. Interview with State program officer explained that the reasons for the deficit in VHND organization was four months long strike of the ANM. Study results revealed that the focus of the VHND activities was on two services, one was registration of pregnant women and their tetanus toxoid (TT) immunization and another one was immunization of children. Other components like adolescent health, growth monitoring and nutrition counseling, sanitation, communicable diseases and health education were lacking. Similar to study findings report of study findings of 5th NRHM Common Review Mission: Uttarakhand (2011) which covered two VHND sites, one each in Pauri Garhwal and Rudraprayag districts reported that mostly immunization was the focus area in VHNDs. Rest of the components like counseling for nutrition, breast feeding, ANC, post-natal care (PNC) and family planning were lacking. In a recent study from Maharashtra also reported 55.3% availability of NRHM services. Regarding accessibility of VHND site, time required for reaching the VHND site in the present study was reported to be less than 20 min for 64% clients; similar observations were reported by Coverage Evaluation Survey (2009) also where 65.1% beneficiaries reached the vaccination site within 15 min.

Regarding maternal health, study results showed that ANC registration was 100% but ANC services like blood pressure measurement, weighing, abdominal examination, hemoglobin testing, etc., were not provided at most of the VHND sites. Similar findings were reported in a study from Hyderabad with cent percent ANC registration but without availability of antenatal and post-natal care.

The present study findings showed unavailability of supplementary nutrition across the study area (with meager availability of supplementary nutrition at 16.67% sites) while nutrition counseling for the management of children was provided at 20.87% sites. Rajkumari HK reported further poorer availability of supplementary nutrition (availability of supplementary nutrition in 1.3% cases) while nutrition education was received by 57% beneficiaries from Hyderabad district. Fifth NRHM Common Review Mission: Uttarakhand also reported inadequacies in the provision of nutritional services. It was said “Nutritional supplementation (take-home rations) was not given to less than 3 year-old-children and pregnant and lactating women at any study sites. The supplies were not available for more than 6 months. This was not noted by health department thus defeating the idea of convergence activity.”

A recent study conducted in a block of Dibrugarh district of Assam on VHND concluded that improvement of service provision and client satisfaction could be achieved by better service.

The present study findings indicated that whole purpose of organizing VHND activities was getting defeated as it was just considered as an opportunity for completing the missed immunization for children and pregnant women. All across the study area CMOs, Medical Officers and ANMs had suggested the need of strengthening the cooperation from ICDS department for ensuring availability of supplementary nutrition, regular

### Table 4: Quality of VHND services from perspective of clients (N=109)

| Indicators                                    | No. | Percent |
|-----------------------------------------------|-----|---------|
| Travel time less than 15 min                  | 70  | 64.22   |
| Waiting time for availing services (less than 30 min) | 65  | 59.63   |
| Unavailability of needed services             | 10  | 9.17    |
| Information for follow-up services            | 76  | 69.72   |
| Client satisfaction scoring                   |     |         |
| Score-1 (very poor)                          | 0   | 0.00    |
| Score-2 (poor)                               | 8   | 7.34    |
| Score-3 (Fair)                               | 37  | 33.94   |
| Score-4 (good)                               | 39  | 35.78   |
| Score-5 (very good)                          | 20  | 18.35   |

VHND: Village health and nutrition day
weighing of children and appropriate counseling of the parents. The presence of ANM should be taken as an opportunity by AWW to get the underweight/sick children examined by her for appropriate management. Rest of the services like sanitation and health education can also be strengthened by active and coordinated efforts by ANM, AWW, ASHA and pradhan of the village.

Strengths of the study
Inclusion of community perspective was an important domain of the study.

Limitation of the study
Focus group discussions were planned to capture the community’s perception, however, they could not be conducted on the account of poor road connectivity and very scattered population in the villages. Secondly, study results could not show the segregated picture of different altitudinal region as only 24 VHNDs were assessed, which may have bearing on the remedial actions needed for each region.

To sum up, the current VHND services are focusing on vaccination of children and pregnant women. Other services are lacking, which is defeating the idea of using the VHND as a tool for convergence that has been reported in literature.[16] There is need for strengthening the AWC with all needed equipments, instruments, vaccines, medicines and supplementary nutrition for providing all the defined services. This will further build the credibility of AWC in the community. At state and district level more integration of Health, ICDS and PRI department is required for convergent planning, monitoring and supervision.

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References
1. Jindal AK. Universal health coverage: The way forward. Indian J Public Health 2014;58:161‑7.
2. Garg S, Nath A. Current Status of National Rural Health Mission. Indian J Community Med 2007;32:171‑2.
3. Padhy GK, Padhy RN, Panigrahi SK, Sarangi P, Das S. Bottlenecks identified in the implementation of components of national health programmes at PHCs of Cuttack district of Odisha. Int J Med Public Health 2013;3:271‑7.
4. Guidelines for Implementing the Village Health and Nutrition Day. Government of West Bengal, Health and Family welfare department GO No. HF/45/10/396 dated 23 August 2010. Available from: http://www. wbhealth.gov.in/guidelines/Guideline_health_neut_day. pdf [Last retrieved on 2014 Dec 10].
5. Monthly village health nutrition day guidelines for AWWs/ASHAs/ANMs/PRIs February 2007 Ministry of Health and Family Welfare Government of India. Available from: http:// nrhmmechalaya.nic.in/guidelines/VHND_Guidelines. pdf [Last retrieved on 2014 Dec 10].
6. Annual report to the people on Health. Government of India Ministry of Health and Family Welfare December 2011. Available from: http://mohfw.nic.in/WriteData/ i892s/6960144509Annual%20Report%20to%20people%20on%20Health.pdf [Last retrieved on 2014 Dec 10].
7. SRS Bulletin. Sample registration system. Registrar General, India 2013:48. Available from: http://censusindia.gov.in/ vital_statistics/SRS_Bulletins/SRS_Bulletin‑September_2013. pdf [Last retrieved on 2014 Dec 10].
8. National Fact Sheet. Coverage Evaluation Survey, Ministry of Health and Family Welfare Government of India 2009. Available from: http://www.unicef.org/india/National_ Fact_Sheet_CES_2009.pdf [Last retrieved on 2014 Dec 10].
9. Annual Program Implementation Plan 2012‑13 of NRHM‑Uttarakhand, SPIP NRHM 2012‑13. Available from: http://www.nrhm.gov.in/images/pdf/nrhm‑in‑state/state program/pip/Uttarakhand/trk‑5‑13‑12‑13.zip [Last accessed on 2014 Sep 30].
10. NRHM. Fifth common review mission: Uttarakhand 8‑15th November 2011. Available from: http://www. mohfw.nic.in/WriteData/i892s/317433004Main%20 Report_5th‑CRM%20.pdf [Last retrieved on 2014 Dec 10].
11. Ray SK. Awareness and Utilization of national rural health mission ser‑vices among people of selected rural areas in the state of Maharashtra. Natl J Community Med 2014;5:387‑91.
12. Rajkumari HK, Hira P, Rithuma O, Murthy GV, Ajitha K, Suresh M.Evaluating the Fixed Nutrition and Health Day (FNHD) program in the rural area of Shamirpet, Ranga Reddy District and the urban area of Dabeerpura, Hyderabad District. Nat J Res Com Med 2012;1:101‑5.
13. Mahanta TG, Baruah M, Mahanta BN, Gogoi P, Baruah J, Gupte S. Process evaluation of Village Health and Nutrition Day observation (VHND) in a block of Dibrugarh District of Assam. Clinical Epidemiology and Global Health 08/2014; Available from: http://www.dx.doi.org/10.1016/j. cegh. [Last accessed on 2014 July 1].
14. Saxena V, Kumari R, Kumar P, Nath B, Pal R. Planning and preparation of VHND through convergence: Sharing experiences from Uttarakhand. Clinical Epidemiology and Global Health (2015), Available from: http://www.dx.doi. org/10.1016/j.cegh. [Last accessed on 2014 Nov 1].

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