

Improving the Coverage and Quality of Village Health Sanitation and Nutrition Days in Bihar-India: An Evidence from Sector Wide Approach to Strengthen Health

Ashok Kumar¹

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ABSTRACT: VHSNDs are an Indian Government mandated program to provide key MNCHN services including counselling at a fixed day, time, and place to more than 1.4 million populations in Bihar. Despite the mandate, initial assessments of VHSNDs showed lack of role clarity and sensitization among frontline workers to provide services, lack of convergence among Government agencies sharing VHSND responsibilities, lack of basic equipment and supplies, and inadequate planning and monitoring systems required to operationalize VHSNDs. The SWASTH Programme provides technical assistance (TA) to Government counterparts of Bihar i.e health, ICDS and PHED department in 38 districts 534 blocks respectively to improve orientation and role clarity for frontline workers, strengthen micro-planning and convergence among separate Government agencies required providing services at VHSNDs, and engaging frontline workers' supervisors in joint problem solving sessions and supportive supervision. A preliminary comparative result from July-14 to June 15 in Bihar shows promising trends and improvement in the provision of VHSND services. Mean number of services provided at VHSNDs improved from 3.6 to 7.6 in Bihar. In Bihar maternal health services improved from 31.2 to 59.3% (χ^2 (df-3)=112.55) and maternal nutrition services were increase from 68.2 to 75.2% (χ^2 (df-3)=44.87) Also of note, the percentage of VHSNDs where all frontline workers required are present improved from 61.3 to 97.0 in Bihar and supervisory visits increased by 24.4% and 53.0% respectively.

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I. BACKGROUND

Under National Rural Health Mission (NRHM) presently known as National Health mission (NHM), VHSND is designed to be a platform where selected ministries/departments (Health & Family Welfare and Integrated Child Development Services under the Ministry of Women and Child Development) converge at the village level to provide outreach health and nutrition services and to educate the community on health and nutrition related matters on a pre-designated day. The effort is to build a regular contact point between the service providers and the community to support them towards adopting recommended health practices and in encouraging them to seek timely health advice and treatments.

The VHSND is promoted as a session conducted on a fixed day, fixed place and at a fixed time at a well-publicized site. During VHSND, ANMs travel to the site for the session and are supported by the AWW and ASHA, who are typically based in the village. Across the country, the VHSND is organized in every village once a month on a Wednesday (except the first Wednesday) or a Saturday, usually at the Anganwadi Centre (AWC) or other suitable location if the AWC site is not appropriate. In Jharkhand, however, VHSND are held on Thursdays and/or Saturdays, the reason being a local custom wherein farmers do not till their farmland on Thursdays. Attending a VHSND on a Thursday does not result in loss of wages for the farmers and also can increase male participation.

The role of each of the service providers (ANM, ASHA and AWW) is well-defined under the program. Printed guidelines² have been issued by the Government of India (GOI) that detail not just the roles and responsibilities of each frontline worker, but also list the services to be provided at a VHSND. Among the health

¹Senior Manager Pilots and Operational Resaerch- (PCI)-Patna, ashok_iips@yahoo.com, iipsashok@gmail.com

² Monthly Village Health and Nutrition Day. Guidelines for AWWs/ASHAs/ANMs/PRIs.
(http://mohfw.nic.in/NRHM/Documents/VHND_Guidelines.pdf)

services expected to be provided at a VHSND, routine immunization services, distribution of products and counseling for family planning, and ANC checkups and counseling are provided by the ANM. The AWW is expected to monitor growth of children and provide appropriate nutrition education to mothers of these children and to pregnant and lactating women for improving their nutritional status. Simultaneously, the AWW distributes the Take Home Ration (THR), so that a beneficiary receives a complete set of services on a single visit to the center/session site. The AWWs along with the ASHAs are also responsible for mobilizing the community, reminding them about the date, time and place of the VHSND and informing them about the services available. Additionally, the Mothers' Committee comprising pregnant and lactating women in the AWC area, women members of self-help groups, MahilaMandal³, PRI⁴ and VHSC members etc. act as community mobilizers, and at times even as a pressure group with resistant families to encourage them to visit and avail services at the VHSND.

VHSND, as a major initiative under the NHM, is one of the immediate priorities of the state governments at the time when the SWASTH Project was designing its strategies for technical assistance at the district level. Improving community-based maternal and newborn health care, sanitation and nutrition services by providing assistance to strengthening health systems is a key focus of the Project. Hence, introducing and institutionalizing activities to strengthen VHSND was viewed by the Project as an excellent opportunity that would yield results for improved maternal, newborn and child health and nutritional status.

II. NEED OF THE STUDY

Integrated platforms such as VHSNDs can be effective platforms where the community can access a range of health, sanitation and nutrition services on a regular and assured basis. The program, however, has been slow to take off. The Government of Bihar issued VHSND guidelines in June 2011, however, when the SWASTH program started its work at the district level in December 2010. Baseline data from surveyed districts collected from December 2011 to February 2009 found that 64% of ASHAs in Bihar had not participated in a VHSND in the three months prior to the survey. Further, in communities where VHSNDs were held, the activities were mostly limited to immunization (54%) and distribution of supplementary nutrition (32%) rather than the full scope of services envisioned under the guidelines⁵.

The SWASTH team's interactions at the district level during preparation of district action plans revealed that there was no role clarity among the frontline workers of different departments (i.e. ANMs, AWWs, and ASHAs) and functional forums were not available either at the district or at the block level where the three departments (PHED, ICDS and Department of H&FW) could converge and work together to effectively operationalize VHSND guidelines. The existing supervisory practices did not focus on whether VHSNDs were taking place as scheduled and/or on the quality of the services and availability of counselling during these VHSND sessions.

Field trips undertaken by the SWASTH staff to a sample of VHSND sites clearly showed that routine immunization days were happening in the name of VHSNDs, with AWWs not present at most sites. It was learnt that most AWWs were not aware about the site of the VHSND and were also not clear about their roles and responsibilities during the session. Since the ASHAs were placed at the village level, the ANMs interacted more with them than with the AWWs, which further drove the AWWs to function in isolation. Poor coordination among the frontline workers meant that beneficiaries were not informed about the day, time or site of VHSND service delivery.

Interactions with the supervisors of AWWs, i.e., MukhyaSevikas / lady supervisors, revealed that a majority were not aware of the VHSND guidelines and were also unclear about their role in VHSNDs. The MukhyaSevikas/ lady supervisors were of the opinion that the scheduled monthly routine immunization activity at the community level was more of a Department of Health activity and that ICDS did not have much to contribute to it. At the district level, the officials had incorrect information about the VHSND, and similar to the blocks, the need for coordination among the various departments, especially the departments of H&FW, PHED and ICDS, was apparent.

Needs assessments revealed that not much planning went behind scheduling VHSNDs and ensuring participation of relevant frontline workers. For example, services rendered by the ANMs were highly irregular due to low awareness about the importance of VHSND, negligible accountability and lack of a proper VHSND plan. The AWWs perceived VHSND to be a MOHFW initiative and did not appreciate the significance of the role played by ICDS or AWWs in ensuring availability of all the services envisaged under the VHSND guidelines.

3 MahilaMandal is a group of women coming together for a common cause

4 The Panchayati Raj Institutions (PRI) elections took place very recently in Jharkhand. As they are still new, PRI members in Jharkhand are not involved in the management of VHSND.

5 The services envisioned under a VHSND include:

Another challenge identified during the assessments included lack of essential equipment and supplies, which hampered the ability of frontline workers to provide the full range of VHSND services. In some districts, few AWCs had weighing scales and hence, were unable to offer growth monitoring services, while ANMs often did not have equipment to measure blood pressure and curtains to ensure privacy for ANC services.

Other performance gaps identified included lack of a functional supervisory system to monitor VHSNDs and support frontline workers to carry out their responsibilities. The major reasons for these gaps were poor accountability on all levels on VHSND and issues related to poor availability of mobility funds for the MukhyaSevikas. Supervisory visits to the AWC were infrequent and largely concentrated on monitoring and policing, rather than being supportive and focusing on problem-solving.

Technical Assistance

Based on the findings of the needs assessment, the SWASTH approach focused on strengthening convergence of PHED, ICDS and MOHFW at district and block levels to implement VHNSD according to NHM guidelines.

- Key components of the technical assistance in improving VHSNDs include the following:
- Strengthening joint planning and accountability
- Strengthening supervision and monitoring
- Building platforms for convergence
- Institutionalizing community-led actions for health

OBJECTIVE:

The broad objectives of VHSND are...

- To improve maternal, newborn, child health, nutrition (MNCHN) and sanitation outcomes in Bihar and disadvantage populations through strengthening Village Health Sanitation and Nutrition Days (VHSNDs).

III. METHODOLOGY

Observations of VHSNDs complemented by short exit interviews with community and GoB officials. The data is being collected through a quantitative tool that has been approved by GoB.

Unit of observation and area covered: VHSNDs conducted across the 38 districts & 534 blocks of Bihar. One VHSND is conducted per month for each AWC, on a fixed day of the month, at a fixed place (usually the AWC) and at a fixed time. As per the government microplan, all AWCs are meant to have at least one VHSND each month. These are normally conducted on Wednesdays and Fridays.

Frequency of data collection: Data from a sample of VHSNDs is collected July 2014 to June 2015 on an ongoing basis every week at a different VHSND from across the 38 districts. Therefore, data from 8 VHSNDs is collected per DPO Health and DPO Nutrition and Block Nutrition Coordinators (and Govt. counterparts in some cases) each month.

Sample size: Each month cross-sectional data is collected from 15% of the VHSNDs conducted at the AWCs. Once this sample has been selected the VHSNDs at these AWCs are attended (as per the government microplan) for observation. Hence 3685 VHSNDs sessions observation data were used for finalization of this paper.

Sample selection: The monthly sample is selected randomly from the list of AWCs. The 15% of AWCs selected in the first month are excluded from the list in the subsequent month, and new set of 15% AWCs from within the list are selected. This method of excluding AWCs already observed in the previous months is followed until all AWCs have been covered, and the method is then repeated again.

Statistical analysis: Observed VHSNDs data for each AWC were analysed and descriptive statistics methods were used to examine the distribution of the full range of variables. Confounding factors included the major determinants of child immunization based on SWASTH logframe. These were associated with each health, sanitation and nutrition indicator in the bivariate analyses using the χ^2 test ($p < 0.05$). The interactions between VHSNDs services were created to examine the synergistic effects of health, nutrition and sanitation indicators on the risk of child and mothers health. The χ^2 corresponding 95% CIs were estimated with statistical significance defined as $p < 0.05$. All analyses were performed using SPSS V.22.0 (Stat- USA).

IV. RESULTS:

Table 1: Scale of Technical Assistance in Bihar

Analysis of VHSND data is done on a quarterly basis and the information is shared with all state government officials, so that the findings and results can be further communicated to the district level government stakeholders at scale. The below listed table depicts detailed about Scale of Technical Assistance of the SWASTH programme emphasize that technical assistance are to GOB atscale to strengthen VHSNDs. The programme technical assistance is focused in 38 districts 534 blocks,covering 44874 villages in Bihar respectively (Table 1). The SWASTH contracted withblock level MIS consultant to support VHSNDs interventions, especially at the district and block levels.

Table 1: Scale of Technical Assistance

Scale of Technical Assistance	Bihar
Number of districts	38
Number of blocks	534
Number of Medical Officers	7235
Number of ICDS Supervisors	544
Number of AWC	80995
Number of ANMs	18560
Number of ASHAs	87000
Number of villages (Revenue/census villages)	44874
Rural population (in million)	92.07

Source: Census 2011, state health society-GoB-2015

For covering above mentioned large scale areas the SWASTH programme established a Management Information System(MIS) to capture process and output-level data during July 2011 onwards. The SWASTHblock level nutrition coordinator to conduct a qualitative & quantitative study to validate and better understand successful trends indicated from Project MIS data. For current paper the surveyswere conducted in all 38 SWASTH programme-supported districts of Bihar and respondents included pregnant and recently delivered women, household decision-makers, DoHFW, PHED and SWD (ICDS) officials, supervisors and frontline workers from all the three departments. For this paper I have collected somesupplemental data on VHSNDs (*where currently endline survey on underway*). The results presented in the following section draw on these extensive sets of data.

Table 2: Performance of VHSND as per observation

Pregnant women, mothers and children attended VHSNDs and received a range of MNCHN services. VHSNDs were held more regularly in across the state with all three frontline workers participating. Convergence between DoHFW, ICDSand PHED at district and block levels contributed to strengthening VHSNDs.

Table 2: Performance of VHSND as per observation, Bihar-July-2014 to June 2015

Background	July-Sep 2014	Oct-Dec 2014	Jan-Mar 2015	Apr-Jun 2015	Total
Number ofVHSNDs visited for observations	422	1140	1244	879	3685
VHSND held as per microplan based on observations	89.3% (377)	86.6% (987)	79.0% (983)	87.5% (769)	84.6%(3116)
Observed VHSND held as per microplanand met quality standards *	30.0% (113)**	28.3% (279)	35.1% (345)	49.5% (381)	35.8% (1118)

* As defined in the logframe(*all three frontline workers participated and disadvantaged community member's availed services and at least 7 out of 15 services provided during VHSND*).

** Calculated as percentage of VHSNDs held as per microplan.

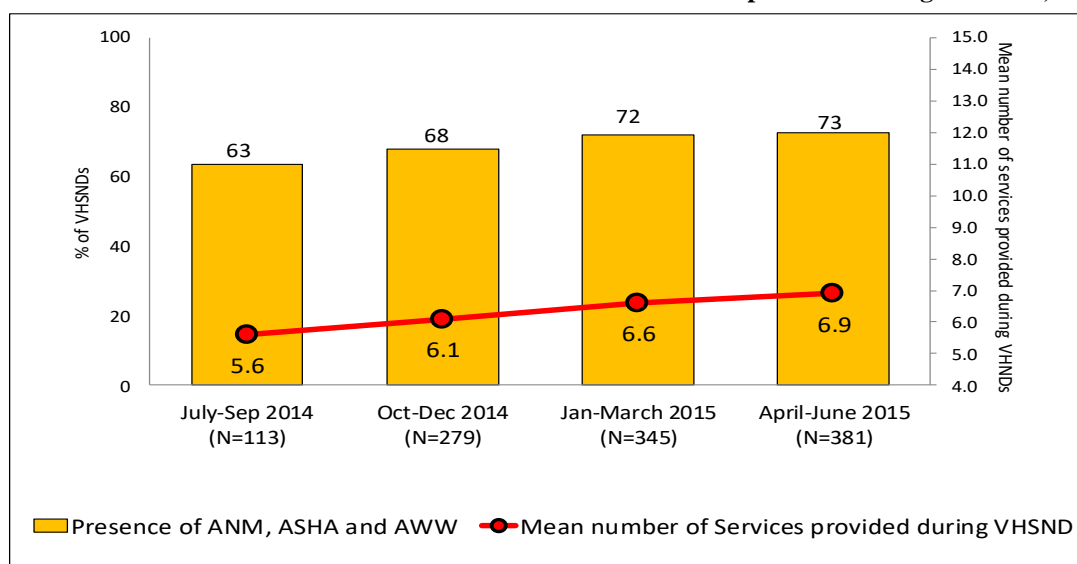
The above table 2 shows that of all the VHSNDs that were visited over the year, 84% were held as per the microplan. On an average, about 36% of those held met the quality standards as per the logframe, but the quarterly analysis overall shows an increasing trend over the quarter.

Figure 1: Increased number and quality of VHSNDs

The number and quality of VHSNDs improved as measured by regularity of VHSNDs, participation of all three frontline workers and number of services available. In Bihar, at baseline, 39 percent of ASHAs and 13 percent of AWWs reported that no VHSNDs had been held in their village in the preceding three months of survey. In contrast, 61 percent of ASHAs and 87 percent of AWWs reported that three or more VHSNDs had been held in their village in the previous three months at endline.

In Bihar, VHSNDs held as per microplan increased from 76.2 percent to 84.1 percent according to Project MIS data across all 38 districts. Over the same period, VHSND sessions at which all three frontline workers (AWWs, ASHAs and ANMs) were present increased from 63.4 percent to 72.6 percent. The mean number of services offered during VHSND increased from 5.6 to 6.9 (Figure 1). This shows a substantial improvement from the baseline survey during which frontline workers reported that activities were largely limited to immunization and distribution of supplementary nutrition when VHSNDs took place.

Figure 1: Presence of frontline workers and mean number of services provided during VHSNDs, Bihar³



Source: The SWASTH Project MIS data collected from rural areas of 38 districts of Bihar

Table 3: Performance of VHSND and providing quality services

Further analysis is presented in the Table 2 below. Child nutrition services, maternal health as well as maternal nutrition services also show a steady improvement over the four quarters. To test whether this improvement across the three indicators as well as the provision of quality services as defined in the logframe indicator was statistically significant; a Chi Square test was employed. The results across the indicators for the Pearson’s Chi Square test, as well as the Linear-by-Linear Association shows that the improvements are statistically significant at 95% level. (Null hypothesis is rejected, χ^2 (df-3) =93.26, $p < 0.05$). These results clearly show that there are steady improvements in the delivery of quality services at the VHSNDs

Table:3 Performance of VHSND and providing quality services based on session observed during July-2014 to June 2015

Quarter wise VHSND observed	% within Sessions where						Overall VHSND quality	
	Child nutrition services were provided (%)	n	Maternal health services were provided (%)	N	Maternal nutrition services were provided (%)	N	Overall VHSND held as per micro-plan and provide quality services (%)	N
July-Sep 2014	54.4	205	32.1	121	68.2	257	30.0	113
Oct-Dec 2014	59.3	585	37.3	368	61.6	608	28.3	279
Jan-Mar 2015	67.8	666	45.0	442	72.5	713	35.1	345
Apr-Jun 2015	66.8	514	59.3	456	75.2	578	49.5	381
Pearson's Chi Square	χ^2 (df-3)=32.31 The P-Value is < 0.00001. The result is significant at p < 0.05		χ^2 (df-3)=112.55 The P-Value is < 0.00001. The result is significant at p < 0.05		χ^2 (df-3)=44.87 The P-Value is < 0.00001. The result is significant at p < 0.05		χ^2 (df-3)=93.26 The P-Value is < 0.00001. The result is significant at p < 0.05	
Chi Square Trend analysis (Linear-by-Linear Association)	χ^2 (df-1)=25.88 p < 0.05		χ^2 (df-1)=106.15 p < 0.05		χ^2 (df-1)=26.17 p < 0.05		χ^2 (df-1)=74.13 p < 0.05	

Note: *Child nutrition services*= Supplementary nutrition or Weighed & plotted to children age 6 month of 5 yr
Maternal health services= Health check-up and vaccination to pregnant women age 15-49
Maternal nutrition services= Supplementary nutrition and IFA given and explain to pregnant women

Hence, the chi square result illustrate that the more than three fourth (84.6%) of the VHSND secession held as per micro plan and met quality standards

V. CONCLUSION

The joint efforts of the SWASTH programme and PHED, DoHFW andSWD (ICDS) to improve VHSNDs contributed to increased access, use and quality of health, sanitation and nutrition services at VHSNDs The SWASTHprogramme technical assistance and collaboration with district officials has demonstrated the importance of supporting government priorities and building on existing platforms and systems in order to achieve results. Strengthening systems to ensure orientation on VHSND guidelines and joint planning, effective use of monthly meetings for programme review and problem-solving, enhanced provision of supportive supervision and use of data for monitoring and decision-making have contributed to increased number of VHSNDs held as per plan, presence of all three frontline workers and expanded coverage to include more underserved populations. Measurable improvements have been made in the number of ANC, child health, sanitation and nutrition services provided during VHSNDs. Participation levels of pregnant and recently delivered women and their children were high. These achievements demonstrate that systems can be improved at scale with minimal additional costs resulting in better access and use of services for women and children. Recently, GoB decided to replicate this strategy at scale in all high-burden districts (with high maternal mortality ratios) across nine divisions of the state as an innovative effort under NHM. The approach described in this paper can be replicated in other high focus states of India to strengthen VHSNDs as effective platforms for expanding maternal, nutrition, and sanitation and child health services to reach vulnerable rural populations.

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REFERENCES

- [1] Adapted from Monthly Village Health and Nutrition Day Guidelines for AWWs/ASHAs/ANMs/PRIs. February 2007.
- [2] National Rural Health Mission; Ministry of Health and Family Welfare, Government of India
- [3] Census of India 2011, Final Population Tables
- [4] NRHM-Project Implementation Plans (2010-11), and from the offices of the Chief Medical Officer (CMO) and District Programme Officer (DPO) of district headquarters.
- [5] Vistaar Project, Intrahealth- technical brief, October-2012

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