Maternal and Newborn Health and Nutrition Practices in Select Districts of Jharkhand – Key Baseline Survey Findings

Baseline Survey Brief
3

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Introduction

The Government of Jharkhand aims to improve the maternal and newborn health status in the state through the National Rural Health Mission (NRHM) and other programmes with proven potential to reduce maternal and infant mortality rates. In this context, the Government of Jharkhand requested the Vistaar Project to provide technical assistance (TA) to improve maternal and newborn health outcomes in Godda, Sahebganj, Khunti, Gumla and Koderma districts.

The Vistaar Project conducted a baseline survey in these districts to document key baseline knowledge and behaviour of pregnant women and recently delivered women (RDW) regarding antenatal, delivery, postnatal, newborn and infant care. The survey also assessed anaemia levels of these women and the nutritional status of children in the districts.

The minimum required sample size in each district included 500 currently pregnant women (CPW), 500 RDW with 0 - 5 month old infants, and 500 RDW with 6 - 11 month old infants. The baseline survey also included household decision-makers (husband, mother-in-law, father-in-law etc.) as respondents to understand their knowledge and attitude towards maternal and infant nutrition. *Sahiyyas* (local term for accredited social health activists) and *Anganwadi* workers (AWWs) were also covered to obtain the frontline service providers' perspective about maternal and infant care and nutrition.

Data was collected between December 2008 and February 2009 from a total of 5,203 mothers of 0 - 11 month old children, 2,532 CPW, and 1,558 household decision-makers. Additionally, 155 *Sahiyyas* and 216 AWWs were interviewed from 240 villages and 80 urban blocks. Baseline data was also collected on anaemia levels among CPW and RDW, and anthropometric measurements (height and weight) among infants aged 6 - 11 months.

This technical brief describes the status of maternal and child health and nutrition in the state based on the baseline survey findings and highlights the need for interventions. A full report of the methodology and survey findings is also available,[1] which offers more detailed data and analysis at the district level.

Profile of Pregnant and Recently Delivered Women

Of the 18 - 22 per cent of CPW and RDW covered by the baseline survey in each district, about 11 per cent belonged to scheduled castes (SCs), half belonged to other backward classes (OBCs), while roughly 25 per cent belonged to scheduled tribes (STs). Nearly 80 per cent of the surveyed women were from rural areas. Hindus made up around 57 per cent of the survey population, followed by Muslims at 20 per cent, Sarnas at 13 per cent and Christians at 9 per cent. More than half of the women were illiterate and only 15 per cent had completed 10 or more years of schooling. Approximately 45 per cent of the CPW were from low standard of living (SLI) homes, 36 per cent were from medium SLI and 19 per cent were from high SLI homes.

Key Findings

Maternal and Newborn Care

Antenatal Care - Both pregnant women and household decision-makers were aware of the importance of antenatal care (ANC), especially with respect to taking two tetanus toxoid (TT) injections, but there was much less awareness of the other components of a complete ANC package. The responses from the RDW confirmed that 90 per cent received at least one ANC visit, but only 47 per cent received three or more visits.

Compared to statewide estimates of ANC utilisation, the baseline data represents a marked increase in ANC visits, where 90 per cent had received at least one ANC check-up compared to the statewide report of 56 per cent in 2007-08. The percentage of such visits occurring during the first trimester also witnessed an increase from 31 per cent in the state during 2007-08 to 45 per cent as per the baseline findings.

Nearly 80 per cent of RDW attended a health facility specifically for ANC services, while 7 per cent received ANC services during home visits or as part of other health facility visits. Auxilliary nurse midwives (ANMs) provided ANC services to more than half (56%) of the pregnant women, followed by private doctors (34%) and primary health centres (PHCs)/ community health centres (CHCs) (21%).

[1] Full report is available at www.intrahealth.org

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The quality of ANC services and advice requires improvement, as only 23 per cent of RDW received all five check-ups/tests, i.e. weight monitoring, blood pressure measurement, urine test, blood test and abdominal examination, as well as delivery and nutrition advice during their ANC visits. While 75 per cent of the RDW received any amount of IFA tablets/syrup, only 19 per cent received the complete stock (i.e. 100 tablets/three bottles of syrup).

Delivery Care – Sixty-nine per cent of the RDW reported that they gave birth at home. The rate of institutional deliveries also increased, as the baseline survey revealed 31 per cent births in health facilities compared to the 18 per cent reported by NFHS-3.

Relatively more women accessed Government health facilities for delivery (17%) compared to private health facilities (14%). Further, 63 per cent of the women who delivered at a Government facility benefitted from the *Janani Suraksha Yojana* (JSY) programme. The main reason cited by over half of the women who did not avail JSY benefits was that they had given birth at home. In case of home deliveries, JSY benefits are only applicable to below poverty line (BPL) families.

With regard to population sub-groups, the survey reveals that institutional deliveries were especially low among Sarnas (13%) and Christians (17%), STs (14%), illiterate women (19%) and households with low standard of living (18%). Facility-based births were 25 per cent or less in Sahebganj, Khunti and Gumla districts.

Postnatal Care - While 47 per cent of the RDW had received a postnatal care (PNC) check-up within one month after delivery, those receiving a second postnatal check-up dropped to 17 per cent, and third postnatal check-ups were very rare in the surveyed districts (6%).The chances of receiving PNC check-ups were relatively low in the case of home deliveries (29 per cent received first PNC check-up) compared to institutional deliveries in Government health facilities (85 per cent received first PNC check-up) and private health facilities (91 per cent received first PNC check-up). The baseline also reveals that relatively more women who delivered in private health facilities availed second and third PNC check-ups compared to those who had delivered at home or had delivered in a Government facility.

Although *Sahiyyas* and AWWs reported that they made PNC visits, merely 1 per cent and 4 per cent of the RDW reported that they received their first PNC from a *Sahiyya* and AWW, respectively. This discrepancy could be attributed to the fact that the women do not consider *Sahiyyas* and AWWs as qualified to provide PNC, and hence, do not recognize visits by them as PNC visits. The responses could also indicate that the *Sahiyyas* and AWWs may not actually be reaching all eligible households through home visits to provide PNC counselling.

Newborn Care and Infant Feeding Practices - Newborn care practices in home deliveries need to be substantially improved to protect the newborns from infection and illness (Table 1). Clearly, the timing of initiation of breastfeeding continues to be a challenge. Also, the fact that around 46 per cent of the mothers in the baseline districts squeezed out colostrum before breastfeeding their infants points to the awareness deficit on the issue. Another area of concern is the duration of exclusive breastfeeding and introduction of complementary foods to infants aged 6 months and older. While infant-feeding continues to be an area of concern, frontline workers do not seem to be addressing the issue sufficiently in their counselling sessions with pregnant women and lactating mothers during ANC and PNC visits (only 23 per cent of the respondents were advised about exclusive breastfeeding during PNC).

Table 1: Newborn care and infant feeding practices followed by recently delivered women

Newborn/Infant Care Practices	% RDW with infant aged		
	0-5 months	6-11 months	0-11 months
Home deliveries where nothing was applied after cutting the cord	59.1	60.7	59.9
Home deliveries where newborns were dried and wrapped before placenta delivery	2.8	1.3	2.1
Home deliveries where new blade was used for cutting the cord	95.6	95.4	95.5
Home deliveries where any thread from home was used for tying the cord	89.5	89.3	89.4
Newborns breastfed within:			
▪ One hour	12.1	4.7	8.6
▪ Six hours	62.1	58.3	60.3
▪ One day	80.0	78.4	79.2
Women who squeezed out colostrum before initiating breastfeeding	46.3	46.1	46.2
Infants aged 0-5 months exclusively breastfed in 24 hours preceding the survey	90.7	NA	NA
Infants aged 6-11 months exclusively breastfed for at least up to six months	NA	43.0	NA
Infants aged 6-11 months who were being breastfed and received food from 3 or more major food groups	NA	40.0	NA
Infants aged 6-11 months who were being breastfed and received solid or semi-solid food in the 24 hours preceding the survey	NA	87.6	NA
Infants aged 6-11 months who were breastfed and received semi-solid and/or solid foods in the 24 hours preceding the survey and had two servings per day	NA	76.5	NA
Total number of recently delivered women	**2772**	**2431**	**5230**

In the surveyed districts, 26 per cent of girls and 40 per cent of boys were undernourished. Across the surveyed districts, relatively larger numbers of infants in Khunti (40%) and Gumla (37%) were undernourished.

Nutrition during Pregnancy and Lactation

Nutrition-related Knowledge, Practices and Consumption Levels - Just 36 per cent of pregnant women recognised the need for increased food consumption during pregnancy, while 23 per cent of pregnant women decreased their food consumption. Only about a quarter of the lactating women increased their food intake. The current level of counselling needs to be improved, since 47 per cent of the pregnant women and 42 per cent of RDW indicated that they had received advice about increasing food consumption during pregnancy and lactation.

Information on food consumption among pregnant and lactating women suggests that their diets were low in protein, as few reported eating eggs, fish, chicken or meat on a daily basis. While most of the women reportedly consumed pulses (56%) and dark green leafy vegetables (91%), it is not known whether they did so in sufficient quantities to meet their nutritional needs.

Anaemia - Awareness of anaemia was generally low, limited to only 42 per cent of pregnant women and 36 per cent of RDW. Prevalence of anaemia in the five surveyed districts was alarmingly high compared to the NFHS-3 estimates for the state (69 per cent of pregnant women and 70 per cent of mothers of 0-11 month olds), as 82 per cent of pregnant women and 85 per cent of mothers of newborns were anaemic.

Anaemia levels vary somewhat by standard of living. Sixty seven per cent of pregnant women in wealthy households were anaemic compared to 80 per cent in the poor households. While the RDW were more likely to have some form of anaemia, severe and moderate anaemia was more prevalent among pregnant women.

Measures to prevent or reduce anaemia did have an impact, but interventions such as IFA supplementation were not widely available. While 75 per cent of RDW received IFA supplementation during their pregnancy, only 19 per cent received the recommended dosage of 100 or more IFA tablets. Anaemia levels were lower among pregnant women who had consumed IFA tablets (79 per cent among those consuming over 100 tablets) compared to those who had not (83%).

Knowledge and Performance of Frontline Workers

Profile of *Sahiyyas* and AWWs - Most of the *Sahiyyas* had completed eight years of schooling (80%), the minimum qualification set for their recruitment. However, the percentage of *Sahiyyas* belonging to STs (3%) was much lower compared to those from general category (48%) and OBCs (44%). Only 3 per cent of the *Sahiyyas* had received the mandatory 23 days of training at the time of the survey.

Almost all the AWWs (93%) resided in the same village as the *Anganwadi* centre (AWC). The average age among the surveyed AWWs was 34 years and most of them had a minimum of eight years of schooling (97%). Compared to *Sahiyyas*, the AWWs were more likely to belong to STs (22%) and OBCs (53%) than from the general category (25%).

Knowledge Levels - The *Sahiyyas* and AWWs' maternal and newborn health knowledge levels were less than optimal, thus, compromising their ability to provide proper counselling and support. A high proportion of the *Sahiyyas* and AWWs were knowledgeable about ANC standards, although awareness of the danger signs during pregnancy and delivery on new bore care and postnatal practices was much lower. The awareness of need for postnatal visits in case of home deliveries was low (14 per cent of the *Sahiyyas* and 20 per cent of the AWWs). Less AWWs (27%) than *Sahiyyas* (38%) knew that severe abdominal pain during pregnancy is a complication. Merely 30 per cent of the *Sahiyyas* knew that vaginal bleeding during delivery is a danger sign, while only 37 per cent were aware that breathing difficulty in newborns could lead to grave consequences. That their knowledge levels were as high as they were, however, is encouraging, given that 55 per cent of the *Sahiyyas* had only completed seven days of training and 25 per cent had received up to 14 days of training.

Coverage and Service Levels - In the quarter preceding the survey, *Sahiyyas* on average registered nine pregnant women, visited five pregnant women in their third trimester and accompanied three women for institutional deliveries. Less than one in three CPW in the surveyed districts reported contact with a *Sahiyya* (31%) and 45 per cent were contacted in the second trimester. The data might indicate that the *Sahiyyas* were not reaching all the pregnant women in their villages or that the women might not consider a *Sahiyya's* visit as significant.

The AWWs reported an average of eight deliveries in their area in the quarter preceding the survey (five home deliveries and three institutional). All registered pregnant women received supplementary nutrition at least once in the month preceding the survey. Each AWC had 13 lactating women and 47 children aged 6 months - 5 years registered with it, with 41 per cent of the children receiving supplementary food from the AWC at least once during the month preceding the survey.

A key responsibility of the *Sahiyyas* is to mobilise communities for Village Health and Nutrition Days (VHNDs), which are held at the AWC, along with the AWW and ANM. The monthly VHNDs were not being conducted across the districts, as 51 per cent of the *Sahiyyas* reported not having participated in a VHND in the three month period preceding the baseline survey. In the communities where VHNDs were conducted, the activities were mostly limited to immunisation (54%) and distribution of supplementary nutrition (32%).

Perception of Pregnant Women and Mothers About *Sahiyya's* Role - While one of the primary responsibilities of the *Sahiyya* is to create awareness among her community, not many women

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The Purpose of the Vistaar Project

To assist the Government of India and the State Governments of Uttar Pradesh and Jharkhand in taking knowledge to practice for improved maternal, newborn, and child health and nutritional status

IntraHealth International, Inc. is the lead agency for the Vistaar Project

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recognise her as a source of information on newborn care or as a source of referral. Only 11 per cent of the pregnant women were aware of the importance of the ANC visits made by *Sahiyyas* and a meagre 2 per cent were informed about postnatal and newborn care topics through *Sahiyyas*. Although roughly 60 per cent of pregnant women were aware of *Sahiyyas*, only 2 per cent reported that they would approach a *Sahiyya* first for any complication during pregnancy. The household decision-makers revealed a similar ignorance of the *Sahiyya's* role, with only 3 per cent reportedly having approached the frontline workers for pregnancy-related complications.

Conclusions and Recommendations

There is major potential to increase the reach of ANC and PNC services, promote institutional deliveries and skilled attendance at deliveries in the surveyed districts. Uptake of the JSY scheme also needs to be improved. As institutional deliveries were especially low among certain populations, such as Sarnas and Christians, STs, illiterate women and households with low standard of living, and in Sahebganj, Khunti and Gumla districts, a deeper understanding of the barriers that preclude institutional deliveries for these women is necessary. There is great scope for improvement in newborn care and breastfeeding practices.

Self-reported data on *Sahiyya's* contacts with pregnant women and the reports from CPW and RDW indicate a discrepancy in the reach and coverage of *Sahiyya* services. Since only 3 per cent of the *Sahiyyas* were from tribal populations compared to over 25 per cent of pregnant women from similar background, there may be cultural or other factors that impede the *Sahiyya's* ability to adequately reach these women. *Sahiyyas* are yet to be recognised as a significant source of information for women on maternal and newborn care. The VHND, which is the platform identified to create knowledge and facilitate service provision in the community, is yet to become a norm, and the services provided are mostly limited to immunisation and distribution of supplementary nutrition.

Given the findings, it is recommended that efforts be undertaken to identify and address the factors limiting health workers from providing the complete package of ANC services in order to accelerate the process of improving maternal and newborn health in the programme districts. Barriers to educating pregnant women and household decision-makers about the complete ANC package and proper care during pregnancy and for the newborn also need attention. Informing mothers specifically on the measures for preventing anaemia, the importance of consuming nutritious food themselves, and the need for exclusive breastfeeding of infants until the age of six months will help address nutrition deficiencies. Further, improving access to and uptake of iron supplementation for anaemic mothers is critical. Given the diversity of caste, religious and cultural backgrounds and the low levels of literacy among women, targeting messaging to specific populations in ways that they can understand is of paramount importance.

Ensuring completion of training modules, refresher training, on-the-job support and job-aids are recommended to ensure that all *Sahiyyas* have the knowledge and skills to effectively carry out their responsibilities. Strengthening supportive supervision to frontline workers is especially essential for *Sahiyyas* so as to improve their performance and effectiveness as sources of valued information and a link to available health services. Gaps also exist between the knowledge of *Sahiyyas* and what they in turn impart to women about maternal and newborn care. In addition to increasing knowledge levels, it is important to improve these frontline workers' counselling and interpersonal communication (IPC) skills to help them become more effective agents of behaviour change. The IPC strategy developed for maternal nutrition should focus on changing the behaviours related to improving the nutritional status of infants and young children, especially in the vulnerable segments of the community.

Medical officers of respective PHCs and/or ANMs should encourage women to consult *Sahiyyas* and promote them as a first contact person and source of information related to Maternal and Child Health and Nutrition. Finally, there is a need for improvement in planning VHNDs to regularise them, and to increase the range of services and the counselling provided during the sessions.

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