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

Baseline Survey Brief 4

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Introduction

The Government of Uttar Pradesh 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 Uttar Pradesh requested the Vistaar Project to provide technical assistance (TA) for the rollout of its Comprehensive Child Survival Programme (CCSP) and Integrated Child Development Services (ICDS) projects in eight districts in the state, Azamgarh, Banda, Bulandshahr, Chitrakoot, Gonda, Kaushambi, Saharanpur and Varanasi.

The Vistaar project conducted a baseline survey in these districts to document key baseline knowledge and behaviour of currently pregnant women (CPW) and recently delivered women (RDW) about antenatal, delivery, postnatal, newborn and infant care as well as to assess the anaemia levels of these women and nutritional status of their children.

The minimum required sample size in each district included 500 CPW, 500 RDW with 0 - 5 month old infants, and 500 RDW with 6 - 11 month old infants. The baseline survey included household decision-makers (husband, mother-in-law, father-in-law etc.) as respondents to understand their knowledge and behaviour towards maternal and infant nutrition. The baseline survey also covered accredited social health activists (ASHAs) and *Anganwadi* workers (AWWs) to obtain the service provider perspective on these topics.

Data collection was carried out between December 2008 and February 2009, from a total of 8,860 mothers of 0 - 11 month old children, 4,266 CPW, and 2,628 household decision-makers. Additionally, 343 ASHAs and 441 AWWs were interviewed from 384 villages and 128 urban blocks. Baseline data was also collected on anaemia levels among CPW and RDW, and anthropometric measurements (height and weight) of infants aged 6 - 11 months.

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

Profile of Pregnant and Recently Delivered Women

Of the 12 - 14 per cent of the CPW and RDW covered by the baseline survey in each district, around 80 per cent were from rural areas and around 80 per cent were Hindus. 27 per cent of the women belonged to scheduled castes (SCs), while half of the women belonged to other backward classes (OBCs). Less than half of the pregnant women were literate and only 19 per cent had completed 10 or more years of schooling. Approximately 26 per cent of the women were from low standard of living index (SLI) homes, 39 per cent from medium SLI and 35 per cent were from high SLI homes.

Key Findings

Maternal and Newborn Care

Antenatal Care - Both pregnant women and household decision-makers recognised the importance of antenatal care (ANC), especially with respect to taking two tetanus toxoid (TT) injections, but there was much less awareness about the other components of a complete ANC package. The responses from the RDW confirmed that 90 per cent received at least one ANC visit and 50 per cent had received three or more visits.

ANC utilisation was highest among wealthy and educated women. Interestingly, the household decision-makers, who are often considered barriers to pregnant women seeking ANC services, reported higher levels of intention for their wife/daughter/daughter-in-law to avail three or more ANC check-ups than the CPW themselves.

Auxilliary nurse midwives (ANMs) provided ANC for more than half (56%) of the pregnant women, followed by private doctors (35%) and primary health centres (PHCs)/community health centres (CHCs) (33%).

The quality of ANC services and advice requires improvement as only 14 per cent of the RDW received all five check-ups and tests, i.e. weight monitoring, blood pressure measurement, urine test, blood test and abdominal examination, and 19 per cent received delivery and nutrition advice during their ANC visits.

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

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While 60 per cent of the RDW had received any iron and folic acid (IFA) supplements during pregnancy, merely 19 per cent had received the complete stock (100 tablets/three bottles of syrup).

Delivery Care - The baseline survey indicates that institutional deliveries have sharply increased, partly because of the *Janani Suraksha Yojana* (JSY) programme. Among the RDW covered by the survey, half of the deliveries were conducted in health facilities, compared to the District Level Health Survey (DLHS)-3 findings of 25 per cent and National Family Health Survey (NFHS)-3 finding of 22 per cent for the state. Awareness and acceptance of JSY was high among the CPW (81%) and household decision-makers (93%), and overall, 26 per cent of the RDW had availed JSY benefits.

Relatively more women opted to deliver at Government health facilities (31%) than private health facilities (20%). Further, 84 per cent of the women who delivered at a government facility benefitted from the JSY programme. Lower levels of institutional deliveries were reported among Muslims, SCs, STs, illiterate women and households with a low standard of living. Home deliveries were relatively higher in Gonda (69%) and Kaushambi (64%) districts.

Postnatal Care - While over 70 per cent of the RDW had received a postnatal care (PNC) check-up within a month after delivery, those receiving a second PNC visit dropped to less than one in five (17%), and third PNC check-ups were rare in the surveyed districts (7%).

The chances of receiving PNC check-ups were relatively low in the case of home deliveries (55 per cent received first PNC check-up) compared to institutional deliveries in Government health facilities (86 per cent received first PNC check-up) and private health facilities (88 per cent received first PNC check-up).

The baseline also reveals that relatively more women who delivered in private health facilities received second and third PNC check-ups, compared to those who had delivered at home or in a Government facility.

While the frontline workers reported that they made PNC visits to all the RDW, only 1.5 per cent and 0.3 per cent of the RDW reported that they received their first PNC visit from ASHAs and AWWs, respectively. This discrepancy could be attributed to the possibility that the mothers do not consider ASHAs and AWWs to be qualified to provide PNC and, hence, do not recognise visits by them as PNC visits. It could also indicate that the ASHAs and AWWs might not be reaching all the eligible households through home visits to provide PNC.

Newborn Care and Infant Feeding Practices - Newborn care (NBC) practices with regard to infants born at home can be substantially improved to protect the newborn from infection and illness (Table 1).

While breastfeeding was universally practiced across the survey districts (more than 99%), only 10 per cent of the newborns in the surveyed districts were breastfed within an hour of birth and 40 per cent within six hours of birth.

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	37.9	38.6	38.3
Home deliveries where newborns were dried and wrapped before placenta delivery	11.0	10.2	10.6
Home deliveries where new blade was used for cutting the cord	96.0	95.9	96.0
Home deliveries where any thread from home was used for tying the cord	86.7	87.1	87.0
Newborns breastfed within:			
▪ One hour	13.9	5.3	10.0
▪ Six hours	42.5	36.1	39.6
▪ One day	54.4	49.4	52.1
Women who squeezed out colostrum before initiating breastfeeding	69.1	46.3	58.6
Infants aged 0-5 months exclusively breastfed in 24 hours preceding the survey	80.5	NA	NA
Infants aged 6-11 months exclusively breastfed for at least up to six months	NA	16.5	NA
Infants aged 6-11 months who were being breastfed and received food from 3 or more major food groups	NA	37.6	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	77.8	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	51	NA
Total number of recently delivered women	**4773**	**4087**	**8860**

Around 60 per cent of the mothers in the baseline districts squeezed out colostrum before breastfeeding their newborns. Only 17 per cent of the infants aged 6 - 11 months were exclusively breastfed for six months. Around 78 per cent of the infants aged 6 - 11 months received semi-solid and/or solid food in the 24 hours preceding the survey, with only 38 per cent of them receiving food from three or more major food groups. While infant feeding continues to be an area of concern, the frontline workers do not seem to be addressing the issue sufficiently in their counselling sessions during ANC and PNC visits (only 31 per cent of the RDW were advised about exclusive breastfeeding during PNC visits).

In the surveyed districts, 33 per cent of the boys and 28 per cent of the girls were undernourished. Across the surveyed districts, relatively more infants in Banda (43%) and Kaushambi (40%) were undernourished. Among the population sub-groups, relatively larger numbers of infants belonging to SCs and STs, households with low standard of living and illiterate mothers were undernourished.

Nutrition during Pregnancy and Lactation

Nutrition-related Knowledge, Practices and Consumption Levels - Just 28 per cent of the pregnant women in the survey districts recognised the need for increased food consumption during pregnancy. Only 18 per cent of CPW and 15 per cent of RDW actually followed the advice by having an extra meal. The current level of counselling needs to be improved, since 44 per cent of CPW and 38 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 indicates that their diets are low in protein, as few reported eating eggs, fish, chicken or meat on a daily basis. While most of the women consumed pulses (65%) and dark green leafy vegetables (80%), it was not known whether they did so in sufficient quantities to meet their nutritional needs.

Anaemia - Awareness of anaemia was generally high among the respondents, but as the nutritional practices reveal, the pregnant and lactating women either did not know how to prevent it or lacked the capacity or motivation to do so. Prevalence of anaemia in the eight surveyed districts is alarmingly high compared to the NFHS-3 estimates for the state (52 per cent of the pregnant women and 58 per cent of the mothers of 0-11 months old), as 63 per cent of the pregnant women and 75 per cent of the mothers of newborns were anaemic. While the RDW were more likely to have some form of anaemia, severe and moderate anaemia was more prevalent among CPW.

Measures to prevent or reduce anaemia do have an impact, but interventions such as IFA supplementation were not widely available. While 61 per cent of the RDW received IFA tablets during their pregnancy, only 19 per cent received the recommended dosage of 100 or more tablets. Anaemia levels were found to be lower among pregnant women who had consumed IFA tablets (66-68 per cent among those consuming over 50 tablets) compared to those who had not (76%).

Knowledge and Performance of Frontline Workers

Profile of ASHAs and AWWs – All the ASHAs had eight years of schooling. Relatively fewer ASHAs belonged to SCs (13%) compared to the population they served. Only 15 per cent of the ASHAs had received the required 23 days of training at the time of the survey.

Almost all the AWWs (94%) resided in the same village as the *Anganwadi* centre (AWC). The mean age of the surveyed AWWs was 33.7 years and all of them had a minimum of eight years of schooling. Like the ASHAs, the percentage of AWWs belonging to SCs (15%) was relatively lower compared to those from the general category (58%) and OBCs (27%).

Knowledge Levels – The ASHAs and AWWs included in the survey reported high knowledge levels related to ANC standards, although awareness of the danger signs during pregnancy, delivery, newborn care and desired postnatal practices was much lower.

Merely 32 per cent of the ASHAs and 21 per cent of the AWWs were aware of the importance of three postnatal visits in case of home deliveries. Thirty-seven per cent of the ASHAs recognised severe abdominal pain during pregnancy as a complication. Thirty-five per cent of the ASHAs and 37 per cent of the AWWs perceived yellow complexion in a newborn as an abnormality.

This deficiency in awareness on critical issues limits the frontline workers' ability to confidently counsel pregnant women and mothers on these topics.

Coverage and Service Levels – In the quarter preceding the survey, the ASHAs on an average registered nine pregnant women, visited five pregnant women in their third trimester, and accompanied six women for institutional deliveries. Only half the CPW in the surveyed districts reported contact with an ASHA (53%), a majority of whom were contacted in either the second or third trimester (80%).

The AWWs reported an average of eight deliveries in their area in the quarter preceding the survey (three at home and five in health facilities). Nearly all the registered pregnant women received supplementary nutrition at least once in the month preceding the survey. Each AWC had 14 lactating women and 102 children aged 6 months - 5 years registered, with the majority of children (78%) receiving complementary food from the AWC at least once during the month preceding the survey.

The ASHA has to work with the AWW and ANM to mobilise communities for Village Health and Nutrition Days (VHNDs), which are held at the AWC. The monthly VHNDs were not very common in the survey districts (64 per cent of the ASHAs had not participated in a VHND in the three months preceding the survey), and in the communities where VHNDs were held, the activities were mostly limited to immunisation (30%) and distribution of supplementary nutrition (27%).

Perception of Pregnant Women and Mothers about ASHA's Role - While one of the primary responsibilities of the ASHA is to create awareness among her community, not many women recognised her as a source of information and referral, and few reported her as a source of information for maternal or newborn care.

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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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Merely 18 per cent of the pregnant women were made aware of the necessity of three ANC visits by ASHAs and only 3 per cent were informed about postnatal and newborn care matters by the health workers. While 73 per cent of the pregnant women were aware of ASHAs, only 3 per cent reported that they would approach an ASHA first for any pregnancy-related complication. The household decision-makers revealed a similar ignorance of the ASHA's role, with just about 3 per cent reportedly having approached the frontline workers for pregnancy-related complications.

Conclusions and Recommendations

The majority of CPW and RDW were not accessing ANC, delivery, and postnatal services; utilisation of these services was especially low among women from rural areas and those belonging to the Muslim religion, SCs and households with a low standard of living. More women were going to health facilities for delivery, especially Government health facilities. Low nutritional knowledge and practices among pregnant and lactating women were key contributors to high anaemia levels; consumption of IFA tablets was not widespread. There is great scope for improvement in newborn care and breastfeeding practices. A relatively large number of children belonging to SCs, households with a low standard of living and illiterate mothers were undernourished.

Self-reported data on ASHAs' contacts with pregnant women and the reports from CPW and RDW indicate a discrepancy in the reach and coverage of ASHA services. The women reported ASHAs as most often imparting knowledge on immunisation (73%), birth-preparedness (40%), ANC (31%) and delivery care (27%). However, these frontline workers were not considered a source of advice on newborn care. The VHNDs, the platform to create knowledge and facilitate services provision in the community, were yet to become a norm, and the services provided at these sessions were 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 and uptake of iron supplementation for anaemic mothers is critical. There is a need to develop strategies to enhance the reach of services to vulnerable groups and target messages specifically to these populations.

Ensuring completion of training modules, refresher training, on-the-job support and job-aids are recommended to ensure that all the ASHAs have the knowledge and skills to effectively carry out their responsibilities. Strengthening supportive supervision to frontline workers is especially needed for ASHAs in order to improve their performance and effectiveness as sources of valuable information and as a link to available health services.

Improving the counselling and interpersonal communication skills (IPC) of frontline workers who have adequate knowledge is essential 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 ASHAs and promote them as a first point of contact and source of information related to Maternal and Child Health and Nutrition. Finally, there is a need for improvements in planning VHNDs to regularise them, and to increase the range of services and improve the counselling provided during these sessions.

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