

## Performance in key new born care practices among ASHAs of Uttar Pradesh, India

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### Abstract

When ASHAs were introduced in NRHM in 2005, one of their primary mandates were to track deliveries and visit homes of newborns as the first program and counsel and deliver relevant messages as envisaged under the Comprehensive Child Survival Program (CCSP) way back in 2008 in Uttar Pradesh. Since then, tracking of all the deliveries and the related messages given by ASHAs on newborn care to mothers during pregnancy and in the first month after delivery are an integral part of the work of ASHAs in all the primary health care programs operated by the NHM in UP.

The current study explores four of the crucial variables of the performance of the ASHAs on newborn care in relation to both institutional and home deliveries in four districts of UP. The four variables are bathing, weighing, initiating breastfeeding, pre-lacteals and advise on discarding the first milk of the lactating mother. These cover the thermal care and, food aspects of Home-Based Newborn Care (HBNC). Through this profile, the content and type of newborn care messages given by ASHAs in their coverage area is tracked for assessing their performance in relation to HBNC.

The relevance of the study assumes significance as data on the details of activities like the content, timing and quality of messages on these newborn care practices is not assessed with relation to all deliveries. Hence, the performance of ASHAs on this aspect is not tracked in various studies available in the public domain.

A total of four districts of Uttar Pradesh were selected using purposive sampling for the study and the data collection was conducted in the selected villages of the respective districts using a pre-tested structured questionnaire with both close-ended and open-ended questions. In addition, in-depth interviews were also conducted amongst the ASHAs and a total 250 respondents had participated in the study.

The content of message deliveries by ASHAs in the 4 districts in their catchment area was assessed. Most of the ASHAs across 4 districts told the mother to bathe the child within 4-7 days after delivery. About 2% of ASHAs in Barabanki district advised to bathe the child immediately after delivery. Regarding weighing the newborn, from the mother child card it was seen that more than 90% of ASHAs across all the four districts replied that the weight of the newborn that they weighed last was 2.5 to 3 kilograms. Among the four districts, only 5% of ASHAs in Gonda told the mothers to breastfeed within 1-4 hours and the rest informed to do the activity within an hour of delivery. The knowledge of ASHAs regarding pre-lacteal feeding to newborns in Gonda was the poorest among the 4 districts. About 64% of ASHAs in Gonda advised the mother to discard the first milk before the child was put to the breast for the first time. Majority of ASHAs advised the mother to continue breastfeeding the newborn exclusively up to 6 months of age. There was large variation in the knowledge and practice of ASHAs regarding the pre-lacteal feeding practices.

This shows that there is an urgent need to reorient ASHAs on the essential newborn care messages in relation to all deliveries especially for home deliveries. This can be done by using the structured mentoring and coaching approach, both, onsite/in-field and facility based by the supportive supervision structure of ASHA Sanginis, ANMs and Medical Officers for better adherence on delivery of the content, timing and quality of messages on newborn care to the prospective mothers and their family members in the community.

**Keywords:** ASHA, EBF, CCSP, Sanginis, HBNC, EIBF, Thermal care

### 1. Introduction

To address the knowledge issue of the ASHAs, GOI had prescribed a 23day training schedule in phases while covering the 8 prescribed training modules of GOI (NRHM, GOI, 2007). As health is a state subject, the training modules were rolled out in phases by the state governments. In the state of UP, the ASHAs were trained in the CCSP module that was developed by the state on the lines of the HBNC module of GOI and the module covered the topic of essential newborn care. Newborn health was also covered in 6<sup>th</sup> and 7<sup>th</sup> module of ASHAs. Till the end of 2017, more than half of the total numbers of ASHAs were trained in 6<sup>th</sup> and 7<sup>th</sup> modules out of the 8 prescribed modules for ASHAs

by GOI (NHM, PIP, 2017-18, GOUP). The plan is to complete the training need by the end of 2019. As the reinforcement and follow up to the training are poor, the knowledge level drips.

The performance level of ASHAs can only be maintained through community support. The community support acted as motivation for the ASHAs to practice the knowledge and skills related to HBNC and retained and refreshed the knowledge and skills. All these processes helped her to identify and refer sick newborns timely while providing need based HBNC practices to the mothers and family members of the newborns (COP report, Vistaar project, 2013). The uneven level of community support explains the

poor performance of ASHAs.

A cross sectional community-based study of care of newborn infants in Nepal stated that health promotion interventions that were most likely to improve newborn health include improving information for families about basic perinatal care, promoting clean delivery practices, early cord cutting and wrapping of the baby and avoidance of early bathing (David, Kirti. et. al,2002).

The study focuses on performance of ASHAs on aspects of newborn care in relation to both home & institutional delivery. Among the HBNC, warmth component is very critical. A newborn baby is homoeothermic. A low birth weight baby has decreased thermal insulation because of reduced amount of brown fat. Newborn loses heat by evaporation (amniotic fluid by surface), conduction (touch with cold object), convection (fan, window) where cold air replaces warm air. The warm and pink feet of the baby indicate thermal comfort. The behaviors like delayed bathing, delayed weighing and kangarooing in case of low birth weight babies contribute to warmth of the baby (NNFI, 2015). It further summarizes to address three components which were clean airway, breathing and temperature.

On the same lines, in NRHM, the ASHAs needs to visit the new mothers and newborns six times in case of an institutional delivery and seven times in case of a home delivery. The days of visits in case of institutional delivery were on the 3,7,14,21,28 and 42 days after birth and 1,3,7,14,21,28 and 42 days after birth in case of a home delivery (GOI, 2011). The mortality pattern of newborns showed that 72.9% die in the first week and only 13.5% die in the 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> weeks after birth. Similarly, 36.9% die on day 0, 7.4% on day 1, 10.1% on day 2, 6.6% on day 3, 5.1% on day 4, 3.4% on day 5 and 3.5% on day 6 (Sankar, MJ. et. al, 2016). This showed that first week was extremely critical for the newborn to be visited by the ASHA. The current study focused on the HBNC model as per the India Newborn Action Plan only.

There were many barriers in HBNC practices like delayed early initiation of breast feeding, non-adherence to exclusive breast feeding, poor cord care and early bathing of newborns. All these factors contributed to higher neonatal mortality (Kumar and Mohanty. et.al, Lancet 2008). These barriers come into play as the ASHAs have poor performance.

### Background of ASHAs

The ASHAs emerged in India's public health system during the launch of NRHM in 2005 in the state of Uttar Pradesh (GOI, 2005). The ASHAs were in fact inducted to NRHM with the primary aim to roll out the JSY component of NRHM (GOI, 2005).

The current study focuses on performance of ASHAs who receive the same inputs from the district level as per the guidelines by the state level. The fact is that these inputs differ from district to district as all the factors like the trainers, training environment and the logistical facilities were different for each of the districts. It is in this light that the current study contextualizes the realities at the district level which usually studies do not cover. The performance of ASHAs also differs from district to district because each district is a separate administrative unit and the type of administration also affects the role and performance. The current study incorporates these ground realities while discussing on the performance aspect of ASHAs. Through

the contextualization at the district level, the current study describes the phenomena of some key newborn care practices.

A study by NHSRC on evaluation of performance of ASHAs suggests optimization of ASHA's functionality and effectiveness. It highlights low performance in areas of newborn care, postnatal care, antenatal care and nutrition by ASHAs due to lack of skills and support (Ved et. al, NHSRC, 2011). The current study also focuses on these areas to see the performance of ASHAs. In other studies, it is cited that evaluations of CHW performance in 1998, 1999 and 2000 in Siaya, Kenya (Kelly et. al, 2001) found that key reasons for the deficiencies in performance appear to be guideline complexity and inadequate clinical supervision. These issues hold true for the state of UP also.

Home based newborn care was one of technical component of INAP of GOI. The Bottle Neck Analysis toll of the global Every Newborn Steering Group was used to find the package critical to reduce preventable newborn deaths. One of the packages was basic newborn care that covered cleanliness including cord care, warmth and feeding. The other was Kangaroo Mother Care that focuses on skin to skin, breast feeding and feeding support for preterm and premature babies (INAP, GOI, 2014). This was the HBNC package that the current study focused upon.

The performance on EIBF in relation to all deliveries is also critical as only 25.2% of children in UP are fed the colostrum where as it is 45.2% for the country (NFHS 4, 2015-16). These two indicators are embedded in the current study.

The above studies do not reflect on the knowledge of ASHAs on newborn care in relation to all deliveries. The current study has the quality and content for each of the variables on newborn care Vs performance of ASHAs in thermal care, weighing and breastfeeding aspects. This study done in 2017 examines the profile of the timing and content of newborn care related messages in the coverage area of ASHAs.

### Research Methodology

Using purposive sampling technique, four districts were chosen from the four different economic regions of UP, namely Central, Eastern, Western and Bundelkhand. Further, the Government of UP in 2009 categorized the districts as per their development status using a composition of 36 indicators. Purposefully, the high developed district chosen for the study is Saharanpur from the western region, the medium developed district chosen for the study is Barabanki from the central region, the low developed district chosen for the study is Gonda from the eastern region and the very low developed district chosen for the study is Banda from the Bundelkhand region (GOUP, 2009).

In the next step, purposefully two blocks were selected from each of the district and all the ASHAs in these blocks were chosen as the universe for the study. From the list of all the ASHAs in each of the two blocks, 31 ASHAs were chosen randomly from each block for the study. In this way, 62 ASHAs were chosen for the study from each of the districts. In Gonda district, 64 ASHAs were selected to make the total number of ASHAs for the study to 250.

### Data analysis

The data was analyzed using SPSS software to calculate the

percentage of ASHAs who had performance on the selected variables of newborn care. The study deciphered the home-based newborn care performance of ASHAs through the timing of the messages after all deliveries. The qualitative data related to the details of the contents of the newborn care messages given during home visits to newborns by ASHAs is possible with the correct knowledge and skill. The performance is seen against the prescribed guidelines for ASHAs by GOI regarding the content in the prescribed training modules of ASHAs.

### Research tool

The ASHAs were interviewed using an in-depth, open-ended interview schedule which included sections on

variables on work done by ASHAs through home visits to newborns, escorting deliveries to institutions, number of home deliveries and number of newborns visited. These activities were also seen against their current knowledge and performance on whether a particular activity needs to precede or succeed all deliveries.

### Results and discussions

There are six tables in this section. The first table is on the performance on bathing, second on weighing, third on EIBF, fourth on pre-lacteal feeds, fifth on discarding the first milk of mother including EBF and the sixth on substitute for breast milk. All these aspects are seen in the context of performance of the ASHAs.

**Table 1**

Names of districts (n= 250)	Banda (n=62)	Barabanki (n=62)	Gonda (n=64)	Saharanpur (n=62)
Percentage of ASHAs advising the mother about the day of the first bathe of the newborn after delivery				
Immediately	0.0	1.6	0.0	0.0
1-3 days	3.2	30.6	56.3	0.0
4-7 days	93.5	61.2	43.7	100
More than 7 days	3.3	6.6	0.0	0.0

The first table is about the message of ASHAs about the day of the first bathe of the newborn after delivery. About 2% of ASHAs in Gonda told to bathe the child immediately while none of the ASHAs gave this message in the rest of the 3 districts. 56% and 31% of ASHAs in Gonda and Barabanki respectively told the mothers to bathe the child within 1-3 days after delivery. None of the ASHAs told this in

Saharanpur while only 3% of ASHAs told this message in Banda. Most of the ASHAs across 4 districts told the mother to bathe the child within 4-7 days after delivery. While 7% of ASHAs in Barabanki, 3% in Banda advised the mother to bathe the child after 7 days, none of the ASHAs gave this advice in the rest 2 districts.

**Table 2**

Names of districts (n=250)	Banda (n=62)	Barabanki (n=62)	Gonda (n=64)	Saharanpur (n=62)
Percentage of ASHAs giving the weight of the newborn whom they weighed last (from mother child card)				
2.5-3 kg	100	91.3	92.2	91.9
More than 3 kg	0.0	8.7	7.8	0.0

Regarding weighing the newborn, from the mother child card it was seen that more than 90% of ASHAs across all the four districts replied that the weight of the newborn that they weighed last was 2.5 to 3 kilograms. None of the

ASHAs in Banda and Saharanpur, about 8% in Gonda and 9% in Barabanki replied that the weight of the child whom they last weighed was more than 3 kilograms.

**Table 3**

Names of districts (n=250)	Banda (n=62)	Barabanki (n=62)	Gonda (n=64)	Saharanpur (n=62)
Percentage of ASHAs informing mothers about when should the newborn be put to breast after delivery				
Immediately/within an hour	100	95.2	100	100
After 1-4 hours	0.0	4.8	0.0	0.0

Regarding the message on early initiation of breast feeding, almost all the ASHAs in the four districts replied that they advise the mother to breastfeed immediately or within an

hour of delivery. Among the four districts, only 5% of ASHAs in Gonda told the mothers to breastfeed within 1-4 hours.

**Table 4**

Names of districts (n=250)	Banda (n=62)	Barabanki (n=62)	Gonda (n=64)	Saharanpur (n=62)
Percentage of ASHAs replying on the type of pre-lacteal feeds for the newborn				
Only breast milk	100	100	64.3	100
Milk other than breast milk	0.0	0.0	4.6	0.0
Plain water	0.0	0.0	30.2	0.0
Sugar or glucose water	0.0	0.0	0.9	0.0

When ASHAs were asked about the type of pre-lacteal feeds to be given to newborns, 64% of ASHAs in Gonda and all the ASHAs in the rest 3 districts replied that only breast

milk should be given. Among the rest of the ASHAs in

Gonda, 5% told milk other than breast milk, 30% plain water and 1% told sugar or glucose water. This showed that the knowledge of ASHAs regarding pre-lacteal feeding to newborns in Gonda was the poorest among the 4 districts.

Table 5

Names of districts (n=250)	Banda (n=62)	Barabanki (n=62)	Gonda (n=64)	Saharanpur (n=62)
Percentage of ASHAs telling mothers to discard the first milk from the breast before the newborn is put to breast				
First milk should be discarded	19.3	9.6	64	4.8
Percentage of ASHAs who advise the mother on breastfeeding practices for the newborn				
Continue breastfeeding the newborn	100	100	95.3	95.1
Advised that the newborn be exclusively breast fed for more than 6 months	0.0	1.6	1.6	2.4

There were 64% of ASHAs in Gonda who advised the mother to discard the first milk before the child was put to the breast for the first time. The percentage of ASHAs who gave this message in Banda was 19%, Barabanki was 10%, Saharanpur was 5%. Regarding this message also, Gonda lagged behind among the 4 districts.

Only about 2% of ASHAs in Barabanki, Gonda and Saharanpur and none of the ASHAs in Banda advised the mother to exclusively breast feed the child for more than 6 months while majority of ASHAs advised the mother to continue breastfeeding the newborn exclusively up to 6 months of age.

Table 6

Names of districts (n=250)	Banda (n=62)	Barabanki (n=62)	Gonda (n=64)	Saharanpur (n=62)
Percentage of ASHAs who advise the mother to give the newborn any other type of drink other than breastmilk on the day of the birth of the child				
Infant powdered milk	0.0	11.2	10.9	0.0
Any animal milk	3.2	22.5	0.0	16.1
Fruit Juice	0.0	1.6	7.8	0.0
Any drink except breast milk	3.2	25.8	10.9	16.1

While only the ASHAs of Gonda district showed poor knowledge on pre-lacteal feeds, some of the ASHAs of all the 4 districts showed poor knowledge when the same question was asked differently. Here instead of assessing their knowledge, they were asked about the kind of drink that they advised to be given to the newborn on the first day of birth.

None of the ASHAs in Banda and Saharanpur but 11% of ASHAs in Barabanki and Gonda replied that they advised to give infant powdered milk. 23% in Barabanki, 16% in Saharanpur, 3% in Banda and no ASHA in Gonda advised to give any animal milk. 2% in Barabanki and 8% in Gonda advised to give fruit juice while none advised this message in Banda and Saharanpur.

Any drink except breast milk was advised by 26% in Barabanki, 15% in Saharanpur, 11% in Gonda and 3% of ASHAs in Banda. This showed that there was large variation in the knowledge, practice and performance of ASHAs regarding the pre-lacteal feeding practices.

### Conclusions

The above results showed that the performance on Exclusive Breast Feeding (EBF) on newborn care messages was the most challenging followed by early initiation of breast feeding. The message on discarding the first milk is also given by ASHAs as a cultural practice that act as a barrier to Early Initiation of Breast Feeding (EIBF). These key practices can be done by the community if they are planned and reinforced by ASHAs through home visits. The challenge lies in mentoring-coaching ASHAs on following up all the deliveries with the support of Sanginis (supervisors of ASHAs in UP) and that too it should be preferably an onsite orientation i.e. during the home visits while accompanying the ASHAs. Qualitative analysis of the

messages and effective delivery of these messages are the two areas that the supervisors need to focus. The training should not be an activity rather it should be a regular process. All these parameters should be worked out at the level of ASHAs so that performance is tracked regularly.

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