

## Assessment of Knowledge & Contributing Factors of Accredited Social Health Activist (ASHA) Workers Regarding Antenatal Care in Bhojipura Block, District Bareilly

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### Abstract:

**Introduction:** The Government of India launched the National Rural Health Mission (NRHM) on 12<sup>th</sup> April 2005, to provide accessible, accountable, affordable, effective and reliable primary health care, especially to the poor and vulnerable sections of the population. One of the main tenets of the mission is to identify one ASHA (Accredited Social Health Activist) per 1000 population in the rural areas with the purpose of supporting the community to access public health services. **Objectives:** Assessment of the knowledge of ASHA workers regarding Ante Natal Care (ANC) and to study the factors contributing the working of ASHA for Antenatal services. **Method:** The present cross sectional study was carried out in the rural field practice area of the department of Community Medicine, Shri Ram Murti Samarak Institute of Medical Sciences, Bhojipura (District Bareilly) during the period from May 2014 to September 2014. Total of 48 villages were included in the study. Total 64 ASHA were interviewed. **Results:** Out of 64 ASHA, 30 (46.9%) ASHA knew that 23 days training provided after selection. All 64 (100%) ASHA knew that two doses of Tetanus Toxoid (TT) immunization were given to pregnant women. 54 (84.4%) ASHA knew the correct doses of giving TT immunization to pregnant women. **Conclusion:** According to the study findings, the knowledge level of ASHA regarding Antenatal care is satisfactory but time to time monitoring and appraisal is needed to enhance the quality of services provided by ASHA to pregnant mother.

**Keywords:** ANC, ASHA, Knowledge

### Introduction:

The Government of India launched the National Rural Health Mission (NRHM) on 12th April 2005, to provide accessible, accountable, affordable, effective and reliable primary health care, especially to the poor and vulnerable sections of the population.<sup>[1]</sup>

One of the main tenets of the mission is to identify one ASHA (Accredited Social Health Activist) per 1000 population in the rural areas with the purpose of supporting the community to access public health services. <sup>[2]</sup> ASHA must be primarily a woman

resident of the village, Married/ Widowed/Divorced and preferably in the age group of 25 to 45 yrs, should be a literate woman with formal education up to eighth class.

The Ministry of Health & Family Welfare (MOHFW) has developed a 23-day basic training schedule to provide the necessary knowledge and skills to women identified as ASHA and there is also regular re-orientation trainings organized at the district levels. Separate curriculum and the modules are made available in providing training to the ASHAs.

The discourse on the ASHA's role centers around three typologies - ASHA as an activist, ASHA as a link worker or facilitator and ASHA as a community level health care provider. ASHA is expected to ensure the antenatal, natal and postnatal services to women, counseling on family planning and nutrition, safe abortion, escort or accompany the pregnant female to hospital for institutional delivery, to create awareness on institutional delivery, potential danger signs and complications during pregnancy, delivery and postpartum period and to mobilize the community toward increase utilization of the existing health services.<sup>[3]</sup>

Ante Natal Care (ANC) is the care a woman receives throughout her pregnancy in order to ensure that both, the mother and child remain healthy. Basic components of ANC include to ensure early registration and see to it that the first check-up is conducted within 12 weeks (first three months of pregnancy), track every pregnancy for conducting at least four antenatal check-ups (including the first visit for registration), administer two doses of TT injection and provide at least 100 tablets of Iron and Folic acid.<sup>[4]</sup>

ASHA is the first helping hand for pregnant mother. ASHAs form the backbone of the NRHM and are meant to be selected by and be accountable to the village. Since ASHA workers are grass root level workers, the success of NRHM in India depends on how well ASHAs are trained and perform. Hence, it is essential to study are they have adequate knowledge for delivering the maternal health care services to community. At the same time, it is important to address the factors affecting the working of ASHA in the community to deliver maternal health care services. With this rationale, the present study was carried out with an objective to evaluate the knowledge and factors affecting maternal health care delivery by ASHAs in Bhojipura Block district Bareilly, India.

#### Objectives :

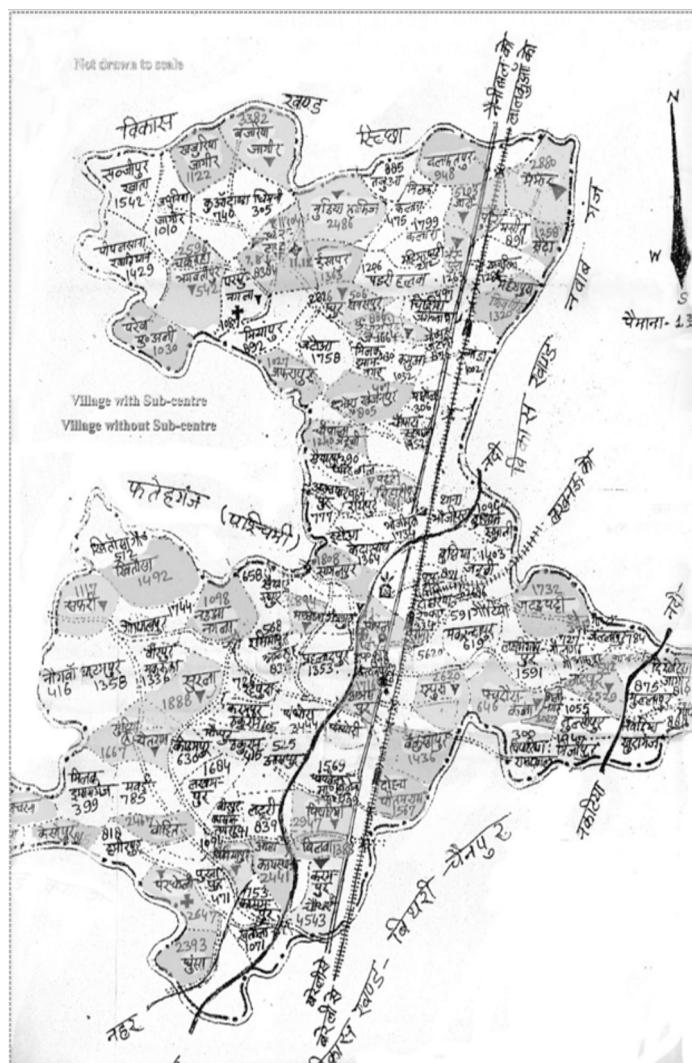
- Assessment of the knowledge of ASHA workers regarding antenatal care.

- To study the factors contributing the working of ASHA for Antenatal services.

#### Method :

The present cross sectional study was carried out in the rural field practice area of the department of Community Medicine, Shri Ram Murti Samarak Institute of Medical Sciences, Bhojipura (District Bareilly) during May 2014 to Sept 2014. The geographical area covered by this block is spread over 311.88 sq.km consisting 100 villages and 24 Sub-centres. Bhojipura block has a population of 1,91,181 (population of Town area: 20784, Rural population: 1,70,397) according to census 2011. The study was examined and cleared by ethical committee of the Institution.

**Figure 1: Map of the selected Villages**



**Table 1 :Distribution of ASHA according to their biosocial characteristics (n=64)**

Bio-social characteristics	Number (%)
<b>Age (years)</b>	
21-30	24(37.5)
31-40	27(42.2)
41-50	11(17.2)
50+	2(3.1)
<b>Religion</b>	
Hindu	56(87.5)
Muslim	8(12.5)
<b>Caste</b>	
General	10(15.6)
Other Backward Class (OBC)	36(56.3)
Scheduled Caste (SC)	18(28.1)
<b>Marital status</b>	
Married	57(89.1)
Widow	7(10.9)
<b>Education</b>	
Primary	10(15.6)
Middle	45(70.3)
High School	5(7.8)
Intermediate	4(6.3)
<b>Type of Family</b>	
Nuclear	22(34.4)
Joint	42(65.6)
<b>Socio economic status (modified B.G Prasad Classification)*</b>	
Class II (upper middle)	33(51.6)
Class III (middle)	28(43.7)
Class IV (upper lower)	3(4.7)

\* All India Consumer Price Index (AICPI)=1120 (April 2014)

#### **Sampling Technique for selection of villages:**

Out of 100 villages, all twenty-four villages having sub centre were selected randomly for the study. Sub centre is the most peripheral unit for providing Reproductive and Child Health (RCH) services. Thus all Sub centre were taken for the study. List of villages, situated at the distance of 3-5 km of their respective sub-centre, was obtained from block health office and 24 villages selected randomly for the study. Thus total of 48 villages were included in the study. (Figure I)

**Sample size for ASHA:** All ASHA who were posted by Government of Uttar Pradesh, of the selected 48 villages of Bhojipura Block, were included in the study. Thus total 64 ASHA were interviewed.

Inclusion Criteria for ASHA:

1. All ASHA working under the selected villages of block Bhojipura.
2. Living within premises of allotted village.
3. ASHA who were willing to participate and ready to give consent.

**Table 2: Training of ASHA and maintenance of record (n=64)**

Training and maintenance of record	Number (%)
<b>Duration of training provided to ASHA after selection</b>	
<23 days	11(17.2)
23 days	30(46.9)
>23 days	23(35.9)
<b>Duration of actual training received by ASHA</b>	
<23 days	16(25.0)
23 days	35(54.7)
>23 days	6(9.3)
Not received training	7(11.0)
<b>Maintenance of Antenatal record by ASHA</b>	
Yes	54(84.4)
No	10(15.6)

**Table 3: Knowledge of ASHA regarding Antenatal Care (n=64)**

Antenatal Care	Number (%)
<b>Minimum ANC visits recommended</b>	
Two visits	2(3.1)
Three visits	61(95.3)
Don't know	1(1.6)
<b>Time period of early registration of pregnancy</b>	
First trimester	11(17.2)
Second trimester	33(51.6)
Third trimester	3(4.7)
As early as possible	16(25.0)
Don't know	1(1.6)
<b>Doses of TT immunization</b>	
Two doses	64(100%)
<b>Interval between two TT doses</b>	
Two doses at one month interval	54(84.4)
Two doses at three month interval	9(14.1)
Don't know	1(1.6)
<b>Number of IFA tablets that should be given to a pregnant women</b>	
100	63(98.4)
Don't know	1(1.6)

**Data Collection:** Data were obtained with the help of pretested and semi structured questionnaire. Primary data were collected by face-to-face interviews from Accredited Social Health Activists of the respective villages. Visits were made to all selected 48 villages with the help of Medico Social

Worker (MSW). ASHA were interviewed at their houses only.

**Data analysis:** The information collected was critically analyzed and tabulated using SPSS- 20 version software. Appropriate statistical tests of significance (Logistic regression) were applied to

**Table 4: Logistic regression on factors affecting knowledge of ASHA regarding time period for early registration**

Biosocial Variables	Frequency	Beta ( $\beta$ )	p value	Exp( $\beta$ )	95% Confidence Interval for Exp( $\beta$ )	
					Lower	Upper
<b>Age(years)</b>						
21-30*	24					
31-40	27	0.365	0.571	1.441	0.407	5.102
>40	13	0.317	0.691	1.373	0.288	6.544
<b>Religion</b>						
Muslim*	8					
Hindu	56	1.920	<b>0.017</b>	6.818	1.410	32.966
<b>Caste</b>						
General*	10					
OBC	36	-0.565	0.516	0.568	0.103	3.123
SC	18	0.223	0.826	1.250	0.172	9.093
<b>Marital Status</b>						
Widow	7					
Married*	57	1.609	<b>0.052</b>	5.000	0.983	25.437
<b>Education</b>						
Primary*	10					
Middle	45	0.981	0.188	1.667	0.619	11.493
High -school & above	9	0.288	0.764	2.333	0.204	8.708
<b>Type of Family</b>						
Joint*	42					
Nuclear	22	1.043	0.139	2.839	0.713	11.311
<b>Socioeconomic Status</b>						
Upper Middle*	33					
Middle	31	0.594	0.315	1.812	0.568	5.778

test and validate the findings of the study.

### Result:

Predominantly 27 (42.2%) ASHA belonged to age group of 31-40 years, 56 (87.5%) were Hindu by religion, 36 (56.3%) belonged to OBC caste, 57 (89.1%) were married, 45 (70.3%) were educated up to middle class, 42 (65.6%) lived in a joint family and 33 (51.6%) ASHA from social class II (Upper middle). (Table 1)

Out of 64 ASHA, 30 (46.9%) ASHA knew that 23 days training is provided after selection. But when

ASHA were asked about how many days they received training after selection, 35 (54.7%) received training for 23 days and only 7 (11.0%) ASHA did not receive training. Maintenance of records by ASHA were found to be very high. Out of 64 ASHA, 54 (84.4%) maintained the Antenatal record. (Table 2)

When ASHA were asked about the services provided to pregnant women, 61 (95.3%) ASHA responded that minimum three ANC visits were recommended to pregnant women. Out of 64 ASHA, 33 (51.6%) said that the time period for early registration was second trimester. All 64 (100%)

**Table 5: Logistic regression on factors affecting knowledge of ASHA regarding interval between two TT doses**

Biosocial Variables	Frequency	Beta ( $\beta$ )	p value	Exp( $\beta$ )	95% Confidence Interval for Exp( $\beta$ )	
					Lower	Upper
<b>Age(years)</b>						
>40*	13					
21-30	24	0.848	0.265	2.381	0.519	10.932
31-40	27	0.859	0.279	2.492	0.511	10.284
<b>Religion</b>						
Muslim*	8					
Hindu	56	0.293	0.795	1.340	0.147	12.260
<b>Caste</b>						
SC*	18					
General	10	0.636	0.666	1.889	0.105	33.891
OBC	36	1.580	0.152	4.857	0.558	42.304
<b>Marital Status</b>						
Married*	57					
Widow	7	0.631	0.486	1.880	0.318	11.106
<b>Education</b>						
Primary*	10					
Middle	45	0.118	0.919	1.125	0.117	10.841
High-school	9	1.974	0.114	7.200	0.622	83.342
<b>Type of Family</b>						
Nuclear*	22					
Joint	42	0.856	0.308	2.353	0.454	12.19
<b>Socioeconomic Status</b>						
Middle*	31					
Upper Middle	33	0.405	0.563	1.500	0.380	5.921

ASHA knew that two doses of TT immunization has to be given to pregnant women. 54 (84.4%) ASHA knew the correct doses of giving TT immunization to pregnant women. Regarding IFA tablets, 63 (98.4%) ASHA had correct knowledge that at least 100 IFA should be given to a pregnant women. (Table 3)

Out of 64 ASHA, 16(25.0%) ASHA replied that as early as possible women should register for pregnancy. Applying the logistic regression on factors affecting knowledge of ASHA regarding time period of registration, age group 31-40 years, Hindu religion, SC category, Married ASHA, High-school educated ASHA, nuclear family, ASHA belonging to

Class III (middle) socioeconomic status were the prime factors associated with knowledge regarding time period for early registration. (Table 4)

Among 64 ASHA, 54(84.4%) ASHA knew the correct interval between two TT doses. Applying the logistic regression on factors affecting knowledge of ASHA regarding interval between two TT doses, age group 31-40 years, Hindu religion, OBC category, widow ASHA, High-school educated ASHA, joint family, class II (upper middle) ASHA, were more likely to have knowledge regarding interval between two doses of TT. (Table 5)

## Discussion :

**Bio-Social Characteristics of ASHA:** Majority i.e. 27 (42.2%) of ASHA were from age group 31-40 years. Although in the selection criteria of ASHA (according to Training Module of ASHA Workers-NRHM 2005-2012), the minimum age of selection is 25 years but in our study, the ASHA in age group of 21-30 years were 24 (37.5%). Our study findings are similar to the findings of Singh et al<sup>[5]</sup> where most of the ASHA 61 (45.2%) were in the age group of 30-35 years and only 11 (8.1%) ASHA were in the age group of 25-30 years. But contrary to this in the study done by Shashank K.J.<sup>[6]</sup> where majority 71 (53.8%) ASHA were in the age group of 26 to 30 years.

In the present study out of 64 ASHA, 57 (89.1%) ASHA were married, 45 (70.3%) completed education up to middle class, 56 (87.5%) were Hindu by religion, 36 (56.3%) belonged to OBC by caste, 42 (65.6%) were from joint family. The above findings is similar to the findings of Garg et al<sup>[7]</sup> where out of 105 ASHA, 93 (88.57%) were married, 101 (96.19%) ASHA worker completed 8<sup>th</sup> standard of the schooling and 89 (84.76%) of ASHA worker were Hindus. Whereas Umrao Singh Rao<sup>[8]</sup> also found in their study that majority (80%) of ASHAs were 8<sup>th</sup> class pass. This can be explained by the fact that selection criteria are 8<sup>th</sup> Class and at some places it has been reduced to 5<sup>th</sup> Class. Similar finding were also noted by Sarawati Swain et al<sup>[9]</sup> in Cuttack and study conducted by SIHFW Lucknow.<sup>[10]</sup> Whereas study done by Kansal et al<sup>[11]</sup> who found that out of 135 ASHA, 59 (43.7%) were from OBC caste and 42 (31.1%) were educated up to eighth standard.

In the present study, 33 (51.6%) ASHA belonged to class II (upper middle) socioeconomic status according to modified B.G Prasad classification. On the contrary study done by Singh et al<sup>[5]</sup> where out of 135 ASHA, most of the ASHA, 93 (68.9%) belong to class IV (upper lower) socioeconomic status according to modified B.G Prasad Classification. On the other hand study done by Swapan Mazumdar<sup>[12]</sup> in Bihar showed that 58% of the ASHA had poor economic background and rests were from middle

and higher economic background also. In the study conducted by Darshan et al<sup>[13]</sup> at Surendranagar, Gujarat found that 94.62% ASHA belonged to socio-economical class IV and only 5.38% belonged to class III.

**Training & Maintenance of Antenatal record by ASHA:** In the present study out of 64 ASHA, 35 (54.7%) received training after selection for 23 days and 7 (10.9%) ASHA did not receive any training.

On the contrary, Garg et al<sup>[7]</sup> in their study revealed that out of 105 ASHA workers, 102 (97.14%) ASHA workers completed training before working as ASHA. ASHA envisage a total period of 23 days training in five episodes. It is said that ASHA training is continuous and that she develops the necessary skills & expertise through continuous on the job training.<sup>[14]</sup>

In the present study, out of 64 ASHA, 54 (84.4%) maintained the Antenatal record.

Similar findings were reported by Charu Kohli<sup>[15]</sup> where 51 (92.7%) ASHAs reported that they used to maintain antenatal register.

**Knowledge of ASHA regarding services provided to pregnant women :** The finding of the present study was similar with that of Waskel et al<sup>[16]</sup> where 136 (66.02%) ASHA had average knowledge for ANC. On the other hand, study done by SIFPSA<sup>[17]</sup> reported that 460 (100%) ASHA had knowledge regarding ANC registration, care during pregnancy and institutional delivery. Similar to this Shashank KJ, Mahabaleshwar and Mahantappa Angadi<sup>[18]</sup> reported that all 132 ASHA workers were aware that Tetanus injection is to be given for all antenatal mothers and 105 (79.5%) ASHA knew that minimum of 4 ANC visits should be made by every pregnant mother.

Whereas in Charu Kohli<sup>[15]</sup> study, 41 (74.5%) ASHA reported that minimum number of antenatal visits are 4 while 4(7.3%) said minimum visits to be 6. Awareness of their role in distribution and intake of tablet iron and folic acid was known to 47 (85.5%) ASHAs. 87% of ASHAs knew that iron tablets have to be taken for minimum 100 days during pregnancy.

This is higher than reported by study conducted by Lodhiya et al<sup>[19]</sup> in Gujarat in which only 47% health workers were aware of iron and folic acid tablets schedule in pregnancy.

Almost all ASHA workers were aware about their roles and responsibilities regarding maternal and child health services. Similar results were shown by a study conducted by Gosavi et al.<sup>[20]</sup> in Wardha where all ASHAs knew about their role in TT immunization and antenatal services. About 3/4<sup>th</sup> ASHAs were aware that minimum numbers of antenatal visits were 4 as compared to that stated by a study carried out by Rashmi et al.<sup>[21]</sup> where 81% community health workers were aware of recommended minimum number of ANC visits.

On the contrary, study done by Shashank K.J.<sup>[6]</sup> who reported that out of 132 ASHA, 53 (40.2%) ASHA said that they do four ANC visits and another 53 (40.2%) of ASHA did three ANC visits and only 6 (4.5%) ASHA do two visits for every registered ANC cases with them.

### Conclusion :

According to the study findings the knowledge level of ASHA regarding antenatal care is satisfactory but time to time monitoring and appraisal is needed to enhance the quality of services provided by ASHA to pregnant mother. Biosocial factors like age, religion, caste, education, type of family and socio-economic status were the prime factors which affect the knowledge of ASHA regarding antenatal care. So monitoring should be made as an integral part of ASHA working in the field to ensure that knowledge is converted into practices as well. Trainings during job of ASHAs should be done in process to develop necessary knowledge and skills with recent updates. The Block level meetings should be utilized for the feedback, enhancing knowledge & solving the problem faced by the ASHAs.

### Declaration :

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Conflict of Interest: Nil

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