



## TO ASSESS THE KNOWLEDGE AND UTILIZATION OF MATERNAL HEALTH SERVICES BY WOMEN

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### ABSTRACT

**INTRODUCTION:-** NRHM major thrust is upon universal access to equitable, affordable & quality health care services that are responsive and accountable to people's needs. For appropriate evaluation of NHM services, it is important to comprehensively understand the various factors that affect the utilization of maternity care during pregnancy. This will help in better implementation of the program. In its present form NHM has not achieved the stated goals in time and is suffering from many bottlenecks. **METHODOLOGY:-** A field based cross sectional study was carried out at shapura block Jabalpur, a total of 360 response were included from 36 clusters in the period from March 2017 – August 2018. inclusion criteria included Women who were delivered in the past one year, and ready to give consent. **RESULTS:-** Majority of subjects were in 20-25 years age range, manual labour was main occupation of the husbands of participants. 43.8% study participants had completed middle school education and around 32% had completed high school or higher school education. 91% of studied participants had used urine pregnancy test kit for confirmation of pregnancy. UPT advice was given by health worker in 80% cases. Majority of them (87%) got registered in second trimester; subcentre accounted for 70% of registration. Antenatal coverage was quite good at 86%. Vaccination with injection tetanus toxoid was 95.4%. Most(70%) of the subjects used free transportation service, and in 78% cases ambulance reached within 10 minutes. 93.2% had undergone institutional delivery and 1.6% home delivery. Better care for mother and child (50%) was the most cited reason for institutional delivery followed by money available under JSY(30%).  $\pm 0.58$  mg/dl. **CONCLUSION:-** The evaluation has assessed the reach of the programme, awareness and utilization pattern of subjects and implementation of maternal health services at various levels. The study also identified the difficulties faced in the implementation of the services and role played by ASHA, ANM and other stakeholders. All the subjects had limited knowledge regarding benefits of preconceptional and early folic acid tablet administration. There is lack of knowledge about benefits of early registration. Registration of pregnancy within 12 weeks is the primary responsibility of ANM/ASHA. There is need to reset and evaluate the role and responsibility of ANM/ASHA. Motivation is needed to ensure that subjects keep compliance throughout pregnancy While awareness of JSY among mothers was fairly high, all the subjects had limited knowledge regarding various components of JSY. Monitoring, evaluation and supervision is being done as per the programme implementation plan of NHM.

### KEYWORDS : NHM, ANM, JSY

### INTRODUCTION

Health is a fundamental right. Good health is a major resource for social, economic and personal development and an important dimension of the quality of life. The government to India has started many programs to provide universal health care; the National Health Mission is one of them. Its major thrust is upon universal access to equitable, affordable & quality health care services that are responsive and accountable to people. The principal objective of NHM is to decrease neonatal and maternal mortality by promoting institutional delivery by providing quality antenatal, intranatal and postnatal care. For appropriate evaluation of NHM services, it is important to comprehensively understand the various factors that affect the utilization of maternity care during pregnancy. This will help in better implementation of the program. In its present form NHM has not achieved the stated goals in time and is suffering from many bottlenecks. If we can identify these "BOTTLENECKS" and remove them, it will increase the utilization rates of the various government initiatives. Very few studies have been conducted in the past on this subject. We therefore attempted to evaluate NHM through a study of the mother's knowledge and evaluation of the utilization of ANC services.<sup>1,2</sup>

### AIMS AND OBJECTIVES

- To assess the knowledge and utilization of maternal health services by women.
- To assess the service coverage of the target population.

- To identify the shortcomings, if any, in the implementation of scheme.
- To find out the level of achievement of the various components of maternal health services.
- To suggest measures for improvement of maternal health services.

### MATERIAL AND METHOD

**STUDY DESIGN:** A field based cross sectional study

**STUDY PERIOD:** 18 Months Duration March 2017 – August 2018

**STUDY AREA:** Health Centers in and around Shahpura block

### SAMPLE SIZE:

As per 2011 census total population of Shahpura block is 191710. We assume an increase in 10% population in 2018. Thus total population of Shahpura is 210881 in 2018. Using the Right Size statistical software we considered 50% proportion of target population in this sampling frame with a cluster size of 10, 95% confidence coefficient,  $\pm 10\%$  confidence interval, with a 0.3 rate of homogeneity and 3.70 design effect. A total of 360 response will be required from 36 clusters. In addition there will be 10% non-responders hence final sample size of 396 will be required.

**TARGET POPULATION:** Women who were delivered in the past one year

**STUDY SETUP:** Community Based

**STUDYTOOLS:** Questionnaire for beneficiaries (Target Population)

#### METHODOLOGY OF SAMPLE COLLECTION:

- Before initiating the study, clearance will be obtained from institutional ethical committee. Study participants will be selected according to inclusion and exclusion criteria. Data will be collected in a pretested questionnaire by personal interview.
- The questionnaire will consist of information like age, sex, socioeconomic information, education, occupation etc. the questionnaire will also include specific questions pertaining to the study.

#### INCLUSION CRITERIA:

Women who were delivered in the past one year, and ready to give consent.

#### EXCLUSION CRITERIA:

Those who will not give consent.  
Women having > 1 year child  
Women conceived first time  
Seriously ill women

#### RESULTS :-

**Table No-1, SocioDemographic Characteristics of Study Participants**

Characteristics	Numbers	Percentage
<b>Age Group (in Years)</b>		
< 19	10	2.7%
20-25	259	70%
26-30	97	26.2%
31-35	04	1.1%
<b>Total</b>	<b>370</b>	<b>100%</b>
<b>Religion</b>		
Hindu	336	90.8%
Muslim	34	9.2%
<b>Total</b>	<b>370</b>	<b>100%</b>
<b>Occupation of Husband</b>		
Labourer	242	65.5%
Business	43	11.6%
Farmer	48	13.0%
Driver	25	6.8%
Private Job	12	3.2%
<b>Total</b>	<b>370</b>	<b>100%</b>

Characteristics	Numbers	Percentage
<b>Literacy Status</b>		
Illiterate	15	4.1%
Primary	73	19.7%
Middle	162	43.8%
High School	83	22.4%
Graduate	37	10%
<b>Total</b>	<b>370</b>	<b>100%</b>
<b>Distance from Nearest Health Centre</b>		
< 1 Km	90	24.3%
1-2 Km	160	43.3%
2-5 Km	120	32.4%
<b>Total</b>	<b>370</b>	<b>100%</b>
<b>Source of Drinking Water</b>		
Well	165	44.7%
Hand Pump	202	54.6%
Water Supply in Home	3	0.8%
<b>Total</b>	<b>370</b>	<b>100%</b>

**Table No.2: Distribution of Folic Acid Administration among study population Preconceptional:-**

	Character	Numbers	Percentage
I	Not taken	366	98.9%
II	Taken	04	1.1%
IIA	No of Tablet Consumed (50-100 tablets)	04	100%
IIB	Source of Folic acid tablet		
	Government	0	0%
	Medical Store	04	100%
	<b>Total</b>	<b>4</b>	<b>100%</b>

#### Conceptional:-

	Character	Numbers	Percentage
I	Not taken	340	91.9%
II	Taken	30	8.1%
	<b>Total</b>	<b>370</b>	<b>100%</b>
IIA	No of Tablets Consumed		
	< 50	01	3.3%
	50 – 80	27	90%
	> 80 – 100	02	6.6%
	<b>Total</b>	<b>30</b>	<b>100%</b>
IIB	Source of folic acid		
	Medical Store	28	93.3%
	Aanganwadi	2	6.6%
	<b>Total</b>	<b>30</b>	<b>100%</b>

Only 1% studied population were aware of benefits of preconceptional folic acid. All of them bought medicine from medical store. In early pregnancy about 8% of participants took folic acid, out of them around 90% took 50-80 tablet.

**Table No.3: Distribution of Diagnostic process of pregnancy**

Character	Time from	Numbers	Percentage
<b>Conception to Diagnosis</b>			
	4 - 6 weeks	07	1.9%
	6 - 8 weeks	238	64.3%
	8 - 12 weeks	125	33.8%
	<b>Total</b>	<b>370</b>	<b>100%</b>
<b>Study participants using UPT kit for confirmation of pregnancy</b>			
	Yes	336	90.8%
	No	34	9.18%
	<b>Total</b>	<b>370</b>	<b>100%</b>
<b>Advice for UPT given by</b>			
	Doctor	06	1.78%
	AWW/ANM/ASHA	265	78.8%
	Self Administered	65	19.34%
	<b>Total</b>	<b>336</b>	<b>100%</b>
<b>Source of UPT Kit</b>			
	Medical Store	71	21.1%
	Aanganwadicentre	265	78.8%
	<b>Total</b>	<b>336</b>	<b>100%</b>

In 64% of study participants time from conception to diagnosis was in range of 6-8 weeks. 91% of study participants had used UPT kit for confirmation of pregnancy. In about 80% of cases urine pregnancy test was advised by health worker (ASHA, ANM, AWW) and source of kit was aanganwadi centre.

**Table No.4: Distribution of 1<sup>st</sup> Trimester ANC Registration & Investigations**

Character	Numbers	Percentage
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Number of Study participants registered		
Yes	68	18.4%
No	302	81.6%
<b>Total</b>	<b>370</b>	<b>100%</b>
Place of Registration		
PHC (AWW/ASHA)	47	69.1%
Private Clinics (Doctor)	21	30.88%
<b>Total</b>	<b>68</b>	<b>100%</b>
Investigations done		
Yes	51	13.8%
No	319	86.2%
<b>Total</b>	<b>370</b>	<b>100%</b>

**TableNo.5:Distribution of II Trimester ANC. Registration & Investigations.**

Character	Numbers	Percentage
Number of Study participants registered		
Yes	321	86.8%
No	49	13.2%
<b>Total</b>	<b>370</b>	<b>100%</b>
Place of Registration		
PHC (AWW/ASHA)	227	70.71%
Private Clinics (Doctor)	94	29.2%
<b>Total</b>	<b>321</b>	<b>100%</b>
Investigations done		
Yes	321	86.8%
No	49	13.2%
<b>Total</b>	<b>370</b>	<b>100%</b>

Approximately 18% participants registered in first trimester, while remaining 69% of them were registered in second trimester. Place of registration was Govt. health facility in majority (70%) , where registration was done by health care worker (ASHA, ANM, AWW).

**Table No.6 :Distribution Of Tablet Iron Administration**

Character	Numbers	Percentage
Number of study Participants who consumed iron tablets		
Yes	370	100%
No	0	0%
<b>Total</b>	<b>370</b>	<b>100%</b>
Number of Tablets consumed		
≤ 50	164	44.3%
> 50 – 80	114	30.8%
80 - 100 or more	92	24.9%
<b>Total</b>	<b>370</b>	<b>100%</b>
Source of Tablets		
Aanganwadi Centre	370	100%
Medical store	0	0%
<b>Total</b>	<b>370</b>	<b>100%</b>

**Compliance:**All females who consumed >80 IFA Supplements, out of a total of 100 were considered compliers and those who consumed <80 tablets were considered non-compliers.

**Feasibility:**Feasibility was defined as 50-60% compliance among the study participants for supplementation. Approximately 56% of participants consumed 60-100 IFA tablets. Source of medicine was aanganwadicentre.

**TableNo.7:Distribution of "JananiSurakshaYojna**

Character	Numbers	Percentage
Awareness of JSY & Knowledge		
Yes	323	87.3%
No	47	12.7%

<b>Total</b>	<b>370</b>	<b>100%</b>
No. of study participants registered under JSY		
Yes	0	0%
No	370	100%
<b>Total</b>	<b>370</b>	<b>100%</b>
Distribution of subjects as per the incentive given		
Aanganwadi Centre	276	74.6%
Medical store	94	25.4%
<b>Total</b>	<b>370</b>	<b>100%</b>

JSY is 100% centrally sponsored intervention under NHM. It aims to decrease neonatal and maternal mortality rate .The present survey in Shahpura block indicates that awareness about JSY among mothers was fairly high (87%).

Approximately 75% had received incentive at the time of study while 30% did not receive any incentive.

**TableNo.8:Distribution Of FreeTransport Facility**

Character	Numbers	Percentage
Transport facility awareness		
Yes	323	87.3%
No	47	12.7%
<b>Total</b>	<b>370</b>	<b>100%</b>
Study participants who utilized transport services		
Yes	259	70%
No	111	30%
<b>Total</b>	<b>370</b>	<b>100%</b>
Time taken to reach destination		
within 15 min.	202	77.99%
15 - 30 min	46	17.76%
> 30 min	11	4.24%
<b>Total</b>	<b>259</b>	<b>100%</b>

**TableNo.9:Association between JSY awareness and place of delivery**

		Where was the baby delivered			Total
		Home	Institution	On the way	
JSY awareness	Yes	2	303	16	321
	No	4	42	3	49
<b>Total</b>		<b>6</b>	<b>345</b>	<b>19</b>	<b>370</b>

Chi square = 15.35, df = 2,

The free transport facility awareness was around 87% among pregnant subjects in Shahpura block, around 70% of them utilized facility during their delivery, and in 78% cases ambulance reached destination within 10 minutes.

**TableNo.10:"Distribution Of Institutional delivery percent.**

Character	Numbers	Percentage
Place of delivery		
Home	6	1.6%
Institutional	345	93.2%
One the way	19	5.1%
<b>Total</b>	<b>370</b>	<b>100%</b>
Factors leading to Home delivery		
Convenience	2	33.3%
Untimely delivery	4	66.6%
<b>Total</b>	<b>6</b>	<b>100%</b>
Motivating factors for institutional delivery		
Money available under JSY	101	29.27%

Better access to institutional Delivery	67	19.4%
Better care of mother and new Born	172	49.85%
Support provided by ASHA	24	6.95%
<b>Total</b>	<b>364</b>	<b>100%</b>

## DISCUSSION

"Janani Suraksha Yojna" is 100% centrally sponsored scheme(2). The scheme aimed to reduce maternal and infant mortality by promoting institutional deliveries. The primary component of Janani Suraksha Yojna are early registration, microbirth planning, referral transport ,institutional birth, post delivery visit and reporting, family planning advice and mother and child health counselling. The government of India has introduced many schemes, yet many fail to access the services due to lack of awareness and knowledge.

Awareness in present study refers to knowledge about various components of JSY i.e. information and understanding of different aspects of the scheme. Present study shows that 87% of subjects were aware about JSY. Similarly, in study conducted by Divya Tiwari in rural areas of Uttar Pradesh, 96% of the subjects were aware about JSY. Kristi Sidney et al 3 in his study found that 90% of the subjects had prior knowledge of JSY. Major source of information came from ASHA. The study result contradicts the findings of Sidney et al where the source of information was through public health facility in 40% of mothers, village creche worker in 30% and ASHA in only 21%<sup>4</sup>.

An important component of JSY scheme is to provide monetary incentives to the subjects who deliver in an institution. As per JSY guidelines, subjects who deliver in government or accredited private hospital are entitled to get benefit. Incentive should be paid before discharge at the place of delivery. Present study reveals that 75% had received their incentive at the time of study while 25% did not receive any incentive due to various reasons like delay in receipt of funds or delivery at private institution. Similarly, assessment of JSY scheme in selected states of India, 2008(18) was carried out by Ministry of health and family welfare, Government of India reported a high proportion of beneficiaries in Rajasthan, Orisa and Madhya Pradesh ( 93,89,83%respectively) had received money. 75% of mothers in Bihar and Uttar Pradesh received money after delivery. Evaluation of JSY ( Feb , 2009) was done by State Institute of Health and Family welfare Jaipur reported 75% got payment after 24-48 hours.<sup>5</sup>

## CONCLUSION:-

The evaluation has assessed the reach of the programme, awareness and utilization pattern of subjects and implementation of maternal health services at various levels. The study also identified the difficulties faced in the implementation of the services and role played by ASHA, ANM and other stakeholders. All the subjects had limited knowledge regarding benefits of preconceptional and early folic acid tablet administration. There is lack of knowledge about benefits of early registration. Registration of pregnancy within 12 weeks is the primary responsibility of ANM/ASHA. There is need to reset and evaluate the role and responsibility of ANM/ASHA. Motivation is needed to ensure that subjects keep compliance throughout pregnancy While awareness of JSY among mothers was fairly high, all the subjects had limited knowledge regarding various components of JSY. Monitoring, evaluation and supervision is being done as per the programme implementation plan of NHM.

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