

# Differential in maternal health care utilizations in JSY and non JSY villages of India: A special focus on tribal districts

## Introduction

India constitutes 8.2 percent of tribal population, over 84 million people according to 2001 census which is highest tribal population concentration in the world after Africa. Tribals are children of nature and its life style conditioned by eco system. India, having variety of eco system, varied tribal population through out its length and breadth. One concentration lives in Himalayan belt from Jammu and Kashmir to Uttarakhand and other stretches in the whole of east. There are 533 tribes (with many overlapping types in more than one State in India) as per notified Schedule under Article 342 of the Constitution of India in different States and Union Territories of the country with the largest number of 62 being in the State of Orissa.

Maternal Healthcare is an important indicator of status of any country, which showing socioeconomic development and quality of life (Shah, 2011). But these indicators among tribal are very poor as of there isolation, remoteness and being largely unaffected by the development process going in India. The common beliefs, customs, practices related to health also influence the health seeking behaviour of the community (ICMR Bulletin, 2003). For the improvement of the maternal health status of the underserved population, Government of India has launched unique conditional cash schemes named Janani Suraksha Yojna (JSY) under the umbrella of National Rural Health Mission (NRHM). The aim of this scheme is to reduce maternal and neonatal mortalities by promoting institutional deliveries.

JSY is a centrally sponsored scheme with provision for cash assistance at delivery and in the post delivery period. The aim of this scheme is to reduce maternal and neonatal mortalities by promoting institutional deliveries. The scheme is specifically targeted at scheduled caste/scheduled tribes and poor population. The states have been stratified as low performing states (LPS) and high performing states (HPS) for cash incentives. Under this scheme all 8 empowered action group (EAG) states, Assam and Jammu & Kashmir are termed as LPS. JSY has been planned so that women from LPS gets a cash incentive of Rs. 1000-1400 per institutional delivery. Mechanism for disbursement of this money is

also elaborately described in the JSY document in practicable manner with good cash incentives for Accredited Social Health Activist (ASHA) too. There is a separate provision of Rs. 250 for transportation in case of emergency with another provision of Rs. 1500 for caesarian delivery if needed. Furthermore in LPS and HPS states, BPL pregnant women, aged 19 years and above, preferring to deliver at home is entitled to cash assistance of Rs 500. (JSY Guideline, MHOFW, 2006).

According to National Family Health Survey-3 of India (2005–06), 29 per cent of the tribal mothers in India received no antenatal check-up during the preceding five years. Further, only 25 percent of scheduled tribal women deliveries took place in healthcare facilities, and 67 percent of the deliveries were attended by untrained individuals (IIPS 2006). The main aims of the study are to see if there is any differential in utilization of maternal health care in villages having JSY schemes. More specifically, the study aims to analyze differentials in utilization of maternal healthcare of women in JSY villages and non JSY villages and to understand the factors affecting utilization of maternal health care in villages of tribal districts.

### **Data and Methodology**

The data for the study is from District Level Household Survey, 2007-08. In this study women and village data has been used.

The main focus is the villages and a specific question asked from the village head “have JSY programme implemented in your village?” answer is in YES and NO. This variable used to categorize for JSY villages and non JSY villages. Independent variables included in the study were current age of the women, educational status of the women and her husbands, work status, religion, caste, SLI, village size. The unit of analysis for this study is currently married women. Over all 81.8 percent villages having JSY scheme in India (DLHS-2007-08). Cross tabulation has been used to find out the percentage in different type of variables according to layer. Logistic regression has been used for the multivariate analysis. The model has run for the tribal district whole and separately for the ANC, natal care and PNC since factors influencing these different maternal health cares differently.

## **Results and Discussion**

Table 1 presenting the percentages of utilization of maternal health care in villages of tribal district where JSY has been implemented. Overall full ANC (13.6 and 11.4), Institutional delivery (31.0 and 23.5) and post natal care (33.3 and 24.9) in JSY villages and non JSY villages of tribal district. Maternal health care utilization is more in 15-24 age groups in JSY and non JSY villages of tribal district. Institutional deliveries among women who have 11 or more years of education is 61 percent in non JSY villages of tribal district compared to JSY villages of tribal districts (66.0). An institutional delivery among women whose husband has 11 or more years of education is 45 percent in non JSY villages of tribal districts whereas it is 53 percent in JSY villages of tribal districts. Non working women have more utilization of maternal care in JSY and non JSY villages of tribal district. Muslim women are getting more benefits of maternal health care in JSY villages of tribal districts. Full ANC and institutional deliveries are more among scheduled caste women in JSY villages of tribal district compared to other caste group's women but in non JSY villages of tribal district utilization of maternal health care are more among no caste group women. Richest women have more utilization in JSY and non JSY villages of tribal districts. Institutional deliveries in larger JSY villages of tribal districts (53 percent) are more compared as larger non JSY villages of tribal districts (40 percent).

## **Regression Analysis**

To find the factors associated with utilization of maternal health care of women of tribal districts, binary logistic regression has performed. The results of logistic regression have given in table 2. Women having 11 or more years of education are 2 times more likely to avail full ANC than women having 0 years of education. Looking at working status, working women has more likely to go for full ANC (OR 1.21). Richer women 4.7 times more likely to go for full ANC than poor women. Villages size is also play role in utilization of maternal health care. Larger village's women have more use of full ANC (OR, 1.67) than smaller village's women.

Women aged 35-49 more likely to go for natal care than women aged 15-24 in tribal districts. Women having 11 or more years of education are less likely to go for

institutional delivery than women having 0 years of education. Women whose husband has 11 or more years of education have less likely (OR, 0.70) to go for natal care than husband having 0 years of education. Working women has more likely to go for natal care. Larger village women have less likely to go for natal care than smaller villages women. Odds of utilization of natal care is less likely (OR, 0.85) in JSY villages. It means villages having JSY scheme has been not influencing women for utilization of natal care in tribal districts.

PNC is more likely in women aged 35-49 than women aged 15-24. Women education and husband education more than 11 or more years are less likely to use for PNC that 0 years of education. Working women has less likely to go for PNC than non working women. Poor women have more utilization of PNC than other counterpart's wealth quintile women. Larger village's women have less likely to use PNC (OR, 0.58) than smaller village. Odds of utilization of PNC is less likely (OR, 0.90) in JSY villages. It means villages having JSY scheme has been not influencing women for PNC in tribal districts.

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**Table 1** Percentages of currently married women aged 15-49 had Full ANC, NC, PNC in JSY villages of tribal district with background characteristics, Rural India, 2007-08

	JSY villages of Tribal district			Non JSY villages of tribal district		
	Full ANC	Natal care	PNC	Full ANC	Natal care	PNC
<b>Age</b>						
15-24	14.3	34.6	36.7	13.3	26.1	28.5
25-34	13.2	29.6	32.0	11.3	22.8	24.1
35-49	12.0	22.4	25.4	7.9	20.4	20.1
<b>Year of Education</b>						
0 years	7.5	20.5	24.4	6.0	13.7	17.1
Up to 5 years	12.3	25.5	28.1	12.8	19.0	20.9
6 to 10 years	20.4	44.0	43.9	14.4	32.6	31.6
11 and more	31.6	66.0	68.2	28.5	61.0	59.6
<b>Husband education</b>						
0 years	7.7	18.3	22.9	7.6	14.9	17.5
Up to 5 years	12.1	24.1	27.1	10.1	18.5	21.2
6 to 10 years	14.6	36.3	37.3	12.3	25.7	26.2
11 and more	25.3	53.0	53.3	19.7	44.8	44.0
<b>Occupation</b>						
Not working	14.5	36.5	34.8	12.3	27.3	27.0
Working	12.8	26.2	32.1	10.6	20.0	23.1
<b>Religion</b>						
Hindu	12.5	30.5	35.2	16.2	25.1	29.0
Muslim	23.0	43.1	44.8	(11.3)	36.7	40.9
Christian	14.8	31.0	30.1	10.0	21.7	22.2
Others	11.9	28.1	26.3	9.6	22.6	22.7
<b>Caste</b>						
Scheduled caste	15.8	37.6	39.1	(24.3)	36.8	35.2
Scheduled tribes	13.4	29.7	31.8	10.5	22.6	23.5
Other backward classes	15.0	35.1	41.3	(15.6)	23.2	34.7
No caste	11.4	33.8	32.9	(12.1)	30.4	28.6
<b>SLI</b>						
Poorest	6.9	17.2	22.5	4.5	9.0	13.9
Second	10.6	25.4	30.1	9.2	19.8	21.5
Middle	15.5	33.6	34.4	16.1	30.7	30.1
Fourth	23.5	53.6	49.7	21.5	47.8	44.8
Richest	35.7	73.3	68.5	(30.3)	62.1	56.6
<b>Village size</b>						
Small	12.4	28.1	30.8	10.2	22.1	23.4
Medium	13.0	31.0	33.2	14.5	27.8	29.5
Large	24.3	53.1	53.0	(31.7)	38.9	44.1
<b>Total</b>	<b>13.6</b>	<b>31.0</b>	<b>33.3</b>	<b>11.4</b>	<b>23.5</b>	<b>24.9</b>
<b>N</b>	<b>7982</b>	<b>7983</b>	<b>7983</b>	<b>3067</b>	<b>3068</b>	<b>3069</b>

Note: Table based on currently married women aged 15-49 and JSY received for youngest living child born since 01-04-2006 Full ANC received in last pregnancy. Natal care means institutional delivery. PNC means had checked up after 48 hrs of delivery. District having tribal population more than 50% has considered as tribal district. Total 594 districts has surveyed in DLHS-3, 84 districts has 50 and more percent of tribal population, working status means worked in last 12 months paid with cash or kinds

**Table 2:** Odds ratio of utilization of maternal health care of currently married women aged 15-49 in villages of tribal district

	Odds Ratio		
	Full ANC	Natal care	PNC
<b>Age</b>			
15-24			
25-34	0.898	1.295***	1.281***
35-49	0.862	1.389***	1.361***
<b>Year of Education</b>			
0 years			
Up to 5 years	1.627***	0.960	0.839***
6 to 10 years	2.110***	0.607***	0.614***
11 and more	2.843***	0.321***	0.302***
<b>Husband education</b>			
0 years			
Up to 5 years	1.036	0.979	0.998
6 to 10 years	0.943	0.802***	0.882*
11 and more	1.149	0.704***	0.756***
<b>Occupation</b>			
Not working			
working	1.218***	1.153***	0.901**
<b>Religion</b>			
Hindu			
Muslim	1.030	1.067	0.992
Christian	0.725	1.579***	1.601***
Others	0.757***	1.515***	1.748***
<b>SLI</b>			
Poorest			
Second	1.523***	0.654***	0.717***
Middle	2.292***	0.448***	0.566***
Fourth	3.126***	0.248***	0.359***
Richest	4.701***	0.147***	0.217***
<b>Village size</b>			
Small			
Medium	1.041	0.954	1.000
Large	1.673***	0.536***	0.588***
<b>JSY village</b>			
No			
Yes	1.005	0.855***	0.904*

Note: \*\*\* significant at 1 percent \*\* significant at 5 percent \* significant at 1 percent