



## Evaluation of Antenatal Care Practices Among Beneficiaries & Non Beneficiaries of Janani Suraksha Yojana in Rewa, Madhya Pradesh

### KEYWORDS

Janani Suraksha Yojana, Beneficiaries, Non-beneficiaries, ANC

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#### ABSTRACT

**Background:** In 2005, with the goal of reducing the numbers of maternal and neonatal deaths, the Government of India launched Janani Suraksha Yojana, a conditional cash transfer scheme, to provide incentive for women who give birth in a health facility.

**Objective:** To study the status of utilization of Janani Suraksha Yojana and to find out utilization of ANC services among JSY Beneficiaries and non Beneficiaries

**Material & Method:** A cross sectional study conducted by using 30 clusters random sampling technique, with sample size of 630.

**Result:** 69.0% were JSY beneficiaries and 31.0% non-beneficiaries. 53.8% beneficiaries and 50.8% non-beneficiaries were literate. Registration for ANC services, among beneficiary was found out to be 96.7% as compared to non beneficiaries which was 85.6%. 94.7% beneficiaries had received 2 tetanus and 43.4% had received more than 60 IFA tablets.

#### INTRODUCTION

The Janani Suraksha Yojana (JSY) has been a safe motherhood intervention and modified alternative of the National Maternity Benefit Scheme (NMBS). The NMBS was introduced in 2001 to provide nutrition support to pregnant women. (1) JSY was launched on 12th April 2005, in all states and Union territories with special focus on low performing states, under the National Rural Health Mission (NRHM).

The main objective and vision of JSY is to reduce maternal, neo-natal mortality and promote institutional delivery among the poor pregnant women of rural and urban areas. (2) This conditional cash transfer scheme/program provides cash payments to poor families. Who met specific behavioral requirements, such as delivering their baby at a health facility. (3)

Maternal health indicators are often considered a reflection of the efficiency of a Nation's health system. (4) In the world, every year around six lacks maternal deaths are occurring. More than 90% of these deaths are in the developing countries including India, meaning that there is wide spread disparity of health status between rich and poor. Estimates by international development agencies show significant improvement in India's maternal mortality ratio from 570 per 100,000 live births in 1990 to 230 in 2008. India has the distinction of being the highest contributor to maternal deaths in the world. (5)

One of the important reasons identified for high maternal mortality was a high proportion of home deliveries by relatively less skilled and unskilled birth attendants. Experience in many part of the world has shown that with the increase in institutional deliveries, maternal mortality rates definitely decline e.g. in Sri Lanka 96% of deliveries are conducted as institutional deliveries and its maternal mortality rate is 60 per 100,000 of live birth. In our own country in the state of Kerala 89% of deliveries are institutional deliveries and MMR of Kerala is just 110 per 100,000 live birth.

Key features of JSY are: early pregnancy registration, adequate antenatal care, a micro birth plan, institutional

delivery, referral and transport if needed and postpartum care for poor mothers and underserved populations, such as schedule caste and tribes. (6) There are multiple factors that manipulate women's decision making to avail the antenatal care & institutional delivery, be it access to health services or state government way of distributing of cash incentive.

#### OBJECTIVES

To study the status of utilization of Janani Suraksha Yojana and to find out utilization of ANC services among JSY Beneficiaries and non Beneficiaries

#### MATERIAL & METHODS

This descriptive cross sectional study was carried out in community development block Govindgarh of district Rewa Madhya Pradesh. The study subjects were those women who have delivered between 1 April 2007 to 31 March 2008. It was observed that number of beneficiaries was quiet large therefore to avoid the sampling and non sampling errors 30 cluster sampling technique was preferred. From a total of 194 villages 30 villages were selected. In each cluster 21 mothers who have delivered their baby within the specified period were randomly selected and interviewed after taking their informed verbal consent. For validation of the data 30 clusters were randomly selected

The size of sample was drawn with the help of WHO publication 'Sample Size Determination in Health Studies' (1991), Geneva. The size of sample was determined with the help of following formula:

$$n = Z^2 \frac{P(1-P)}{d^2}$$

P = Anticipatory population proportion

d= absolute precision at 95% confidence limit

Z= 1.96 in standard normal distribution

As the percentage of institutional delivery in MP in 2007

was 50% the value of P = 0.5. Putting the value of P in the above formula the sample size will be 625 eligible mothers which have been equally distributed in 30 clusters i.e. 21 per cluster (21x30 =630).

A house to house survey was conducted in the selected clusters to identify 21 eligible mothers in each cluster. Detail in depth interview was taken in the pre-designed and pretested proforma after obtaining informed verbal consent. In case of failure to find 21 eligible mothers in the village then the task was completed by going to the adjoining nearest village sharing the geographical boundaries. The visit to subsequent households is terminated after achieving the above numbers.

The collected data was compiled and analyzed with statistical calculator. P value and chi square have only been quoted where applicable. Ethical clearance for conducting the study was taken from the ethical committee.

**TABLE NO. 1**  
Distribution of study population according to Religion

| RELIGION | JSY BENEFICIARIES | JSY NON BENEFICIARIES | TOTAL       |
|----------|-------------------|-----------------------|-------------|
| Hindu    | 421 (96.7)        | 188 (96.4)            | 609 (96.7)  |
| Muslim   | 14 (3.3)          | 7 (3.6)               | 21 (3.3)    |
| Total    | 435 (69.0)        | 195 (31)              | 630 (100.0) |

Chi square =0.05, p=0.81, Not Significant

**TABLE NO. 2**  
Distribution of study population according to Caste

| CASTE  | JSY BENEFICIARIES | JSY NON BENEFICIARIES | TOTAL      |
|--------|-------------------|-----------------------|------------|
| ST     | 70 (16.1)         | 37 (19.0)             | 107 (17.0) |
| SC     | 106 (24.3)        | 40 (20.5)             | 146 (23.1) |
| OBC    | 149 (34.2)        | 56 (28.7)             | 205 (32.5) |
| Others | 110 (25.2)        | 62 (31.8)             | 172 (27.3) |
| Total  | 435 (69.0)        | 195 (31)              | 630(100.0) |

Chi square =4.87, p=0.18 Not Significant

**TABLE NO. 3**  
Distribution of study population according to Antenatal care

| PROFILE ASPECTS                  | JSY BENEFICIARIES | JSY NON -BENEFICIARIES | TOTAL       |
|----------------------------------|-------------------|------------------------|-------------|
| <b>REGISTRATION OF PREGNANCY</b> |                   |                        |             |
| Yes                              | 421 (96.7)        | 167 (85.6)             | 588 (93.3)  |
| No                               | 14 (3.3)          | 28 (14.4)              | 42 (6.6)    |
| Total                            | 435 (100.0)       | 195 (100.0)            | 630 (100.0) |

Chi square =26.85, p<0.001, Significant

| <b>NO. OF ANTENATAL VISITS</b> |            |           |            |
|--------------------------------|------------|-----------|------------|
| 0                              | 14 (3.3)   | 28 (14.3) | 42 (6.6)   |
| 1                              | 57 (13.1)  | 52 (26.7) | 109 (17.3) |
| 2                              | 158 (36.3) | 61 (31.2) | 219 (34.7) |

|       |             |             |             |
|-------|-------------|-------------|-------------|
| 3     | 162 (37.2)  | 46 (23.6)   | 208 (33.0)  |
| > 3   | 44 (10.1)   | 8 (4.1)     | 52 (8.2)    |
| Total | 435 (100.0) | 195 (100.0) | 630 (100.0) |

Chi square =53.86, p<0.001, Significant

**TIME OF FIRST ANTENATAL VISITS**

|                  |             |             |             |
|------------------|-------------|-------------|-------------|
| First Trimester  | 123 (28.2)  | 46 (23.6)   | 169 (26.8)  |
| Second Trimester | 232 (53.3)  | 101 (51.8)  | 333 (52.8)  |
| Third Trimester  | 66 (15.1)   | 20 (10.2)   | 86 (13.6)   |
| No Visit         | 14 (3.2)    | 28 (14.3)   | 42 (6.6)    |
| Total            | 435 (100.0) | 195 (100.0) | 630 (100.0) |

Chi square =28.6, p<0.001, Significant

**TT IMMUNIZATION**

|                     |             |             |             |
|---------------------|-------------|-------------|-------------|
| Fully Immunized     | 412 (94.7)  | 167 (85.6)  | 579 (91.9)  |
| Partially Immunized | 23 (5.3)    | 16 (8.2)    | 39 (6.1)    |
| Not Immunized       | 0 (0.0)     | 12 (6.1)    | 12 (1.9)    |
| Total               | 435 (100.0) | 195 (100.0) | 630 (100.0) |

Chi square =29.82, p<0.001, Significant

**NO. OF IFA TABLETS RECEIVED**

|        |                   |                  |             |
|--------|-------------------|------------------|-------------|
| 0-30   | 88 (20.2) (69.3)  | 39 (20.0) (31.7) | 127 (20.1)  |
| 31-60  | 158 (36.3) (66.7) | 79 (40.5) (33.3) | 237 (37.6)  |
| 61-100 | 189 (43.4) (71.0) | 77 (39.4) (29.0) | 266 (42.2)  |
| Total  | 435 (100.0)       | 195 (100.0)      | 630 (100.0) |

Chi square =1.13, p=0.56, Not Significant

**RESULT AND DISCUSSION**

Total 630 mothers were interviewed. 435 (69.0%) were JSY beneficiaries and 195 (31.0%) mothers were non-beneficiaries. Among beneficiaries 96.7% were Hindus and 3.3% were Muslims. 96.4% non beneficiaries were Hindus and 3.6% were Muslims. Sharma R.K. et al in a similar study at Banswara and Barmer districts of Rajasthan; observed that, 77% JSY beneficiaries were Hindu, 18% were Jain, 3.5% Muslims and 1.5% Christians. (7)

Among beneficiaries 34.2% were OBC, 25.2% belonged to other castes, 24.3% were SC and 16.1% were ST. Among non-beneficiaries 31.8% belonged to other castes, 28.7% were OBC, 20.55% were SC and 19.0% belonged to ST. According to Census data 2011, in India ST and SC population is 8.6% and 16.6% where as in MP percentage of ST and SC population is 20.27% and 15.18% respectively.(8) NFHS-II MP (1998-1999), reveals that in rural areas of MP, 35.8% population belongs to the ST category, 15% of the population belongs to SC category, while 41.2% belongs to OBC.

53.8% Beneficiary mothers were literate and 46.2% were illiterate while among Nonbeneficiaries 50.8% were literate and 49.2% were illiterate. According to Census 2011, over all literacy rate of India is found to be 74.04, whereas literacy rate in MP is found to be 70.6%.Where as female literacy rate is 60.0% Sharma R.K. et al observed that 79% beneficiaries were literate and 21% were illiterate. Lower literacy rate in the study population may be due to the fact that study was done in rural area.

Most of the beneficiaries (52.41%) and non beneficiaries

(55.38%) belonged to age group 18-23 years. Only (0.9%) of beneficiaries and (3.0%) non beneficiaries were from age group > 35 years. Gupta s. et al in a similar study in Jabalpur, reveals that maximum number of JSY beneficiary mothers (63.0%), belonged to age group 21-25 years only 3% mothers were > 35 years of age.(9) Sharma R.K. et al observed that 97.5% JSY beneficiaries were above 19 years of age and remaining 2.5% were below 19 years of age.(7)

Most of the beneficiaries (57.7%) and non beneficiaries (60.0%) were married before 18 years of age. According to (NFHSIII 2005-06) 62% women in the rural area of MP are married by the age of 18 years. Sharma R.K. et al observed that 38% beneficiaries were married before 18 years of age.(7) Kushwah S.S et al observed that 32.6% of the women were married before 18 years of age. (10)

Only 96.7% of beneficiaries were registered and only 85.6% of non beneficiaries were registered. Only 26.8% mothers (28.2% beneficiary mothers and 23.6% non beneficiary mothers) were registered in the first trimester of pregnancy. 41.2% mothers (47.3% beneficiary mothers and 27.7% non-beneficiary mothers) received three or more antenatal visits during their pregnancy. According to NFHS-III (2005-06), percentage of pregnant mothers registration is 81% in MP and 40.2% pregnant females have received three or more antenatal visits and the national average being 50.7% Kushwah S.S et al observed that 91.5% registration of pregnancy and 61% were registered early in the first trimester. (10) RCH program health bulletin MP April-June 2008 reveals that in MP 48% pregnant women are

registered during first trimester.

Though every woman should receive complete tetanus toxoid immunization during their pregnancy but only 91.9% mothers (94.7% beneficiaries and 85.6% non beneficiaries) had received these services. Kushwah S.S et al found that 87.2% working women and 90.4% house wives received complete full immunization against tetanus. (10) Another study done at East Delhi shows, 92% received complete dose of tetanus toxoid.[12] Gupta R. K. et al found that 85% of pregnant women received antenatal check ups and 92% received complete dose of tetanus toxoid vaccination. (11)

Each woman should receive 100 tablets of IFA during their pregnancy but, only 43.4% beneficiaries and 39.4% non beneficiaries had received more than 60 IFA tablets. Each woman should consume 100 tablets of IFA during their pregnancy but, only 38.6% beneficiaries and 24.1% non beneficiaries had consumed more than 60 IFA tablets.

According to NFHS-III 2005-06 reveals that only 11.8% pregnant mothers consumed IFA for 90 days or more during their pregnancy in MP while the figure for India is 22.3%.

## CONCLUSION

The utilization pattern of JSY scheme shows that beneficiary mothers are more aware about utilization of antenatal care services than non beneficiary mothers.

## REFERENCE

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