

Research Article**Impact evaluation: A Community-based cross sectional study to know the awareness and practice of Janani Suraksha Yojana (JSY) among the beneficiary in Sanathal PHC, Ahmedabad, Gujarat****Paresh Prajapati¹, Krunal Modi^{2*}, Kirti Rahul³, Kavita Banker⁴, Rajashree Bhatt⁵**¹Surveillance Medical Officer, Saharsa district, Bihar²Assistant Professor, Community Medicine Department, GMERS Medical College, Dharpur-Patan, North Gujarat,³Tutor, Community Medicine Department, PDU Medical College, Rajkot, Gujarat⁴Tutor, Community Medicine Department, B J Medical College, Ahmedabad, Gujarat⁵Assistant Professor, Community Medicine Department, B J Medical College, Ahmedabad, Gujarat***Corresponding author**

Krunal Modi,

Email: kan0096@yahoo.co.in

Abstract: In 2005, with the goal of reducing the numbers of maternal and neonatal deaths, the government of India launched *Janani Suraksha Yojana* (JSY), a conditional cash transfer scheme, to incentivize women to give birth in health facility but still beneficiary are missing opportunity of JSY benefit due to various reasons. To estimate JSY coverage in the PHC of Sanathal and the function of various components of the scheme including financial disbursement. The study was community based cross sectional type and carried out at Primary Health Centre (PHC) Sanathal, Ahmedabad district. Data was collected in pre-designed pre tested proforma in vernacular language from all parents who delivered the child during study period. Total 120 mothers were interviewed. Data was analysed using Epi-info 7. Almost all the mothers were between 21-30 age groups. Majority 69 (57.5%) beneficiary belonged to SEBC category and only 27 (22.5%) had BPL Card. 38(31%) were illiterate and other were mainly primary or secondary educated. Majority 114 (95%) of them were house wives. Only 40 (33.3%) had knowledge about JSY and got mainly from ASHA. Half of mothers had single child and majority took benefit during their first pregnancy. Among those who know about JSY, 55% of them undergone delivery in private hospital. Among them 18 (90%) were escorted by ASHA to govt setup. Those who delivered under JSY, 33 (85%) of newborn were examined by doctor. All of them received amount within time limit.**Keywords:** ASHA, *Janani Suraksha Yojana*, Primary Health Centre

INTRODUCTION

The state of maternal, newborn, and child health in India is of global importance; in 2005, more than 78 000 (20%) of 387 200 maternal deaths, [1] and more than 1 million (31%) of 3.4 million neonatal deaths occurred in India. The maternal mortality ratio declined from about 520 per 100 000 live births in 1990 to nearly 290 per 100 000 in 2005 and the neonatal mortality rate decreased from 54 per 1000 live births in 1990 to 38 per 1000 in 2005. Despite this progress, the numbers of maternal and neonatal deaths remained high. In April, 2005, in response to the slow and varied progress in improvement of maternal and neonatal health, the Government of India launched *Janani Suraksha Yojana* (JSY; known as safe motherhood scheme)—a national conditional cash transfer scheme to incentivize women of low socioeconomic status to give birth in a health facility. The ultimate goal of the programme is to reduce the number of maternal and neonatal deaths[2]. JSY had a great impact in reducing

maternal and newborn health morbidities and mortalities[3, 4, 5].

The JSY introduced frontline health workers, called Accredited Social Health Activists (ASHAs), as a link between the government and pregnant women in the community. Introduction of the ASHA, under the government's NRHM, aims at bridging the gap between the provider and the client, thereby motivating women and their families to seek delivery care at a health facility [6].

The key roles of the ASHA are to identify pregnant women, facilitate at least three antenatal check-ups (ANCs), motivate them to seek an institutional delivery, visit the mother and newborn for a postnatal check-up within 7 days of delivery and counsel them on early breastfeeding[2].

Further, under the JSY, pregnant women receive an incentive payment of ₹ 1,400 for an institutional delivery or ₹ 600 for a home delivery conducted by a skilled birth attendant; while the ASHA receives 600 for accompanying the woman to a facility and staying there till the woman is discharged. Apart from this ₹ 600, some states offer the ASHA additional payment for undertaking other health related activities [7, 8].

The initial evaluation of the JSY scheme, which has been designed to improve the rate of institutional delivery, shows that ASHAs are a valuable source of support during pregnancy and childbirth. Even though JSY scheme is approaching towards the fulfillment of the goal of JSY still further review is needed on its various aspects[4, 9, 10]. All the studies cited here are descriptive and focus on functioning of the JSY and the increase in institutional delivery; however, none of these studies indicate whether the JSY has helped in reducing maternal and neonatal mortality. However, a recently published article in The Lancet indicates that the introduction of the JSY has been associated with a reduction of 3.7 perinatal deaths per 1,000 pregnancies and 2.3 neonatal deaths per 1,000 live births [3].

MATERIAL AND METHODS

Ahmedabad is rapidly growing city of India with 6.24 million population and population density of 890/sq.km (According to Census 2011) [11]. 80% population lives in urban area and 20% in rural area. Ahmedabad city is located on the bank of river Sabarmati. Ahmedabad is the largest city of Gujarat & 6th largest city of India. Total 9 blocks and 43 PHCs are there in district[12].

Study Area

Village Sanathal (PHC, Sanathal, Sanand block)

Design of study

Community based cross-sectional study.

Source of data

Postnatal mothers from village, Sanathal.

Study Period

Dec- 2014 to Jan-2015

Sample size 120

Instruments used for data collection

Pre-designed and pretested structured questionnaire

Sampling procedure and data collection

All eligible postnatal mothers were interviewed with the questionnaire by House to house

visit by the investigator. Consent was taken prior to interview.

Inclusion criteria

Postnatal mothers who delivered during Jan-2014 to Dec-2014 and eligible for JSY.

Exclusion criteria

Postnatal mothers who lost their baby either due to still births / neonatal deaths.

Data analysis

Data was analysed in Epi-info software (version 7.0). Rates and proportions were calculated.

RESULTS

Table 1 depicts that all the respondents were Hindu. 22.5% study population was below poverty line (BPL). Majority (57.5%) population was from SEBC caste. 64.17% women were between 21-30 years age group. Still 34.17% women were below 20 years age. 31.7% women were illiterate while rests were literate.

Only 33% women had knowledge about JSY while 67% mothers were unaware about JSY and its benefits. (Graph 1)

Graph 2 showing that OPEN and SC caste mothers are going more for private hospitals in our study. ST caste mothers prefer more government (PHC) hospitals. It is good that lower caste mothers have very low home delivery rate.

Graph 3 depicts correlation between education status of mothers and place of delivery. Home deliveries are more when education of mothers is low means in illiterate and primary educated mothers. Mothers prefer more private hospitals when educated high in our study.

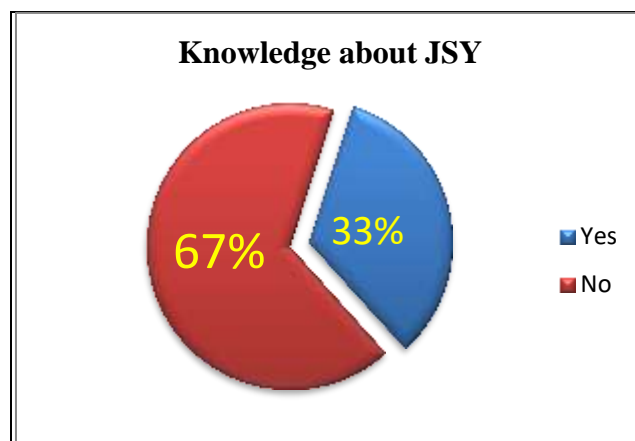
Table 2 showing different JSY indicators. 96.67% mothers were registered in government hospitals. 99 (82.5%) mothers were registered in their 1st Trimester, which is very good sign. Except 1 mother, all had taken proper hospital visits prior to delivery. TT injections were taken by all the mothers. Only 22 (18.3%) mothers were escorted by ASHA for delivery. In 108 (90%) of delivery, baby was first observed by doctor.

Other findings:

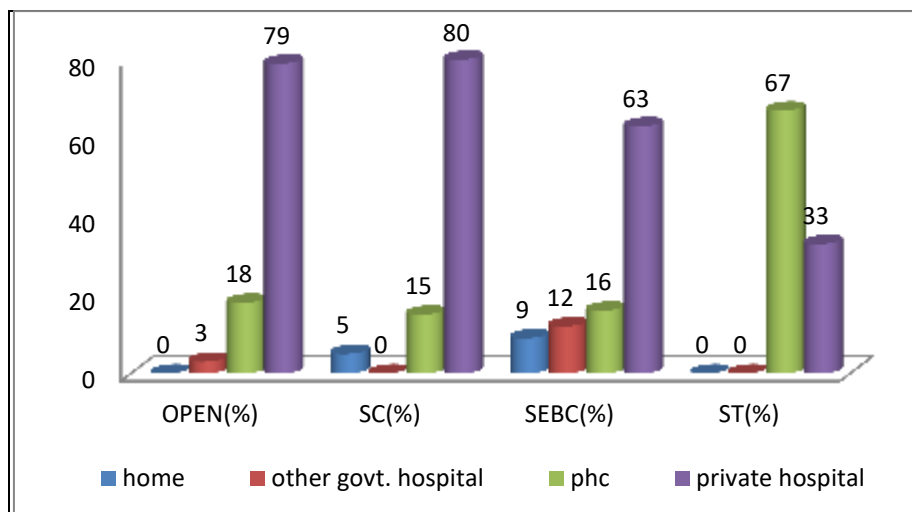
- Only one beneficiary utilized 108 services
- All beneficiary received their cheques after 3-4 months of delivery, not during ante-natal period
- None of ASHAs received their incentives since last 6 months.
- IFA (Iron & Folic acid tablets) were not available at PHC during study period.

Table-1: Socio-demographic profile of study population (n=120)

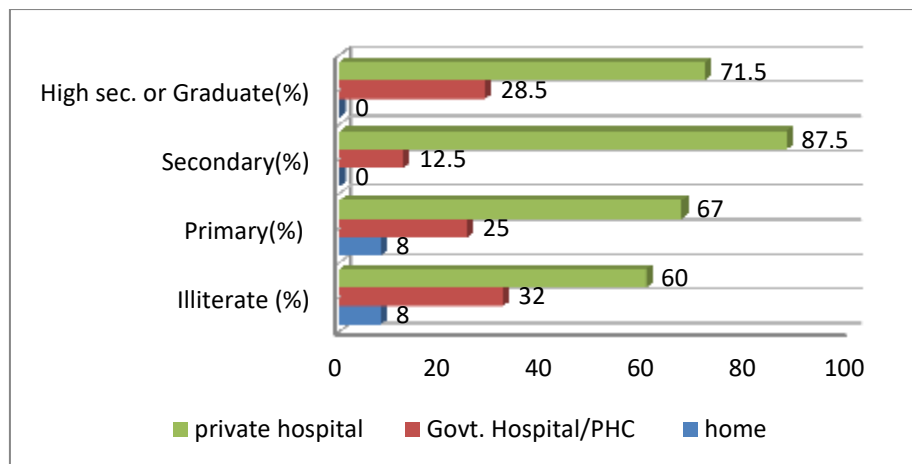
No	Demographic profile	Frequency	Percent
1	Religion		
	Hindu	120	100%
2	Caste		
	SC/ST	19/03	15.8/2.5 %
	SEBC	69	57.5%
	OPEN	29	24.17%
3	BPL Status		
	BPL	27	22.5%
4	Age		
	<20	41	34.17%
	21-30	77	64.17%
	>31	2	1.68%
5	Education		
	Illiterate	38	31.7%
	Primary	51	42.5%
	Secondary	24	20%
	Higher secondary and graduate	7	5.8%



Graph-1: Knowledge of Janani Suraksha Yojana (JSY) among mothers



Graph-2: Places of delivery of mothers according to their caste



Graph-3: Places of delivery of mothers according to their education status

Table-2: Indicators related to ASHA and JSY (n=120)

No	Indicator	Frequency	Percent
1	Pregnancy registration		
	Government hospital	116	96.67%
	Private hospital	4	3.33%
2	Registration duration		
	1 st Trimester	99	82.5%
	2 nd Trimester	15	12.5%
	3 rd Trimester	6	5%
3	Numbers of hospital visits taken by mothers (ANC)		
	0	1	0.8%
	1-4	63	52.5%
	>4	56	46.7%
4	TT injection status		
	One	1	0.8%
	Two	116	96.7%
	Booster	3	2.5%
5	Escorted by ASHA for delivery		
	Yes	22	18.3%
	No	98	81.7%
6	Night stay by ASHA at place of delivery		
	Yes	2	1.7%
	No	118	98.3%
7	Examination of newborn after delivery		
	ANM (Nurse)/ASHA	4	3.33%
	Medical Officer	108	90%
	Dai/Trained birth attendant (TBA)	8	6.7%

DISCUSSION

In present study, all the women were Hindu while a study done by M E Khan *et al* [4], 91% women were from Hindu religion. In present study [4], 31% women were illiterate compared to previous study, where 51% women were illiterate. In present study, 64% women are from age group 21-30 years which is similar to other study [4] in which it is 72%.

Awareness regarding JSY was only 33% women in present study. The finding is similar with

Wadgave *et al* [10] study in which it is 37.19 % but different from other study done in Maharashtra [13] in which finding was 52.1%.

Study done in Afghanistan by A. Hadi *et al* reveals that institutional deliveries increases where there is intensive community mobilization, provision of free services, transport facilities at night, incentive to health providers and quality of services which are the key factors for rise in institutional delivery [14]. Similar

findings are found in present study where institutional delivery is 93.33%.

Almost all mothers are from rural areas and referred to hospital. ASHA's do work of community mobilization and motivation. Similar studies by Huang J and Tembo KC have found that provision of services alone cannot raise the need and utilization of services unless there is motivation [15, 16].

After the implementation of JSY scheme, ASHA's have been successful in promoting institutional deliveries. Family members and mothers are convinced to go for institutional deliveries, so effective promotion among pregnant women and their family members played a role for rise in institutional deliveries[17].

In present study, 100% pregnancy registration was done. Among them, 82.5% registration was in their 1st Trimester. Except 1 mother, all the mothers had taken ANC visits. Among them 46.7% mothers had taken >4 ANC visits. These findings are similar to study done by Varma *et al*[18].

CONCLUSIONS

Accredited social health activist (ASHA)/ Anganwadi worker are the main motivator for JSY and JSY has significant impact on institutional delivery. If incentives are give properly and timely to ASHA than work performance increase under JSY. Lack of JSY knowledge and documentation problems were the most important because of which there was delay or no benefit to mother under JSY. Percentage of benefits was more who had taken ANC visits more and early pregnancy registration. Refresher training to ASHA will make the JSY more fruitful. The implementation of JSY scheme will surely have an impact on indicators like MMR, IMR due to the rise of institutional delivery. The innovative engagement of human resources as per need and the arrangements for incentives at each level will help to build up a role model of public health delivery system.

RECOMMENDATIONS

- IEC activities should be strengthening in the community.
- Documents and caste certificate for mother should be arranged for mothers.
- Improvements in infrastructure and essential facilities at health institutions are critical to ensure that women stay at the clinic for at least 24 hours and get postnatal care.
- Private hospitals should be made mandatory to display the information of JSY.

LIMITATIONS

- This study was carried out in only one village, so findings of the study do not represent condition whole state.

- So large scale study, covering whole state population with appropriate sample size, should be done.
- Study duration was also less, so large sample size couldn't attempt.

REFRRENCES

1. Hogan MC, Foreman KJ, Naghavi M, Ahn SY, Wang M, Makela SM, Murray CJ; Maternal mortality for 181 countries, 1980–2008: a systematic analysis of progress towards Millenium Development Goal 5. *Lancet*, 2010; 375: 1609–1623
2. Government of India, Ministry of Health and Family Welfare, Maternal Health Division, New Delhi. Janani Suraksha Yojana: features & frequently asked questions and answers. Available from http://mohfw.nic.in/dofw%20website/JSY_features_FAQ_Nov_2006.html
3. Lim SS, Dandona L, Hoisington JA, James SL, Hogan MC, Gakidou E; India's Janani Suraksha Yojana, a conditional cash transfer programme to increase births in health facilities: an impact evaluation. *Lancet*, 2010; 375(9730): 2009-2023
4. Khan ME, Hazra A, Bhatnagar I; Impact of Janani Suraksha Yojana on selected family health behaviors in rural Uttar Pradesh. *Journal of family welfare*, 2010;56:9-22.
5. CORT; Assessment of Janani Suraksha Yojana in Orissa. Vadodra, India. CORT. Sponsored by UNICEF, New Delhi, 2007.
6. Ministry of Health and Family Welfare (MOHFW); Report of 2nd Common Review Mission, Uttar Pradesh. National Rural Health Mission, Government of India, 2008.
7. PATH; A baseline evaluation for the Sure Start Project, Uttar Pradesh. Chapters 5, 6, 7, 8 and 13. Unpublished report. New Delhi, PATH, 2008.
8. Singh A, Hazra A, Ram F; Women's autonomy and sex differential in child mortality in India. *Genus*, 2007; 63(3-4): 55-75.
9. Abhijit Das, Deepa Rao b, Amy Hagopian; India's Janani Suraksha Yojana: further review needed. *Lancet*, 2011; 377(9762): 295-296.
10. Wadgave Hanmanta Vishwanath1, Gajannan M Jatti, Upendra Tannu; Missed opportunities of janani suraksha yojana benefits among the beneficiaries in slum areas. *National Journal of Community Medicine*, 2011; 2(1): 40-42.
11. www.censusindia.org
12. www.gujhealth.gov.in
13. Government of India, Ministry of Health and Family Welfare, Maharashtra Factsheet. 2009 Coverage Evaluation Survey. Available from www.unicef.org/india/Maharashtra_Fact_Sheet.pdf
14. Hadi A, Rahman T, Khuram D, Ahmed J, Alam A; Raising institutional delivery in war-torn communities: Experience of BRAC in Afghanistan. *Asia Pacific Family Med*, 2007; 6: 2.

15. Huang J, Xue Y, Jia Y, Xue J; Evaluation of a health education programme in china to increase breast-feeding rates. *Health Promot Int*, 1994; 9: 95-98.
16. Tembo KC; Grass- root health education strategies in Malwai. *J R Soc Health*, 1995; 115: 318-319.
17. Kobinsky MA, Campbell O, Heichelheim J; Organizing delivery care: What works for safe motherhood? *Bull World Health Organ*, 1999; 77: 399-406.
18. Varma DS, Khan ME, Hazra A; Increasing institutional delivery and access to emergency obstetric care services in rural Uttar Pradesh. *Journal of family welfare*, 2010; 56: 23-30.