

ORIGINAL RESEARCH**Utilization of Intra and Postnatal services by Janani Suraksha Yojana beneficiaries in rural area of Pune district of Maharashtra: A Cross Sectional study****Dr. Sachin Gupta¹, Dr. Arunesh Kumar², Dr. Prasad D Pore³**¹Associate Professor Department of Community Medicine, Chirayu Medical College and Hospital, Bhopal, India.²Assistant professor Department of Community Medicine, MV Autonomous State Medical College, Basti, Uttar Pradesh, India.³Professor Department of Community Medicine, Bharati Vidyapeeth Medical College, Pune, Maharashtra, India.**Corresponding Author:**Dr Sachin Gupta, ORCID id: [0000-0002-7383-1759](https://orcid.org/0000-0002-7383-1759)

Address: 141, Vishwakarma Nagar Annapurna Road, Indore, Madhya Pradesh, India

Pin: 452009, Email id: callsachingupta@gmail.com**Abstract:**

In order to reduce maternal mortality government of India is continuously working on maternal health. Janani Suraksha Yojana (JSY) is one of the most important steps taken by Govt. of India to combat this problem. **Objectives:** To assess the utilization of postnatal care services and level of satisfaction among JSY beneficiaries in rural area. **Methodology:** A cross-sectional study was conducted at private Medical College & Hospital, Pune, India from 2014-16 and comprised randomly selected 155 JSY beneficiaries from both the Primary Health Centers of Rural area. One to one interview with the all 155 beneficiaries was conducted using the predesigned, pretested, questionnaire. **Results:** 85(54.83%) beneficiaries got 2 post-natal visits by health worker while 18(11.61%) beneficiaries got only 1 post-natal visits, remaining 52(33.56%) beneficiaries did not get even single post-natal visit by health worker. On further analysis it was found that Post-natal follow up is better amongst beneficiaries, who delivered at government institutes i.e. 76(72.38%) out of 105 beneficiaries had done post-natal checkups by health worker Majority 118(76.1%) of beneficiaries were satisfied with the services provided under JSY and 12(7.7%) beneficiaries were strongly satisfied. 4 beneficiaries were not satisfied with the services provided under JSY. **Conclusion:** Intranatal services were good but disparities found in post-natal services and majority beneficiaries were satisfied with JSY very few were dissatisfied or given neutral answer.

Key Words: JSY Beneficiaries, Intra & postnatal services, Satisfaction Level.

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Introduction:

One of the major concerns of the Reproductive and Child Health (RCH) Program phase II is the extremely low percentage of institutional deliveries in India. Initially in 2006 the number of institutional deliveries was almost negligible [1] among women living Below Poverty Line (BPL) and remote villages. In order to reduce maternal mortality government of India is continuously working on maternal health. Janani Suraksha Yojana (JSY) is one of the most important steps taken by Govt. of India to combat this problem. The Yojana, launched on 12th April 2005, by the Hon'ble Prime Minister, is being implemented

in all states and UTs with special focus on low performing states. JSY is a 100 % centrally sponsored scheme and it integrates cash assistance with delivery and post-delivery care. The JSY is a conditional cash transfer scheme fully sponsored by Central Government. Under JSY woman is given cash assistance if she delivers her baby in a medical facility such as-in Government health centers, like sub center (SC), Primary health center(PHC), Community health centers (CHCs) or general ward of district or state hospital, government medical colleges or Accredited private institutions[2]. Disbursement of Cash Assistance: As the cash assistance to the mother is mainly to meet the cost of delivery, it should be disbursed effectively at the institution itself.

For pregnant women going to a public health institution for delivery, entire cash entitlement should be disbursed to her in one go, at the health institution.

Above study carried out with the following objectives.

- 1) To assess the utilization of intra and postnatal care services among JSY beneficiaries in rural area.
- 2) To assess the level of satisfaction among JSY beneficiaries.

Purpose of the study: The current study aids in evaluating this government programme so that we may spot shortcomings, fix them completely, and improve the program's effectiveness in providing services to huge groups.

Material and Methods:

The study is based on utilization of Janani Suraksha Yojana (JSY) which is one of the largest central schemes under National Health Mission (NHM). The study has been done in the area under Rural Health Training Centre of a private medical college of Pune district.

- **Study Design:** observational Cross sectional study.
Study Area: Study varied out at Rural Health Training Centre (RHTC) of private Medical College is situated in Mulshi Block of Pune district. In the RHTC area, there are 4 primary health centers (PHC), out of which two PHC's were randomly selected for the study purpose.
- **Study Period:** 1stOctober 2014 to 30th September 2016.
- **Study sample:** All JSY beneficiaries who delivered during study period (1stOctober 2014 to 30th September 2016). There were total 204 study participants included from both the PHC's for study purpose.
- **Data Collection:** Before commencement of study Institute ethical committee permission has been taken with the letter ref no. BVDU/MC/02. Details of study have been discussed with medical officers of Respective PHC and also permission from District Health Officer (DHO) for conduction of study in the area of PHC has been taken.

The purpose of study was explained after meeting with respective ASHA's and obtain a list of JSY beneficiaries with their addresses.

Home visits for data collection were planned once or twice weekly as per the availability of JSY beneficiaries. On the day of visit, principal investigator went along with ASHA to identify beneficiaries' address.

JSY beneficiaries were explained the purpose of the study and were assured of maintaining confidentiality of all the personal information. Written informed consent was obtained.

One to one interview with the beneficiaries was conducted using the predesigned, pretested, questionnaire (Annexure I). The interview was timed at minimum 6 week interval after the delivery.

Inclusion criteria:

- 1) All JSY beneficiaries who have taken ANC, Intra-natal and Post-natal services from concerned PHCs were included in the study.

Exclusion criteria:

- 1) JSY beneficiaries who could not be contacted even after 3 home visits were excluded from the study.
- 2) Those who shifted out permanently shortly after delivery.

Study tool: A modified predesigned pretested questionnaire was used to collect information from the study participants. The questionnaire has been used in an earlier study done in Karnataka state by Karnataka State Health System Resource center Bangalore in collaboration with Jagruti, Dharwad [2]. Questionnaire consisted of 2 parts: part I- General information regarding socio demographic characteristics.

Part II- Utilization of JSY services (Intra natal and post-natal care Services) and satisfaction level of JSY beneficiaries regarding services of JSY scheme.

Satisfaction level was assessed on Likert scale with specific reasons for their answers.

Satisfaction level on Likert scale 1-5: where

1=strongly dissatisfied, 2= Dissatisfied, 3= neither satisfied nor dissatisfied, 4= satisfied, 5= strongly satisfied.

Data Analysis:

Data analysis was done by using SPSS 20.0 Statistical software. Qualitative data expressed by using frequency and percentage. Fisher's exact and Chi square test was used to find the association between utilization of Post-natal services and socio demographic variables. P-value was considered significant at <0.05 .

Results:

Study shows that 131(84.5%) beneficiaries out of 155 were counseled by ASHA for institutional delivery. ASHA arranged transport for 61(39.49%) of beneficiaries and also accompanied 56(36.1%) beneficiaries to the health facility where delivery was conducted. Some ASHA also had done both activities, so that multiple responses came for ASHA role from beneficiaries.

All (100%) beneficiaries identified institution prior to the delivery, out of which 26.4% opt for private & remaining opt for government facility.

However, 49(31.6%) deliveries took place at private institute, while 1(0.6%) was home delivery. Reasons given by beneficiary for home delivery were lack of time, transportation and late night.

Majority of beneficiaries stayed ≥ 2 days in while there were 4(26%) beneficiaries who stayed in institute only for <24 hours after delivery. Reason for less stayed in hospital was not given by any beneficiaries.

Majority 124(80%) deliveries conducted by doctor followed by ANM that is 30(19.4%), while 1 home delivery was conducted by neighbors.

It is observed that the actual deliveries at PHC & CHC were less than planned earlier i.e. PHC 49 planned but only 42 delivered; CHC 48 planned but only 36 conducted. The increase was observed at district hospital i.e. 11 planned but 21 conducted; Private hospitals 41 planned but 49 conducted.

Our study shows that out of total 105 beneficiaries who delivered at government hospital 93(88.58%) beneficiaries had normal delivery and 12(11.42%) had cesarean delivery.

Out of 49 private institutional deliveries, 15(30.61%) beneficiaries had cesarean section, while 34(69.39%) had normal deliveries. Above over all association was found to be statistically significant ($p=0.04$). (**Table No. 1**)

Study also depicts that significantly higher proportion of deliveries at private institutes are conducted by cesarean section as compared to government institutional deliveries.

Our study found that 85(54.83%) beneficiaries got 2 post-natal visits by health worker while 18(11.61%) beneficiaries got only 1 post-natal visit, remaining 52(33.56%) beneficiaries did not get even single post-natal visit by health worker.

Beneficiaries have given multiple responses on family planning advice, majority of beneficiaries were advised tubectomy followed by IUD, that is 69(44.5%) & 22(14.2%) respectively, while 41(26.4%)

beneficiaries did not get any advice regarding family planning and 3(2%) beneficiaries were not able to recall advice given to her.

154(99.4%) new born immunized for BCG, polio and hepatitis out of 155 while only 1(0.6%) new born was not immunized.

Our study found that out of 105 beneficiaries who had delivery at government institute, 76(72.38%) beneficiaries had post-natal checkups done by health worker, while beneficiaries who had delivery in private institute, proportion of post-natal checkups dipped to 27(55.10%) out of 49 beneficiaries which was found statistically significant ($p=0.026$). **(Table No 2)**

It means that post-natal follow up is better amongst beneficiaries who delivered at government institutes as compared to private hospitals.

Our study depicts that 143(92.26%) beneficiaries had received cash incentives, out of which 3 beneficiaries received checks but not cashed as they did not open bank account till the study done.

Majority 90(62.93%) beneficiaries received cash incentives after post-natal period i.e. 6 weeks.

Majority 110(76.92%) beneficiaries had received their Cash assistance from ANM; while 32(22.38%) beneficiaries received their cash assistance from ASHA. 1(0.7%) beneficiary had received her incentives from doctor.

In Study, the important observation was found that in majority of beneficiaries (62.93%) there was delayed of >6 weeks in receiving of cash assistance. After interviews in detail regarding reasons for delay in receiving of cash assistance; it was observed that delay was due to not opening of beneficiary's bank account and also some beneficiaries had not completed paper work on time. It was also observed that some beneficiaries were reluctant in receiving cash assistance initially.

To find out reasons for not receiving cash assistance, beneficiaries were asked to elaborate their reasons, it was observed that, majority of beneficiaries were not able to tell specific reasons, while some beneficiaries had not completed paper work as per requirements and few beneficiaries had delivered at private institutes which were not providing JSY facilities.

(Table No. 3)

Our study depicts that out of total 27 beneficiaries who had cesarean section, only 3(11.12%) beneficiaries received full incentives of 1500 Rs. as per government guideline, while remaining beneficiaries did not receive full incentives and 4(14.81%) beneficiaries out of 27, did not receive any cash assistance at all.

Among 127 beneficiaries who had normal delivery, 114(89.77%) beneficiaries got incentives as per government guideline, while 7(5.51%) beneficiaries did not yet receive their incentives. Remaining 6 beneficiaries received incentives but not as per government guideline.

Beneficiary who had home delivery did not receive her incentives.

Above table shows that majority 118(76.1%) of beneficiaries were satisfied with the services provided under JSY and 12(7.7%) beneficiaries were strongly satisfied. Beneficiaries had given multiple responses for satisfaction, 89 beneficiaries were satisfied with services given at the place of delivery, 58 beneficiaries were satisfied with the incentives given under JSY scheme while 54 beneficiaries satisfied for mother and child care during whole event of pregnancy and some beneficiaries also mention reason for satisfaction as immunization of children, good behavior of staff and post-natal care.

4 beneficiaries were not satisfied with the services provided under JSY the reasons for dissatisfaction among beneficiaries were poor availability of services and cash assistance was not sufficient to meet the expenses.

21(13.6%) out of 155, beneficiaries had given the answer of neither satisfied nor dissatisfied. **(Table no.4)**

Table no.1 Distribution of beneficiaries as per the place and mode of delivery

Type of delivery	Place of delivery			Total	p-value
	Government	private	Home		
Cesarean	12 (11.42%)	15 (30.61%)	0	27	0.04(χ^2 8.50)
Normal	93 (88.58%)	34 (69.39%)	1 (100%)	128	

Total	105	49	01	155(100%)
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Table No. 2 Post-natal checkups done according to place of delivery

Actual Place of deliveries	Post-natal checkups done		Total	p-value
	Yes	No		
Government	76 (72.38%)	29 (27.62%)	105	0.026
Private	27 (55.10%)	22 (44.90%)	49	
Home	0	1 (100%)	1	
Total	103	52	155(100%)	

Table No. 3 Distribution of JSY beneficiaries according to receiving of cash assistance under JSY

Variables		Distribution Number (%)	Total
Cash assistance	Yes	143(92.26) [†]	155
	No	12(7.74)	
Time of receiving cash assistance(n=143)	Within 24 hour	-	143
	Within 1 week	3(2.1)	
	Within 1-4 week	10(7.0)	
	4-6 weeks	40(27.97)	
	>6 weeks	90(62.93)	
Cash assistance given by(n=143)	ANM	110(76.92)	143
	ASHA	32(22.38)	
	doctor	1(0.7)	
	other	0	
Reasons for delay receiving of cash assistance*	Account not open	94(65.73)	143
	Beneficiaries were not met to ASHA	10(7.0)	
	Paper work not complete	34(23.78)	
	Check was not correct name	02(1.4)	
	Reluctant to take cash incentive	24(16.78)	
Reason for not receiving cash incentives(n=12)	Paper work not completed	03(25)	12
	Delivered in private hospital which is not contracted with government	02(16.7)	
	Don't know	07(58.3)	

Percentages presented in parentheses

*Multiple responses

[†]3 beneficiaries out of 143 took cheques but not cashed it due not opened their account till the study.

Table No. 4 Distribution of JSY beneficiaries according to satisfaction level with JSY scheme

Variables		Distribution Numbers (%)	Total
JSY beneficiaries satisfaction level#	Strongly dissatisfied	01(0.6)	155
	Dissatisfied	3(2)	
	Neither satisfied nor dissatisfied	21(13.6)	
	satisfied	118(76.1)	

	strongly satisfied	12(7.7)	
Reason for satisfaction(n=130)* (Satisfied and strongly satisfied)	Good behavior of health staff and doctors	7(5.4)	
	safe delivery in institution	89(68.5)	
	Meet the expenses incurred at delivery	56(43)	
	Safety mother and child	54(41.5)	
	Immunization	9(6.9)	
	Post-natal care	1(0.8)	
	Cash assistance	02(1.5)	
	Other	0(0)	
Reason for dissatisfaction(n=4)	Rude behavior of the staff		4
	Facility were not clean		
	Poor availability of services	1(25)	
	Not sufficient money to meet the expenses of delivery	03(75)	
	other		

Percentages presented in parentheses

*Multiple responses

According to Likert scale, as given on page no. in material& methodology.

Discussion:

Sutanuka Santra et al [3] study revealed that 93.2% women got motivated or advised regarding institutional delivery from health care facility. Study done by Patel Hinalkumari [4] revealed that 65.6% participants received counseling for institutional delivery by ASHA. Study done by Sandeep Sachdeva et al [5] shows that 16.66% of ASHA/Health personnel counseled for institutional delivery among JSY beneficiaries. Similar to present study Yangchen Dolma et al [6] revealed that in 41.3% cases ASHA facilitated in arranging transport and accompanied women but only few of ASHA stayed with women till delivery and Parul Sharma et al [7] study shows that 44.05% women were accompanied by ASHA at the time of delivery.

In contrast to present study Harpreet Kaur & Amanpreet Kaure et al [8], study revealed that ASHA accompanied only 14.1 % of beneficiaries to the hospital at the time of delivery.

The difference between ASHA counseling or motivating for institutional deliveries and facilities provided by ASHA to the JSY beneficiaries between present studies and previous studies reflect ASHA services to the community, this also tells the gray area where improvement needed by which we can significantly improve JSY services for the needy.

In contrast to present study, due low performing state Bella Patel Uttekar et al [9] study revealed that 62% of the respondents intended to deliver in government hospital and the remaining 38% wanted home delivery.

Study done by Yangchen Dolma et al [6] shows that 57.3% of the delivery took place at tertiary care hospital, 9% at PHC and 22.3% at CHC and district hospital. Private hospital accounted for 9.7% and in 1.8% cases home delivery occurred.

Proportion of private institutional deliveries more for present study might be due easy accessibility of private institution than government facilities.

In contrast to present study, Harpreet Kaur & Amanpreet Kaurel al [8] study shows that 76.2% delivered in hospital & 23.8% delivered at home. Out of total institutional deliveries 50.3% delivered in government hospitals, 23.2% in private hospital.

This will reflect high performance and well functioning of PHCs of present study. It also signifies that the availability and accessibility of private facilities is also more in the present study area.

Harpreet Kaur & Amanpreet Kaurel al [8] also revealed that among total institutional deliveries 44.3% beneficiaries stayed for more than 3 days in hospital, 26.5% stayed for one day in hospital & 5.4% stayed 2 days in hospital..

In contrast to present study, Parul Sharma et al [7] study revealed that 46.26% women stayed in the hospital for 1-3 days followed by 44.93% women who stayed for less than a day after delivery and 8.81% women stayed in hospital for more than 3 days.

In present study majority of beneficiaries were stayed for 2 days this might be due to government institutional deliveries and there were also private institutional deliveries which explains duration of staying at hospital after delivery.

Yangchen Dolma et al [6] shows that 58% women had caesarean section, in 41.8% cases normal delivery, and 0.2% had assisted vaginal delivery i.e., vacuum.

In present study assisted delivery were not reported due to inability of beneficiaries to differentiate normal deliver from assisted. Similar to present study Harpreet Kaur & Amanpreet Kaurel al [8] cited various reason for home delivery were previous delivery at home (13.5%), as advised by elders (3.8%), were interested during antenatal period but delivered at home (4.3%), hospital was located at distance (1.6%) and lack of vehicle (0.5%).

Patel Hinalkumari [4] shows that 160 (64%) participants were delivered by Doctor, 74 (29.6%) participants were delivered by ANM, 6 (2.4%) participants were delivered by trained dai and 2 (0.8%) participants were delivered by FHW. Study done by Parul Sharma et al [7] shows that only 34.10% of women were facilitated by ASHA for PNC visits in rural area.

In contrast to present study, Kesarsingh D. Gundbowdi et al [10] revealed that 65.19% women did not receive 4 PNC check-ups and only 34.81% women received ≥ 4 PNC visits.

Although in present study post-natal checkups were poorly done by health worker as compared to previous studies, might be due to unavailability of beneficiaries at their place during the visits of health worker or also there may be possibility of health worker's reluctant behavior or Vice-versa.

In some cases, it was observed that health workers went for checkups but beneficiaries were reluctant to take advice from health worker and during interview beneficiaries reluctantly gave negative answers about the PNC checkup visits.

Present study results also found consistent with Yangchen Dolma et al [6] which shows that 92.2% women were counseled about the benefits of breast feeding by Doctor/ANM/ASHA at place of delivery and at sub Centre.

In contrasting to present study, Sutanuka Santra & Surajit Lahiri et al [3] & Yangchen Dolma et al [6] found that 30.6% & 34.3% mothers got advice regarding various family planning methods at the time of delivery and during postnatal period respectively.

In present study large proportion of beneficiaries received advice for family planning as compared to other studies. These positive results show that good counseling has been done.

Similar to present study Prem Lal Chauhan & Dineshwar Dhadwal et al [11] study found that all the beneficiaries received JSY incentive after 1 week of delivery.

Study done by Parul Sharma et al [7] also similarly shows that In majority (48.47%) of the women the money was given by clerk/ANM followed by ASHA (36.56%). Majority (85.46%) of the women had no difficulty in receiving money. Greater percentage (44.93%) of the women received incentive after a month of delivery. Only 9.7% had received incentive at the time of discharge.

Similar to present study UNFPA, Development Research Services [12] reports also reveal that in various states majority (85-90%) beneficiaries received their incentives under JSY. But the time of receiving of incentive by beneficiaries was not appropriate as per the JSY guidelines where improvement needed.

In contrast to present study, Harpreet Kaur, Amanpreet Kauretal [8] shows only 48.2% of the beneficiaries, received the benefit of the JSY scheme. Out of this 36.8% received it by cheque & 11.4% by cash. Benefit was received on the same day in 4.3% beneficiaries only, 23.8% received the benefit in less than one week, and 10.8% in more than one week & 1.6% in more than 6 months & 7.6% had not received the benefit till date.

These contrasting results shows that in present study JSY scheme is implemented better as compared to above studies but still there is a need to improve the timing of giving incentives to beneficiaries.

Yangchen Dolma and Dr. Iftikhar Hussain Munshi [6] shows that 67.2% of the mothers who delivered in government institution received Rs 1400/- and 30.3% got 1000 Rs.

Study by Sandeep Sachdeva, Jagbir S Malik [5] shows that 44.44% received Rs 500, 34.72% received Rs. 700, and 20.83% received Rs 2200.

UNFPA, Development Research Services [12] report shows that more than 90% of the beneficiaries who delivered in an institution in these five states reported having received Rs. 1,400 as incentive.

Although the amount of cash assistance is varies according to type of delivery and category of state (low/high performance). In present study beneficiaries either did not receive or received inadequate assistance according to JSY guideline, it indicates lack of monitoring on disbursement of money; also indicates poor knowledge among beneficiaries regarding cash assistance given by government under JSY scheme.

As compared to present study Yangchen Dolma and Dr. Iftikhar Hussain Munshi [6] found less percentages of beneficiaries satisfied i.e. 73% while 23% were dissatisfied with services provided under JSY. The reasons for dissatisfied were rude attitude of the health staff (24.2%) and poor quality of service (76%) like poor toilet and food facility, lack of cleanliness and overcrowding of patients.

Conclusion: Overall based on the study findings it can be concluded that, in present study intranatal care services is good, but there were disparities found between government and private institutional deliveries for post-natal checkups by health workers. Cash benefits are not reaching beneficiaries in time and the amount of assistance was also not reaching as per government guideline.

Majority of beneficiaries were found satisfied or strongly satisfied with the JSY services provided to them.

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