

ORIGINAL ARTICLE

Comparative evaluation of JSY services at different health care settings of Rewa, Madhya PradeshRohit Trivedi¹, Paharam Adhikari², Sandeep Singh³, Vivek Sharma⁴, Som Nath⁵¹Associate Professor, ^{2,3,4}Assistant Professor, ⁵Resident, Department of Community Medicine, S.S. Medical College, Rewa, Madhya Pradesh

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Abstract

Introduction: JSY is a safe motherhood intervention and modified alternative of the National Maternity Benefit Scheme (NMBS). It was launched on 12th April 2005 by the Honorable Prime Minister. JSY has been implemented in all states and UTs with special focus on low performing states under the National Rural Health Mission (NRHM) with objective to reduce maternal, neo-natal mortality and promote institutional delivery among pregnant women of rural and urban areas and it is integrated with cash monetary help to pregnant women. **Objective:** To evaluate antenatal and post natal care services provided under JSY at different health care settings & to know the client suggestions for improvement in JSY. **Methodology:** this is a health care institute based observational cross sectional study including randomly selected 200 JSY beneficiary mothers from the different health care settings i.e. PHC, CHC, DH & Medical College Hospital; of Rewa Distt, M.P. Data was collected with the help of set proforma & then analyzed with applying epi info 2000. Chi square test was applied appropriately. **Results:** in case of ANC services provided at different health care settings it was observed that services were provided among more numbers of mothers at higher centers in comparison of PHC & CHC. The distribution of ANC provided to the beneficiary mothers among different health care settings was found to be statistically significant ($\chi^2 = 17.24, p = 0.002$), similarly postnatal services were also provided among more numbers of mothers at Higher centers. 120 (60%) mothers suggested that there should be provision of other services i.e. Diet, tonics, and medicines during or after hospital stay along with cash benefit for better utilization of JSY.

Key Words

JSY; NRHM; ASHA; Beneficiaries

Introduction

Safe motherhood is perceived as a human right, underpinned by laws that support effective action to increase women's access to appropriate services. The health sector is encouraged to make good-quality services including essential care for obstetric complications available to all women during pregnancy and childbirth with particular emphasis on ensuring that a skilled attendant is present at every birth. (1) For the better outcome of maternal and child Health; Government of India launched an ambitious project targeted at decreasing maternal mortality rate and promoting institutional deliveries under the umbrella of NRHM. (2) which was named Janani Suraksha Yojana. (3) The JSY has been a safe motherhood

intervention and modified alternative of the National Maternity Benefit Scheme (NMBS). (4) With objective to reduce maternal, neo-natal mortality and promote institutional delivery among the pregnant women of rural and urban areas. This scheme is hundred percent centrally sponsored and integrated cash monetary help to pregnant women. (5,6) The key person for delivering such services is ASHA (Accredited Social Health Activist). ASHA is a trained activist of same village and works as link person among the health institutions, pregnant women and masses to increase institutional deliveries. (7)

Madhya Pradesh is one of the High focus states. (8) classified as Low Performing States (LPS) (9) as well as Empowered Action Group (EAG) states in context to demographic and health status point of views (10). JSY

started in August 2005 in M.P.(11) After October 2006 some changes were made after the feedback from the ground implementation and the noticeable are: removal of age restriction for the benefit in Low Performing States (LPS), doing away with the restriction on the order of childbirth, need for Below Poverty Line (BPL) or Marriage Certificate etc.(12)

According to needs, experiences and feedbacks various changes and modifications have been incorporated from time to time. The JSY has completed more than seven years and comparative evaluation is demand of time. In Madhya Pradesh since JSY is also functioning starting from beginning but to know about the status of JSY at different levels of Health care delivery system of Rewa, it is much important to know about the effectiveness and correct impact of a programme in terms of its various parameters so that any lacuna for successful achievement can be rectified. Therefore by keeping in mind this study was carried out to evaluate JSY services at different levels of Health care settings in District Rewa.

Aims & Objectives

1. To evaluate antenatal and post natal care services provided under JSY at different health care settings.
2. To know the client suggestions for improvement in JSY.

Material and Methods

This is a Health care institute based Observational Cross sectional study which was carried out at Different levels of health care delivery system of Rewa District including 1 PHC; Baikunthpur,1 CHC; Govindgarh, District Hospital Rewa and Medical college affiliated Hospital i.e. Gandhi Memorial Hospital(GMH) Rewa within duration of one year-October 2012 -September 2013 .Total 200 Beneficiary mothers who have delivered at institution within six month duration at the time of data collection and those who were willing to participate, were included in the study. For the selection of these 200 beneficiary mothers first off all data from the CMHO Office, Rewa was collected and it was found that the prevalence of institutional delivered mothers who utilized various services of JSY of previous year was found 70% and after the application of sample size calculation from $N=4PQ/L^2$, where L was kept 10 % of Prevalence hence the minimum number of beneficiary mothers was found 172 ,so that to maintain uniformity in sample size from each level of health care settings and for better precision of the results the sample size was taken 200. In the study for the selection of community health center, primary health center and the beneficiaries from these health centers Multistage Random Sampling Method was adopted and for the

selection of the beneficiaries from the District hospital and from the medical college affiliated hospital i.e. Gandhi memorial hospital Simple Random Sampling Method was adopted. One Community Health Centre; Govindgarh was selected out of total 12 CHCs, one Primary Health Center; Baikunthpur was also selected randomly out of total 29 PHCs. Hence for the equal number selection of beneficiaries from the different health care setting; 50 beneficiaries were selected randomly from the each level of health centre so that the total 200 beneficiaries were included in the present study. After ethical approval data was collected with the help of a pre-tested, semi-structured questionnaire based proforma and data was analyzed by using epi info 2000 & chi- square test was applied appropriately.

Results

The beneficiary mothers provided less than 4 Antenatal visits were 36 (72%), 34 (68%), 24 (48%) & 21(42%) respectively in PHC Baikunthpur, CHC Govindgarh DH &GMH (Medical College Hospital). In case of beneficiary mothers provided 4 Antenatal visits were 14 (28%), 13 (26%), 20 (40%) and 21 (42%) Respectively in PHC Baikunthpur, CHC Govindgarh DH &GMH (Medical College Hospital). And the beneficiaries provided >4ANC were 0 (0%),3(6%), 6 (12%)and 8(16%) respectively in PHC Baikunthpur, CHC Govindgarh DH &GMH (Medical College Hospital). Hence it was seen that the number of ANC was provided more as shifting towards PHC Health care settings to Medical College Hospital Settings. The distribution of number of ANC provided to the beneficiary mothers among different health care settings was found to be statistically significant ($X^2 =17.24, p=0.002$)

The distribution of number of IFA Tablets provided to the beneficiary mothers among different health care settings was found to be statistically significant ($p=0.000$). The beneficiary mothers were provided 0-30 IFA Tabs were 4 (8%), 1 (2%), 0 (0%) & 0 (0%) respectively in PHC Baikunthpur, CHC Govindgarh DH & GMH (Medical College Hospital). In case of beneficiary mothers provided 31-60 IFA Tabs were 17 (34%), 11 (22%), 7 (14%) and 3 (6%) respectively in PHC Baikunthpur, CHC Govindgarh DH &GMH (Medical College Hospital). And the beneficiaries provided 61-100 IFA Tabs were 29 (58%), 38(76%), 43 (86%) and 47(94%) respectively in PHC Baikunthpur, CHC Govindgarh DH &GMH (Medical College Hospital). Hence it was seen that the number of IFA Tabs were provided more as shifting towards PHC Health care settings to Medical College Hospital Settings. The distribution of number of IFA Tablets provided to the beneficiary mothers among different health care settings was found to be statistically significant (X^2

=24.46, p=0.000) The maximum mothers 6 (12%) were found as partially immunized against TT at PHC and minimum were 1 (2%) found at DH and Medical College Hospital Both but in case of fully immunized against TT maximum mothers 49(98%) were found at both the DH & GMH (Medical College Hospital) and minimum 44(88%) were found at PHC. The distribution of TT Immunization among mother was found to be statistically insignificant (p=0.124).

The maximum mothers 47 (94%) who were availed transport facility under JSY scheme at Medical College Hospital and minimum were 27 (54%) found at PHC but in case of mother who were not availed JSY Transport facility maximum mothers 23(46%) were found at PHC and minimum 3(6%) were found at Medical College Hospital although it was known that some of these mothers may not require transport facility due to nearer to health care institution of delivery. The distribution of Transport facility availing among mother was also found to be statistically significant. ($\chi^2=22.02$, p=0.000)

The maximum mothers 44 (88%) were helped under JSY scheme (helped by ASHAs) in HBV-0 vaccination of baby at Medical College Hospital and minimum were 11 (22%) helped at PHC but all mothers were helped in BCG, OPV-0 vaccinations at PHC, CHC, DH & GMH (Medical College Hospital). The distribution of beneficiary mother were helped in Vaccination of baby was found to be significant at different level of health care settings. ($\chi^2=19.81$, p=0.000)

The maximum mothers 43(86%) were helped under JSY scheme (helped by ASHAs) for Registration of birth at GMH (Medical College Hospital) and minimum were 31 (62%) at PHC. Maximum mothers 19 (38%) who were not helped by ASHAs were found at PHC and among of those mother minimum 7(14%) were found at GMH. This distribution was also found to be statistically significant among different health care settings. ($\chi^2=27.58$, p=0.000)

In case of cash benefit assistance at the time of discharge maximum mothers 47(94%) were got assistance by ASHAs at GMH and Minimum mothers 33 (66%) assisted at PHC and mothers who were not helped for cash benefit were found maximum 17 (34%) at PHC and minimum 3 (6%) at GMH. This distribution was also found to be statistically significant among different health care settings. ($\chi^2=17.67$, p=0.000) Mothers who were helped in postnatal visit were found maximum 41 (82%) at GMH and minimum 30(60%) at PHC similarly mothers who were not helped by ASHAs for postnatal visit were found maximum 20(40%) at PHC and minimum 9(18%) at GMH. In case of suggestion, 39 (19.5%) beneficiaries from different level of Health Care i.e PHC, CHC, DH & GMH Rewa suggested that scheme can further be improved by

hike in monetary benefit. Around 1/2 of beneficiaries also demanded prompt transportation facility to add up in a bid to further improve the scheme. Some of them 42 (21%) also put a special opinion that there should be special package for High Risk Delivered mother from the all health care settings of Rewa Distt. 120 (60%) mothers suggested that there should be provision of other services i.e. Diet, tonics, medicines during or after hospital stay along with cash benefit for better utilization of JSY services. Responding mothers were different in numbers in case of belong to different health care settings. All suggestions were mostly given by beneficiary mothers of PHC in comparison of other health care settings.

Discussion

Mothers who were provided less than 4 Antenatal visits under the JSY scheme were found maximum at in PHC Baikunthpur (36), and then followed by CHC Govindgarh (34), DH (24) & GMH(21) but in other hand mothers who were provided 4 or more than 4 ANC were found minimum at PHC and increases from the PHC to CHC, DH & GMH. ($\chi^2=17.24$, p=0.002, statistically significant) (Table 1). This difference of ANC service provided at different health care settings of Rewa could be due to more effective implementation of JSY services at Higher centres but equally services should be provided at all centers. The report published by UNICEF 2012 on Children health status found that in India 75 % pregnant women received at least 1 ANC visit and 51 % pregnant mother received 4 ANC visits during Pregnancy (13). Even GOI, Ministry of Health and family welfare department in 2011 also reported the same finding regarding ANC coverage among pregnant mothers.(14) Coverage Evaluation Survey (CES) in India conducted by UNICEF 2009 reported - 3 or > ANC in 68.7% & Institutional deliveries 72.9% of pregnant mothers.(15)

Among The beneficiary mothers were provided only 0-30 IFA tablets maximum 4(8%) were from PHC and only one mother was from CHC but the numbers of such mother were found zero from DH & GMH but in case of more numbers (61-100) of IFA tablets distribution it was seen that maximum mothers 47(94%) were from GMH and minimum 29 (58%) were from PHC. Hence it was seen that the number of IFA Tabs were provided more as shifting from PHC Health care settings to Medical College Hospital Settings. ($\chi^2=24.46$, p=0.000, statistically significant) (Table 1) This distribution could be due to more focusing of JSY services at the higher level of health care settings in comparison of PHC or CHC or it could be due to more stocks are maintained at DH/GMH or it may be due to recall bias that can affect the counting of tablets of IFA among the beneficiaries from different health care

institution. Although the compliance of delivered IFA tablets among mothers could be an important finding but it is not covered in the present study. Similarly other antenatal services of JSY scheme like full TT immunization etc were also found more among mothers at higher centers (DH&GMH) (49/98%) of Health care settings in comparison of PHC(44/88%) &CHC (46/92%). In case of transport facility the maximum mothers 47(94%) who were availed transport facility under JSY scheme at Medical College Hospital and minimum were 27 (54%) found at PHC but in case of mother who were not availed JSY Transport facility maximum mothers 23(46%) were found at PHC and minimum 3(6%) were found at Medical College Hospital although this type of pattern of distribution could be more impactful if it is clearly known that how many of mothers who may not require transport facility due to nearer to health care institution of delivery. The distribution of Transport facility availing among mother was also found to be statistically significant. ($X^2 = 22.02, p=0.000$)

This type of distribution of services among various health care settings need to reorient of JSY services. Other studies like Gupta S. et al (2008) (16) found 96.14 mothers were fully immunized against tetanus. He also observed that 48.2% beneficiary mothers received more than 50-100 IFA tablets and 48% received less than 50 IFA tablets. Only 34.7% beneficiary mothers consumed >50 IFA tablets.

In case of postnatal services provided at different health care settings under JSY it was seen that most of the components of postnatal services were found among more numbers of mothers at higher health care settings i.e. DH & GMH in comparison of PHC and CHC. Help in HBV-0 vaccination was more (44/88% mothers) at GMH and less (11/22% mothers) at PHC. ($X^2 = 19.81, p=0.002$), statistically significant) (Table 2) Help in registration of births was 43/86% at GMH and 31/62% at PHC, Help in cash benefit to mothers at the time of discharge was 47/94% at GMH and 33/66% at PHC; ($X^2 = 17.67, p=0.000$), statistically significant) (Table 2) although whole amount of cash was disbursed to the mothers. Similarly help in registration of birth and help in cash benefit at the time of discharge at CHC and DH was in between of PHC and GMH. Similarly help in postnatal visit was found as 30(60%), 33(66%), 37(74%) & 41(82%) at PHC, CHC, DH& GMH respectively. From the findings of this study it was seen that this type of difference of JSY services at different health care settings could be due to more stress on JSY at higher centers hence more number of working staff is present at those centers in comparison of PHC & CHC but equal distribution of JSY services at different health care settings is the need of effective JSY implementation. In Indore Mahawar P., Anand S. et

al (2008-09) (17) observed all the beneficiaries received exact amount of assistance as provided by the government; but only 62 (24.8%) of beneficiaries received cash just after the delivery. Majority 167 (66.8%) of them took a month to receive cash. About 21 (8.4%) received the amount within 7 days while in our study majority(85%) of the beneficiaries received exact amount just after discharge & only 15% after 1 week. Similarly Mishra A. et al(2008) (18) also found the discrepancies in money disbursed to the beneficiaries; while in our study it was compared the help provided under JSY in cash benefit at the time of discharge at different level of health care settings of Rewa. After the comparison of JSY services from the beneficiaries of different health care settings of Rewa the suggestions of those beneficiaries were also recorded then in case of suggestion of 200 beneficiary mothers, 39 (19.5%) beneficiaries from different level of Health Care i.e PHC, CHC, DH & GMH Rewa suggested that scheme can further be improved by hike in monetary benefit. Around 1/2 of beneficiaries also demanded prompt transportation facility to add up in a bid to further improve the scheme. Some of them 42 (21%) also put a special opinion that there should be special package for High Risk Delivered mother from the all health care settings of Rewa. 120 (60%) mothers suggested that there should be provision of other services i.e. Diet, tonics, medicines during or after hospital stay along with cash benefit for better utilization of JSY services. Responding mothers were different in numbers in case of belong to different health care settings. All suggestions were mostly given by beneficiary mothers of PHC in comparison of other health care settings. This can be due to more problem facing by the beneficiaries of lower level of health care settings in comparison of higher level of health care settings.

Conclusion

Evaluation of JSY is being done time to time in every state but the comparative evaluation of JSY services at different level of health care deliver settings is a demand of time so that the proper feedback from the site of implementation can be collected and the exact lacunas can be identified and hence rectified. Therefore more other studies are needed for the comparative evaluation of JSY over more numbers of subject so that prompt & effective implementation of JSY can be achieved at every level of health care settings especially at PHCs and CHCs.

Authors Contribution

RT- logistic supply, study designing, PA- methodology & review, SS – analysis & discussion, VS - proof reading, SN - data collection

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Tables

TABLE NO. 1 ANTENATAL SERVICES PROVIDED AT DIFFERENT HEALTH CARE SETTINGS

Antenatal Services		PHC (n=50)	CHC (n=50)	DH (n=50)	GMH (n=50)	Total Beneficiary mothers (n=200)	p value
Number of Antenatal Visit provided	<4ANC	36 (72%)	34 (68%)	24 (48%)	21 (42%)	115(57.5%)	X2 =17.24 p=0.002
	4 ANC	14 (28%)	13 (26%)	20 (40%)	21(42%)	68 (34%)	
	>4ANC	00(00%)	03 (06%)	06 (12%)	8(16%)	17(08.5%)	
Number of IFA Tab. Distributed	0-30	04(08%)	01(02%)	0(00%)	0(00%)	05(2.5%)	X2 =24.46 p=0.000
	31-60	17(34%)	11(22%)	07(14%)	03(6%)	38(19%)	
	61-100	29(58%)	38(76%)	43(86%)	47(94%)	157(78.5%)	
TT Immunization	Partial	06(12%)	04(08%)	1(02%)	01(02%)	12(06%)	X2 =6.38 p=0.124
	Fully	44(88%)	46(92%)	49(98%)	49(98%)	188(94%)	
Transport Facility	Not availed	23(46%)	18(36%)	12(24%)	03(06%)	56(28%)	X2 =22.02 p=0.000
	Availed	27(54%)	32(64%)	38(76%)	47(94%)	144(72%)	

TABLE NO. 2 POSTANATAL SERVICES PROVIDED AT DIFFERENT HEALTH CARE SETTINGS

Postnatal Services		PHC (n=50)	CHC (n=50)	DH (n=50)	GMH (n=50)	Total Beneficiary mothers(n=200)	p value
Help in Vaccination of baby	BCG	50(100%)	50(100%)	50(100%)	50(100%)	200(100%)	X2 =19.81 p=0.000
	OPV-0	50(100%)	50(100%)	50(100%)	50(100%)	200(100%)	
	HBV-0	11(22%)	17(34%)	23(46%)	44(88%)	95(47.5%)	
Help in Registration Birth	Yes	31(62%)	36(72%)	39(78%)	43(86%)	149(74.5%)	X2 =27.58 p=0.000
	No	19(38%)	14(28%)	11(22%)	7(14%)	51(25.5%)	
Help in Cash benefit at the time of discharge	Yes	33(66%)	36(72%)	45(90%)	47(94%)	161(80.5%)	X2 =17.67 p=0.000
	No	17(34%)	14(28%)	5(10%)	3(6%)	39(19.5%)	
Help in Postnatal visit	Yes	30(60%)	33(66%)	37(74%)	41(82%)	141(70.5%)	X2 =6.61 p=0.11
	No	20(40%)	17(34%)	13(26%)	9(18%)	59(29.5%)	

TABLE NO. 3 SUGGESTIONS OF BENEFICIARIES FOR THE IMPROVEMENT IN JSY

Suggestion*	PHC (n=50)	CHC (n=50)	DH (n=50)	GMH (n=50)	Total Beneficiary mothers(n=200)
Hike in monetary benefit	14(28%)	11(22%)	08(16%)	06(26%)	39(19.5%)
Prompt Transportation facility	29(58%)	27(54%)	24(48%)	21(42%)	101(50.5%)
Extra package for High Risk Delivered mother	14(28%)	11(22%)	09(18%)	08(16%)	42(21%)
Other services i.e. Diet, tonics, medicines during/after hospital stay along with cash benefit	36(90%)	43(86%)	23(46%)	18(36%)	120(60%)

*= Multiple responses



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