WWJMRD 2020; 6(11): 19-25
www.wwjmrd.com
International Journal
Peer Reviewed Journal
Refereed Journal
Indexed Journal
Impact Factor MJIF: 4.25
E-ISSN: 2454-6615

Hoshiar S Chauhan
Prof. & Head: Center for Public Health & Healthcare Administration, Eternal University, Baru Sahib-173101; HP; India.

Parkash Mahajan
Prof. & Head: Department of Community Medicine, Devdaha Medical College, Bhaluhi, District Rupendehi, Nepal.

Rajbir Kaur
MPH scholar: Center for Public Health & Healthcare Administration, Eternal University, Baru Sahib-HP-173101; HP; India.

Sandeep Kaur
PhD Scholar, School of Public Health, PGIMER, Chandigarh-160012; India.

Correspondence:
Hoshiar S Chauhan
Prof. & Head: Center for Public Health & Healthcare Administration, Eternal University, Baru Sahib-173101; HP; India.

Assessment of the Level of Awareness about Janani Suraksha Yojna among the beneficiaries of district Tarn Taran, Punjab

Hoshiar S Chauhan, Parkash Mahajan, Rajbir Kaur, Sandeep Kaur,

Abstract
Background: Janani Suraksha Yojna is a "Safe Motherhood Scheme" with beneficial interventions under the National Health Mission, Ministry of Health & Family Welfare, Government of India. It is being implemented with the objective of reducing maternal and neonatal mortality by promoting institutional delivery among poor pregnant women. **Objectives:** To Assess the awareness of JSY among the beneficiaries and to find out the association of socio-demographic factors with awareness of JSY. **Methodology:** A descriptive cross-sectional study design and qualitative method of data collection was adopted. **Results:** This study revealed that (53%) of the beneficiaries were having good level of awareness, and (47%) were having average level. Only (3.7%) knew about the name of scheme. **Conclusion:** The Accredited Social Health Activists (ASHAs) should have been trained well before they are handed over the job responsibilities. Increase in compensation for travel related and other miscellaneous expenses for them must be considered.

Keywords: Janani, Suraksha, Yojna, Beneficiaries, Awareness

Introduction

Janani Suraksha Yojana (JSY) is a scheme focusing on safe motherhood through cash assistance intervention under the National Rural Health Mission (NHM). It is being implemented with the objective of reducing maternal and neonatal mortality by promoting institutional delivery among poor pregnant women [1, 3].

Janani Suraksha Yojana was launched in April 2005 and is being implemented in all the states and UTs with special focus on low performing states. JSY is a 100% centrally sponsored scheme and it extends cash assistance for delivery and post-delivery care. The success of the scheme is to be determined by the increase in institutional deliveries among the poor families [3].

The National Maternity Benefit Scheme (*NMBS*) provides for financial assistance of Rs. 500/- per birth up to two live births to the pregnant women who have attained 19 years of age and belong to the below poverty line (BPL) households. States were classified into Low Performing States and High Performing States on the basis of institutional delivery rate i.e. states having institutional delivery 25% or less were termed as Low Performing States (LPS) and those which have institutional delivery rate more than 25% were classified as High Performing States (HPS). Accordingly, eight erstwhile Empowered Action Group (EAG) states namely Uttar Pradesh, Uttarakhand, Madhya Pradesh, Chhattisgarh, Bihar, Jharkhand, Rajasthan, Odisha and the states of Assam and Jammu & Kashmir were classified as Low Performing States. The remaining States were grouped into High Performing States [1].

Maternal mortality ratio (MMR) estimate of 398/lakh live births in 1997-1998 has fallen to 212/lakh live births in 2007-09, though this shows a declining trend, the ratio falls very much short of the target of 100/lakh live births which was to be achieved by 2012 under National Rural Health Mission (NRHM). One of the main strategies to reduce MMR is to improve the skilled attendance at childbirth by increasing the percentage of institutional delivery [2].

The Accredited Social Health Activist (ASHA) as well as Angan Wadi Worker (AWW) become effective link between government and poor women in this scheme. [3, 4]

Table-1: Scale of financial/cash assistance for institutional delivery:

Category of States	Rural Area			Urban Area		
	Assistance Package to mother	Package for Accredited Worker	Total	Assistance Package to Mother	Package for Accredited Worker	Total
LPS	700	600	1300	600	200	800
HPS	700	Nil	700	--	--	--

Source: NRHM

Problem Statement

Global data shows that maternal mortality ratio (MMR) ranges from 8/lac live births in developed countries to 500/lac live births in developing regions. There is gradual improvement in the scenario in the previous years [5]. India's Maternal Mortality and Infant Mortality Rates are high as compared to many other Asian countries. The latest figures state that there are about 301 maternal deaths per lac live births. However, this average hides a wide range: from 110 in Kerala to 517 in Uttar Pradesh (Ashish Bose 2007). This is much higher than neighboring countries such as China (56), Thailand (44), Malaysia (41) and Sri Lanka (92) (UNFPA 2007) [7].

Over half a million women die each year due to complications during pregnancy and child birth. 40% of these women are from Asia and the Pacific. The vast majority of these deaths are preventable. (WHO) [6].

In India, the MMR declined from about 520/lac live births in 1990 to nearly 254/lac in 2004-2006 and to 212/lac in 2007-2009. Despite this progress, the numbers of maternal deaths remained high [5].

Rationale of Study

- Infant Mortality Rate & Maternal Mortality Rates are the leading causes of death in rural areas.
- Poor pregnant women residing in the rural area are the most prone age group for death due to pregnancy related problems.
- Lack of knowledge about Janani Suraksha Yojana in rural area women.

Objectives of the study:

1. To assess the awareness of Janani Suraksha Yojana among the beneficiaries of district Tarn Taran, Punjab.
2. To find out the association of socio-demographic factors with awareness on Janani Suraksha Yojana.

Materials and Methods:

The study was designed with the aim of assessing the level of awareness about JSY among the beneficiaries in rural areas of district Tarn Taran, Punjab. The methodology includes research approach, setting, sample and sampling technique, data collection technique, tools used, validity, reliability of the tools and procedure and plan for data collection. Analysis of data was done on the valid percentage by omitting missing data. Chi- square was used to test the association between dependent and independent variables.

A descriptive cross sectional study was conducted to fulfill the objectives.

Quantitative method of data collection was adopted as a study method. The study was conducted in three blocks of district Tarn Taran, Punjab

Table-2: Demographic profile of District Tarn Taran, Punjab:

Total population: 11,19,627	Literacy Rate 67.81%
Total number of Males: 5,89,369	Male literates 73.24%
Total number of Females: 5,30,258	Female literates 61.85%
Area: 2414km^2	Crude birth rate 22.27
Crude death rate: 7.80	***Source: Census 2011 data***

Table-3: Selected blocks in the district Tarn Taran, Punjab

Block	CHCs	PHCs	Sub- Centers	Total No. of Sub-centers and SDHs selected
Mianwind	1	1	21	7 Sub-center
Kasel	1	2	11	7 Sub-center
Chabbal	1	5	28	7 Sub-center
SDH	Total Sub-Divisional Hospitals (SDHs)= 2			2 SDHs and thus total = 23

Study Population, duration, sampling frame and technique:

Postnatal or lactating women of rural areas of district Tarn Taran, Punjab were the target population.

The study was conducted from January, 2018 to June2018.

The information about all Sub-Centres, PHCs/CHCs and Sub-Divisional Hospitals was furnished by the Civil Surgeon Office, district Tarn Taran.

4.2 Sample size estimation: *Following formula was adopted for calculating the sample size*

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

n = Sample size; **Z** = Standards normal variate with 95% confidence interval = 1.96; d= degree of accuracy at 5% level; **P**=Status of Institutional deliveries in Punjab (%) 2012 = 78%. (Source: NRHM)

p= 0.78; **Thus** $n = \frac{1.96^2 * 0.78 * 0.22}{(0.05)^2} = 264$

Likewise during the survey process to cover the drop out factor (say 5% = 13) were added to the 'n' value and thus a total of **273** samples were taken for the study.

Vide table-3 simple random sampling technique was adopted during the survey process:

The Inclusion and Exclusion Criteria were fully observed as per the protocol

Data Collection Tools

In order to fulfill the objectives of the study, data were collected by using structured survey questionnaire. The tool was divided into 2 sections i.e. Socio-Demographic Profile and Structured interview schedule to assess the level of awareness.

Scoring key:

Every right answer was awarded score 1. Every wrong response was awarded score of 0. Thus a total of 21 marks were given for knowledge questionnaire. To interpret the level of knowledge, the score distribution worked as:

Maximum Score: 21; Good knowledge: >80% (17-21); Average knowledge: 50%-79% (11-16); Poor knowledge: <50% (0-10).

Validity, Reliability Ethical consideration were given due consideration.

Results:

Table-4: Socio-demographic Profile of Beneficiaries:

Srl. No.	Variables	Frequency	Percentage
1.	**Age**		
	a) 18-21	52	19.0%
	b) 22-25	110	**40.3%**
	c) 26-29	93	**34.1%**
	d) 30 or above	18	6.6%
2.	**Age at marriage**		
	a) 18-21	269	**98.5%**
	b) 22-26	4	1.5%
3.	**No. of children**		
	a) One	110	**40.3%**
	b) Two	98	**35.9%**
	c) Three	49	17.9%
	d) Above three	16	5.9%
4.	**Education**		
	a) Illiterate	93	**34.1%**
	b) Primary	83	30.4%
	c) Secondary	88	32.2%
	d) Higher secondary	9	3.3%
5.	**Occupation of women**		
	a) Housewife	240	**87.9%**
	b) Skilled	12	4.4%
	c) Unskilled/laborer	21	7.7%
6.	**Occupation of husband**		
	a) Govt. job	3	1.3%
	b) Skilled	43	15.8%
	c) Unskilled/labourer	227	**83.1%**
7.	**Family income (per month)**		
	a) <5000	216	**79.1%**
	b) 5001-10000	57	20.9%
8.	**Type of family**		
	a) Nuclear	154	**56.4%**
	b) Joint	119	43.6%
9.	**Religion**		
	a) Hindu	13	4.8%
	b) Sikh	257	**94.1%**
	c) Muslim	3	1.1%
10.	**Caste**		
	a) SC/ST/OBC	269	**98.5%**
	b) General	4	1.5%
11.	**Source of information**		
	a) Friends	131	**48.0%**
	b) ASHA	130	47.6%
	c) ANM/AWW	12	4.4%

As per the above table ¾th of population of the beneficiaries was in the age group of 22-29 years. More than half of the beneficiaries got the information about JSY from health workers and remaining from their friends.

Awareness of Janani Suraksha Yojana among the beneficiaries:

Table-5: Distribution of Beneficiaries According to Level of Awareness Regarding Janani Suraksha Yojana.

S.No.	Awareness Level	Score	Beneficiaries (N=273)	Percentage (%)
1.	Good (above 80%)	17-21	129	47.3%
2.	Average (50-79%)	11-16	144	52.7%
3.	Poor (<50%)	<11	0	0%

More than half of the women (52.7%) were having average knowledge regarding JSY, while 47.3% had good level of awareness.

Table- 6: Distribution of JSY beneficiaries according to ANC services received.

S.No.	Particulars	Frequency	Percentage
1.	ANC registration	273	100%
2.	**When registered**		
	a) Within 3 months	263	96.3%
	b) Within 4-5 months	8	2.9%
	c) After 5 months	2	0.7%
3.	**TT Immunization**		
	a) Two	270	98.9%
4.	**IFA Tablets**		
	a) <100 tablets	122	44.7%
	b) 100 Tablets	138	50.5%
	c) >100 Tablets	5	1.8%
	d) No Tablet	8	2.9%

In the study, as shown in table-6, all (100%) of the beneficiaries were registered during their antenatal period. Majority (96.3%) were registered within 3 months of their pregnancy and only (0.7%) were registered after 5 months of their pregnancy. All (100%) of the beneficiaries were TT immunized. Half (50.5%) of the beneficiaries had taken 100 IFA tablets during pregnancy followed by 44.7% had taken <100 tablets during their antenatal period.

Table- 7: Distribution of beneficiaries w.r.t. specific indicators of JSY scheme.

S.No.	Indicators	Number.	%
1.	**Whether you know about JSY benefits?**	273	100%
2.	**Did you hear about the name of scheme?**	10	3.7%
3.	**When was known about monetary benefit?**		
	a) Before pregnancy	32	11.7%
	b) At the time of pregnancy	**224**	**82.1%**
	c) After Pregnancy	15	5.5%
	d) Don't Know	**02**	**0.7%**
4.	**Received incentive** through Cheque**.**	273	100%
5.	**Place of delivery**		
	a) Institution	**269**	**98.5%**
	b) Home	04	1.5%
6.	**Motivation for institutional delivery**		
	a) Self	131	48.2%
	b) Family member	39	14%
	c) Health personnel	103	37.8%
7.	**Distance of institution from residence**		
	a) up to 5 Km	**200**	**73.2%**
	b) 6-15 Km	57	21%
	c) 16-25 Km	11	4%
	d) >25 Km	01	0.3%
	e) Home	04	1.5%
8.	**Mode of transportation for institutional delivery**		
	a) Private taxi	**119**	**43.5%**
	b) Ambulance	66	24.2%
	c) Personal car	49	17.9%
	d) Bullock cart	01	0.4%
	e) Other (bus, tractor, three wheeler or walking)	34	12.5%
	f) Home delivery	04	1.5%
9.	**No. of PNC visits**		
	a) None	**168**	**61.5%**
	b) At least one	104	38.1%
	c) More than one	01	0.4%

Table-8: Distribution of JSY beneficiaries who received advices regarding Self and Newborn care on the given components.

S.No.	The components for Advice	Frequency	%
1.	Immunization	272	99.6
2.	Personal hygiene	272	99.6
3.	Hypothermia prevention for child	253	92.7
4.	Bathing	258	94.5
5.	Child handling	270	98.9
6.	Family planning	271	99.3

In the study, as shown in Table-8, majority (99.6%) of the beneficiaries received advices regarding personal hygiene & immunization followed by family planning (99.3%), child handling (98.9%), bathing (94.5%), and hypothermia prevention of the child (92.7%).

Table-9: Association of demographic variables with awareness.

S.NO	Variables	Awareness				χ^2	df	P value
		Good		Fair				
		fq	%	fq	%			
1.	Age a) 18-25 b) 26-35	 74 55	 27.1% 20.1%	 88 56	 32.2% 20.6%	0.396	1	0.540
2.	No. of children a) 1-2 b) 3 & above	 88 41	 32.2% 15.1%	 120 24	 43.9% 8.8%	8.571	1	0.004*
3.	Education a) Illiterate b) Literate	 82 47	 30.1% 17.2%	 94 50	 34.4% 18.3%	0.087	1	0.801
4.	Occupation of women a) Housewife b) Working	 109 20	 39.9% 7.3%	 131 13	 48% 4.8%	2.685	1	0.136
5.	Religion a) Sikh b) Others	 122 7	 44.7% 2.6%	 135 9	 49.4% 3.3%	0.084	1	0.803
6.	Source of information a) Friends b) ASHA/ANM	 74 55	 27.1% 20.1%	 58 86	 21.2% 31.6%	7.955	1	0.005*

** Significant at p-value less than or equal to 0.05*

In this study, as shown in table-9, there was significant association between knowledge score with number of children (0.004) and source of information (0.005) at the level of $p \leq 0.05$.

Discussion

The discussion section deals with findings of the present study "Study to assess the level of awareness about Janani Suraksha Yojana among the beneficiaries of district Tarn Taran, Punjab." During the study an attempt has been made to discuss findings of the study in accordance with the objectives of the research.

Socio-Demographic profile:

In this study, majority of subjects (40.3%) were in the age group 22-25 years, followed by 26-29 years (34.1%) and above 30 year (6.6%). Looking at the distribution of study subjects according to type of family, more than half of the beneficiaries (56%) belonged to nuclear family and only (44%) belonged to joint family. Almost all of the beneficiaries were married at the age 18-21 years.

The results of this study were higher as compared to that shown by Mangal et al who reported that majority of the participants (71.43%) were married at the age between 18-25 years (Jaipur 2012) [28] .

In this study, highest proportion (40.3%) of the beneficiaries had one child and very few (5.9%) had more than three children. 34%beneficiaries were illiterate & most of them (87.9%) were housewives. 83.1% beneficiaries' husbands were doing unskilled/labor work and lesser (0.4%) were professionals.

Similarly, Kaur et al reported that, 38.9% of the beneficiaries had one living child while 43.2% had 2 living children & 17.9% had 3 or more living children. Majority of husbands were labourers, 25.4% were doing private service, 4.3% were shopkeepers & only 6.5% were engaged in farming[9].

Sharma et al in Dehradun showed that greater proportions (38.37%) of the women were illiterate & most (93.65%) of the women were housewives [20]. Similar findings were reported by Kaushik et al in which 42% of the females were illiterate and (88.7%) were housewives [21].

In this study, maximum (98%) of the beneficiaries belonged to SC/OBC and only a few (2%) belonged to general category. Malik et al reported that 79.6% subjects belonged to scheduled caste followed by 17.2% backward caste and 3.1% general caste (Haryana, 2013) [12].

In this study, half (50.5%) of the beneficiaries had taken 100 IFA tablets during pregnancy followed by 44.7% who had taken <100 tablets during their antenatal period. Cent percent of the beneficiaries were TT immunized.

Similarly, the percentage of women who consumed hundred IFA tablets & completed TT immunization was found to be very good i.e. 98% & 100% respectively in Kerala (Sumitra, 2006) [24].The possible reason could be high literacy status of women in Kerala.

Likewise all the women received complete TT immunization in Dehradun (Sharma et al, 2012). Lower percentage of women in Rajasthan received complete TT immunization i.e. 82% according to the study by Population Research Centre (Ramakant Sharma, 2006-07) [23].

In this study, all (100%) of the beneficiaries were registered during their antenatal period. Majority (96.3%) were registered within 3 months of their pregnancy. Similarly Uttekar et al reported that the majority of beneficiaries (77%) got registered in the first or second trimester [29]. In this study, almost all (99.6%) of the beneficiaries had received their incentives and all had received their incentive through cheques.

Similarly, Pandey et al showed that 98.7% the beneficiaries had received JSY cash incentive, (Odisha2013). In this study, all of the beneficiaries were aware about monetary benefits provided by the scheme. 12.8% of the respondents were aware about the objective of implementation of the scheme.

Similarly, a study conducted by Singh et al showed that only 15.5% of the women knew that promoting institutional or safe delivery has been the main focus of the scheme & 52.7% knew about the existence of a programme for pregnant women but only 17.24% of them could tell the correct name of the scheme. They obtained the information mainly from the ANMs (58.6%), AWWs (22.4%) & ASHAs (17.2%).

In this study, majority (99.6%) of the beneficiaries received advices regarding personal hygiene & immunization followed by family planning (99.3%), child handling (98.9%), bathing (94.5%), and hypothermia prevention of the child (92.7%).

Similarly, the majority (83–92 %) of JSY beneficiary received advice about diet, delivery care, newborn care and breast-feeding, but advice regarding danger signs and family planning was reported by only 71% and 48 % respectively, (Uttekar, Assam, 2007)[29].

Assessment of the Awareness of Janani Suraksha Yojana among the beneficiaries

In this study, more than half of the beneficiaries (53%) were having good level of awareness about the scheme and only (3.7%) of them knew about the name of the scheme.

Similar findings were in the study by Singh et al who reported that more than half of the women (52.7%) were aware about this governmental scheme & only 17.24% of them were able to answer the correct name of the scheme. The results were higher because of good status of education of the beneficiaries [11].

Similarly, a study conducted by Sahu et al (2012, Raipur) showed that knowledge about JSY was found in only 48.2% and utilized by 37.1% of the respondents [27].

Summary and Conclusion

Janani Suraksha Yojana (JSY) is a safe motherhood intervention under the National Rural Health Mission (NHM). It is being implemented with the objective of reducing maternal and neonatal mortality by promoting institutional delivery among poor pregnant women. Janani Suraksha Yojana was launched on April 2005, is being implemented in all states and UTs with special focus on low performing states.

The objective of the research was to assess the awareness about Janani Suraksha Yojana among the beneficiaries of district Tarn Taran, Punjab. In this study, more than half (53%) of the beneficiaries were having good level of awareness about Janani Suraksha Yojana scheme and (47%) of them were having average level of awareness about the scheme. All of the beneficiaries were registered during their antenatal period. Majority (96.3%) were registered within 3 months of their pregnancy and only (0.7%) were registered after 5 months of their pregnancy. All of the beneficiaries were TT immunized. Half (50.5%) of them had taken 100 IFA tablets during pregnancy followed by 44.7% who had taken <100 tablets during their antenatal period. All of the beneficiaries were aware about monetary benefits provided by the scheme. Only (3.7%) of them knew about the name of the scheme. Majority (82.1%) of them knew about the monetary benefits at the time of their pregnancy and only some (5.5%) knew about the monetary benefits after the delivery. Highest number (99.6%) of the beneficiaries had received their incentives through cheques

Majority (98.5%) of the beneficiaries had delivered their babies in the institution facilities and only (1.5%) had delivered at their home facility. Higher numbers (48.2%) of them were self-motivated for institutional deliveries followed by (37.8%) who were motivated by health personnel. Majority (73.2%) of these had to travel a distance up to 5 km from their residence for the purpose of delivery followed by a few (0.3%) that traveled more than 25 Kms. Most of them (43.5%) had used private taxi as a transport facility for institutional delivery and only some (24.2%) had used ambulance. The association between the education level and the intake of IFA tablets was not statistically significant. (χ^2=0.014, df=1, p=1.000). Association of awareness with the distance of institution from residence was statistically insignificant, χ^2 = 1.908, p=0.238, df =1. Majority (99.6%) of the beneficiaries received advices regarding personal hygiene & immunization followed by family planning (99.3%), child handling (98.9%), bathing (94.5%), and hypothermia prevention of the child (92.7%). Majority (68%) of the beneficiaries were having good level of satisfaction with the services provided under the Janani Suraksha Yojana scheme and only a few (29%) having fair level of satisfaction whereas 2% were poorly satisfied.

The government of India would have to incorporate ways & means to promote the utilization of the scheme by providing awareness to the population regarding the benefits of the scheme. Knowledge test must be taken before hiring of new ASHAs. The ASHA must have leadership skills and also be able to counsel the mothers for taking the benefits of the scheme. Permanent monthly salary should be given because most of the ASHAs are not satisfied with the incentives they get every month. Increase in compensation for travel-related and other miscellaneous expenses must be considered.

Janani Suraksha Yojana (JSY) is becoming popular day by day and especially the rural poor women are significantly benefited by the scheme. Beneficiaries are having awareness about the scheme and its benefits. ASHAs are also aware of their roles and responsibilities in JSY regarding antenatal services and various other services and also accompanying women for delivering in institutions and ensuring child immunization services. There are evidences that institutional deliveries are increasing at PHCs and sub-centres because ASHA is actively working for promoting institutional deliveries at grass root level. Numbers of deliveries are increasing day by day. As a result Maternal Health status among rural women is improving by this scheme.

Reference:

1. Ministry of health and family welfare. Government of India. National health mission.
2. Kumar V, Sharma A.K. & Kannan A.T. Beneficiary level factors influencing Janani Suraksha Yojana utilization in urban slum population of trans-Yamuna area of Delhi. Indian J Med Res 138, September 2013, 340-346
3. General knowledge today. India's daily E-magazine of GK & current affairs.
4. Janani Suraksha Yojana. Guidelines for Implementation. Ministry of Health and Family Welfare. Government of India.
5. Kumar V, Misra SK, Kaushal SK, Gupta SC, Maroof KA. Janani Suraksha Yojana: Its utilization and perception among mothers and health care providers in a rural area of North India. Int J Med Public Health [serial online] 2015 [cited 2015 Jul 10]; 5:165-8.
6. Sinoj P, Mishra S. Status of maternal health and its services in Gujarat: some observations. International Journal of Social Science & Interdisciplinary Research.(2012); 1(9): 90-98

7. Thimmaiah N, Mamatha K.G. Impact of Janani SurakshaYojana on IMR in India: a study since 2005. International Journal of Advanced Research in Management and Social Sciences. ISSN: 2278-6236 (2014); 3(5): 66-78
8. Vinaya Kumary T. and Shantha Kumari K. Knowledge and Attitude of Mothers towards Janani SurakshaYojana in a Selected Rural area of Mangalore, d.k., Karnataka. International Journal of Recent Scientific Research.(2015);6(4):3406-3411
9. Kaur H, Kaur A, Devgun P. A study of utilization of Janani SurakshaYojana (JSY) scheme, among beneficiaries in a rural area of Punjab. National Journal of Research in Community Medicine. (2015); 4(1):114-123
10. Singh P, Khobragade M, Kumar A. A Study on Awareness about Janani SurakshaYojana (JSY) among rural married females. MRIMS journal of health sciences.2014; 2 (1): 40 - 41
11. Singh VS, Chavan SS, Giri PA, Suryavanshi SR. Study on awareness and knowledge regarding Janani Suraksha Yojana (JSY) among ANC registered women in a primary health centre of tribal area of Thane District of Maharashtra. Int J Res Med Sci. (2014), [cited May 03, 2015]; 2(1): 122-126.
12. Malik JS, Kalhan M, Punia A, Sachdeva S, Behera BK. Utilization of Health Services under Janani SurakshaYojna in Rural Haryana. Int J Med & PH. (2013); 3(3): 176-179.
13. Padhy GK, Das S, Sahu T, Padhy RN, Padhy JK. An assessment on functioning of Janani Suraksha Yojana in Anugul District of Odisha. Indian Journal of Public Health Research and Development Indian J. Public Health Res. Dev. [Internet]. 2013;4(4):11 – 15
14. Kumar V, Kaushal SK, Misra SK, Gupta SC. Assessment of the impact of JSY on maternal health services in rural areas of Agra district. Indian journal of community medicine.(2012), 24 (2): 118-123
15. Gupta SK, Pal DK, Tiwari R, Garg R, Shrivastava AK, Sarawagi R, Patil R. Impact of Janani Suraksha Yojana on Institutional Delivery Rate and Maternal Morbidity and Mortality: An Observational Study in India. Journal of Health, Population and Nutrition. (2012) Dec; 30(4): 464–471.
16. Parul S, Kajal S, Shaili V, Surekha K, Jayanti S. Is Janani SurakshaYojana's (JSY) awareness a reflection of healthy pregnancy outcome? Differences in rural areas and urban slums. National Journal of Community Medicine.(2012); 3(2): 187-192
17. Sachdeva S, Malik JS. Assessment of maternal and child health (MCH) practices with a focus on Janani SurakshYojana (JSY). Global journal of medicine and public health.(2012); 1(6): 1-9
18. Sidney K, Diwan V, Ziad El-Khatib and Costa A. India's JSY cash transfer program for maternal health: Who participates and who doesn't- a report from Ujjain district. Reprod Health. 2012; 9: 2.
19. Kumara N, Farooquee NA. Study on the Janani SurakshaYojana (JSY) in Tumkur district, Karnataka. Indian J Home Science Extension and International Communication Management. July, 2014; 1 (2): 148-151.
20. Sharma P, Semwal J, Kishore S. A comparative study of utilization of Janani Suraksha Yojana (maternity benefit scheme) in rural areas and urban slums. Indian Journal of community health. (2011); 22(2); 11-14
21. Kaushik A, Mishra CP, Kesharwani P, Richa, Hussain MA. Awareness about jsy among reproductive age women in a rural area of Varanasi. Indian J. Prev. Soc. Med. (2010), 41(3):158-161
22. Garg R, Shyam Sunder D, Singh T and Singh PV. Study on delivery practices among women in rural Punjab. Health and Population: Perspectives and Issues. (2010); 33(1): 23-33
23. RamakantSharma. Population research centre Mohan Lal Sukhadia University Udaipur Janani SurakshaYojana: a study of the implementation status in selected districts of Rajasthan. Udaipur 2007-08.
24. Sumitra S, Awasthy S, Sandeep S, Shobha P, Johnson AJ, Valsala LS et al. Maternal and child health services utilization in married women of age 15-45 years. J Commun Dis 2006; 38: 102-5.
25. Office of the Registrar General and Census Commissioner, Government of India. Census of India 2001. Available from http:// www. Censusindia.gov.in/.
26. District Census 2011". Census2011.co.in. 2011. Retrieved 2011-09-30.
27. Sahu D, Gandhi NK, Soni GP. Knowledge & utilization of Janani SurakshaYojana: an epidemiological study. Indian Journal of Maternal and Child Health. 2012 Jan-Mar; 14(1):[7]
28. Mangal S and Ladha N. Evaluation of safe motherhood practices in relation to Janani SurakshaYojana. IJRRMS. (2012); 2(3):5-8
29. Uttekar BP, Kumar N, Uttekar V, Sharma J and Shahane S. Assessment of Janani Suraksha Yojana in Assam.(2007)