ORIGINAL ARTICLE

EFFECTS OF JANANI SURAKSHA YOJANA (A MATERNITY BENEFIT SCHEME) UP-ON THE UTILIZATION OF ANTE-NATAL CARE SERVICES IN RURAL & URBAN-SLUM COMMUNITIES OF DEHRADUN

Parul Sharma¹, Surekha Kishore², Sanjeev K Gupta³, Jayanti Semwal⁴

¹Assistant Professor, Department of Community Medicine, Subharti Medical College and Subharti University, Subhartipuram Meerut, ²Professor & Head, Department of Community Medicine, Shri Guru Ramrai Institute of Health & Medical sciences, Dehradun, Uttarakhand, ³Mahatma Gandhi Medical College & Research Institute, Pondicherry, ⁴Professor, Department of Community Medicine, Himalayan Institute of Medical Sciences, Dehradun, Uttarakhand

Correspondence:

Dr. Sanjeev K Gupta Type-2, 1D, Doctor resident quarters, Mahatma Gandhi Medical College & Research Institute, Cuddalore Main Road Pillaiyarkuppam Pondicherry, India. Email: drsanjeev15@gmail.com, Phone: +91-7639656802, +91-7639656801

ABSTRACT

Background: Janani Suraksha Yojana (JSY) –a new maternity benefit scheme - was launched by Govt. of India in April 2005 with the objective of reducing maternal and neonatal mortality by promoting institutional deliveries by providing cash incentive to beneficiaries as well as promoter. Ante –natal services are one of the most important component of JSY. Study was designed to assess the ante-natal characteristic of JSY beneficiaries.

Materials and Methods: A cross-sectional study was conducted under rural health training centre and urban health training centre of the field practice area of department of Community Medicine, HIMS, Dehradun.

Results: A total of 2221 married women (15-49 years) were interviewed out of which 1290(58.08%) women were from urban slums and 931(41.92%) women belonged to rural areas. Out of the total number of married women who delivered at govt. hospital i.e. 227 (75.17%), majority (78.42%) of the women were registered with the some health personals. Out of these, 74.15% women were registered with ASHA .Only 29.21% women went for three or more ANC visits. Only 48.31% women consumed hundred IFA tablets and the proportion was high (79.41%) in rural women. All the women received complete TT immunization.

Conclusion: It was found that registration of the women with some health personnel was influenced by women's religion and socio-economic status the level of education and socio-economic status was found to have a positive effect on the number of ANC visits. The consumption of IFA tablets was also found to be influenced by the educational status of the women.

Keywords: Janani Suraksha yojana, utilization, ASHA, married women

INTRODUCTION

Reduction of mortality of women is an area of concern for the Governments across the globe. Despite various initiatives at National and

global level, maternal mortality continues to be high in developing countries ¹. A WHO,UNICEF and UNFPA had reported an estimate of 358 000 Maternal deaths worldwide in 2008 out of which

99% were from developing countries² .WHO,UNICEF and UNFPA had reported that India and Nigeria account for a third of maternal deaths worldwide(3). A quarter of the world's unattended deliveries occur in India. "Lifetime risk of maternal death" accounts for number of pregnancies at risk 4. In sub-Saharan Africa the lifetime risk of maternal death is 1 in 16, while it is only 1 in 2,800 in developed countries 5. Analyzing the statistical data for the year 2000, WHO, UNICEF and UNFPA produced a report in 2003 showed that the world average for MMR was 400 /100,000 live births while the average for developed regions was 20 /100,000 live births and for developing regions 440 /100,000 live births 4. India alone accounts for 22% of pregnancy-related deaths worldwide 3. MMR had almost been static at that level for almost a decade i.e. 1990-2000 showing almost no improvement⁶. However, unfortunately at this rate, India would not be able to achieve the goal of reducing the MMR by three fourth of 1990 level by 2015 as envisaged in MDG 5 7. Presently MMR has come down from 540 to 254/100,000 live births 8.

Promotion of maternal and child health has been one of the most important objectives of the Family Welfare Programme in India. The Government of India took steps to strengthen maternal and child health services as early as the First and Second Five-Year Plans. As part of the Minimum Needs Programme initiated during the Fifth Five-Year Plan, maternal health, child health, and nutrition services were integrated with family planning services. The primary aim at that time was to provide at least a minimum level of public health services to pregnant women, lactating mothers, and preschool children. In 1992-93, the Child Survival and Safe Motherhood Programme continued the process of integration by bringing together several key survival interventions with motherhood and family planning. In 1996, safe motherhood and child health services were incorporated into the Reproductive and Child Health Programme⁹.

One of the major concerns of the state Reproductive and Child Health (RCH) Programme, phase II, is the extremely low percentage of institutional deliveries. Among women living Below Poverty Line (BPL) and in remote villages the number of institutional deliveries is almost negligible ¹⁰. Saving mothers' lives is not only a moral imperative, but a sound investment that benefits their

children, their families, their communities and their countries, "Indeed, there is a clear connection between maternal health and other Millennium Development Goals, such as eradicating extreme poverty, reducing child mortality and combating HIV and AIDS and other diseases" 11.

Maternal health is a key barometer of functional health system. Maternal health must be addressed as a part of continuum of care that connects essential maternal, newborn and child health services. There are however, constraints like lack of adequate government health facilities equipped and functional to provide comprehensive obstetric services for mother and newborn. Maternal mortality in resource-poor nations has been attributed to the "3 delays": delay in deciding to seek care, delay in reaching care in time, and delay in receiving adequate treatment. To combat this in 2005, Government of India launched a new Maternity Benefit Scheme under the National Rural Health Mission (NRHM) viz. Janani Suraksha Yojana (JSY) - (In Hindi Language; Janani = Mother, Suraksha = Protection, Yojana = Scheme). The scheme was being implemented with the objective of reducing maternal and neonatal mortality and promoting institutional delivery particularly among the poor pregnant women. JSY is a 100% centrally sponsored scheme and it integrates cash assistance with ante natal care, delivery and post-delivery care.

The JSY has identified the Accredited Social Health Activist (ASHA), a village level health functionary, as an effective link between the Government and the poor pregnant women in the ten Low Performing States (LPS). One ASHA supposed to cover a village with approximately 1000 population. The word ASHA itself represents 'Hope' (In Hindi language; the word ASHA means "Hope"). Her main role is to facilitate pregnant women to avail services of maternal care and arrange referral transport. She also assist MPHW(F) in early registration, identification of complicated pregnancies, providing at least three antenatal care, facilitating post delivery visits; organizing appropriate referral and arrange for transport for pregnant mother in case needed.

MATERIAL AND METHODS

A cross sectional study was conducted in the areas covered under Rural health training centre

(RHTC) & Urban health training centre (UHTC) of department of Community Medicine, HIMS, Swami Ram Nagar, Dehradun. The total population covered under RHTC was 12,708 & UHTC was 13,926. The study was carried out over a period of 12 months (15May-08 to 14th May-09) Simple random sampling (SRS) method was used to draw an adequate sample on the basis of PPS (Probability Proportion to Size). Thus, a total of 227 married women in reproductive age (15-49 years), who delivered in government hospital were considered for the study out of which 88 women belonged to rural areas and 139 women were from urban slums.

RESULTS

In the current study, it was observed that 86.09% of the women were Hindu followed by Muslims(13.33%) but the proportion of Muslims was found to be high (28.89%) in rural areas as compared to urban slums (2.09%).Both in the rural and urban slums majority (85.14%)of the women belonged to 19-35 years age group. Greater proportions (38.37%) of the women were illiterate. Most (93.65%) of the women

were housewives, both in rural areas and urban slums. More percentage of the women belonged to lower middle class (34.40 %). Majority (71.82%) of the women belonged to nuclear families out of which majority (75.04%) were from urban slums.

It was found that, 21.58% women were not registered at the health facility. They had not received any ANC services (IFA tablets, Antenatal visits, T.T immunization) but their deliveries were institutional. Out of the total number of married women who delivered at govt. hospital i.e. 227 (75.17%), majority (78.42%) of the women were registered with some health personals. Out of these two-third (74.15%) of the women were registered with ASHA and maximum number (83.64%) of these women belonged to urban slums. It was found that only 29.21% women went for three or more ANC visits and the proportion was higher (33.64%) in urban slums. Only 48.31% women consumed hundred IFA tablets and the proportion was high (79.41%) in women belonging to rural areas. All the women received complete TT immunization [Table 1].

Table 1: Distribution of JSY beneficiaries according to ANC services received

Particulars	No. of married	women with <2yr child	Total (%)	Chi-square	P value
	Rural (n=88)	Urban slums (n=139)	N=227		
Registered(<1	12 weeks)				
No	20(22.73)	29(20.86)	49(21.58)	0.1106	0.7395
Yes	68(77.27)	110(79.14)	178(78.42)		
No. of ANC v					
< Three	53(77.94)	73(66.36)	126(70.79)	2.7238	0.0989
≥Three	15(22.06)	37(33.64)	52(29.21)		
No. of IFA tabs consumed					
100 tabs	54(79.41)	32(29.09)	86(48.31)	42.6119	0.0000
<100 tabs	14(20.59)	78(70.91)	92(51.69)		
Received TT immunization					
Yes	68(100.00)	110(100.00)	178(100.0)	-	-
Total	88(38.76)	139(61.24)	227(100)		

It was found that most (92.86%) of the women who were graduates and above registered themselves with the health personnel. This was followed by 84.37% women who were educated up to primary,77.78% illiterates and 77.42% women who were high school educated who registered themselves with the health personnel. The association between registration with health personnel and women's education was not found to be significant statistically.

Greater proportion (82.00%) of Hindu women registered themselves with health personnel compared to Muslims where 52% women registered with health personnel and the statistical association between women's religion and registration with health personnel was found to be significant (x²=12.78, df=2, p<0.01) [Table 2].

According to the study it was found that among the women belonging to upper lower class majority (91.49%) registered themselves with health personnel whereas 85.71% women from lower middle class and 80.95% women from lower class were registered with the health personnel. The association between socio-

economic status and registration was found to be highly significant statistically ($x^2=10.44$, df=4, p<0.05) [Table 2].

Table: 2: Distribution of married women (15-49 years) according to registration with health personnel and their educational status, soci-economic status

Variables	Registration with health personnel		Total	Chi-square	p-value
	Yes (126)	No (52)	(178)	(df)	
Religion					_
Hindu	164(82.00)	36(18.00)	202(100)	12.78 (2)	0.0017
Muslim	13(52.00)	12(48.00)	25(100)		
Sikh	01(50.00)	01(50.00)	02(100)		
Socio-economic status					
Upper class	06(66.67)	03(33.33)	09(100)	10.44 (4)	0.0337
Upper middle class	55(68.75)	25(31.25)	80(1000)		
Lower middle class	68(80.95)	16(19.05)	84(100)		
Upper lower class	43(91.49)	04(8.51)	47(100)		
Lower class	06(85.71)	01(14.29)	7(100)		

Majority (80.95%) of the women who were illiterates went for ANC visits followed by women educated up to primary (74.07%) and junior high school (73.33%) respectively. It was further observed that the percentage of literate women who went for ANC visits was low (65.21%) as compared to illiterates (80.95%). This difference was found to be statistically significant (x^2 =4.75, df=6, p<0.05 [Table 3].

The study reflected that among the women belonging to upper lower class, greater percentage (93.02%) of the women went for three or more ANC visits whereas 67.65% women from lower middle class and 63.64% women from upper middle class went for three or more ANC visits. A highly significant statistical association was found between socio-economic status and number of ANC visits (x²=17.29, df=4, p<0.01) [Table 3].

Table 3: Distribution of married women (15-49 years) according to number of ANC visits and their educational status and socio-economic status

	ANC visits		Total (178)	Chi-square	p-value
_	Yes (126)	No (52)	_	(df)	
Education of respondent					
Illiterate	51(80.95)	12(19.05)	63(100)	12.12 (6)	0.0594
Just literate	06(54.55)	05(45.45)	11(100)		
Primary	20(74.07)	07(25.93)	27(100)		
Junior high school	22(73.33)	08(26.67)	30(100)		
High school	16(66.67)	08(33.33)	24(100)		
Intermediate	06(60.0)	04(40.0)	10(100)		
Graduate and above	05(38.46)	08(61.54)	13(100)		
Socio-economic status					
Upper class	02(33.33)	04(66.67)	06(100)	17.29 (4)	0.0017
Upper middle class	35(63.64)	20(36.36)	55(100)		
Lower middle class	46(67.65)	22(32.35)	68(100)		
Upper lower class	40(93.02)	03(6.98)	43(100)		
Lower class	03(50.0)	03(50.0)	06(100)		

It was found that the percentage of women who went for ANC visits were more in joint families (77.27%) as compared to nuclear families (67.57%) though this difference was not found to be statistically significant.

According to the above table majority(76.19 %) of the illiterate women consumed hundred IFA tablets as compared to literate women (38.26%) and this difference was found to be highly significant statistically (x²=30.21, df=6, p<0.01) [Table 4].

Table 4: Distribution of married women (15-49 years) according to number of IFA tablets consumed and educational status

Education	IFA tablets consumed		Total (n=178)	Chi-square	p-value
	100 (n=92)	<100(n=86)		(df)	
Illiterate	48(76.19)	15(23.81)	63(100)	30.21 (6)	0.0000
Just literate	05(45.45)	06(54.55)	11(100)		
Primary	15 (55.55)	12(44.45)	27(100)		
Junior high school	10 (33.33)	20(66.67)	30(100)		
High school	09 (37.50)	15(62.50)	24(100)		
Intermediate	03 (30.0)	07(70.0)	10(100)		
Graduate & above	02 (15.38)	11(84.62)	13(100)		

DISCUSSION

We observed that the fore fifth of the women were registered within 3 months of pregnancy with some health personnel. The percentage of women who were registered in the first trimester was found to be very low i.e. 15.20% according to a study by Ranjan Das et al in Aligarh (2000) regarding the utilization and coverage of services in women of reproductive age group¹³.The percentage of married women who were registered for ANC by health personnel was found to be high i.e. 79.9% but only 21.4% pregnant women were registered in the first trimester in a study regarding the utilization of RCH services in Andhra Pradesh (K.Mallikharjuno Rao, 2000). A greater percentage (85%) of women were registered early ,according to a study in Rajasthan (Ramakant Sharma, 2006-07)14.

The percentage (91.4%) of JSY beneficiaries who were registered with the health personnel was found to be very high in Orissa but only 19.3% beneficiaries in Orissa were reported to register themselves in the first trimester, according to UNFPA report (Bella Patel Uttekar et al,2007)¹⁵. Majority (83.4%) of JSY beneficiaries were registered with the health functionaries but only 33.2% were registered in the first trimester according to UNFPA report in Rajasthan (Bella Patel Uttekar et al, 2007. Shobha Malini et al in Orissa (2008) reported that a lower proportion (70%) of beneficiaries registered themselves in the first trimester ¹⁶. According to NFHS-3 44% women went for early registration ¹⁷.

In the present study, only 29.21% women went for three or more ANC visits. According to NFHS-3, a comparatively higher proportion (45%) of women had three or more ANC visits in our state¹⁸. A lower percentage (32.1%) of

women went for four or more ANC visits according to a study in Andhra Pradesh by K.Mallikharjuno Rao (2000), regarding utilization of RCH services ¹⁴.Almost all the women (99%) went for three or more ANC checkups according to a study by S.Sumitra in Kerala (2006), regarding MCH services utilization. The reason could be high literacy status of women in Kerala ¹⁹.

The percentage of women who went for three or more than three ANC checkups was also reported to be high in West Bengal, Assam and Orissa i.e. 97.8%,89.6% and 83% i.e. 83%,97.8% and 89.6% respectively and comparatively low in U.P, M.P and Rajasthan i.e72.8%,65.5% and 65.4% respectively (MOHFW,2007)²⁰.

According to NFHS-3, almost half the women (52%) received three or more antenatal checkups across India. As compared to our country E.Materia et al (Ethiopia,1993) reported that a greater proportion (61%) of the women received antenatal care reported having had 3 or more visits according to a study regarding MCH service utilization²¹. A lower percentage of women i.e. 41.5% availed one to three antenatal checkups and 43% of women went for four or more ANC visits, as reported by Kasabiiti Jennifer Asiimwe (Uganda,1998),regarding the utilization of antenatal services amongst adolescents²².

In the present study, only 48.31% women consumed hundred IFA tablets. A smaller proportion of women in our nation ¹⁷ and state consumed hundred IFA tablets as per NFHS-III data i.e. 26% and 23% respectively. The percentage of women from tribal women receiving hundred IFA tablets was reported to be slightly higher (34.60%) according to a study by K.Mallikharjuno (A.P., 2000) ¹⁴.

The percentage of women who consumed hundred IFA tablets was found to be very high i.e. 98% in Kerala (S.Sumitra, 2006) ¹⁹.The possible reason could be high literacy status of women in Kerala. In our study, all the women received complete TT immunization. However, the percentage was found to be low across India and our state ³⁰ i.e.69% and 76% respectively (NFHS-III) Majority of women in the tribal areas of Andhra Pradesh received complete TT immunization i.e. 80.2% according to a study by K Mallikharjuno Rao (2000) regarding RCH services utilization ¹⁴.

Almost all the women from Kerala received complete TT immunization i.e. 99% according to a study by S.Sumitra (Kerala, 2006) ¹⁹which may be due to higher proportion of literate women in Kerala. Lower percentage of women in Rajasthan received complete TT immunization i.e. 82% according to a study by Population Research Centre (Ramakant Sharma, 2006-07) ¹⁵.The percentage of women receiving complete TT immunization was found to be high (89%) in Madhya Pradesh (D.K.Pal et al, 2008) ²³.

According to multivariate analysis study by Md.Mosina Rahman et al (Bangladesh, 2004), regarding rural urban differentials of ANC services utilization, it was found that in urban areas, mothers with primary, secondary and higher education were 1.816,2.943 and 51.448 times respectively more likely to attend ANC from health personnel than illiterate mothers. Similarly the rural women with primary, secondary and higher education were 1.35, 1.775 and 6.111 times more likely to receive ANC compared to their illiterate counterparts²⁴.Similarly, in another study by Effendi R et al (Indonesia, 2008) regarding factors related to regular utilization of ANC among postpartum mothers, low educated mothers were 2.63 times more likely to have irregular ANC visits than high education group²⁵.

Similar to the findings in the present study, according to a study in Dhaka (Mhd Aminul et al,2009),it was found that women without schooling availed ANC services 1.41 times while these were used 2.14 and 3.25 times respectively by women with primary and more than primary education²⁶.

In the present study majority (82.72 %) of the women belonging to joint family registered with the health personnel in the first trimester.

Comparable to the above findings more number (75.2%) of the women belonging to joint family registered early in pregnancy as reported by A.Singh et al (Chandigarh, 2004) regarding changing profile of pregnant women and quality of antennal care in rural north India ²⁷.In the present study, majority (82%) of the Hindu women registered with the health personnel in the first trimester. According to NFHS-3 (Uttarakhand), a lower percentage (43.2%) of Hindu women were registered in the first trimester ¹⁸. In a study regarding MCH services utilization in urban slums of Delhi (Paras Agarwal et al, 2004), majority (61.8%) of the women receiving antenatal care were Hindus ²⁸.

In the present study it was observed that with the decreasing socio-economic class, registration with the health personnel in the first trimester was found to increase from upper class (66.67%) to upper lower class (91.49%).It was further observed that the percentage was only 85.71% in lower class. On the contrary, according to NFHS-3 registration of women in the first trimester in Uttarakhand was found to increase with increase in health index i.e. from 23.1% in lowest quintile to 71.6% in highest quintile ¹⁸.Similarly, urban middle class and rich mothers were reported to be,1.552 and 2.139 times respectively more likely to receive ANC from health personnel and rural middle class and rich mothers were 1.566 and 2.233 times more likely to attend ANC than their poor counterparts according to a study of multivariate analysis by Md Mosiur Rahman regarding ANC service utilization (Bangladesh,2004)²⁴. In the present study majority of the illiterate (80.95%) women went for ANC visits followed by women educated up to primary (74.07%) and junior high school (73.33%) respectively. Contrary to the above findings according to NFHS-3 the percentage of illiterate women in our state who went for three or more ANC visits was low i.e. 22.3% whereas a higher proportion (80.6%) of the women with education completed for 10 or more years availed three or more ANC visits. According to a UNFPA report in Orissa (Bella Patel Uttekar et al,2007) more number of the women with education between 1-8th class went for three ANC check ups i.e. 47.8% followed by illiterate women i.e. 37.7%15.

Similar to the findings in our study ,greater proportion of illiterate women went for three or more ANC visits but the percentage was low i.e. 26.6% followed by women with 1-8th class education i.e. 18.9% according to UNFPA report

by Bella Patel Uttekar et al (Rajasthan,2007)²⁹. According to another report it was found that majority (85.3%) women with 10 years or more years of education receive three or more antenatal checkups while only 29.8% illiterate women received three or more antenatal check ups (Maternal Health and Disability Report, Centre for Legislative Research,2009)³⁰.

According to the present study, the among the women belonging to upper lower class ,greater percentage (93.02%) of the women went for three or more ANC visits whereas 67.65% women from lower middle class and 63.64% women from upper middle class went for three or more ANC visits. In the present study, majority of the illiterate women consumed hundred IFA tablets i.e. 76.19%.Contrary to the above findings a very low percentage of illiterate women in our state took the complete course of IFA tablets i.e. 9.7% (NFHS-3) ¹⁸.

CONCLUSION & RECOMMENDATIONS

The **first recommendation** is regarding the availability of health infrastructure and health staff at ground level. As on September, 2005, there were 3346 Community Health Centers (CHCs), 23236 Primary Health Centers (PHCs) and 1, 46,026 Sub Centers functioning in India. According to the figures based on 2001 Population Census, the shortfall in the rural health infrastructure comes out to be of 19636 Sub Centers, 4337 PHCs and 3206 CHCs.

As on September 2005, in India, at the Sub Centre level, about 4.77 % of the Sub Centers were without an MPHW (F), about 39.2 % Sub Centers were without a MPHW (M) and about 2.78 % Sub Centers were without both MPHW (F) as well as MPHW (M).¹¹ Also at the national level, there is shortage in manpower estimated as 27,501 MPHW (F)s, 64,860 MPHW (Male), 4224 Lady Health Visitors (LHVs), 5126 HA (M), 2475 Medical officers in PHCs, 1429 surgeons, 1446 Gynecologists, 1525 physicians, 1774 pediatricians and an overall shortage of 6635 specialists.¹⁹

So with the above shortfall in the infrastructure and health staff, the health care delivery system will not be able to provide even the basic health services to the rural masses. The question is of faith in the system; once we restore the faith of the people in system by the easy availability and accessibility of common medicines and basic

ANC services, more and more people will come out for utilizing these services. Thus, to reduce the risk among pregnant women, there is an urgent need to recruit the MPHW (F) for the vacant sub-centers. According to many beneficiary mothers, ASHA was not present in some of the villages, so at least one ASHA worker should be selected for each village and the local elected bodies in villages i.e. Panchayati Raj Institutions (PRIs) should be held responsible for the delay in the postings of ASHAs. The ANC coverage could be improved by MPHW (F) / ASHA with special emphasis on the basic investigations during ANC checkup along with constant motivation regarding TT immunization and consumption of IFA tablets.

Second recommendation is regarding the quality of health providers. In an observational study of MPHW (F) conducted across the country, none of the MPHW (F) performed excellently in any of the major services (ANC, delivery, prenatal care (PNC), immunization and contraception. While about 80% scored a satisfactory grade for delivery, immunization and family planning, 44% scored poorly on ANC. This finding is validated by other studies where it has been pointed out that the MPHW's (F) focus is primarily on family planning and immunization, leading to attrition of skills in other areas.²⁰

Regular training and motivation of MPHW (F) is the component which is ignored most of the time. There is an urgent need to increase the capacity building of the MPHW (F). The Health workers seldom consider anemia as an important risk factor and that may be the reason why anemia is still prevalent among women particularly pregnant one. In the present study also, anemia is observed in majority of respondents. Quality training of MPHW (F) and ASHAs along with monitoring of the workers in the field by government as well as independent observers is the need of the hour. Monitoring of monitors should be included in the health system.

Third recommendation is related to one crucial lacuna in the draft of JSY. It is important to question whether it is only the amount of investment in health that is the main reason for the present status of the health system or is it also to do with the framework, design and approach within which the policies have been planned.²¹ All the cash incentives have been linked to the institution delivery only and the

ante - natal and post- natal services have not been directly linked with the cash. So, the health workers and even families are not concerned with the health of the mother during and after pregnancy. They are interested in the cash which they can get only from institutional delivery. What JSY has done is that it has changed the place of delivery from home to health institution. Indeed it has saved hundreds of maternal lives but JSY has played a negligible role in reducing the risk factors like anemia during pregnancy. Hence, it is recommended that ISY should also be linked to ante-natal and post-natal services particularly for availing the services of IFA tablets and immunization-both for her and the baby born. Efforts should be made to ensure the round the clock availability and utilization of Iron and folic acid tablets / vaccines and this should be documented also. Peripheral health workers like MPHW (F) and ASHA (Accredited Social Health Activists) should be regularly trained, motivated and monitored for provision of ANC services.

Cash given to mother is seldom used for her benefit rather it is used for family needs. In Integrated Child Development Scheme (ICDS), there is a provision of nutritious food for pregnant women but it must be ensured at ground level that this food is really going into the kitty of real beneficiary. There must be a link between the registration of a pregnant women and provision of nutritious food to her with proper documentation.

Fourth recommendation is regarding the involvement of Panchayati Raj Institutions (PRIs). These institutions must be held responsible for ensuring the awareness and utilization of maternal and child health (MCH) services. The awareness of beneficiaries about JSY is only limited to cash incentive for institutional deliveries. But they are not aware of other aspects of the scheme like complete antenatal checkup, provision of iron and folic acid tablets, Tetanus Toxoid immunization, post natal care and exclusive breast feeding. It is required to create better awareness regarding all aspects of JSY so that people should avail all the benefits of the scheme and it will certainly help in reducing maternal as well as infant morbidity and mortality. PRIs can be instrumental in this change. The incentives to the PRIs can be linked to the MCH indicators. The carrot and stick policy is must for PRIs for ensuring the preparedness of the women to go for pregnancy. Unless and until the community participation is

not there, which also acts as pressure group, no scheme can fulfill its aims and objectives completely.

REFRENCES

- Nketiah E, Sagoe I. Expectant Mothers and the Demand for institutional Delivery: Do Household income and Access to Health information Matter?-Some insight from Ghanna. European Journal of Social Sciences 2009; 8: 469-82.
- Trends in Maternal Mortality 1990-2008. WHO, UNICEF, UNFPA and the World Bank. Available at: http://www.childinfo.org/maternal_mortality.html [Accessed on Feb 26th, 2012]
- UNICEF highlights maternal mortality in India. Karnataka Learning Partnership, January. Available at: http://blog.klp.org.in/209/DI/unicef-highlightsmaternal-mortality-in.html. [Accessed on Feb 26th, 2012]
- Maternal death. Available at: http://en.wikipedia.org /wiki/maternal death. [Accessed on Feb 26th, 2012]
- Nawal M Nour. An Introduction to Maternal Mortality , Obstet Gynecol. 2008 Spring; 1(2): 77-81.
- Lahariya Chandrakant, Cash Incentives For Institutional Delivery Linking with Antenatal and Post Natal Care May Ensure 'Continuum of Care 'in India. Indian Journal of Community Medicine /Jan. 2009; 34 (1):1-4.
- United Nations. Millennium development Goals. Available at: http://www.un.org/millenniumgoals. [Accessed on July 12, 2007]
- Sample Registration System Office of Registrar General, India. Special Bulletin on Maternal Mortality in India 2007-09. Available from URL: http://www.censusindia.gov.in/vital_statistics/SRS_B ulletins/Final-MMR%20Bulletin-2007-09_070711.pdf [Accessed on 2012 Jan 5]
- Sugathan KS, Mishra V, and Retherford RD. Promoting Institutional Deliveries in Rural India: The Role of Antenatal-Care Services. National Family Health Survey Subject Reports, Number 20 • December 2001.
- Voucher scheme for institutional delivery and immunisation, Jharkhand by Dr. Anuradha Davey, Available at: http://hsprodindia.nic.in/retopt2.asp?SD=19&SI=18& ROT=1. [Accessed on Feb 26th, 2011]
- Risk of maternal mortality in developing world, UNICEF report, United States fund, Geneva, Available at: http://www.unicefusa.org/news/re/eases/unicef-report-highlights.html. [Accessed on Feb 17th, 2008]
- 12. Sheila, Govt. trying to universalize institutional deliveries. The Hindu; 2009 March 29:1-3.
- 13. National family health survey –III Ministry of Health and Family Welfare (MOHFW), International institute for population sciences, 2005-06 India.
- 14. National family health survey –III, Ministry of Health and Family Welfare (MOHFW), International institute for population sciences, 1992-93, Uttarakhand.
- 15. Sharma SP. Best practices in healthcare Haryana. Govt. of Haryana. Available at: http://darpg.nic.in/arpg-

- website/ conference/mussoorie/bp-hy.ppt [Accessed on Sep 14th, 2006]
- Ramakant sharma. Population research centre Mohanlal sukhadia university Udaipur Janani Suraksha Yojana: a study of the implementation status in selected districts of Rajasthan. Udaipur 2007-08.
- Bella Patel Uttekar, Vasant Uttekar, B. B. Chakrawar, Jashoda Sharma, Shweta Shahane. Centre for operations Research and Training. Assessment of ASHA and Janani Suraksha Yojana in Orissa Vadodara, April, 2007.
- 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.
- K. Mallikharjuna Rao, Division of Community Studies, National Institute of Nutrition, Jamai-Osmania (P.O), Hyderabad. Utilization of reproductive and child health services in tribal areas of Andhra Pradesh Tribes and Tribals, Special Volume No. 2: 35-41 (2008)
- Malini S, Tripathi RM, Khattar P, Nair KS, Tekhre YL, Dhar N etal. A Rapid Appraisal on functioning of Janani Suraksha Yojna in south Orissa; Health and Population: Perspectives and issues.2008;31(2):126-131.
- 21. Das R, Amir A, nath P. Utilization and coverage of services by women of jawan block in Aligarh. Indian J Commun Med 2006; 26: 1-8.
- Qayed MH. KAP study on reproductive health among adolescents and youth in Assiut Governorate, Egypt. The National Population Council, Cairo, Egypt June 1998.

- 23. Singh A, Arora AK. The changing profile of pregnant women and quality of antenatal care in rural North India. Indian J Commun Medicine 2007; 22: 135-8.
- Evaluation studies of Janani Suraksha Yojana in six states conducted by Ministry of Health & Family Welfare Government of India, 2007.
- 25. Haque A, sayem AM, Nili NF. Ante natal care service uptake in slum areas of Dhaka city. Middle East J of Family Medicine 2009; 7: 7-12.
- Materia E, Mehari W, Mele A, Rosmini F, Stazi MA, Damen HM et al. A community survey on maternal and child health services utilization in rural Ethiopia. European J Epidemiology 2004; 9: 511-6.
- 27. Rahman M, Islam R, islam AZ. Rural urban differentials of utilization of ante natal health care services in Bangladesh. Health Policy and Development Journal 2008; 6: 117-25.
- 28. Agarwal P, Singh MM, Garg S. maternal health care utilization among women in an urban slum in Delhi. Indian J Commun Medicine 2007; 32: 203-5.
- Effendi R, Isaranurug S, Chompikul J. Factors related to regular utilization of antenatal care service among postpartum mothers in pasar rebo general hospital, Jakarta, Indonesia. J Public Health and Development 2008; 6:113-22.
- 30. Maternal disability in India. Welcome kit for parliamentarians 2009. SAHAYOG Center for Legislative Research and advocacy. Available at: http://www.sahayogindia.org/media/Welcome%20Ki t%20Final.pdf [Accessed on Oct 10th, 2010]