RESEARCH ARTICLE

New Empirical Evidence for Maternal Health Care: Case of Janani Suraksha Yojana in Uttarakhand, India

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ABSTRACT

In India, nearly 67,000 women die every year due to pregnancy related complications, also one out of every five child deaths occurs here. Finding ways to reduce newborn deaths is critical part of achieving global goals on improving child survival. JSY integrates cash assistance with natal and post-natal care for woman in states with low institutional delivery rates including Uttarakhand. This empirical research study attempts to link health facilities, service providers and utilization patterns of different levels of maternal health care, with particular focus on hills and plains in Uttarakhand thus come out with both policy and programmatic recommendations. Both qualitative and quantitative techniques were used in selected districts of Almora and Haridwar, including case studies, primary data collection with multi-stage sampling, analysing secondary data and available literature. The study revealed that reasonably a good number of mothers still kept themselves away completely from accessing and utilizing JSY. Analysis of access and utilization of 313 selected respondent mothers in Haridwar and Almora markedly revealed a drastic reduction in home delivery. A reasonable number of pregnant women had shown initial interest in JSY but for various reasons did not sustain and ended up either in home delivery or in private maternity care. The study explains that despite geographical distance, pregnant mothers travel and access ANC care but find it difficult to access delivery care and post-natal care. Success of JSY in this analysis, is very encouraging, but more work needs to be done to reach poorest and most disadvantaged women.

Key Words: Maternal Health Care, Safe Delivery, Health System, Services, Facilities and Institutions

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Maternal health policy in India needs to go beyond institutional delivery care. About 67,000 women die in India every year due to pregnancy related complications. One out of every five child deaths occurs in India. Finding ways to reduce newborn deaths is a critical part of achieving global goals on improving child survival. Launched in 2005, JSY (Janani Suraksha Yojana) benefits 10 million women every year. It integrates cash assistance with natal and post-natal care for woman in states with low institutional delivery rates including Uttarakhand. The cash incentives given to women in the 'low performing states' are higher than in other states. It cites a new approach to healthcare, placing for the first time, utmost emphasis on entitlements and exclusion of out of pocket expenses for both pregnant women and neonates. The initiative entitles all pregnant women delivering in public health institutions to entirely free and no-expense delivery. All entitlements and expenses relating to delivery in a public institution are borne by the government, ranging from free transport from home to government health facility. This empirical research study attempts to link health facilities, service providers and utilization patterns of different levels of maternal health care, with particular focus on hills and plains in Uttarakhand and thus come out with both policy and programmatic recommendations. Both qualitative and quantitative techniques were used in selected districts of Almora and Haridwar, including case studies, primary data with multi-stage sampling design, secondary data, and available literature. Maternal mortality has a range of underlying determinants, including social, economical, cultural, and geographical and health system factors.

Safe motherhood is perceived as a human right and for achieving this, the health sector is encouraged to make good quality services, available to all women during pregnancy and delivery, with particular emphasis on ensuring that a skilled attendant is present at every birth. Government of India launched the National Rural Health Mission (NRHM) in 2005 with the major objective of providing accessible, affordable and quality health care to rural population, especially the vulnerable populations. All over

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the world, prospects for women and their newborns are improving. Amid 1990 and 2010, maternal deaths declined by nearly 50% worldwide. Reduction in maternal mortality ratio (MMR) to 100/100,000 is one of its goals and JSY is the key strategy to achieve this reduction. The JSY is a safe motherhood intervention, a modified alternative of the National Maternity Benefit Scheme (NMBS). Comprehensive interventions are required to bring down maternal mortality ratios. Utilizing the existing skills of the TBAs (Traditional Birth Attendants, known as dais) with some additional training on proper assistance at delivery and early identification of complications will go a long way in catering to the needs of a large number of women who deliver at home out of choice or otherwise. But the root causes also need to be addressed through community-level interventions, which is of concern for society at large. Reporting systems for maternal deaths must be made more vigorous with involvement of ASHAs (Accredited Social Health Activitsts) and community members. Indicators for maternal health have to move beyond the number of women who availed of the JSY to include the perspectives of the women who are actually being addressed by the programme. These will be concrete ways of making maternal health a concern of families and communities.

Critique of Current Maternal Health Policy and JSY

In order to understand the interventions necessary to reduce maternal mortality in India, we need to analyze the causes and trends of maternal deaths in the country. Several studies have shown that there has indeed been an increase in institutional deliveries across various states over last few years of its implementation. But when one looks at whether the rise in institutional deliveries has actually resulted in improvements in maternal health outcomes, the evidence from various studies is not encouraging. One of the major areas of concerns emerging has been the readiness of facilities to handle the increased case loads. The other strategies, namely, increasing skilled birth attendants and attendance, and operationalising are also far from satisfactory. At another level, the present maternal health policy completely dismisses the role of TBA in maternal health care. Only Auxiliary Nurse Midwives (ANMs) are recognized as Skilled Birth Attendants (SBAs). However, by its very definition, the term 'Skilled Birth Attendant' defines a person with a certain set of skills. Data shows that less than half of women delivering in the country have access to Skilled Birth Attendants. It is also well known that TBAs are accepted culturally in many parts of the country and are readily accessible to the woman when in need. The view of JSY providing financial support for women in accessing institutions is also to be questioned. The study documents an average out-of-pocket expenditure incurred per delivery in an institution excluding transport costs. Assured referral transport systems were used only by few women studied to reach institutions. The report also points to the problems in transportation services. For women with complications, this leads to further delays, and has life threatening consequences. Report also indicates that women have to visit the hospital many times before they can get the JSY money and they need to spend each time for travel which discourages them further. In the light of all of these observations, the whole focus on institutional deliveries and JSY needs to be questioned. It is also important to see who JSY is leaving out. In addition to incentivizing institutional deliveries, JSY attempts to disincentivize home deliveries. While the programme provides Indian Rupee (INR) 500 as a financial package for women delivering at home, there have been additional conditions on eligibility: the woman should possess a government issued card, certifying them as Below Poverty Line (BPL card). It is well known that poor, Scheduled Caste (SC) women are at higher risk for maternal mortality. It is also well known that in view of their social marginalization, and lack of decision making power, these women are more likely to have difficulties in accessing institutions and to have a home delivery. The state also thus fails in its role to provide social security in terms of maternal health care to these marginalized groups.[1,2]

Financial Incentives for Maternal Health Care to Mothers

Health activists and programme implementers from the development sector have been feeling increasingly dissatisfied with the maternal health care situation on the ground in India. Many women continue to die around child birth because health facilities in many parts of the country are not equipped to provide emergency care, the quality of antenatal care provided is inadequate. Several reports, however, project that the programme is improving mainly because the JSY disbursements are increasing. Incentives to modify behavior can in some cases be cost effective. In order to streamline payment of JSY in all the health institutions where delivery is taking place, separate bank account has to be opened to manage the JSY funds in the nearest nationalized bank for JSY. Health financing strategies including financial incentives provide a direct link between money spent and results generated. On the supply side, performance-based incentives aim to focus on improvements in quantity and quality of services by paying incentives only when such results have been delivered. Demand-side programmes also incentivize results, that is, utilization of services. Incentives, thus, aim to minimize financial barriers to seeking and accessing services while also holding providers accountable for results.

In fact, maternal health is more than maternal deaths. However, MMR is an accepted indicator of maternal health globally. Maternal deaths are recognised as the most visible proxy indicator of maternal health. Interrogating why there had not been more progress in reducing maternal mortality indicated that - priorities were not clearly defined, interventions were not always focused and effective. It is important to know the effectiveness and impact of the programme in terms of its various parameters, particularly the utilization of cash benefit scheme, at different levels of health care delivery system. This study was carried out in Almora

district and Haridwar district to assess the cash benefit scheme of JSY and to elicit suggestions of beneficiary mothers for improvement in JSY scheme at different levels of health care delivery system. Although the use of financial incentives for maternal health is rising, a better understanding on the condition of evidence underneath the effectiveness and sustainability of these interventions has been lacking. This paper summarizes the key findings from an empirical research of a sample population, identifying gaps in evidence, and offers suggestions for strengthening incentive programme to improve maternal, and broader health outcomes.

Demand side financial incentive directly provides ability to avail benefits such as maternal care. In health sector, it has a possible role in the delivery of maternal health care services and betterment of unmet health behaviors. Primarily it caters to underserved areas, populations and services. In India, the earliest public sector initiatives focused on maternal and child health (MCH), due to its persistent need to meet MDGs (Millennium Development Goals) 4 and 5. Among the variants, vouchers and Conditional Cash Transfers (CCT) are more widespread on MCH.[3,4] This is because of being better streamlined to achieve specified outcomes in a given timeframe, however, the evidence on their contribution to out-of-pocket spending is very little. According to the guidelines, the financial assistance to the mother should be disbursed at the medical facility itself, in one instalment before her discharge from the medical facility. The amount would be paid only to the mother and not to any other person. The disbursement should be done either by an ANM or ASHA. In the places that don't yet have an ASHA, any other link worker such as Anganwadi worker can carry out the disbursement. If a woman goes to her mother's place for delivery or to a district / state hospital, the amount of assistance would be based on the place of residency. The expectant mothers are supposed to carry a referral slip from ANM, which would indicate their place of residency.

Within India a wide disparity exists in maternal mortality outcome of different states. Maternal mortality rate of these states is as high as 380. Fifth MDG has commitment to enhance maternal health by reducing MMR up to 109 in India by the end of year 2015. National Rural Health Mission had far ambitious target to reduce MMR up to 100 by the end of year 2012. Data on maternal mortality rate does not represent complete picture of maternal health, however these data gives us indication about status of maternal health. Maternal health in totality has to do much beyond these statistic[5] (SRS, 2011). In India, cultural standards and principles promote early marriage of women in EAG (Empowered Action Group) states that are behind in terms of women's reproductive and child health in relationship to other states. The rural poor women, who are not well nourished and have early pregnancy, would augment the risk of unsafe pregnancy outcomes. To combat the difficulty, JSY - a safe motherhood intervention promotes institutional delivery. In accordance to this Uttarakhand is classified as one among the eight erstwhile EAG states as a Low Performing State, and thus JSY has been implemented.

Socio-Demographic Influences and Maternal Health

Health care seeking behaviour is much rooted in social construction of community. Singh, et al. (2005) found low level of education and low status of women in society prevents them from taking antenatal care even if the services are available. This study of rural women looks into various cross cutting factors affecting women health. It reveals several social and demographical factors such as high work load, lack of sanitation, occupational health and gender base differences leads to poor health of women. Higher dependency on quacks for reproductive health resulted in delivery complications. Apart from several studies on socio-demographic factors, Singh et al. (2010) conducted a similar study in relation to accessibility of ASHA under NRHM, that was conducted in rural area of Lucknow district to identify factors those affect utilization of services of ASHAs under NRHM in relation to maternal health. Study concluded that education of women, higher socio-economic status of family, younger age of mother and religion-wise hindu in relation to muslim are more likely to utilize ASHAs services.[6]

Health Status Profile of Uttarakhand

Though India has made rapid economic progress in last few years, the human development indicators have not shown similar progress. There has been a steady reduction in the maternal mortality ratio, from a high level of 398 in 1997-98, it has come down to 254 per 100,000 live births for India as a whole, as per the 2004-06 RGI-SRS (Registrar General of India- Sample Registration System). Studies on maternal health have already established the fact that utilization of health care and maternal wellbeing is affected by a number of socio-economic and demographic variables. These along with different comprehensive statistics indicate that the programme has not ensured safe motherhood. Present paper is an attempt to look into this particular knowledge gap regarding JSY in Uttarakhand.

As per Sample Registration System (2007-2009) the Infant Mortality Rate (IMR) is 38 and MMR is 359, which are higher than the national average. The female-male sex ratio in the state is 963 (as compared to 940 for India as a whole). The **table 1** provides data of main health and demographic indicators comparative to all India figures.

The Concept

The study investigates causes behind high level of MMR in the sample districts even after implementation of JSY for more than seven years. This will help in finding out factors that hinder JSY in achieving the goal of safe motherhood in the state of Uttarakhand. Uttarakhand

Table 1. Comparative Profile of Demographic, Socio-Economic, Health Indicators of Uttarakhand

Pointers	Uttarakhand	India
Total Population (In Crore) *	1.01	121.01
Decadal Growth (%) *	19.17	17.64
Crude Birth Rate **	18.9	21.8
Crude Death Rate **	6.2	7.1
Infant Mortality Rate **	36	44
Maternal Mortality Rate ***	359	212
Total Fertility Rate**	NA	2.4
Sex Ratio *	963	940
Child Sex Ratio *	886	914
Schedule Caste population (In Crore) *	0.15	16.67
Schedule Tribe population (in crore) *	0.02	8.43
Total Literacy Rate (%) *	79.63	74.04
Male Literacy Rate (%) *	88.33	82.14
Female Literacy Rate (%) *	70.70	65.46

Source: Census 2011*; Sample Registration System 2011 [5,7]**
Sample Registration System 2007-09 [8]***

is one of the high focus states of National Rural Health Mission (2005-2012) due to its poor health scenario. High rate of maternal mortality, morbidity and a large number of unsafe deliveries were a few key indicators of vulnerability of women, particularly of the mothers. The mission had a target to reduce MMR to 100 in Uttarakhand by the end of 2012. But the annual health survey (2011) conducted by Registrar General of India reported MMR as high as 188 in the state. With this framework, the study investigates causes behind high level of MMR in the sample districts even after implementation of JSY for more than seven years. And thus find out factors that hinder JSY in achieving goal of safe motherhood in the state of Uttarakhand. It is an attempt to pool resources, reducing regional imbalance in health infrastructure, community participation and ownership, and meeting Indian Public Health Standards in each block of the country. With this framework, the study investigates causes behind high level of MMR in the selected districts of Almora and Haridwar which have been implementing JSY.

Study Aim and Area

The present study attempts to explore institutional and societal dimensions that affects in access to and utilization of maternal health care services in the state of Uttarakhand. Uttarakhand is largely a hilly State. The state is comprised of 13 districts, of these 13 districts, two districts (Haridwar and Udham Singh Nagar) are entirely situated in plain; two districts (Nainital and Dehradun) have large areas in the plains, whereas the other nine districts comprise the hill region of the state **(figure 1).** The inequality in infrastructure leads to increasing disparity in terms of socio-economic development between the hills and the plains. Assuring basic needs such as health, education, transportation, communication, food is always a challenge in hill districts.

Eleven hill (Almora) and semi-hill districts of Uttarakhand shares more than 68 per cent of state population dependent on mountain agriculture and livestock for their livelihood. In the plain districts (Haridwar) population density is much higher than other districts of Uttarakhand.

Methods

The study has used both qualitative and quantitative techniques in the selected districts Almora and Haridwar.

- Primary data related to maternal care, accessibility of health institutions and JSY care, and basic social, economical, geographical and demographic information are gathered from the study area – through interview schedules at beneficiary level as well as level of service providers of JSY care. "Interview schedule" and "case study" was used for beneficiary women as well as for the officials at the levels of Sub-Centre, primary health centre, and community health centre.

- Secondary data related to implementation and impact of JSY was gathered in the selected area using data sources, such as – Census, NFHS (National Family Health Survey), AHS (Annual Health Survey), DLHS-III (District Level Health Survey), and Rural Health Statistics – 2011.[9]

For the survey of beneficiary respondent of JSY the target sample size of the mothers in Uttarakhand were selected. It has adopted purposive and proportionate to population sampling methodology in order to bring out the ground reality of the maternal health care of JSY under NRHM. All the women who have delivered during the previous year in the selected village and city ward were listed to select respondents. ASHA and AWW (Anganwadi Workers) of respective primary sample unit were contacted to prepare

Figure 1. Uttarakhand Map with Districts Almora and Haridwar

authentic list of mothers. Randomly respondent JSY beneficiary were selected for interview from the list of eligible respondents both in rural and urban area. Service provider often accessed by respondent JSY beneficiary such as ASHA, ANM and Doctor were interviewed. Mostly these service providers are from the public health institutions located in selected village/ward or close to the selected village and ward. About 313 mothers and nearly 40 service providers were selected from rural and urban primary sample units.

Table 2. Sources of Maternal Health Care Services in Plains (Haridwar) and Hills (Almora) on the Basis of Social Groups

Activities	Plains (Haridwar)				Hills (Amoral) AWW			
	SC+ST	OBC	General	Total	SC+ST	OBC	General	Total
Largely in JSY/ Govt. Hospital	60	25	6	91	48	6	28	82
	53.6%	38.5%	18.2%	43.3%	80.0%	85.7%	77.8%	79.6%
Home (Traditional)		1	1	2	2		1	3
		1.5%	3.0%	1.0%	3.3%	-	2.8%	2.9%
Started with JSY but ended in Home	17	7		24	9		6	15
	15.2%	10.8%	-	11.4%	15.0%	-	16.7%	14.6%
Started with JSY ended in Private	11	8	3	22	1	1	1	3
	9.8%	12.3%	9.1%	10.5%	1.7%	14.3%	2.8%	2.9%
Combination of JSY, Home, Private	1	1	1	3				
	.9%	1.5%	3.0%	1.4%	-	-	-	-
Private	23	23	22	68				
	20.5%	35.4%	66.7%	32.4%	-	-	-	-
Total	112	65	33	210	60	7	36	103
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

SC-Scheduled Caste, SC-Scheduled Tribe, OBC- Other Backward Class

Source: Sinha Archana (2014) Maternal Health Care: A Study of Janani Suraksha Yojana in Uttarakhand" (Draft Report). Department of Rural and Urban Studies, Indian Social Institute, New Delhi. [10]

Results

The utilisation of antenatal care services was assessed by four indicators, namely, whether women had registered her pregnancy in her first trimester under JSY, received an antenatal check-up during the first trimester, whether they had received three or more antenatal check-ups, whether they had received two or more doses of tetanus toxoid injection, and whether they had received or purchased iron and folic acid (IFA) supplements. The utilisation of delivery care services was assessed by indicators, namely, whether went for institutional delivery, whether ASHA escorted to institution for delivery, whether cash incentive was received for institutional delivery, whether received referral transport from institution in case of pregnancy complications, and whether free transport facility to drop at home after delivery was received. The utilisation of postnatal care services was assessed by indicators, namely, whether stayed in institution for more than 48 hours after delivery, whether ever gone for PNC (Post Natal Care) checkups to any institutions within 42 days after your delivery, and whether ever counseled by ASHA/ANM for women's' own health and child care **(table 2).**

An analysis of the type of health service utilization of selected respondent women in Uttarakhand revealed that an overall out of 313 respondents a highest proportion of, 173 (55.3 per cent) had largely accessed governmental maternal health care sources or services of Janine Suraksha Yojana (JSY) (involving minimum of 43.3 per cent in Haridwar district and maximum of 79.6 per cent in Almora district); followed by 22 per cent (68) respondents who availed the services only from Private sector in Haridwar district; 12.5 per cent (39) were those respondents women who started with JSY maternal health services but ended with delivery at home (involving minimum of 11.4 per cent in Haridwar district and maximum of 14.6 per cent in Almora district); 8 per cent (25) were those respondent women who started availing maternal health services but ended with delivery in Private sector health institution (involving maximum of 10.5 per cent in Haridwar district and minimum of 2.9 per cent in Almora district); 1.6 per cent (5) were those respondents women who had undergone their deliveries at home using traditional delivery system (involving minimum of 1 per cent in Haridwar district and 2.9 per cent in Almora district); and 1 per cent (3) were those respondent women who had availed maternal health services from a mixture of JSY, home-based and Private sector services in Haridwar district.

- The study reveals reasonably a good number of mothers have kept themselves away completely from accessing and utilizing JSY. Out of the total number of respondents of the study 313, of which 210 were from Haridwar and 103 from Almora, about 23.3 per cent of the mothers, which is about 73 respondents either went in for private maternal care or followed traditional home based delivery. It is also important to note that out of the 73 respondents 70 are from Haridwar and only three are from Amoral. Why 33.3 per cent, which is one third of the sample respondents, out of 210 respondents of Haridwar preferred to be away from JSY raises many questions. An analysis of who did not access JSY reveals that the respondents feel that there is lack of good doctors and lack of basic facilities in government hospitals. On the other they are of the view that good services and care is provided by private maternal care centres. Some also said that fear of pregnancy complications led them to private hospitals. They felt that private hospitals are in a better position

to handle complicated deliveries than government hospitals. From further analysis of these 73 respondents who did not access JSY the following findings can be highlighted.

- While analyzing the access and utilization of 313 respondents in Haridwar and Almora it was strikingly clear that there has been drastic reduction in home deliveries. It was observed that only five respondent mothers (1.6 per cent), two in Haridwar and three in Almora had still followed traditional home-based delivery During focused group discussion it was revealed by the respondents that after the introduction of JSY, and the proactive awareness building programmes by the government there is a strong realization among the women the need to go for institutional delivery and avoid traditional home-based delivery even in remote villages in order to protect the life of the mother and the child. This is a welcome development. Women also said that about a decade ago a number of women preferred home delivery for socio-cultural reasons. They felt that delivery to be 'private affair' feeling shy of talking about pregnancy related issues and problems. This traditional mindset has largely changed now and women, in general talk about pregnancy related issues and they prefer to adopt institutional delivery.

- It is also interesting note out of 5 respondents who adopted home delivery, only 2 are from Haridwar out of 210 respondents and 3 are from Almora out of 103 respondents. Among the 2 from Haridwar one woman was from OBC social category and one was from general category. Among the three from Almora, 2 were from SC/ST category and 1 was from general category.

- It is to be noted that out of 313 respondents, 68 respondents went for private maternal care and interestingly all the respondents are from Haridwar and no one out of 103 respondents in Almora went to private maternal care. Respondents in Almora have completely kept themselves away from private maternal care. A further analysis of the 68 respondents who opted for private maternal care revealed the phenomenon that out of these, 66.7 per cent belong to general caste category, 35.4 per cent belong to OBC and only 20.5 per cent belong to SC/ST category. While it is difficult to state why a good many mothers preferred private maternal care in Haridwar and none in Almora, one conclusion can be drawn. There are more number of private maternal hospitals in Haridwar, the plain district and Almora being a hilly terrain there are not many private maternal care hospitals. While talking to mothers they said that the private maternal care centres take special efforts to attract or woo the pregnant mothers, at times even threatening about pregnancy complications. Some mothers who get scared of such information prefer to go to private maternal care centres than accessing JSY scheme. The analysis of the perception of the service provided substantiated this conclusion that 22 out of 33 service providers, mainly the ASHAs stated that in Haridwar mothers prefer private institutions to government health care institution.

- It is also important to note that about 67 respondents which are about 21.4 per cent, a little less than who completely kept themselves away from JSY as mentioned above (73 respondents) showed initial interest in JSY but slowly moved away from JSY and ended up either in private or home delivery. Among 67, about 49 are from Haridwar and 18 are from Almora. In Almora of the 18 respondents 15 of them after showing initial interest in JSY later ended up in home delivery. Of those 15 who had delivered in home, nine belong to SC/ST category and six belonged to general category. This phenomenon was further underlined by ASHA workers of Almora that a number of pregnant mothers still prefer to have home delivery due to cultural reasons and taboos attached to child birth. This seems to be strong among some sections of dalits and tribals.

- In Haridwar out of 49 respondents who moved away from JSY after initial enthusiasm, almost equal number of respondents about 24 ended up in home delivery and about 22 ended up in private maternity care centres. Out of these 46, 28 belong to SC/ST category and 15 belong to OBC. It shows that a reasonable number of SC/ST and OBC pregnant women showed initial interest in JSY but for various reasons did not sustain and ended up either in home delivery or in private maternity care.

- Analysis of access and utilization of JSY to a large extent revealed that out of 313 respondents only 173 women which are about 55.3 per cent accessed and utilized JSY to a large extent. This means that these accessed and utilized prenatal care, delivery and post natal care through JSY. It is surprising to note that despite various efforts by the government, including area specific programmes developed by EAG only just above 50 per cent has largely utilized JSY. This is a matter of great concern.

- A further analysis shows that out of 173 who benefited by JSY, 91 are from Haridwar and 82 are from Almora. With the total sample respondents from Almora being 103, it is good to note that 82 respondents, 79.6 per cent accessed and utilized JSY largely. Whereas, in Haridwar the percentage of women who accessed JSY largely is only 43.3 per cent which is much below the half way mark.

- In terms of social categories, out of 173, SC/ST beneficiaries stand at 108 (62.4 per cent), OBC are 31 (17.9 per cent) and those who belong to general category are 34 (19.7 per cent). In other words it can be concluded that SC/ST women are the ones who have largely accessed and utilized JSY in the two districts.

- The utilization of JSY in Almora is very high among SC/STs. Out of 60 respondents belonging SC/ST category

in Almora 48 (80 per cent) have largely accessed and utilized JSY where as in Haridwar proportionately it is only 53.6 per cent of women belonging to SC/ST have largely accessed JSY. This is supplemented by the views of service providers that generally women of SC approach the sub-centres to avail ante-natal and post-natal care.

- Access and utilization of ANC (Ante Natal Care), delivery and PNC was analyzed using four major variables, namely, availability, accessibility, affordability and acceptability. Among the 173 who largely accessed and utilized JSY, about 88.9 per cent felt that they effectively utilized ANC. When questions were asked about utilization of delivery and PNC only about 54.2 per cent and 52.4 per cent respectively said that they utilized delivery and PNC without much difficulty. In other words, even among those who have largely benefitted by JSY when it comes to delivery and PNC there is distancing from the scheme.

- Access and utilization of institutional delivery service was analysed through availability, accessibility and affordability. Among the 173 beneficiary respondents largely benefitting from JSY, 10.2% experienced difficulty in terms of availing, accessing and affording the services. Difficulties are experienced in terms of availing services due to geographical distance of institutions. It was evident that respondents of Almora experience distance as a major difficulty than those respondents in Haridwar. This trend was also seen in the post natal care stage. In other words, despite geographical distance pregnant mothers travel and access ANC care but find it difficult to access delivery care and PNC care. The respondents also said that ASHA workers are not able to arrange conveyance in some cases for delivery and post natal care. This conclusion was confirmed by the views of ASHA workers. The ASHA workers admitted that at times they find it difficult to get transport facility, especially in the hilly terrains.

- It was found that health Service providers do not have arrangements for night stay in most institutions. In many instances ASHA workers who accompany the pregnant women to the health facility for institutional delivery are often made to stay in the morgue during the night. Some ASHA workers feel demotivated by this arrangement.

- Most service providers including ASHA and ANM in both Haridwar and Almora were trained to undertake the various activities under ante-natal care as well as the post-natal care for the pregnant women. But only 20% of them in Almora and 27% in Haridwar were formally trained to carry out safe delivery in normal conditions. ASHA workers expressed that if they are trained well in safe delivery in normal circumstances they could carry out delivery, especially when there are difficulties in bringing mother to institutions for delivery. This is very much required in hilly district like Almora

- Post natal care is important for beneficiary mothers from the point of view of her health particularly soon after the delivery. In order to ensure easy affordability towards this end and meet the benefits of the counselling and services under this it is important to increase the incentive of the ANM towards meeting the transportation costs incurred in the hilly terrain for the purpose of visiting the mothers at their homes, and thereby understanding the importance of institutional delivery and post natal care.

Nearly one-third of the respondents out of total 313 including majority from the rural areas, especially in Haridwar district were somewhat aware about JSY, while the remaining were not informed about JSY and its component benefits and purpose. Many respondents were well aware of the usefulness of Tetanus Toxoid (TT) vaccination. Many were also aware of the importance of staying minimum for 48 hours in hospital. It is a matter of concern that regarding the importance of institutional delivery the awareness level was low among the respondents.

Challenges of JSY Service Providers

An assessment was done to understand the different challenges and problems faced by the selected service providers in implementing ANC, PNC and delivery services in Uttarakhand **(figure 2).**

In this regard, they revealed some challenges faced by them in implementation of JSY services overall which was at a higher level of 67.4 per cent in the plains (Haridwar district) than 48.1 per cent in the hills (Almora district), these percentage points were disaggregated in terms of

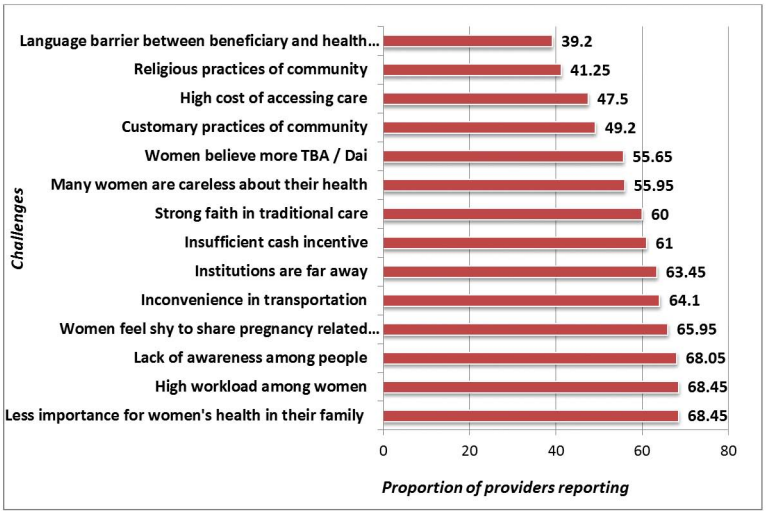

Figure 2. Challenges faced by JSY Service Provides in Implementing ANC, Delivery care, PNC Services (as percentage of service providers reporting the challenges)

– both high work load among women (68.45); and less importance given towards women's health within their families (68.45); lack of awareness among people (68.05); women feeling shy to share their pregnancy related matters (65.95); inconvenient transportation system (64.1); distance of health institutions (63.45); insufficient cash incentive (61); women having strong faith in the traditional care (60); women's carelessness towards their own health (55.95); pregnant women believing more on dais (55.65); customary practices of their own community (49.2); high cost of accessing maternal health care (47.5); women following their religions practices (41.25) as well as communication problem between beneficiary and health provider (39.2).

In case of hills (Almora district) highest percentage points were accorded to the top four factors that included - insufficient cash incentive (68.4 per cent), followed by less importance to women's health in their own family and also high workload among women (65 per cent each), and women feeling shy to share their pregnancy related matters (60 per cent).

In case of plains (Haridwar district) the top four factors having highest percentage points were accorded to – women believing more on dais (81.3 per cent), followed by inconvenient in transportation and lack of awareness among people (78.2 per cent each) and women having strong faith in traditional care (75 per cent).

Strengths and Limitations of the Study

Demand side financing through the JSY scheme could enhance access to and utilization of maternal healthcare services. JSY's contribution was evident in increased skilled birth attendance, ANC and PNC. The gains in institutionalization of deliveries are far greater than those of ANC and PNC, indicating the limited role of JSY in comprehensively addressing the maternal care needs. This could be due to the linking of entire incentives with in-facility delivery or skilled birth attendance than individually for each aspect of maternal care. Under the JSY scheme, the synergy between the demand and supply-sides is enhanced through the linking role of ASHAs. Hence, supply-side strengthening is a necessary precondition for any demand-side incentive to produce desirable results.

This was one of the unique attempts to look at the financial access to healthcare under demand side financing. As applicable to the qualitative research methods, this study might not have wider implications beyond the study context. Though it looked at the trend of maternal health care consumption, the study design did not allow to consider the factors attributable to it other than JSY.

Can Conditional Cash Transfers Impact Institutional Deliveries

This paper analyzes a unique CCT program, JSY in India, which provides cash incentives to women if they deliver in a government or an accredited private medical facility, and to the local community health workers if they facilitate delivery in government facilities. The overall increase in institutional deliveries in public facilities have increased while the private medical facilities have also seen their share. Further, women from relatively disadvantaged households have not necessarily done better. But women from the rural areas are also doing well. This suggests that more efforts would be needed to make sure that this innovative CCT reaches to the disadvantaged households. More work need to be done to assess this program further. Further, the effect of JSY is a combination of effect of providing incentives to women, and effect of providing incentives to the community health workers. It would be helpful to understand the contribution of each of the two types of incentives to the changes in intermediate and final outcomes, especially from the point of view of a program which delivers and is also cost effective.

Recommendations

From the findings of the study the following recommendations are made which could be useful in other districts of Uttarakhand as well as in other states where JSY is implemented.

- Evidences show that there is considerable reduction in MMR over the years and increase in utilization of JSY in Almorah and Haridwar. During nine months of data collection it is found that non-access to JSY is still very high in the sample districts. Three factors clearly emerge for lack of access to JSY scheme among the sample respondents. Higher income families and educated ones seem to prefer private health care. Moreover, increase in private hospitals also has impact in lack of access to JSY, especially in Haridwar. Some women are becoming victims to the false propaganda that private is better and efficient than government run hospitals. If the women have the means they prefer private maternity care to JSY scheme.

- It is also found that traditional home-based delivery is still practiced in some pockets especially among the poor and vulnerable communities. If MMR has to be reduced to a desired level keeping in mind the emerging paradigm of health as human right it is important that state must take all efforts to ensure that there is 100 per cent institutional delivery. Necessary motivational and educational programmes need to be organised so that progressively there will be zero percentage of home-based deliveries.

- Study also brings out the fact large number of mothers has registered with JSY but the number reduces progressively as they access pre-natal, delivery and post natal care. In other words initial enthusiasm to access JSY vanishes slowly and mothers for various reasons switch over to private maternity care. This trend calls for deeper study into the phenomenon and state has to take

remedial measure to that those who register under JSY undergo all three stages and end up in quality institutional delivery and reduction in IMR'

- The reason for Almora respondents facing problems in post-natal care is one related to distance. The respondents find it difficult to travel far along with their new born babies. So they do access post natal care provided in JSY. It is important a functional and a safe facility at sub-centre nearer to home with a referral connection is the need particularly in hilly terrains. The principle should be that every locale should have a 24×7 functional sub-centre or a PHC (Primary Health Centre) with at least SBA, basic emergency obstetric and newborn care within half-hour access time. In special circumstance transportation facilities could be arranged by the maternity centres to bring the mother and child for post-natal care.

- In Haridwar within the caste categories, from general category nearly 67 per cent prefer private maternity care and 35.4 per cent from OBCs. It has to promote institutional and safe delivery of all women transcending social and economic indicators with the ultimate purpose of reducing MMR and increasing safe delivery.

- There is a need for periodic trainings of ASHAs and ANMs to provide them hands on skills and techniques besides appreciation of their work.

- While the ASHAs and ANMs seems to possess good knowledge on JSY their communication skills to be strengthened so that they could effectively speak to the potential women the importance and benefits of JSY as well as institutional and safe delivery.

- Care should be taken to maintain that cash incentive be paid on the day of delivery. If not then on the second day. Further delays beyond this will be intolerable and less inviting. Delay in payment or asking women to visit again to receive incentives will go against entitlement as a right. If discharge is likely to happen late in the evening or night and the accounts/cash section might be closed by then, the imbursement should be made earlier, instead of asking the woman to come later.

- There is a need to provide proper facilities for ASHA workers for night stay in the health institution wherever she accompanies women for institutional delivery.

Janani Suraksha Yojana program provides a conditional cash benefit to pregnant women if they accept proper care. It provides young mothers with a cash benefit that is conditional upon them receiving proper ante and neo-natal care. Presently, the benefit is delivered in a single amount, at the end of the mother's participation in the scheme. Effective measures are required to ensure that the benefits reach the poorest and the least educated women, who need skilled birth attendance the most. Even though women availing of the cash incentive need to attend three antenatal care visits, adherence was not good. Some case studies revealed that quality of care is compromise for various reasons, like, early release after delivery, as soon as the women availed of the incentives. A reformed system of payments may be one way of ensuring better care that can help reduce the number of maternal and neonatal deaths. With the UEBA (unique identification number enabled bank account), the benefit can be delivered directly to the beneficiary' s bank account in small amounts, each time the woman fulfils a condition for ante-natal or neo-natal care within the JSY scheme. Therefore, this study has brought out clearly the benefits of JSY among the sample respondents in two geographically distinct districts - Almora and Haridwar in Uttarakhand. While the study has identified a number of contributing factors for the success of JSY in drastically reducing MMR it has also identified gaps in the implementation of the scheme. It is crucial that JSY is seen as a scheme to promote institutional and safe delivery than a scheme for the poor. Although a small study of this kind may not be very conclusive with regard to public health research, it will not be unfair to suggest improved accessibility and better delivery of JSY at the lower level of health care settings.

This paper is an attempt to rigorously evaluate the short-term effects of the Safe Motherhood Scheme (JSY), a nationwide CCT program. Under the scheme, a woman delivering her child in a medical facility is provided monetary rewards. The short-term results indicate that JSY is indeed making a difference. Even though the JSY seems to have a positive impact on the institutional deliveries, its impact on maternal and neo-natal mortality, the variables of interest, remains to be analyzed. The NRHM has introduced a new category of health workers, ASHA, who are supposed to play a very important role in promoting not just institutional deliveries, but also antenatal care, immunization etc. This scheme was initially introduced in the low performing states, and later extended to the high performing states. The impact of ASHA also needs to be analyzed carefully. There is a need to empower women and enable banks to push for better programming and policies and to propose new ways to address fundamental problems in the Indian health system. However, a number of factors contributed to the change in approach, including evidence that old approaches were not working; and there was pressure to pay more attention to the needs of women; in this regard, the results of this more recent approach have been encouraging. Reviews of the evidence illustrate that financial incentives can enhance demand for and improve the supply of maternal health services, a finding that is factual across instruments and geographic locations. Some programmes also show improvements in quality of care. Evidence on impact on health outcomes and equity is weak, and few evaluations describe details of design and implementation. Moreover, in many studies, it is difficult to isolate the incentive effect from the many other potential factors. On the whole, however, the evidence suggests that financial incentives can enhance utilization of maternal

healthcare services, quality and equity, if the scheme is carefully designed and implemented. A more comprehensive and consistent methodology for measuring the quality of maternal health services would also help ensure that studies capture meaningful measures of quality.

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