### DOES JANANI SURASHA YOJONA SHOW THE WAY TO SAVE LIVES OF MOTHER AND NEW BORN IN INDIA?

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#### **BACKGROUND OF THE STUDY**

In 2000, as part of the Millennium Development Goals (MDGs), the international community committed to decrease the Maternal Mortality Ratio (MMR) by 75.0 percent by 2015 and improve overall maternal health care to achieve MDG-5. India has one of the highest MMR in the world with an estimated 212 maternal deaths per 100,000 live births (India, Register General, 2011). Most of deliveries in India occurs at home and without any assistance from skilled health professionals and hence majority of the maternal deaths contributed by the mother who had a home delivery (IIPS, 2010). Therefore, Indian government introduced the National Population Policy (NPP) 2000 with defined goal to increased institutional delivery by 80.0 percent, safe delivery by 100 percent and reducing MMR by 100 per 1,00,000 live births.

In order to achieve these goals, the National Rural Health Mission (NRHM) was launched in 2005, which aimed to undertake an 'architectural correction' of the public health system to enable it to effectively absorb increased expenditure to provide accessible, affordable and accountable primary health care services to poor households in remote parts of rural India. The expected outcome of the mission is to make availability of trained community level worker at village level with a generic drug kit. This means '*People's Health in People's Hand*' and more of community participation and community monitoring of public health system. The NRHM implemented the *Janani Surakshya Yojana* (JSY) for the Below Poverty Line (BPL) families which provide referral transport, escort and improved hospital care at subsidized rate for institutional deliveries. The *yojana* was launched by the Hon'ble Prime Minister on 12<sup>th</sup> April, 2005 and being implemented in all states and Union Territories (UTs)

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with special focus on low performing states. The JSY provides benefits for delivery and postdelivery care and it is fully centrally sponsored scheme. The success of the scheme is determined by the increase in institutional delivery among the poor families. The scheme has identified Accredited Social Health Activist (ASHA), as an effective link between the Government and the poor pregnant women in ten low performing states, namely the eight Empowered Action Group (EAG) states (Uttar Pradesh, Uttrakhand, Bihar, Jharkhand, Madhya Pradesh, Chhattisgarh, Rajasthan, and Orissa), Assam, Jammu and Kashmir and the remaining North-eastern states. In rest of the states, Anganwadi Workers (AWW) and Trained Birth Attendant (TBAs) or ASHA like activist has been engaged with JSY for providing the services.

The target group under JSY includes all pregnant women (19 years and above in age, up to two live births) belonging to the below poverty line. In the ten low performing states, the benefit would extend even after the third live births if the mother, of her own accord chooses to undergo sterilization in the health facility where she delivered, immediately after the delivery (Table 1).

T DG G	
LPS States	• All pregnant women delivering in Government health centres like Sub-
	centre
	(specifically approved for institutional delivery by State), PHC/CHC/ FRU /
	general wards of District and State Hospitals.
	• BPL & SC/ST women delivering in accredited private institutions.
	<ul> <li>Restriction of JSY benefit up to 2 live births removed (No restriction of</li> </ul>
	no. of births).
	<ul> <li>Restriction of age of 19 years and above removed (No restriction of age).</li> </ul>
HPS States &	• BPL pregnant women, aged 19 years and above delivering in Government
North-Eastern	health centres like Sub-centre (specifically approved for institutional delivery
States (Except	by State), PHC/CHC/ FRU / general wards of District and State Hospitals or
Assam)	accredited private institutions
	• All SC and ST women delivering in a government health centre like Sub-
	centre (approved for institutional delivery by State), PHC/CHC/ FRU /
	general ward of District and state Hospitals or accredited private institutions
	<ul> <li>For SC/ST women, age restriction of 19 year is not applicable.</li> </ul>
	<ul> <li>Cash Assistance for institutional delivery would be limited to 2 live births for</li> </ul>
	all the women.
	an me women.

Table 1: Criteria to Avail the JSY Benefits

Source: Government of India, Ministry of Health & Family Welfare, 2005.

The JSY has brought together poorly functional maternity nutrition benefit scheme and referral transport scheme into a single package and by focusing this package on institutional delivery. The financial benefits were earlier only for institutional deliveries but soon after Rs500 benefit for home delivery for BPL family was introduced to retain the maternity benefit component. However, the scheme in practice is almost completely focused on promotion of institutional delivery the payments for home delivery are low and not encouraged. Informally they could be actively discouraged (for details, Table 2).

Category	J	Rural Area		τ	J <b>rban Area</b>	
	Mother's Package	ASHA's Package	Total (in Rs.)	Mother's Package	ASHA's Package	Total (in Rs.)
LPS	1400	600	2000	1000	200	1200
NE* (Except Assam) & Rural areas of tribal districts of HPS States**	700	600	1300	600	200	800
HPS	700	NIL	700	600	NIL	600

Table 2: Financial Benefits under JSY for Mother and ASHA

Source: Government of India, Ministry of Health & Family Welfare, 2005.

Although the JSY was aimed to increase institutional delivery and reduced maternal and neo-natal deaths but it poses a serious discussion that how far this cash incentive changes the behavior of the community discussion? The rationale is that beneficiary would be able to use the JSY benefits for her care during delivery or to meet incidental expenses of delivery. It should be the responsibility of Auxiliary Nurse Midwife (ANM)/ASHA, Medical Officer (MO) in Primary Health Centre (PHC) to ensure disbursement. It is very important that the cash is disbursed in time.

Studies in last few years tried to focus on the acceptability and utilization of the scheme and its effect on improving utilization of public health care system specially in rural India. An overall estimate from District Level Household Surveys (DLHS-2 and 3) data show that the poorest and least educated women did not always have the highest odds of receiving JSY payments. JSY had a significant effect on increasing antenatal care and in-facility births (Stephen *et al.*, 2010). Another study among 100 beneficiaries in selected villages in Bikaner district in Rajasthan shows that major advantages of the JSY were perceived by the beneficiaries such as safe delivery at PHCs and CHCs, payment of cheque after delivery and

full protection after delivery (Kumari *et al.*, 2009). A study among 400 currently married women aged 15-35 years living in rural areas of Seraikela-Kharsawan districts in West Singhbhum in Jharkhand on knowledge and awareness of JSY revealed that 83 percent of the respondents have heard about the JSY and also know someone who had received its benefits but 54 percent did not know the types of benefits and 18 percent knew that if delivery is done in a hospital they will get Rs. 1650. The respondents also reported that they have knowledge that *Saahiya* (ASHA) gets financial benefits for accompanying mother for institutional delivery and post natal care. 58 percent of women stated that they came to know about JSY from ANM (Mehta and Dwivedy, 2010).

Nandan *et al.*, (2008) conducted a detail study in rural Orissa to estimate the impact of JSY scheme. Six blocks from three districts were selected for the study and data were collected from both beneficiary and non-beneficiary mothers and other stakeholders of the Janani Surakhya Scheme. The study found that less than half of both beneficiary as well non-beneficiary mothers knew about the various aspects of the JSY scheme. Three -fourths of the beneficiaries reported to first contact with ASHA for ANC in between the third and sixth month of the pregnancy. Most of the respondents feel that there are problems of communication and transport The ASHAs also played a major role in motivation for institutional deliveries in two -thirds of the beneficiaries. But lack of orientation of the health staff other than ASHAs on JSY is a significant finding emerging from this study.

It is found that there is a gap in utilisation of JSY may be contributed by many unforeseen factors. The main aim of the scheme is to increase the institutional delivery and hence reduce maternal deaths to achieve the MDG-5. Therefore, to understand the effect of JSY on institutional delivery and the utilisation of the scheme across the various socio-economic sections in the society, the present study has focused on the impact of utilization of JSY in the eight EAG states in India. The impact here denoted as increase in institutional delivery *per se*.

#### **OBJECTIVES**

The major objectives of the paper are as follows:

• To estimates the change in institutional delivery in the last decade.

- To understand the influence of socio-economic and programme factor on the change in utilisation of institutional delivery in the EAG states over time.
- Are there any impacts of ASHA workers and cash incentives on change in percentage of institutional delivery in the EAG states?

#### MATERIALS AND METHOD

Data on institutional delivery is available in the National Family Health Surveys (rounds 1, 2, and 3) and also from the three rounds of District Level Household Surveys, (1998-99, 2002-04 and 2007-08) in India. Data of utilization of JSY was collected during DLHS-3 and hence to determine the reach and utilization of services under the JSY scheme in EAG states, data from District Level Household and Facility Survey (DLHS-3), 2007-08 was used. The survey provides data on institutional delivery, deliveries facilitated by ASHAs, institutional deliveries by trained birth attendants, the proportion of normal and complicated institutional deliveries, and utilization of the JSY scheme by women belonging to different socioeconomic and demographic backgrounds. To analyse the change in the utilization of institutional delivery before and after implementation of JSY data from two different time points were required. The DLHS-2, 2002-04 was conducted nationwide before initiation of NRHM and implementation of JSY. Therefore, to compare the change which may effect the utilisation of institutional delivery after initiation of the scheme data from DLHS-2 was used. Finally, to understand the net effect attributed by JSY which data was collected during DLHS-3, a comparison between DLHS-2 and 3 rounds are made. A cross-sectional study on utilisation of JSY scheme and institutional delivery was carried out from the individual data of 116268 from DLHS-3 among currently married women who had their last live/still birth in the last three years prior to the DLHS-3 survey. Similar analysis was also carried out from DLHS-2 data among 104452 women living in the EAG states.

Primarily the paper seeks the change in behaviour on utilization of JSY and institutional delivery across EAG states and the region as a whole. The First, the gross differentials in institutional delivery by selected socio-economic and demographic factors are obtained and examined through bivariate analysis for DLSH-2 and DLHS-3. This analysis depicts the change in the behaviour and level of utilization of institutional delivery across the socio-economic classes before and after implementation of JSY. Key variable of JSY, 'whether motivated by ASHA for institutional delivery', is used in DLHS-3. It is well discussed that

socio-economic variables are interrelated to each other and hence to examine the net effect of an individual variable, multivariate analysis was carried out employing the logistic regression analysis, since the dependent variable, utilisation of institutional delivery is dichotomous and explanatory variables are in categorized form (for details see Retherford and Choe, 1993). Standard of living was calculated in DLHS-2 but in DLHS-3 wealth index was computed to show the economic condition of the households. To make the comparison uniform between both the surveys, type of houses is used as a proxy for the standard of living in the study.

#### **KEY FINDINGS AND DISCUSSIONS**

The results show that overall institutional delivery has increase from 22.9 percent in DLHS-2 to 33.4 percent during DLHS-3 in EAG states in India (Table 3). The increase in institutional births is the highest in Madhya Pradesh (27.7 percent in DLHS-2 and 50.0 Percent in DLHS-3) and the lowest in Jharkhand between both surveys (19.5 percent: DLHS-2 and 20.2 percent: DLHS-3). Rajasthan had the highest percentage of institutional delivery among EAG states during DLHS-2 survey but Madhya Pradesh replaced it by great improvement in institutional delivery in last few years. Chhattisgarh was the poorest performing state in terms of in terms of institutional delivery in 2002-04 and Jharkhand become the worst performing in 2007-08 with almost no improvement in the situation. Other indicators like percentage of women registered in first trimester when pregnant with last live/still birth and had at least three ANC during last pregnancy have improved between both surveys in all EAG states. Remarkable improvement occurred in early registration of pregnancy which indicates a positive change in community behaviour towards safe pregnancy. Although, percentage of women motivated for ANC and institutional delivery by ASHA is very low in all EAG states but certainly it is a notable movement in community participation. It sin also noticed from Table 3 that as institutional delivery increased during this period, home delivery assisted by skilled health personal has declined marginally. This shows that still way to go to achieved goal for 100 percent safe delivery in the NPP in these states. JSY was meant to increase institutional delivery by motivating women through financial assistance and support by ASHA on referral and transportation. However, DLHS-3 data indicates that only 10.6 percent women received the financial assistance for delivery through JSY in all EAG states. The figure is the highest in Madhya Pradesh and the lowest in Jharkhand easily emphasized the fact that the key for low motivation for the institutional delivery in Jharkhand.

It is important to note that overall home delivery in these EAG states has declined from 76.7 percent during DLHS-2 to 65.8 percent (Table 4). However, the contribution of private health care facilities in increased institutional delivery is marginal during this period. There is substantial increase in percentage of deliveries in PHC and CHC/Rural hospital from DLHS-2 to DLHS-3. Percentage of delivery at Govt. Hospital has increase between two surveys in Orissa, Madhya Pradesh, Uttarakhand, and Rajasthan among eight EAG states. Simultaneously, delivery at PHC, CHC/Rural hospitals also increased in many folds in these states. Although there is marginal increase in percentage of delivery at private hospital and clinics in Uttar Pradesh, Bihar, Chhattisgarh, and Jharkhand but utilisation of public health facility for delivery remain minimal in these states during this period. This depicts the apathy to utilization of the public health care among community in these states. The aim of JSY to mobilize community to utilize public health care and encourage public-private partnership to a healthy family and hence a healthy society is yet to achieve in these states.

There are many studies emphasized on effect of socio-economic and programme factors on utilisation of institutional delivery. The present paper also seeks the changing pattern of behaviour across the socio economic classes on institutional delivery in EAG states. Table 5 reveals that changing pattern of behaviour within the socio-economic variables on institutional delivery. The rural-urban gap has narrowed from DLHS-2 to DLHS-3. Percentage of women had institutional delivery has increase among Hindu and Muslims but declined among others (Christians, Buddhists, Jain etc.). As the JSY scheme focused on to mainstreaming the marginalised group like SC, ST and OBCs in the society to access the institutional delivery services, the results shows an increase in percentage of women who had utilised institutional delivery from DLHS-2 to DLHS-3. This gives a rosy picture for the scheme's success. Percentage of women having institutional delivery increases with rise in level of education. Although, the pattern in utilisation of institutional delivery remains the same from round two to round three of DLHS across the educational categories but the there is substantial in utilisation of institutional delivery among illiterate women and women with primary education during DLHS-3. This provides the effect of the JSY scheme where women with none/low education also motivated to deliver their baby at health facilities. However, the gap across the economic classes (types of house considered as proxy) did not change on utilisation of institutional delivery between two surveys only the level has increased over time. Similar scenario found for women with different age groups, age at marriage and with number of ANC visits. It is necessary to highlight that percentage of women has increased substantially with lower birth order (one and two) to delivery at health facilities during DLHS-3 compared to DLHS-3, whereas it is marginally increased for higher birth orders. ASHA workers are the catalyst to utilisation of JSY scheme and 54.5 percent women had reported that they were motivated by ASHA to have institutional delivery among who have institutional delivery. This provides that community participation in health system is flourishing in rural India.

The logistic regressions results also convey the same massage that pattern of utilisation of institutional delivery care did not change across the socio-economic categories *per se* expect few isolated cases (Table 5). It shows that women belong to OBC community are less likely to have institutional delivery compared to women belong to non SC/ST/OBC community during DLHS-3 whereas the situation was revered during DLHS-2. Similarly, DLHS-3 estimates shows that likelihood of having institutional delivery is low among Muslim women compared to Hindus while opposite scenario was prevailed during DLHS-2 survey. Women with two children are significantly less likely to utilise facility for institutional delivery than women with one child, however, it did not have significant impact during DLHS-2. As expected, rise in education and standard of living has significantly positive impact on utilisation institutional delivery. Motivation to have an institutional delivery by ASHA is highly significant after controlling for all other variables. It clearly reveals that JSY scheme and ASHA has significant impact on increase of institutional delivery in EAG states.

Table 6 provides the state level variation by socio-economic and programme factors on prevalence of institutional delivery in EAG states. It reveals that level of institutional delivery has increased in all socio-economic categories in all states from marginal to high. However, stats like Jharkhand and Chhattisgarh improvement of utilisation of institutional delivery among illiterate are somewhat negligible. Madhya Pradesh and Rajasthan show sharp increase in institutional delivery among illiterate between DLHS-2 and 3. Similar scenario also found with types of houses in these stats where women living in kachcha houses are accessing more institutional delivery during the recent survey compared to the earlier. This

explains that the JSY scheme must have impact on changing behaviour of women in these states. Chhattisgarh and Rajasthan shows marginal difference in motivation of ASHA for institutional delivery whereas, states like Uttar Pradesh, Bihar, Orissa, Uttarakhand have major roles of ASHA on institutional delivery. Further, the bivariate results are second by the multivariate analysis to understand the net effect of certain variables. Rise in educational level have significantly positive impact on increase in utilisation of institutional delivery in almost all EAG states. But it is important to point out that women with primary level of education are significantly more likely to have institutional delivery compared to illiterate revealed from DLHS-3 survey. On the other hand, education above primary level only had significantly positive influence on institutional delivery during DLHS-2. State like Madhya Pradesh and Rajasthan where increase in institutional delivery is high, low educational level does not play a significant role but types of house have positive impact on rise in institutional delivery in these states. Age of women, age at marriage, children ever born, ANC visits have significant influence on institutional delivery in all states and the pattern remained unchanged between both surveys. Motivation of ASHA workers on institutional delivery has significantly positive impact on institutional delivery in all states. This reveals that likelihood is high to have an institutional delivery if woman is motivated by ASHA. Therefore, the JSY encourage mothers to avail the monetary benefit to have an institutional delivery but to reach this massage ASHA works as a changing agent within the community. To make the scheme more successful ASHA have a significant role to play.

#### CONCLUSIONS

There is substantial increase in institutional delivery in EAG states but there are wide variations among the states. The above discussion clearly pointed out that JSY have some impact on increasing institutional delivery in EAG states and specially in PHC, CHC/Rural hospital in some of the states. Similarly, education and standard of living played an important role on increase in institutional delivery and hence the benefits of the JSY scheme but states like Madhya Pradesh, Rajasthan and Orissa where massive rise in institutional delivery has been observed, these factors failed to explain the totality. Motivation by ASHA for institutional delivery came out as an important factor in the study.

The study thus concludes that the JSY undoubtedly contributed to a tremendous improvement in institutional delivery and increased pressure on the public health system specially in PHC, CHC/rural hospitals. Institutional delivery needs to be backed by good quality of both basic Emergency Obstetric Care (EmOC) and comprehensive emergency obstetric care. Most of the EAG states are not fully equipped with EmOC services. Even sometime lack of skilled human resource makes C-section unavailable in rural setups. Transport for referral is also a burning side of accessing/utilizing institutional delivery. Moreover, micro birth plan and birth preparedness are rare in rural India. ASHA workers may provide support to mothers on these with more hands on training.

It was obvious that each state in India has unique characteristics even if we try to bring them under one umbrella for programme point of view. The present study came out with vivid description how each state responded differently on the same JSY scheme. The utilisation of the scheme differs across the EAG states and its impact on institutional delivery. Even the receiving financial benefits under the JSY also vary across the states. Moreover, people with different socio-economic groups in these states responded differently on institutional delivery after implementation of JSY. The scheme was aimed to bring the marginalized and poorer section of the community to forefront and provide them the maternal health care through promoting institutional delivery. But women belong to SC/ST/OBC community are still not availing the services in these states. This depicts that the scheme still not reached to a particular section of the society for which it meant for. The scheme offered safe delivery/institutional delivery or BPL households and the study shows that the JSY provided support to them. Madhya Pradesh, Orissa, and Rajasthan have an impressive rise in institutional delivery and also high percentage of women received financial benefits through the JSY. This should use as a model case and promote in other states like Jharkhand and Chhattisgarh where acceptance is low. Many other progamatic factors influence in success of a scheme in certain states and further research may focus on more of programmatic factors to understand the difference in utilization of the JSY scheme in EAG states. Planned implementation of programme through NRHM may help achieve the goals of NPP 2000 and hence MDG-5.

#### REFERENCES

- Government of India. 2005. Ministry of Health and Family Welfare. *National Rural Health Mission*, available at <<u>http://mohfw.nic.in/</u>>.
- IIPS .2006. District Level Household Survey (DLHS-2) 2002-04, IIPS, Mumbai.
- IIPS. 2010. District Level households and Facility Survey (DLHS-3), 2007-08: India. Mumbai: IIPS.
- Kumari Vinod, Deepali Dhawan, and Archana Raj Singh. 2009. Advantages as perceived by the beneficiaries Of Janani Suraksha Yojana (JSY) in Bikaner district. *Journal of Dairying, Foods and Home Sciences* 28 (3&4): 971-4456
- Lim, Stephen S, Lalit Dandona, Joseph A Hoisington, Spencer L James, Margaret C Hogan, Emmanuela Gakidou. 2010. India's Janani Suraksha Yojana, a conditional cash transfer programme to increase births in health facilities: an impact evaluation. *The Lancet* 375 (9730): 2009-2023.
- Mehta Poonam and Shubhra Dwivedy .A Study on Awareness about Janani Suraksha Yojana (JSY) among Rural Women. Available at <a href="https://www.socialtext.net/.../Report%20of%20study%20on%20JSY.doc">https://www.socialtext.net/.../Report%20of%20study%20on%20JSY.doc</a>
- Nandan Deoki, Shobha Malini, R.M.Tripathy, Poonam Khattar, K.S. Nair, and Y.L. Tekhre. 2008. *A Rapid Appraisal on Functioning of Janani Suraksha Yojana in South Orissa*. New Delhi: National Institute of Health and Family Welfare.

National Population Policy .2000. available at <<u>http://mohfw.nic.in/</u>>.

- Registrar General of India. 2011. Special Bulletin on Maternal Mortality in India 2007-09, Sample Registration System. Delhi: Ministry of Home Affair. <u>http://www.censusindia.gov.in/vital\_statistics/SRS\_Bulletins/Final-</u> <u>MMR%20Bulletin-2007-09\_070711.pdf</u> accessed 26 August 2011.
- Retherford, R. D. and Minja Kim Choe. 1993. *Statistical Model for Causal Analysis*. New York: John Wiley and Sons, INC.

Selected indicators			Emj	powered .	Action Gro	up States			All EAG states
	UP	BH	СН	JH	OR	MP	RJ	UK	-
	DLI	HS-2							
Mothers registered in the first trimester when they were pregnant with last live birth/ still birth	20.9	18.4	37.1	26.3	36.1	32.2	29.6	26.5	24.9
Mother who had at least 3 Ante-natal care visits during the last pregnancy	23.4	16.4	46.9	30.3	44.9	34.3	32.8	28.7	27.3
Institutional Birth	20.9	18.7	17.9	19.5	30.6	27.7	30.7	24.3	22.9
Delivery at home & other places assisted by doctor/nurse/LHV/ ANM	7.7	7.7	11.0	6.9	13.8	10.2	18.9	11.9	9.7
	DLI	IS-3							
Mothers registered in the first trimester when they were pregnant with last live birth/ still birth	26.4	25.7	41.6	32.7	48.9	36.6	35.1	34.9	31.8
Mother who had at least 3 Ante-natal care visits during the last pregnancy	23.1	27.6	53.6	32.5	56.0	37.0	30.2	33.8	31.6
Institutional Birth	26.2	30.1	21.1.	20.2	46.2	50.0	48.2	31.9	33.4
Delivery at home & other places assisted by doctor/nurse/LHV/ ANM	8.1	5.9	14.5	8.8	11.7	6.3	13.3	8.2	8.6
Mother who received post natal care from any health personnel within 48 hours of delivery of their last child	34.4	27.1	40.8	30.9	28.5	38.3	39.7	31.9	33.8
Mothers who received financial assistance for delivery under JSY	3.4	6.9	6.8	2.3	22.3	25.8	20.9	7.5	10.6
Percentage of Women facilitated and motivated by ASHA for									
Ante-natal care	1.8	3.9	7.6	.5	5.8	2.1	2.2	4.4	2.8
Delivery at health facility	1.1	4.7	6.8	.3	7.7	2.2	2.1	3.7	2.7

#### Table 3: Selected Indicators on Janani Surasha Yojona in Empowered Action Group States in India, DLHS-2, 2002-04 and DLHS-3, 2007-08

Source: computed from DLHS-2, 2004-06 & DLHS-RCH-3, 2007-08 data files

Note: UP: Uttar Pradesh; BH: Bihar; CH: Chhattisgarh; JH: Jharkhand; OR: Orissa; MP: Madhya Pradesh; RJ: Rajasthan; UK: Uttarakhand.

Those currently married women in the age group of 15-44 years who experienced live or still births during three years preceding the survey.

The percentages are computed after applying survey sample weights and the number of women given in unweighted.

Place of Delivery	Empowered Action Group States											
That of Derivery	UP	BH	СНН	JH	OR	MP	RJ	UK	states			
	-		•	DLHS-2		•			-			
Government/Municipal Hospital	5.0	3.2	5.2	3.8	13.2	11.8	9.6	9.2	6.6			
Government Dispensary	0.7	0.8	2.8	0.2	1.5	2.2	3.7	0.7	1.4			
UHC/UHP/UFWC	0.1	0.1	0.0	0.0	0.3	0.1	0.4	0.0	0.1			
CHC/Rural hospital	0.5	0.1	0.1	0.1	3.4	1.5	2.1	0.2	0.9			
РНС	1.4	0.4	0.4	0.5	4.5	1.4	2.6	0.5	1.4			
Sub center	0.4	0.1	0.2	0.0	0.4	0.3	0.5	0.1	0.3			
NGO/Trust hospital	0.2	0.1	0.3	0.6	0.2	0.1	0.0	0.4	0.2			
Government ISM hospital/clinic	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.2	0.1			
Private ISM hospital/clinic	0.7	0.2	0.3	0.4	0.5	0.3	0.4	1.7	0.5			
Private Hospital/Clinic	11.8	13.9	8.4	13.8	6.4	9.9	11.3	11.2	11.6			
Home	78.6	81.0	82.0	80.2	68.3	72.0	68.8	75.6	76.7			
Others	0.4	0.2	0.7	0.3	1.0	0.3	0.5	0.1	0.3			
Number of women	31005	18311	5361	7442	9188	15926	13509	3710	104452			
			•	DLHS-3	•	•		•				
Government Hospital	3.8	5.9	6.2	4.2	20.1	17.9	13.6	12.1	8.8			
Government Dispensary	0.1	0.1	0.0	0.0	0.3	0.1	0.3	0.0	0.1			
UHC/UHPC/UFWC	0.1	0.1	0.1	0.1	0.6	0.3	0.3	0.2	0.2			
CHC/Rural hospital	2.0	0.6	2.8	0.1	7.5	13.4	13.0	2.3	4.9			
РНС	2.8	6.1	1.8	1.2	8.8	7.5	8.7	4.4	5.0			
Sub center	0.8	0.4	0.7	0.2	0.4	0.8	0.9	0.3	0.6			
AYUSH hospital/clinic	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0			
NGO/Trust/Clinic	0.4	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2			
Private Hospital/Clinic	15.9	16.5	9.1	13.4	8.0	9.7	11.2	11.8	13.3			
Private AYUSH Hospital/Clinic	0.3	0.2	0.1	0.4	0.3	0.2	0.2	0.4	0.3			
Home	72.9	69.1	78.6	79.4	52.6	49.3	51.0	67.6	65.8			
Others	0.9	0.9	0.3	0.5	1.1	0.7	0.7	0.4	0.8			
Number of women	37563	21315	6114	11298	7637	15839	12405	4097	116268			

#### Table 4: Percentage Distribution of Place of Delivery in Empowered Action Group States in India, DLHS-2, 2002-04 and DLHS-3, 2007-08

Source: computed from DLHS-2 &3, 2004-06 & 2007-08 data files. UP: Uttar Pradesh; BH: Bihar; CH: Chhattisgarh; JH: Jharkhand; OR: Orissa; MP: Madhya Pradesh; RJ: Rajasthan; UK: Uttarakhand...

\*Those currently married women in the age group of 15-44 years who experienced live or still births during three years preceding the survey.

The percentages are computed after applying survey sample weights and the number of women given in unweighted. UHC: Urban Health Centre, UHP: Urban Health Post, UFWC: Urban Family Welfare Centre, CHC: Community Health Centre, ISM: Indian System of Medicine, NGO: Non Governmental Organisation.

Background characteristics		DLHS-2		DLHS-3					
C	Percent who had institutional delivery	Odds ratio	Number of women	Percent who had institutional delivery	Odds ratio	Number of women			
Residence									
Rural	16.8	1.000	77928	27.1	1.000	100339			
Urban	50.1	1.462**	26524	55.0	1.932**	15929			
Religion									
Hindu	23.0	1.000	89683	34.5	1.000	98424			
Muslim	20.7	0.765**	13346	28.8	0.712**	14306			
Others	46.2	1.279**	1423	36.8	0.689**	1612			
Ethnicity									
Non SC/ST/OBC	38.5	1.000	23342	49.5	1.000	20741			
Scheduled Caste (SC)	15.8	0.901**	20634	27.5	0.725**	22722			
Scheduled Tribe (ST)	12.4	0.744**	11973	21.1	0.645**	16364			
Other backward castes (OBC)	21.5	1.096**	48503	32.7	0.802**	56212			
Educational level (Years of Schooling)									
Illiterate/ No schooling	13.3	1.000	65566	21.3	1.000	68565			
0-5	24.1	0.753**	11440	33.2	1.221**	16380			
6-10	40.3	1.047**	19412	49.2	1.627**	23464			
11 +	73.4	2.090**	7952	76.2	2.732**	7826			
Type of house		2.090							
Kuchcha	12.6	1.000	46985	23.4	1.000	55482			
Semi-pucca	21.2	0.971*	32531	31.5	1.233**	38280			
Pucca	47.7	1.421**	24936	55.7	1.707**	22505			
Age of women (Years)		1.421	24930		1.707	22000			
15-19	22.9	0.897**	9889	37.1	0.977	7896			
20-24	25.3	1.000	36142	38.5	1.000	39515			
25-29	23.3	0.998	31656	34.0	1.002	37400			
30-34	19.4	1.075**	17082	27.9	1.033	19911			
35 +	15.8	1.190**	9683	21.0	1.020	11546			
Age at marriage (Years)	15.0	1.190***	9083	21.0	1.020	11540			
<18	15.8	1.000	66176	25.5	1.000	70638			
> 18	36.6	1.000	38276	44.4	1.052**	45630			
Children ever born	50.0	1.087***	38270		1.052	43030			
	38.0	1.000	24173	51.1	1.000	27741			
2	27.2	1.000	23847	38.3	0.595**	27741 27511			
3	19.7	0.818**	18889	26.3	0.457**	36186			
4+	13.0			16.8	0.367**	24364			
	15.0	0.674**	37543	10.8	0.507***	24304			
Pregnancy wastage	22.2	1.000	00001	22.1	1.000	00000			
No Yes	22.3 26.4	1.000	88881 15571	33.1 35.1	1.000 1.177**	98888 17366			
ANC visits	20.4	1.198**	15571	55.1	1.1//**	17300			
No ANC visits	9.2		44	15.8	1.000	42705			
		1.000	41753						
1	21.3	0.946*	11415	32.7	2.081**	8677			
2	23.9	0.934**	20439	32.6	1.935**	29391			
3	29.4	1.113**	12763	40.0	2.370**	19264			
4 +	55.7	2.194**	18082	67.8	4.945**	16231			
Motivated by ASHA									
No	NA	NA	NA	32.8	1.000	112813			
Yes	NA	NA	NA	54.5	3.175**	3455			
Constant	NA	0.605	NA	NA	0.294	NA			
-2 log likelihood	NA	83047.30	NA	NA	116326.57	NA			
Pseudo R square (Nagelkarke)	NA	0.336	NA	NA	0.27	NA			
Number of women 	22.9	104370	104452	33.4	113606	116268			

# Table 5: Prevalence of institutional delivery by selected background characteristics in EAG states India,2002-04 and 2007-08

Source: computed from DLHS-2 &3, 2004-06 & 2007-08 data files. NA: Not applicable. \*P<0.05; \*\*p<0.01.

Those currently married women in the age group of 15-44 years who experienced live or still births during three years preceding the survey. The percentages are computed after applying survey sample weights and the number of women given in unweighted.

For some of the factors, the numbers in categories may not add up to total due to missing information.

Background				DLH	IS-2							DL	HS-3			
characteristics	UP	BH	СН	JH	OR	MP	RJ	UK	UP	BH	СН	JH	OR	MP	RJ	UK
Residence																
Rural	16.0	15.8	10.0	10.1	25.1	17.0	22.5	17.5	22.1	25.7	13.3	13.4	40.3	40.7	40.7	25.0
Urban	41.5	45.8	50.4	60.5	62.7	60.2	56.5	42.2	38.6	54.4	47.9	59.3	74.1	72.4	67.6	59.3
Religion																
Hindu	21.1	19.5	16.6	20.4	30.7	25.8	30.0	24.9	26.5	31.9	20.1	23.7	46.6	48.6	47.9	31.3
Non-Hindu	20.1	14.6	53.8	15.7	29.7	50.6	36.1	20.7	25.3	21.3	41.1	18.2	39.4	69.7	50.8	36.1
Ethnicity																
Non SC/ST/OBC	33.6	32.3	55.1	50.6	49.2	48.3	45.4	28.4	40.2	46.0	54.3	52.8	67.6	68.5	63.9	33.5
Scheduled Caste (SC)	13.7	11.8	14.3	13.7	25.2	21.2	23.7	15.9	18.2	22.3	22.3	16.4	43.2	51.2	40.9	23.1
Scheduled Tribe (ST)	11.5	12.6	9.7	7.1	13.6	10.4	22.2	22.9	15.2	17.2	11.4	8.8	21.6	29.3	40.2	32.0
Other backward castes	10.0		164	21.0		20.0			04.1	20.2		22.2			47.2	
(OBC)	18.8	17.3	16.4	21.0	37.6	29.0	28.4	20.2	24.1	29.3	23.0	23.3	54.7	54.3	47.3	36.8
Educational level (Years																
of Schooling)																
Illiterate/ No schooling	12.5	11.4	8.8	8.1	16.5	15.7	19.9	10.8	16.5	20.5	9.1	8.9	22.0	36.5	36.7	15.8
0-5	22.1	22.5	9.7	18.9	28.2	27.8	34.7	17.8	24.8	30.9	17.8	19.8	42.6	50.0	49.7	19.1
6-10	36.0	36.3	28.5	40.0	51.3	44.2	56.0	25.1	39.3	52.1	29.0	38.9	63.8	63.8	68.0	32.1
11 +	69.3	68.2	72.9	80.7	76.3	80.4	83.1	64.2	69.1	76.6	69.1	76.1	88.5	87.2	88.8	62.8
Type of house																
Kuchcha	10.5	10.7	9.9	8.0	21.9	15.0	17.6	12.9	16.7	20.3	13.7	11.5	34.2	38.9	34.6	19.7
Semi-pucca	18.2	23.0	19.2	26.3	37.5	30.6	22.2	14.2	23.0	30.5	27.7	32.3	55.5	56.6	44.0	23.6
Pucca	47.0	41.6	57.6	57.9	59.2	60.6	41.6	40.3	44.9	56.9	59.0	58.5	76.3	74.8	61.1	40.2
Age of women (Years)																
15-19	20.2	21.0	20.5	17.4	27.9	26.0	34.6	23.8	27.5	39.4	23.4	24.2	48.5	60.4	56.3	36.2
20-24	23.6	21.5	16.1	22.6	32.1	28.4	33.6	23.7	29.8	36.5	21.4	24.1	52.3	55.4	53.4	33.8
25-29	22.6	19.2	20.0	21.6	32.8	29.9	30.2	28.4	27.5	29.0	21.5	21.6	48.5	47.1	48.3	32.5
30-34	18.0	14.5	18.0	15.8	27.3	25.4	26.2	21.4	22.5	22.1	22.5	15.8	39.1	46.2	40.5	30.0
35 +	14.3	13.0	15.2	11.9	24.4	21.7	21.1	15.8	18.1	18.5	13.1	9.8	28.7	35.0	33.1	24.3
Age at marriage (Years)																
< 18	14.4	14.2	9.8	12.4	19.9	19.4	22.0	12.1	18.7	25.2	11.4	15.4	30.1	40.4	41.5	18.3
> 18	33.4	32.4	29.3	35.6	42.7	43.7	44.7	30.3	38.3	43.7	30.5	25.9	55.2	62.8	57.8	36.1
Children ever born																
1	35.8	30.8	29.2	34.3	50.1	42.7	46.9	37.3	42.8	47.5	35.8	33.8	67.5	68.5	62.0	47.8
2	25.2	22.6	23.1	25.2	30.5	31.4	35.1	27.6	31.3	35.4	22.8	24.7	48.3	53.1	50.5	34.2
3	19.2	17.2	10.2	14.6	22.1	24.0	25.7	20.2	22.1	25.0	13.2	13.7	29.1	40.7	41.0	19.4
4 +	12.6	11.2	8.8	8.0	16.0	16.5	17.4	12.2	14.1	17.0	6.2	7.0	13.4	30.2	30.7	16.1
Pregnancy wastage																
No	20.3	18.1	17.6	19.1	29.5	27.0	29.8	24.1	25.5	29.8	20.0	19.7	45.6	49.1	47.7	31.7
Yes	23.7	22.0	21.3	21.9	37.2	33.8	35.7	26.4	28.8	32.0	28.6	24.9	49.3	57.4	53.2	33.2
ANC visits																
No ANC visits	9.1	9.1	8.4	4.1	11.8	10.3	12.4	9.7	11.3	17.4	5.6	4.1	16.7	26.3	26.5	10.8
1	20.3	24.2	9.3	12.2	18.3	21.4	29.1	19.4	23.5	34.0	9.7	14.7	35.7	50.6	54.2	29.3
2	22.5	28.9	10.1	22.4	25.3	23.9	30.7	20.5	28.5	29.4	13.4	17.8	34.1	55.0	51.5	33.9
3	27.6	33.0	16.5	25.2	32.7	30.8	37.0	27.1	34.5	33.1	19.0	27.9	43.1	59.7	66.8	45.1
4 +	55.8	58.9	35.8	59.7	54.2	59.2	57.3	63.6	63.5	71.4	43.3	56.7	70.3	78.4	79.3	66.8
Motivated by ASHA																
No	NA	NA	NA	NA	NA	NA	NA	NA	25.9	28.6	21.0	20.1	44.7	49.6	48.2	31.2
Yes	NA	NA	NA	NA	NA	NA	NA	NA	50.7	61.7	21.9	45.8	64.9	67.3	49.7	51.0
All women	20.9	18.7	17.9	19.5	30.6	27.7	30.7	24.3	26.2	30.1	21.1	20.2	46.2	50.0	48.2	31.9
Number of women Source: computed from DLHS	31005	18311	5361	7442	9188	15926	13509	3710	37563	21315	6114	11298	7637	15839	12405	4097

## Table 6: Prevalence of institutional delivery by selected background characteristics in EAG states India,DLHS-2, 2002-04 and DLHS-3, 2007-08

Source: computed from DLHS-2 &3, 2004-06 & 2007-08 data files

UP: Uttar Pradesh; BH: Bihar; CH: Chhattisgarh; JH: Jharkhand; OR: Orissa; MP: Madhya Pradesh; RJ: Rajasthan; UK: Uttarankhand..

Those currently married women in the age group of 15-44 years who experienced live or still births during three years preceding the survey.

The percentages are computed after applying survey sample weights and the number of women given in unweighted.

For some of the factors, the numbers in categories may not add up to total due to missing information.

			DLH	S-2							J	DLHS-3			
UP	BH	СН	JH	OR	MP	RJ	UK	UP	BH	CH	JH	OR	MP	RJ	UK
1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1.256**	1.524**	1.816**	1.907**	1.681**	1.702**	1.446**	1.326**	1.260**	2.429**	2.220**	2.565**	2.505**	1.762**	1.743**	2.543**
1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
0.915**	0.833**	1.121	0.833**	0.886	0.976	0.922*	1.128	0.976	0.533**	1.703**	0.814*	0.781	1.190	0.794**	1.112
1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
0.888*	0.850**	0.889	0.841	0.999	0.918	0.861**	0.917	0.623**	0.514**	0.857	0.366**	0.803*	0.994	0.845*	1.093
0.770*	0.915	0.831*	0.501**	0.670**	0.656**	1.085	1.491	0.575**	0.368**	0.538**	0.255**	0.451**	0.521**	1.104	2.083**
1.105*	0.952	0.717**	1.310**	1.240**	1.156**	0.964	0.782	0.754**	0.609**	0.823	0.471**	0.863	0.888*	0.874*	1.675**
1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
0.742**	0.856**	0.541**	0.803	0.710**	0.747**	0.719**	0.817	1.236**	1.311**	1.183	1.450**	1.614**	1.036	1.120	1.018
															1.585**
															2.990**
1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
0.944**								1.183**			1.618**				0.937
1.546**	1.324**	1.685**	1.378**	1.310**	1.451**	1.177**	1.346*	1.585**	1.865**	2.013**	2.094**	1.818**	1.531**	1.448**	1.061
0.820**	0.988	1.067	0.580**	0.738**	0.921	1.171*	1.272	0.963	1.078	1.318	1.009	1.108	1.501**	1.311**	1.495
			1.000	1.000							1.000				1.000
1.032	0.944	0.901	1.037	1.036	1.069	0.901*	0.947	1.132**	0.847**	1.377**	1.198*	1.090	0.727**	0.874*	1.104
1.171**	0.942	1.291*	1.022	1.218*	0.968	1.013	1.023	1.239**	0.778**	1.562**	1.319*	1.054	0.867*	0.792**	1.279
1.137**	1.252**	1.280	1.814**	1.385**	1.192*	1.014	1.266	1.313**	0.820*	1.406	1.234	1.123	0.687**	0.766**	1.506
1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1.054**	1.182**	1.182**	1.107	1.105**	1.028	1.175**	1.141	1.231**	1.085	1.302**	0.864*	1.304**	1.230**	1.042	1.165
1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
0.990	1.054	1.136	1.172*	0.894*	0.988	1.042	1.016	0.585**	0.590**	0.448**	0.593**	0.476**	0.587**	0.701**	0.644**
0.838**	0.843**	0.611**	0.649**	0.785**	0.842**	0.817**	0.934	0.457**	0.498**	0.331**	0.386**	0.311**	0.539**	0.680**	0.415**
0.663**	0.723**	0.693**	0.609**	0.634**	0.702**	0.710**	0.656*	0.353**	0.472**	0.208**	0.326**	0.208**	0.474**	0.614**	0.416**
										1					
1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1.215**	1.220**	1.292**	1.056	1.214**	1.140**	1.145**	1.148	1.316**	1.274**	1.318*	1.244*	1.187*	1.248**	1.320**	1.263
İ	İ			İ	1	1	İ			1					1
1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
	1.000           1.256**           1.000           0.915**           1.000           0.888*           0.770*           1.105*           1.000           0.742**           1.037           2.231**           1.000           0.944**           1.546**           0.820**           1.000           1.032           1.171**           1.37**           1.000           0.990           0.838**           0.663**           1.000           1.215**	1.000         1.000           1.256**         1.524**           1.000         1.000           0.915**         0.833**           1.000         1.000           0.915**         0.833**           1.000         1.000           0.888*         0.850**           0.770*         0.915           1.105*         0.952           1.000         1.000           0.742**         0.856**           1.037         1.013           2.231**         1.806**           1.000         1.000           0.944**         1.110**           1.546**         1.324**           0.820**         0.988           1.000         1.000           1.032         0.944           1.171**         0.942           1.137**         1.252**           1.000         1.000           1.000         1.000           0.990         1.054           0.838**         0.843**           0.663**         0.723**           1.000         1.000           1.215**         1.220**	1.000         1.000         1.000 $1.256^{**}$ $1.524^{**}$ $1.816^{**}$ 1.000 $1.000$ $1.000$ $0.915^{**}$ $0.833^{**}$ $1.121$ 1.000 $1.000$ $1.000$ $0.915^{**}$ $0.833^{**}$ $1.121$ 1.000 $1.000$ $1.000$ $0.888^{*}$ $0.850^{**}$ $0.889$ $0.770^{*}$ $0.915$ $0.831^{*}$ $1.105^{*}$ $0.952$ $0.717^{**}$ 1.000 $1.000$ $1.000$ $0.742^{**}$ $0.856^{**}$ $0.541^{**}$ $1.000$ $1.000$ $1.000$ $0.742^{**}$ $0.856^{**}$ $0.541^{**}$ $1.000$ $1.000$ $1.000$ $0.742^{**}$ $0.856^{**}$ $0.541^{**}$ $1.000$ $1.000$ $1.000$ $0.944^{**}$ $1.100^{*}$ $0.876$ $1.000$ $1.000$ $1.000$ $1.022^{**}$ $0.944$ $0.901$ $1.171^{**}$ $0.942$	UP         BH         CH         JH           1.000         1.000         1.000         1.000           1.256**         1.524**         1.816**         1.907**           1.000         1.000         1.000         1.000           0.915**         0.833**         1.121         0.833**           1.000         1.000         1.000         1.000           0.915**         0.830**         0.889         0.841           0.770*         0.915         0.831*         0.501**           1.105*         0.952         0.717**         1.310**           1.000         1.000         1.000         1.000           0.742**         0.856**         0.541**         0.803           1.037         1.013         1.104         0.974           2.231**         1.806**         2.701**         1.968**           1.000         1.000         1.000         1.000           0.944**         1.110**         0.876         1.163*           1.546**         1.324**         1.685**         1.378**           0.820**         0.988         1.067         0.580**           1.000         1.000         1.000         1.000	UP         BH         CH         JH         OR           1.000         1.000         1.000         1.000         1.000           1.256**         1.524**         1.816**         1.907**         1.681**           1.000         1.000         1.000         1.000         1.000           0.915**         0.833**         1.121         0.833**         0.886           1.000         1.000         1.000         1.000         1.000           0.888*         0.850**         0.889         0.841         0.999           0.770*         0.915         0.831*         0.501**         0.670**           1.105*         0.952         0.717**         1.310**         1.240**           1.000         1.000         1.000         1.000         1.000           0.742**         0.856**         0.541**         0.803         0.710**           1.037         1.013         1.104         0.974         1.291**           2.231**         1.806**         2.701**         1.968**         1.832**           1.000         1.000         1.000         1.000         1.000           0.944*         0.876         1.163*         0.912	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$

#### Table 7: Determinants of institutional delivery of Birth in EAG States India, DLHS-2, 2002-04 and DLHS-3, 2007-08

1	0.908*	0.870**	0.832	0.757*	0.770**	1.005	1.040	1.031	1.835**	1.731**	1.524*	3.230**	2.091**	2.408**	2.834**	2.897**
2	0.936*	1.041*	0.788*	1.210*	0.979	0.907*	0.959	0.728*	2.198**	1.399**	1.762**	3.635**	1.807**	2.640**	2.569**	3.177**
3	1.104**	1.148**	0.942	1.122	1.186*	1.113*	1.185**	0.914	2.554**	1.587**	2.296**	5.183**	2.195**	2.950**	4.235**	3.919**
4 +	2.260**	2.416**	1.704**	2.870**	2.069**	1.916**	1.874**	2.987**	5.416**	4.545**	3.720**	10.162**	3.894**	4.699**	6.329**	8.111**
Motivated by ASHA																
No (RC)	NA	NA	NA	NA	NA	NA	NA	NA	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Yes	NA	NA	NA	NA	NA	NA	NA	NA	3.844**	6.305**	1.872**	5.048**	3.524**	3.101**	1.452**	2.147**
Constant	0.474	0.730	0.569	0.411	0.688	0.675	0.815	0.541	0.186	0.417	0.098	0.131	0.290	0.598	0.361	0.087
-2 log likelihood	29965.75	15525.31	2807.41	3588.05	6073.66	11063.455	11298.78	1331.09	34707.17	20345.1 5	4394.53	6343.31	7483.18	17743.95	14189.55	3790.08
Pseudo R square (Nagelkarke)	0.303	0.311	0.416	0.536	0.362	0.378	0.315	0.370	0.249	0.282	0.315	0.429	0.425	0.303	0.275	0.363
Number of women	30997	18293	5356	7441	9176	15902	13497	3708	37258	21161	6066	9346	7559	15765	12364	4087

Source: computed from DLHS-2 &3, 2004-06 & 2007-08 data files; NA: Not applicable. \*P<0.05; \*\*p<0.01.

UP: Uttar Pradesh; BH: Bihar; CH: Chhattisgarh; JH: Jharkhand; OR: Orissa; MP: Madhya Pradesh; RJ: Rajasthan; UK: Uttarakhand.

Those currently married women in the age group of 15-44 years who experienced live or still births during three years preceding the survey.

The percentages are computed after applying survey sample weights and the number of women given in unweighted.

For some of the factors, the numbers in categories may not add up to total due to missing information.

States	Among who had Institutional Delivery	Among who had Home Delivery	All delivery
Uttarakhand	9.6	1.2	3.4
Uttar Pradesh	19.0	2.1	7.5
Jharkhand	5.7	1.5	2.3
Bihar	20.3	1.2	6.9
Chhattisgarh	19.1	3.6	6.8
Madhya Pradesh	49.0	2.6	25.8
Orissa	39.3	7.6	22.3
Rajasthan	42.0	1.2	20.9
All EAG states	28.0	1.9	10.6

# Table 8: Percentage of beneficiaries received Financial benefits under JSY by types of delivery in EAG states India, DLHS-3, 2007-08

Source: computed from DLHS-3, 2007-08 data files

Background characteristics	UK	UP	BH	СН	JH	OR	MP	RJ	All EAG
Residence									
Rural	7.6	3.5	6.5	7.0	2.5	23.1	24.7	19.8	10.1
Urban	7.0	3.1	9.2	6.2	1.2	18.5	28.6	23.6	12.3
Religion									
Hindu	7.9	3.8	7.1	6.9	2.3	22.7	25.6	21.2	11.5
Non-Hindu	4.2	2.0	6.4	6.4	2.0	14.7	29.4	18.5	6.4
Ethnicity									
Non SC/ST/OBC	7.0	3.4	6.7	5.2	2.0	22.4	22.6	21.0	10.1
Scheduled Caste (SC)	8.7	4.0	6.8	8.1	2.5	26.1	31.5	20.1	11.5
Scheduled Tribe (ST)	7.2	4.6	4.5	6.9	2.7	17.5	22.1	23.8	13.4
Other backward castes (OBC)	7.4	3.1	7.1	6.9	2.1	24.3	27.2	20.2	9.7
Educational level (Years of Schooling)									
Illiterate/ No schooling	4.5	2.9	6.5	5.6	2.0	16.5	23.7	18.1	8.7
0-5	5.1	3.1	8.6	8.0	3.0	26.1	29.2	22.6	13.0
6-10	8.0	4.6	8.3	9.2	3.1	28.2	30.4	26.8	14.1
11 +	12.4	4.9	3.5	3.3	1.8	19.8	19.1	25.4	10.8
Type of house									
Kuchcha	6.6	3.7	6.2	7.1	2.3	21.7	25.8	19.3	11.2
Semi-pucca	8.2	3.1	7.8	7.6	3.0	25.8	28.9	20.0	9.3
Pucca	7.4	3.5	6.8	4.4	1.8	20.4	22.9	22.6	11.4
Children ever born									
1	10.0	4.7	9.0	11.6	3.6	29.4	32.6	26.6	15.2
2	8.3	4.1	6.5	5.8	2.4	24.1	26.9	20.6	12.1
3	5.3	2.9	6.4	5.3	1.8	16.7	22.5	18.5	8.8
4 +	4.3	2.4	6.2	3.0	1.6	9.0	19.0	14.8	6.1
ANC visits									
No ANC visits	3.7	1.8	4.2	3.0	1.0	10.9	15.9	11.0	5.8
1	12.1	3.0	9.0	5.4	3.9	25.4	30.0	26.6	12.8
2	9.1	4.3	10.3	7.7	3.9	22.4	32.8	25.5	11.4
3	11.6	4.1	7.9	7.9	3.1	24.0	34.1	29.8	13.7
4 +	9.9	4.8	6.5	8.3	2.9	25.6	28.4	29.6	15.9
Motivated by ASHA									
No	6.5	3.1	5.4	6.3	2.3	19.9	25.2	20.7	9.9
Yes	31.6	29.0	37.4	14.0	10.4	51.6	55.9	30.0	36.7
All women	7.5	3.4	6.9	6.8	2.3	22.3	25.8	20.9	10.6

### Table 9: Percentage of beneficiaries received Financial benefits under JSY by selected background characteristics in EAG states India, DLHS-3, 2007-08

Source: computed from DLHS-3, 2007-08 data files.**UP**: Uttar Pradesh; **BH**: Bihar; **CH**: Chhattisgarh; **JH**: Jharkhand; **OR**: Orissa; **MP**: Madhya Pradesh; **RJ**: Rajasthan; **UK**: Uttarankhand. Those currently married women in the age group of 15-44 years who experienced live or still births during three years preceding the survey. The percentages are computed after applying survey sample weights and the number of women given in unweighted. For some of the factors, the numbers in categories may not add up to total due to missing information.

Background characteristics	UK	UP	BH	СН	JH	OR	MP	RJ	All EAG
Residence									
Rural	8.0	3.1	12.4	13.3	0.8	14.7	4.8	3.2	6.6
Urban	2.2	0.5	2.2	1.3	0.3	0.9	0.4	0.6	0.8
Religion									
Hindu	6.3	2.6	9.5	7.4	0.4	11.0	3.1	2.3	4.8
Non-Hindu	3.3	0.8	9.9	3.6	1.5	7.9	1.2	1.3	2.6
Ethnicity									
Non SC/ST/OBC	6.4	1.4	5.0	1.9	0.2	7.6	1.6	1.0	2.8
Scheduled Caste (SC)	8.5	4.5	15.1	5.6	0.9	12.5	2.4	3.5	6.5
Scheduled Tribe (ST)	6.1	4.2	3.3	14.7	1.5	17.6	7.4	3.2	7.6
Other backward castes (OBC)	2.0	2.1	10.0	6.5	0.5	10.8	2.4	2.1	4.2
Educational level (Years of Schooling)									
Illiterate/ No schooling	5.2	3.4	14.1	13.7	0.9	17.5	3.4	3.0	6.1
0-5	6.9	2.5	12.2	7.8	1.2	12.3	4.0	2.3	5.5
6-10	6.3	1.4	5.5	7.2	0.4	10.4	2.9	1.7	3.8
11 +	5.4	1.0	1.0	1.7	0.4	4.6	0.6	0.3	1.5
Type of house									
Kuchcha	5.0	5.2	14.1	12.6	1.0	14.1	4.7	4.2	7.4
Semi-pucca	8.2	2.1	10.6	4.4	0.0	9.8	2.4	2.5	4.6
Pucca	5.4	0.8	3.6	0.6	0.5	6.8	0.7	1.2	1.9
Children ever born									
1	5.6	2.1	7.3	5.6	0.7	8.5	2.6	2.1	3.9
2	6.0	1.9	6.5	6.3	0.4	11.6	2.7	2.3	4.0
3	7.0	2.5	11.8	9.7	0.9	15.9	3.4	2.1	5.2
4 +	3.0	2.5	16.0	14.1	0.6	14.4	3.7	2.6	6.0
ANC visits									
No ANC visits	3.7	1.7	9.0	11.1	0.6	8.5	3.1	2.6	4.1
1	18.4	1.5	11.2	11.4	4.0	13.0	5.3	2.5	5.8
2	10.1	3.2	16.7	12.9	0.8	16.0	3.9	2.6	6.3
3	4.8	1.9	9.5	9.9	0.4	12.3	3.3	2.7	4.7
4 +	4.1	1.2	2.7	3.9	0.4	8.9	1.4	1.2	2.8
All women	5.9	2.2	9.6	7.1	0.6	10.9	2.9	2.2	4.5

 Table 10: Percentage of women motivated by ASHA for Institutional delivery by selected background characteristics among who had Institutional delivery in EAG states India, DLHS-3, 2007-08

Source: computed from DLHS-3, 2007-08 data files.

**UP**: Uttar Pradesh; **BH**: Bihar; **CH**: Chhattisgarh; **JH**: Jharkhand; **OR**: Orissa; **MP**: Madhya Pradesh; **RJ**: Rajasthan; **UK**: Uttarankhand. Those currently married women in the age group of 15-44 years who experienced live or still births during three years preceding the survey. The percentages are computed after applying survey sample weights and the number of women given in unweighted. For some of the factors, the numbers in categories may not add up to total due to missing information.

Mode of transport used for institutional delivery	UK	UP	BH	СН	JH	OR	MP	RJ	All EAG
Ambulance	2.4	0.5	1.7	3.1	2.2	3.3	2.2	0.6	1.6
Jeep/Car	56.1	32.7	25.6	45.3	38.3	40.3	29.6	54.9	36.7
Motor cycle/Scooter	9.1	11.5	4.5	11.5	9.4	4.7	16.1	9.4	10.3
Bus/Train	4.3	3.9	4.5	4.6	3.8	1.7	9.2	2.7	4.8
Tempo/Auto/Tractor	12.4	23.5	39.1	19.9	32.9	37.6	27.4	24.0	28.1
Animal drawn cart	4.6	5.8	7.0	0.7	3.5	0.2	2.6	1.2	3.7
Foot march	8.5	6.5	9.4	5.8	3.1	2.4	8.8	5.7	6.8
Other	2.6	15.4	8.3	9.1	6.9	9.8	4.2	1.6	8.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	1232	9248	5906	1100	2006	3369	7450	5642	35953

 Table 11: Percentage of women used different mode of transport to have institutional delivery among who had

 Institutional delivery in EAG states in India, DLHS-3, 2007-08

Source: computed from DLHS-3, 2007-08 data files

**UP**: Uttar Pradesh; **BH**: Bihar; **CH**: Chhattisgarh; **JH**: Jharkhand; **OR**: Orissa; **MP**: Madhya Pradesh; **RJ**: Rajasthan; **UK**: Uttarankhand. Those currently married women in the age group of 15-44 years who experienced live or still births during three years preceding the survey.