Women's Position within the Household and Maternal Health Care Utilization in Uttar Pradesh, India

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ABSTRACT

Although gender inequality is often cited as a barrier to improving maternal health in India, little attention has been directed at understanding how socio-cultural factors may influence the use of health care. Bi-variate analysis and multivariate regression model is used to assess the relationship of these variables to receipt of skilled antenatal and delivery care by using National Family Health Survey (NFHS), 2005-06. The findings of the study show that only 27 percent women in Uttar Pradesh decide themselves on their own health care. Few women reported participation in household decision making, and only 32 percent had any control over their own earnings. Though associations were not consistent across all indicators, employment & influence over earnings was linked to an increased likelihood of receiving skilled antenatal and delivery care. The strong association of women's education with health care use draws attention to the need for efforts to increase women's schooling.

Introduction

Dyson and Moore (1983) have stated that autonomy represents the 'capacity to manipulate one's personal environment,' and that 'equality of autonomy between the sexes…implies equal decision-making ability with regard to personal affairs.' Autonomy has thus increasingly been defined as a woman's 'ability or lack thereof to make decisions in the household' (Hindin, 2000b). Higher levels of women's autonomy, though context-specific and therefore measured slightly differently in different studies, have been associated with nutritional status (Hindin, 2000a), maternal health care utilization (Beegle, Frankenberg & Thomas, 2001; Bloom, Wypij, Das Gupta, 2001), and fertility behaviors and contraceptive use (Balk,1994; Hindin, 2000b; Govindasamy & Malhotra, 1996; Al Riyami, Afifi & Mabri, 2004; Moursund & Kravdal , 2003), lower rates of child mortality (Castle, 1993). Malhotra et al. (2002) provide an overview of women's status, empowerment, and decision-making autonomy, and a review of the literature linking these variables to health outcomes.

A common assertion in the literature is that the status of women, low level of education among women, poverty and poor sanitary conditions, high level of fertility and teen age fertility, low level of contraceptive use and low level of utilization of reproductive and child health services are associated with high level of maternal mortality (Choe and Chen, 2006; Royston and Armstrong,

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1989). It is found that women in Uttar Pradesh are dependent on their husbands and older family members for seeking health care (Das Gupta, 1995; Bloom et al., 2001). Although women have tended to be producers for the family in many agricultural settings, their lack of access to the income from this labour leaves them resource-poor (Abbas, 1997).

In developing countries females are in disadvantageous position with regard to health and well being (Santow, 1995).The cultures of South Asia are largely gender stratified, characterized by patrilineal descent, patrilocal residence, inheritence and succession practices that exclude women, and hierarchical relations in which the patriarch or his relatives have authority over family members (Jejeebhoy and Sathar, 2001). Patriarchal kinship and economic systems limit women's autonomy and as a result the health status of both women and children suffers (Caldwell, 1986).

The importance of women's household decision-making autonomy has long been recognized as an important factor in influencing reproductive behavior. Dyson and Moore (1983) and later Malhotra, Vanneman and Kishore (1995) found the North-South dichotomy in the demographic transition and emphasized the role of gender equality in this context. Besides the socio-economic factors, some of the other factors that are considered crucial while examining the level and trends in maternal mortality are those associated with reproductive behavior and access and utilization of maternal health care services (McCarthy and Maine, 1992). Use of maternal health care services is considered as a proximate determinant of maternal mortality (McCarthy and Maine, 1992; Jejeebhoy, 1997).

The Millennium development goal targets three-quarter reduction in the maternal mortality ratio in India between 1990 and 2015 (UN, 2000). The target of different policy documents of the Government of India is also to reduce the maternal mortality ratio to below 100 per 100,000 live births by 2010 (GOI, 2000; GOI, 2002; and GOI, 2005). Maternal mortality level in northwestern states (Haryana, Himanchal Pradesh and Punjab) is 289 deaths per 100,000 live births and in southern India is 383 while it is more than 600 in eastern states (Assam, Northeastern states and West Bengal) and north central zone (Bihar and Uttar Pradesh) (Bhat, 2002). The level of maternal mortality is very high in India and is observed highest in Uttar Pradesh. About two-thirds of maternal deaths occur in a handful of the states - Bihar and Jharkand, Orissa, Madhya Pradesh and Chhattisgarh, Rajasthan, Uttar Pradesh and Uttaranchal (the Empowered Action Group or EAG states) and in Assam (RGI, 2006).

Objectives and Hypothesis

The objectives of the study are to analyze the level and differential in the women's household decision making and utilization of maternal health care services and also to examine the association between women's decision making and utilization of maternal health care services in Uttar Pradesh.

The core hypothesis behind the paper is that, women with low decision making autonomy and status will be less likely to use maternal health care services.

Methods

This study is carried out for Uttar Pradesh using data from the National Family Health Survey (NFHS), 2005-06. NFHS, 2005-06 interviewed 12,183 women aged 15–49 years in Uttar Pradesh. However, the present study is based on the sample of currently married women who had at least one birth in the preceding five years of the date of survey. This analysis is based on latest births only. Therefore, total sample is restricted to 4, 596 women only. The study variables can be grouped into four categories: utilization of antenatal and delivery care, indicators of women's decision making autonomy, women's social and demographic characteristics and their perceptions of the geographic and economic accessibility of maternal health care.

Use of Maternal Health Care

Utilization of antenatal care services (at least once during the last pregnancy) and institutional delivery for the last birth are considered as dependent variables in this study.

Women's Decision Making Autonomy

The National Family Health Survey, 2005-06 asked women whether they were involved in decision making in four areas: daily needs household purchases, their own health care and large household purchases and visiting family or relatives. These four decision-making variables are used to create the dichotomous categories of "involved in final decision (has the final say alone or jointly)" and "not involved in final decision (another individual has the final say)." In India, there is a strong sense of family "togetherness" and individual identity is closely tied to the family, so decisions often involve complex negotiations. Measuring whether a woman is involved in the final decision making is therefore a more suitable measure than whether or not she is the sole decision maker. To carry out the multivariate analysis a composite index of women's decision making autonomy was also constructed and categorized as low and high autonomy. Further, this composite index was used to create a new variable named education-decision making autonomy.

Social and Demographic Characteristics

A number of social and demographic characteristics is considered in the analysis, including women's age and number of children ever born. Community norms and values influence individual behavior, therefore place of residence is also used in the analysis. Indicators of the household's socioeconomic circumstances included husband's education and wealth index.

Perception of the Accessibility of Care

Bose, Ashish (2007) argue that recently launched Janani Suraksha Yojana of the government of India to speed up the reduction of maternal mortality should focus more on the creation of health

infrastructure and ensuring road connectivity in the rural areas rather than merely doling out money to poor families. The distance women must travel to health facilities and the availability of transport options can have a significant impact on appropriate and timely use, as can user fees and household economic status (Thaddeus and Maine, 1994). However, perceptions of accessibility can be affected by socio cultural factors. To control for all of these factors, responses to the following question are assessed: "When you are sick and want to get medical advice or treatment, is each of the following a big problem, not a big problem or not a problem for you? 1) Distance to the health facility and 2) Getting the money needed to go."

Statistical Analysis

The bi-variate relationships of women's social and demographic variables and their perceptions of health care accessibility with the four indicators of their household decision making position and with their use of antenatal care and institutional delivery are examined using $\chi 2$ test. Again, bi-variate associations between the indicators of women's household decision making position and the two health care outcomes are also examined using $\chi 2$ test. Further, multivariate logistic regression models are developed to identify associations between the indicators of women's household decision making position and their use of maternal health care. Models controlled for a series of variables, including age and number of children ever born, residence, education, socioeconomic status and accessibility of health care.

Results

Social and Demographic Characteristics and Household Decision Making

Table 1 presents the percentage of currently married women aged 15-49 by selected indicators of their household position, according to social and demographic characteristics. In all, 62 percent of women reported being involved in the final decision (either alone or with others) regarding their own health care, and 50 percent reported involvement in large household purchases. Only 46 percent of all women were involved in the final decision regarding visiting family or relatives. About half reported being involved in the final decision regarding daily need household purchases.

Each of the four measures of women's household decision making varied significantly according to social and demographic characteristics. The percentage of women involved in decision making in all four dimensions rose with increasing age, ranging from 36-52 percent for 15-25 year olds to 61-74 percent for women aged 35 years or older. Findings for the number of children ever born are similar to those for women's age. Women reporting only one child were significantly less likely to be involved in decision making than were women reporting two or more children.

Higher proportions of urban women than of rural women reported being involved in decision making in all four dimensions. The percentage of women involved in decision making in all four dimensions were ranging from 44-60 percent for rural women to 55-69 percent for women residing in urban areas. Sex of head of household also plays an important role in decision making. Women residing in female headed household were more involved in decision making.

Women's perceptions of the geographic and economic accessibility of maternal health care are associated with all four indicators of women's household decision making. Women who characterized geographic accessibility as a "big problem" are significantly less likely to report decision-making involvement in all four dimensions. However, different decision-making pattern is observed among women who characterized economic accessibility as a "big problem".

Social and Demographic Characteristics and Maternal Health

Table 2 reveals percentage of currently married women aged 15-49 received antenatal care and institutional delivery according to social and demographic characteristics. Overall, the percentage of women receiving skilled maternal health care is low in Uttar Pradesh, with 66 percent using at least one antenatal care and 22 percent delivery care. Large disparities are evident across subgroups of women, although the patterns of use are similar for the two types of care. As expected, higher proportions of urban women than of rural women received antenatal care (78 percent vs. 63 percent) and delivery care (41 percent vs. 17 percent).

The variables of women's age and number of children ever born show similar trends of health care use. The proportion of women using skilled antenatal care and skilled delivery care fell from 74 percent and 22 percent, respectively, among the women aged less than 25 years to 48 percent and 18 percent, respectively, among women aged 35 or older. Likewise, the proportion using these two types of care dropped from 80 percent and 39 percent, respectively, among women who had one child to 47 percent and 11 percent, respectively, among those who had had six or more children.

Women's education had a strong, positive association with the receipt of skilled care. The proportion of women using antenatal care and delivery care rose from 57 percent and 13 percent, respectively, among those with no education to 93 percent and 60 percent, respectively, among those with high school and above education, though there was a large differential between the two types of care. Husband's education showed a similar pattern. Large differentials were found according to socioeconomic status.

Women in richest status households were more likely than those in poorest, poorer, middle and richer status households to use either antenatal care (91 percent vs. 51–83 percent) or delivery care (66 percent vs. 8–34 percent). Receipt of services was also associated with their perceived

accessibility. Women who reported that geographic or economic accessibility was a “big problem” were significantly less likely to receive skilled maternal health care.

Household Decision Making and Maternal Health Care

Table 3 presents bi-variate analysis examining the relationship between the indicators of women’s household position and the receipt of skilled maternal health care. It reveals that women’s involvement in decision making for their own health care is significantly associated with the use of antenatal and delivery care. In contrast, women’s involvement in decision making on visiting family or relatives shows significant difference only for antenatal care. Women who involved in decision making on large household purchases are more likely to have received either type of care (69 percent and 24 percent, respectively), whereas levels of use are much lower among women who were not involved (63 percent and 20 percent). The remaining indicator of women’s household position-final say on daily need household purchases-also showed significant differences in health care use. Seventy percent of women who were involved in decision making on daily need household purchases at least once received antenatal care and 25 percent delivered in institutions; among those who were not involved in decision making, 62 percent and 19 percent, respectively, received care.

Household Decision Making and Antenatal Care

To assessing the odds of receipt of antenatal care while controlling for different sets of confounding variables and women’s household position multivariate logistic regression model is used. Table 4 gives the odds ratio from multivariate logistic regression analysis assessing the association between indicators of women's household position and their utilization of Antenatal Care in Uttar Pradesh. Compared with women who were illiterate and high decision making autonomy those who were literate and low decision making autonomy were significantly elevated odds of using antenatal care after controls were added for potential confounders.

Household Decision Making and Delivery Care

Table 5 gives the odds ratio from multivariate logistic regression analysis assessing the association between indicators of women's household position and institutional delivery in Uttar Pradesh. The relationships between the indicators of women’s autonomy and institutional delivery were broadly similar to those between the indicators and antenatal care. Once the effects of all potential confounders were accounted, utilization of antenatal care was found to be associated with institutional delivery. Women who visited at least once for antenatal care were having 2.37 times higher odds of receiving such care than those who had not. After controlling for all confounders women who were literate and low decision making autonomy were significantly elevated odds (odds ratio=1.39; C.I.: 0.95-1.56) of institutional delivery than who were illiterate and high decision making autonomy. Several other variables, notably age of the respondent, children ever born,

household wealth index, and physical autonomy of women showed far stronger associations with receipt of institutional delivery.

Conclusions

Many studies and policies have been based on the assumption that if women were more involved in household decision making, they would be more likely to use health services and, hence, to have better health outcomes. However, results from this study reveal a more complex picture, showing diverse relationships between the outcomes of interest and the indicators of women's household decision making. These results identify the most important current barriers to the uptake of maternal health care services in Uttar Pradesh. The findings of the study show that there were significant differences among subgroups of women. Women belonging to richest wealth quintile were linked to an increased likelihood of receiving skilled antenatal and delivery care. Women's education was also strongly associated with the greater use of health care services.

Women who were literate and low decision making autonomy were significantly more likely to use antenatal care services than women were illiterate-high decision making autonomy. The relationships between the indicators of women's autonomy and institutional delivery were broadly similar to those between the indicators and antenatal care. Utilization of antenatal care was also found to be associated with institutional delivery. Women who visited at least once for antenatal care were more likely to receive such care than those who had not. Several other variables, notably age of the respondent, children ever born, household wealth index, and physical autonomy of women showed far stronger associations with receipt of institutional delivery. The strong association of women's education with health care use draws attention to the need for efforts to increase women's schooling and change perceptions of the value of skilled maternal health care.

References

Abbas, J.D. 1997. Gender asymmetries in intrahousehold resource allocation in Sub Saharan Africa: Some policy implications for land and labour productivity. In L.Haddad, J.Hoddinott and H. Alderman (eds), *Intrahousehold resource allocation in developing countries: Models, methods and policy* (249-262). Baltimore: The Johns Hopkins University Press.

Al Riyami,A., Afifi,M., & Mabry,R.M. (2004). "Women's autonomy, education and employment in Oman and their influence on contraceptive use." *Reproductive Health Matters*, 12(23), 144-154.

Balik, D. 1994. " Individual and community aspects of women's status and fertility in rural Bangladesh." Population Studies, 48, 21-45.

Beegle,K., Frankenberg,E., & Thomas,D. 2001. "Bargaining power within couples and use of prenatal and delivery care in Indonesia." *Studies in Family Planning*, 32(2), 130-146.

Bhat, P.N. Mari. 2002. 'Levels and Differentials in Maternal Mortality in Rural India: New Evidence from Sisterhood Data', Working Paper Series Number 87. National Council of Applied Economic Research.

Bloom,SS., Wypij,D., & Das Gupta,M. (2001). "Dimensions of women's autonomy and the influence on maternal health care utilization in a North Indian city." *Demography*, 38(1), 67-78.

Bose Ashish, Speeding Up Reduction in Maternal Mortality Chasing a Mirage? Economic and Political Weekly January 20, 2007

Caldwell, J.C. 1986. "Routes to Low Mortality in Poor Countries. "Population and Development Review 12: 171 -220.

Castle, S.E. 1993. "Intra household differentials in women's status: Household function and focus as determinants of childrens illness management and care in rural Mali." *Health Transition Review*, 3, 137-157.

Choe, Minja Kim and Chen Jiajian.2006. 'Potential for Reducing Child and Maternal Mortality through Reproductive and Child Health Intervention Programmes: An Illustrative Case Study from India', Asia-Pacific Population Journal, 21 (1): 13-44.

Das Gupta, 1995. "Lifecourse perspectives on women's autonomy and health outcomes." American Anthropologist 97,3: 481491

Dyson,T., & Moore,M. 1983. "On kinship structure, female autonomy, and demographic behavior in India". *Population and Development Review*, 9(1), 35-60.

Govindasamy,P., & Malhotra,A. (1996). "Women's position and family planning in Egypt." *Studies in Family Planning*, 27(6), 328-340.

Government of India. 2000. National Population Policy 2000. New Delhi: Ministry of Health and Family Welfare.

----------2002. National Health Policy 2002. New Delhi: Ministry of Health and Family Welfare.

----------2005. National Rural Health Mission 2005-2012. New Delhi: Ministry of Health and Family Welfare.

Hindin,M.J. 2000a. "Women's power and anthropometric status in Zimbabwe." *Social Science & Medicine*, 51(10), 1517-1528.

Hindin,M.J. 2000b. "Women's autonomy, women's status and fertility-related behavior in Zimbabwe." *Population Research and Policy Review* ,19(3), 255-282.

Jejeebhoy, Shireen. 1997. 'Maternal mortality and morbidity in India: Priorities for social science research', The Journal of Family Welfare, 43 (2): 31-52.

Jejeebhoy, S. and Sathar, Z. 2001. " Womens autonomy in India and Pakistan : The influence of religion and region." *Population and Development Review*, 27(4), 687-712.

Malhotra,A., Schuler,S.R., & Boender,C. Measuring Women's Empowerment as a Variable in International Development. 2002. Ishington, D.C., The World Bank, Gender and Development Group and Social Development Group.

Malhotra, Vanneman and Kishore. 1995. "Fertility, Dimensions of Patriarchy, and Development in India", Population and Development Review, Vol. 21, No. 2, pp. 281-305.

McCarthy, James and Maine Deborah. 1992. 'A framework for analyzing the determinants of maternal mortality', Studies in Family Planning, 23 (1): 23-33.

Moursund,A., & Kravdal,O. 200). "Individual and community effects of women's education and autonomy on contraceptive use in India." *Population Studies*, 57(3), 285-301.

Registrar General of India, 2006. Maternal Mortality in India: 1997-2003. Trends, Causes and Risk Factors. Sample Registration System, GOI, New Delhi.

Royston and Armstrong. 1989. Preventing Maternal Deaths. Geneva: WHO.

Thaddeus, S. and Maine, Deborah.1994. Too far to Walk: Maternal Mortality in Context. Social Science and Medicine, 38(8): 1091-1110.

United Nations. 2000. Millennium Development Goals. New York: Oxford University Press.

Table:1 Percentage of currently married women aged 15-49 by selected indicators of their household position, according to social and demographic characteristics, National Family Health Survey, 2005-06, Uttar Pradesh

Socio-economic/ Demographic Characteristics	Involved in final say			
	On own health care	On large household purchases	On daily need household purchases	On visiting family or relative
Place of Residence				
Rural	60.4***	47.1***	49.7***	44.1***
Urban	69.4	59.1	62.4	55.2
Religion				
Hindu	61.5**	49.5	50.5***	46.7
Non Hindu	65.2	50.3	59.2	45.5
Caste				
Scheduled Caste/Scheduled Tribe	65.6***	56.3***	58.2***	50.2***
Other Backward Classes	59.2	46.1	48.0	43.4
Others	65.2	49.9	55.1	48.7
Respondent Age				
Less than 25	51.6***	36.3***	38.3***	36.0***
25-35	67.1	55.3	57.6	50.3
35 and above	73.5	64.8	70.8	60.5
Respondent Education				
Illiterate	64.4***	51.4***	55.1***	47.9**
Literate but below Middle	58.3	44.5	50.2	42.8
Middle but below High School	52.6	45.4	42.6	42.8
High School and above	63.3	49.2	47.9	45.7
Partner Education				
Illiterate	68.4***	54.8***	59.9***	50.2***
Literate but below Middle	64.0	54.4	56.6	50.1
Middle but below High School	59.8	48.3	50.1	43.6
High School and above	57.5	43.5	44.5	43.2
Missing	54.5	45.5	45.5	54.5
Wealth Index				
Poorest	66.9***	56.0***	59.4***	51.8***
Poorer	62.5	49.8	50.9	47.0
Middle	58.2	43.6	47.1	40.1
Richer	56.6	43.7	47.5	42.0
Richest	64.5	52.2	53.1	48.5
Expose to Mass Media				
Not Exposed	63.9*	50.1	56.7***	45.0
Exposed	61.4	49.4	50.0	47.2
Sex of Head of Household				
Male	61.1***	48.9***	50.8***	46.1
Female	71.9	55.6	63.9	48.8

Socio-economic/ Demographic Characteristics	Involved in final say			
	On own health care	On large household purchases	On daily need household purchases	On visiting family or relative
Work Status of Women				
Not Working	60.1***	48.0***	51.0***	44.9***
Work at Home	66.8	55.4	63.2	44.6
Work away from Home	69.7	55.0	55.1	52.8
Children Ever Born				
One	47.7***	29.7***	32.5***	29.5***
Two to Three	58.4	46.0	48.1	44.1
Four to Five	69.9	60.1	61.2	53.4
Six and above	74.0	62.8	68.4	58.4
Economic Accessibility of Care				
No problem	61.7	48.0***	52.5	44.5***
Big problem	61.5	49.4	50.9	51.1
Not a big problem	64.0	53.9	52.5	49.3
Geographic Accessibility of Care				
No problem	63.2***	52.1***	55.9***	46.6***
Big problem	57.4	42.8	44.4	41.4
Not a big problem	65.9	53.3	55.3	51.3
Total	**62.3**	**49.6**	**52.3**	**46.4**

* Shows Significant at 10% level of significance, ** Shows Significant at 5% level of significance and *** Shows Significant at 1% level of significance

Table:2 Percentage of currently married women aged 15-49 going for antenatal care and institutional delivery, according to social and demographic characteristics, National Family Health Survey, 2005-06, Uttar Pradesh

Socio-economic/ Demographic Characteristics	Antenatal Visit		Place of Delivery	
	No	At least one	Home	Institutional
Place of Residence				
Rural	37.2	62.8***	83.1	16.9***
Urban	21.7	78.3	58.6	41.4
Religion				
Hindu	32.8	67.2***	77.8	22.2
Non Hindu	38.2	61.8	78.9	21.1
Caste				
Scheduled Caste/Scheduled Tribe	40.9	59.1***	84.9	15.1***
Other Backward Classes	32.8	67.2	80.0	20.0
Others	28.6	71.4	66.0	34.0
Respondent Age				
Less than 25	26.3	73.7***	77.9	22.1**
25-35	34.6	65.4	77.0	23.0
35 and above	51.9	48.1	81.9	18.1
Respondent Education				
Illiterate	43.3	56.7***	86.7	13.3***
Literate but below Middle	25.0	75.0	78.6	21.4
Middle but below High School	20.1	79.9	70.7	29.3
High School and above	7.1	92.9	39.8	60.2
Partner Education				
Illiterate	48.1	51.9***	88.7	11.3***
Literate but below Middle	38.1	61.9	84.7	15.3
Middle but below High School	32.9	67.1	80.5	19.5
High School and above	18.5	81.5	62.9	37.1
Missing	25.0	75.0	75.0	25.0
Wealth Index				
Poorest	48.7	51.3***	91.7	8.3***
Poorer	38.0	62.0	86.4	13.6
Middle	34.2	65.8	81.4	18.6
Richer	17.3	82.7	66.5	33.5
Richest	9.1	90.9	33.7	66.3
Expose to Mass Media				
Not Exposed	47.8	52.2***	88.1	11.9***
Exposed	26.6	73.4	72.6	27.4
Sex of Head of Household				
Male	34.3	65.7	78.0	22.0
Female	31.2	68.8	78.3	21.7

Socio-economic/ Demographic Characteristics	Antenatal Visit		Place of Delivery	
	No	At least one	Home	Institutional
Work Status of Women				
Not Working	32.9	67.1***	76.3	23.7***
Work at Home	32.1	67.9	80.3	19.7
Work away from Home	38.4	61.6	84.2	15.8
Children Ever Born				
One	19.7	80.3***	61.1	38.9***
Two to Three	26.6	73.4	76.3	23.7
Four to Five	40.7	59.3	84.9	15.1
Six and above	53.2	46.8	88.9	11.1
Economic Accessibility of Care				
No problem	31.7	68.3***	74.3	25.7***
Big problem	45.0	55.0	86.7	13.3
Not a big problem	34.4	65.6	83.4	16.6
Geographic Accessibility of Care				
No problem	28.2	71.8***	70.6	29.4***
Big problem	40.0	60.0	84.4	15.6
Not a big problem	35.7	64.3	81.6	18.4
Total	**34.0**	**66.0**	**78.0**	**22.0**

* Shows Significant at 10% level of significance, ** Shows Significant at 5% level of significance and *** Shows Significant at 1% level of significance

Table:3 Percentage of women going for at least one antenatal check up and Institutional delivery by indicators of women's household position, National Family Health Survey, 2005-06, Uttar Pradesh

Involved in Decision Making	Antenatal Visit		Place of Delivery	
	No	**At least one**	**Home**	**Institutional**
Final Say on Own Health Care				
Yes	30.6	69.4***	75.1	24.9***
No	36.0	64.0	79.8	20.2
Final Say on Large Household Purchases				
Yes	31.3	68.7***	76.1	23.9***
No	36.6	63.4	80.0	20.0
Final Say on Daily Need Household Purchases				
Yes	29.6	70.4***	74.9	25.1***
No	37.9	62.1	80.9	19.1
Final Say on Visiting Family or Relatives				
Yes	32.7	67.3*	77.2	22.8
No	35.4	64.6	78.9	21.1
Total	**34.0**	**66.0**	**78.0**	**22.0**

* Shows Significant at 10% level of significance, ** Shows Significant at 5% level of significance and *** Shows Significant at 1% level of significance

Table 4: Odds ratio from multivariate logistic regression analysis assessing the association between indicators of women's household position and their utilization of Antenatal Care, National Family Health Survey, 2005-06, Uttar Pradesh

Independent Variables	Significance	Exp(β)	95.0% C.I. for EXP(β)	
			Lower	Upper
Children ever born				
1®				
2-3	0.01	0.74	0.60	0.92
4-5	0.00	0.53	0.41	0.68
6 and above	0.00	0.47	0.35	0.62
Wealth Index				
Poorest®				
Poorer	0.00	1.29	1.10	1.52
Middle	0.04	1.23	1.01	1.49
Richer	0.00	2.31	1.78	3.00
Richest	0.00	3.42	2.33	5.03
Geographic Accessibility of Care				
Big Problem®				
No Problem/Little Problem	0.14	1.11	0.96	1.29
Economic Accessibility of Care				
Big Problem®				
No Problem/Little Problem	0.20	1.14	0.94	1.38
Education and Decision Making Autonomy				
Illiterate- High Autonomy®				
Illiterate- Low Autonomy	0.39	0.93	0.79	1.09
Literate- Low Autonomy	0.00	1.59	1.27	2.00
Literate- High Autonomy	0.13	1.25	0.94	1.66

®- Reference Category

Place of Residence, Religion, Caste, Age of Respondent, Partner Education, Mass Media Exposure, and Sex of Head of Household are Controlled.

Table 5: Odds ratio from multivariate logistic regression analysis assessing the association between indicators of women's household position and Institutional Delivery, National Family Health Survey, 2005-06, Uttar Pradesh

Independent Variables	Significance	Exp(β)	95.0% C.I. for EXP(β)	
			Lower	Upper
Children ever born				
1®				
2-3	0.00	0.35	0.28	0.44
4-5	0.00	0.25	0.19	0.34
6 and above	0.00	0.21	0.15	0.30
Wealth Index				
Poorest®				
Poorer	0.00	1.48	1.14	1.91
Middle	0.00	1.79	1.36	2.36
Richer	0.00	2.90	2.16	3.91
Richest	0.00	7.60	5.30	10.90
Antenatal Visit				
No®				
Yes	0.00	2.37	1.92	2.91
Geographic Accessibility of Care				
Big Problem®				
No Problem/Little Problem	0.63	1.05	0.87	1.27
Economic Accessibility of Care				
Big Problem®				
No Problem/Little Problem	0.61	1.07	0.81	1.42
Education and Decision Making Autonomy				
Illiterate- High Autonomy®				
Illiterate- Low Autonomy	0.12	1.22	0.95	1.56
Literate- Low Autonomy	0.02	1.39	1.06	1.84
Literate- High Autonomy	0.04	1.41	1.02	1.95

®- Reference Category
Place of Residence, Religion, Caste, Age of Respondent, Partner Education, Mass Media Exposure and Sex of Head of Household are Controlled.