

UTILIZATION OF MATERNAL AND CHILD CARE AND ITS ASSOCIATED FACTORS: A COMPARATIVE STUDY WITH NON-SCHEDULE CASTE IN NORTH INDIA

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Abstract : This paper examines utilization of maternal health care services within and across social groups among married women in India using data from National Family Health Survey-4 carried out during 2015–16. The inequality in Utilization of maternal health care services in social groups, bi-variate and multivariate were performed. Bi-variate analyses are used to examine the nature of association between utilization of maternal healthcare services among social groups by selected socioeconomic and background characteristics. Multinomial Logistic Regression model was used to predict the odds ratio and to understand the prime determinates of those maternal and child health care services utilization. Principal Component Analysis has been applied to construct a maternal and child health care index. Our findings show non-SC women utilizes the MCH services better than SC women. The non-SC women belonging to rural areas are less likely to use medium and high level of MCH services in comparison to their urban counterpart. This paper concludes that social group does not reduce the chances to receive the MCH care. Conversely, economic status plays a vital role as compared to social group when it comes to MCH care in north India.

IndexTerms - Maternal health care services, caste differences, NFHS-4 Survey, North India.

I. INTRODUCTION

Millennium Development Goal (MDG) 5 is focused on reducing maternal mortality and achieving universal access to reproductive health care. Under MDG 5, India has committed to reduce maternal mortality to 108 deaths per 100,000 live births by 2015. The latest estimates of maternal mortality rate (MMR) in India, from 2007 to 2009, show a national average of 212 deaths/100,000 live births, a decline of 89 deaths per 100,000 live births since 2001-03. However, the same estimates also demonstrate that wide geographical disparities persist in India.

Over half a million women from the developing world die each year of causes related to pregnancy and childbirth. There are about 500 maternal deaths for every 100,000 live births, and around 10 per cent of the pregnancies are at high-risk (UNFPA, 1995). An important proximate determinant of maternal mortality is access to and use of quality health care services (Fauveau et al., 1991; McCarthy and Maine, 1992; Bhatia, 1993). The extent of women's health status in India is a serious matter of concern. Reproductive health status of the women of the underdeveloped parts of the country as indicated by various available statistics is very frightening. These concerned figures not only highlight the health problems of women, but also inequality between the developing and the developed regions of the country in this context (Basu et.al, 2003).

Good health is very periodical in nature. Women gives birth, she passes on the gift of good health to her new born baby i.e., the next generation. Quality care during pregnancy and child birth is essential to ensure health and well-being of both the mother and the child. That is why women are expected to have the good maternal and child health care services. The percentage of availing maternal and child health services is increasing globally and so as in India. Although India has progressed rapidly on the socioeconomic front, yet progress in the improvement of maternal health has been slowed down. Review of safe motherhood efforts in India shows that, despite major initiatives taken by the Government since last some decades till recently, nearly half of all deliveries take place at home, and the coverage of antenatal care services are low (Vora et al., 2009).

India is multi-cultural country and each region has distinct cultural practice. At times, the region is recognised by the cultural identity. There are several socio-economic factors that attributes to the variations in availing health care service utilization among women. Although health outcomes have improved with time, they continue to be strongly determined by factors such as gender, caste, education, cultural practices, and geography. Caste in India is a social stratification of people based on their birth. The caste base categories routinely used for population-based monitoring is scheduled caste, scheduled tribe, other backward class, and other caste. The scheduled tribes (8%) and schedules castes (16 percent) are thought to be the most socially disadvantaged groups in Indian society (Balarajan et al., 2011). According to a study the proportion of pregnant women who availed full antenatal care (ANC) package was comparatively lower for STs (40%) followed by SCs (49%) than the women of other castes (56%) (Singh et al., 2000).

In addition, there is very sparse evidence of literature which identified that maternal age and parity have also been found to be important determinants of health care use (Gwatkin et. Al., 2007). Most of the studies in India (Pallikadavath et. al., 2004; Ram et.al., 2006) have attributed socio-economic differentials in antenatal care utilization to a combination of poor access to health services, low education levels and poor demand.

The women not using maternal health care services are due to the lack of the perceived need to use such services (Desai et al., 2006). It should be acknowledged that the perceived need to a large extent is socially constructed. In a society where women are in a subordinate position, it is very likely that women's health are not considered as important as men's, resulting in a low demand on health care even among women themselves. On the other hand, at the societal level the investment in maternal health care may be insufficient due to the lack of interest in women's health. Further it is mentioned there is a large difference in the utilization of antenatal care services among the different cluster of Indian society (Reproductive and Child Health Survey, Phase II, 2002). Certain sections of the population are poor and could not get the existing medical care facility as they are less aware of the available antenatal care services provided by public and private service providers (Singh and Patra, 2013).

Labor and delivery is the end of pregnancy and beginning of new life. Antenatal care plays an important role to achieve a successful labor and delivery process. Regular antenatal classes help in the physical and mental preparation of women and help them relax during those last months. Antenatal care ensures maternal foetal health wellbeing and also prepares women physically fit for labor, delivery and the postpartum period. Antenatal care is the care that a woman receives during pregnancy, helps to ensure healthy outcome for women and newborns (WHO/UNICEF 2003). The safe motherhood initiative proclaims that all pregnant women must receive basic, professional antenatal care (Gogoi et al.).

Maternal mortality is affected by a range of socio-economic and cultural factors, such as women's status in the household and society, their educational and economic status, accessibility facility (distance, transport) and availability and quality of care (availability of staff and equipment in the health facility) (Rawat et al., 2015). Bushra Kafeel (2012) mentioned that family support can help lower down the anxieties associated with pregnancy and provide a feeling of security for herself and her baby. Family's participation is considered very important during the entire course of pregnancy. However, simple gestures of family support and attachment are of importance during and after pregnancy.

In the light of above discussion, it becomes clear that in India, there is wide variation in service delivery, service accessibility and mortality. The difference is caused by many factors of which some are from supply side and some are from demand side. In Indian society, there are occasions that there is no demand for services. For instance, certain cultural practices prohibit use of medicine during fasting, certain cultural practices inhibit child to take polio drops, certain cultural practices inhibit women to go for institutional delivery and so on. Under such circumstances, cultural values become very important and because of which health outcome varies with respect to cultural variation and regional variation. The women in the typical north Indian society are excluded which affects the pregnancy outcome and other health outcome. The health of a girl child is dependent on various social and cultural practices and values. Therefore, the present study endeavours to examine variations in social groups with respect to maternal and child health in north Indian states.

II. MATERIALS AND METHODS

Source of data: The present study uses data from the fourth round of the Indian counterpart of Demographic and Health Survey (DHS), popularly known as National Family Health Survey carried out during 2015–16. The National Family Health Survey (NFHS) is a large-scale, multi-round survey conducted in a representative sample of households throughout India. The survey covers a representative sample of 699,686 women in the age group 15–49 years from all 35 states. The present study examines the utilization of maternal healthcare services among married women in north Indian regions. The present study focused on SC-Schedule (8,139), and non-Schedule caste (21,462) married women who have had the experience of childbirth, during the five years preceding the survey date.

Selection and measurement of variables: Socio-economic and demographic predictors such as age of the woman at birth, women's education, husband's education, religion, wealth quintile, birth order and region of residence were included as predictor variables in the study. The dependent variable of Maternal and Child Health (MCH) care, a composite index was constructed using 31 variables such as antenatal care at the first trimester of the pregnancy, three ANV visits, TT injections, consumption of iron and folic acid tablets, full ANC, treatment for pregnancy problems, delivery care in terms of safe delivery, post-partum care, and child care etc.,

Analytical method: To identify the inequality in Utilization of maternal health care services in social groups, bi-variate and multivariate were performed. Bi-variate analyses are used to examine the nature of association between utilization of maternal healthcare services among social groups by selected socioeconomic and background characteristics. Multinomial Logistic Regression model was used to predict the odds ratio and to understand the prime determinates of those maternal and child health care services utilization. Principal Component Analysis has been applied to construct a maternal and child health care index. Component score coefficient matrix of maternal and child indicators was used eventually summated to compute a composite index of maternal and child health (MCH). MCH index are categorized from the Low, Medium and High groups. The analysis was carried out using Stata10 TM release 13.0 (Stata Corporation, College Station, TX, USA).

III. RESULTS

Table 1 shows the prevalence of SC women receiving various levels of care viz. low, medium and high. Amongst the SC women who had low level of care, Religion wise, as high as 89 percent of women in this category were Hindu and around seven percent were Muslim. Education level wise, around 48 percent of women who had low level of MCH care were illiterate followed by 30 percent secondary educated women. Only three percent of higher educated women had low level of MCH care. As per wealth index, as high as 21 percent of women were in the poorest category had low level of MCH care. As the education level of

the women increased, the percentage of women in the low level of MCH care decreased. Age wise, the maximum percent of women receiving low level of MCH care were in the age group 25-29 years, 38 percent followed by the women of age group 20-24 years, the lowest prevalence of women receiving low level of care was amongst the 40-44 age group. There was no considerable difference found between the women whose age at first marriage was less than 18 and 18 and above, the prevalence of women having low level of MCH care was almost equal amongst both. As high as 80 percent of the rural women reportedly had low level of care, the same for urban area was only 19 percent.

Amongst the SC women who had medium level of MNC care, the maximum prevalence of medium level of MNC care received was amongst the Hindu women around 86 percent, for Muslims and others it was seven percent and four percent respectively. Education wise, a larger percentage, (42%) secondary educated women were found to be receiving such a level of care followed by illiterates, 35 percent. Around 10 percent of the poorest category women were receiving medium level of MNC care. The percentage was minimum for the women from highest quintile, 17 percent. Age wise, the maximum prevalence (37%) of women having medium level of care was in age group 25-29 followed by women in the age group 20-24 years, (32%). As high as 60 percent of women whose age at first marriage was in the age group 18-20 had medium level of MCH care, the prevalence for those whose age at first marriage was less than 18 years was around 40 percent. As high as 40 percent of the women who had 3 or more children ever born received medium level of MCH care. Around 72 percent and 28 percent of the rural and urban women received such level of care respectively.

Table 1: Percent distribution of level of MCH care (low, medium and high) by scheduled caste women with respect to selected background characteristics in North Indian, 2015-16.

Social Characteristics	MCH Care					Chi-square	p-value
	SC						
	Low	Medium	High	Total	N		
Religion						393.05	0.000
Hindu	89.1	86.14	75.65	80.58	6,558		
Muslim	6.99	2.99	1.84	2.88	234		
Christian	0	0.04	0.35	0.21	17		
Others	3.91	10.83	22.16	16.34	1,330		
Education of women						393.05	0.000
Illiterate	48.77	34.95	22.34	29.65	2,413		
1 – 5 standard	18.62	16.98	17.43	17.46	1,421		
6 – 12 standard	29.52	41.88	51.39	45.62	3,713		
12+ standard	3.09	6.19	8.84	7.27	592		
Education of Husband						42.52	0.000
Illiterate	25.64	13.13	10.94	13.31	180		
1 – 5 standard	21.15	14.56	11.33	13.46	182		
6 – 12 standard	46.79	63.01	66.28	63.02	852		
12+ standard	6.41	9.31	11.45	10.21	138		
Wealth Index						822.66	0.000
Poorest	21.25	10.42	4.77	8.67	706		
Poorer	34.6	24.12	13.67	19.6	1,595		
Middle	22.62	24.91	25.04	24.67	2,008		
Richer	15.17	23.45	28.26	25.06	2,040		
Richest	6.36	17.1	28.26	21.99	1,790		
Demographic variables							

Amongst the SC women who had high level of MNC care, maximum percent of women who received High level of MNC care were Hindus (76%) followed by others (22%) and Muslims, two percent. The maximum percent of women receiving high level of MNC care were secondary educated (51%), followed by illiterates (22%).

Table 1: Percent distribution of level of MCH care (low, medium and high) by scheduled caste women with respect to selected background characteristics in North Indian, 2015-16.

Social Characteristics	MCH Care					Chi-square	p-value
	SC						
	Low	Medium	High	Total	N		
Age (in years)						50.17	0.000
15 – 19	2.54	2.28	2.05	2.19	178		
20 – 24	27.43	32.38	31.84	31.4	2,556		
25 – 29	38.00	37.00	41.00	39.29	3,198		
30 – 34	20.00	20.00	18.00	18.99	1,546		
35 – 39	8.00	6.00	6.00	6.13	499		
40 – 44	3.00	2.00	1.00	1.67	136		
45 – 49	0.91	0.25	0.22	0.32	26		
Age at Marriage						225.39	0.000
< 18 years	49.41	39.93	28.04	34.45	2,804		
18 - 20 years	50.59	60.07	71.96	65.55	5,335		
21+ years							
CEB						299.48	
1	18.53	27.73	35.77	31.06	2,528		
2	27.43	32.38	35.64	33.57	2,732		
3+	54.04	39.89	28.58	35.37	2,879		
Residence / State						31.54	0.000
Rural	80.84	72.48	73.1	73.96	6,020		
Urban	19.16	27.52	26.9	26.04	2,119		

When education level of husband was considered, it was found that, the highest level (66%) of MCH care was found amongst the women who had secondary educated husbands. Richer and richest category women had equal prevalence of women receiving high level of MNC care services. The women who were aged less than 18 years at their first marriage, around 28 percent of them received high level of MNC care. This prevalence was almost equal amongst the women who has 1 and 2 children ever born. Among the women who received high level of MNC care, 73 percent were rural women and around 27 percent urban.

Table 2 shows the results of multinomial logistic regression of the level of MCH care in northern states of the country for SC women. Multinomial regression gives us relative risk with respect to the reference category. Here it being 'low level of MCH care'. The relative risk ratio is the value with 'Low level of MCH care' as the reference category.

Keeping the low level of MCH care as the reference category, the rural women were 13 percent less likely to have received medium level of MCH care in comparison to urban women. Although, education level of women was not found to be significant here, literature suggest that it is a really important variable affecting the level of MCH care. When level of education of husband was looked upon, it was found that, in comparison to illiterate husbands, the secondary educated ones' wives were 5 percent less likely to have medium level of MCH care. When wealth was considered, it was found that in comparison to the mothers who were from poorest wealth quintile, the ones from middle wealth quintile were 2.4 to times more likely to have medium level of MCH care. The same level of care for the women from the richest wealth quintile was as high as six times in comparison to those from the poorest quintile. Though total children ever born to the woman, age at first marriage, religion was not found to be significant but there are studies which claim about those having an effect on the level of MCH care of the women.

Table 2: Multinomial logistic regression showing results of level of MCH care by scheduled caste women with respect to selected background characteristics in north India, 2015-16.

Low	Medium				Higher			
Factors	Relative risk ratio	p-Value	Lower CI	Upper CI	Relative risk ratio	p-Value	Lower CI	Upper CI
Place of residence								
Urban®								
Rural	0.87	0.593	0.53	1.44	1.41	0.174	0.86	2.32
Education level								
Illiterate®								
Primary	0.79	0.404	0.45	1.38	1.02	0.936	0.59	1.77
Secondary	0.95	0.848	0.55	1.64	1.46	0.163	0.86	2.48
Higher	0.45	0.152	0.15	1.34	0.46	0.147	0.16	1.31
Education level of husband								
Illiterate®								
Primary	1.08	0.813	0.57	2.04	0.71	0.276	0.38	1.32
Secondary	1.75	0.058	0.98	3.11	1.22	0.484	0.70	2.14
Higher	1.55	0.387	0.57	4.23	1.16	0.759	0.44	3.04
Wealth index								
Poorest®								
Poorer	1.29	0.407	0.71	2.33	1.66	0.103	0.90	3.07
Middle	2.43	0.009	1.25	4.73	4.70	0.000	2.40	9.18
Richer	1.93	0.079	0.93	4.00	3.94	0.000	1.90	8.17
Richest	6.56	0.000	2.29	18.81	17.51	0.000	6.17	49.69
Total children ever born								
One®								
Two	0.59	0.101	0.32	1.11	0.60	0.100	0.33	1.10
Three and above	0.63	0.206	0.31	1.28	0.42	0.014	0.21	0.84
Age at marriage								
17 years and below								
18 years and above	0.86	0.507	0.56	1.33	1.06	0.778	0.69	1.63
Age of the respondent								
15-19®								
20-24	6.54	0.001	2.10	20.33	7.10	0.000	2.42	20.84
25-29	4.94	0.009	1.50	16.23	5.65	0.003	1.83	17.46
30-34	4.43	0.022	1.24	15.79	5.47	0.006	1.63	18.36
35-39	2.87	0.131	0.73	11.29	4.47	0.024	1.21	16.43
40-44	2.27	0.310	0.47	11.04	3.43	0.110	0.76	15.59
45-49	3.98	0.251	0.38	42.24	0.00	0.993	0.00	.
Religion								
Hindu®								
Muslim	0.63	0.324	0.25	1.58	0.51	0.153	0.20	1.29
Christian	0.85	1.000	0.00	.	1484263.00	0.988	0.00	.
Others	1.80	0.183	0.76	4.28	2.71	0.018	1.18	6.21
Constant	0.43	0.184	0.12	1.49	0.25	0.026	0.08	0.85

® = Reference category, RRR = Relative Risk Ratio, CI = Confidence Interval

Keeping the low level of MCH care as the reference category, the SC women belonging to the middle wealth quintile were 4.7 times more likely to receive high level of MCH care. The same for the richer and richest women were 4 times and around 17 times more likely as compared to the women who belonged to the poorest wealth quintile. In comparison to the women who had low level of MCH care and those who have one child ever born as the base category, the women who had three and above total children ever born, they were 58 percent less likely to receive high level of MCH care. When age at first marriage, religion was looked upon, it was found that these were not significantly affecting the level of care. However, there has been abundance of literature which talk about these affecting the level of care of MCH.

Table 3 shows the prevalence of level of care of Non-SC women for the northern states of the country and amongst the non-SC women who had low level of care, religion wise, as high as 65 percent of women in this category were Hindu and around 33 percent were Muslim. Education level wise, around 48 percent of women who had low level of MCH care were illiterate followed by 32 percent secondary educated and 14 percent primary educated women. Only six percent of higher educated women received low level of MCH care. When wealth category was looked up on, it was found as high as 17 percent of women were in the poorest category had low level of MCH care. Poor and middle income category women had almost equal prevalence of women having low level of care. Only six percent of higher educated women had low level of MNC care. The women whose husbands were secondary educated, only nine percent of them received low level of MNC care. Age wise, the maximum percent of women receiving low level of MCH care were in the age group 25-29 years, 35 percent followed by the women of age group 20-24 years, the lowest prevalence of women receiving low level of care was amongst the 45-49 age group, around two percent only. There was a considerable difference found between the women whose age at first marriage was less than 18 and 18 and above viz. 45 percent and 55 percent respectively. As 78 percent of the rural women reportedly had low level of care, the same for urban area was only 22 percent.

Amongst the non-SC women who had medium level of MNC care, the maximum prevalence of medium level of MNC care received was amongst the Hindu women around 76 percent, for Muslims and others it was 18 percent and six percent respectively. Education wise, a larger percentage, (45%) secondary educated women were found to be receiving such a level of care followed by illiterates, 26 percent. Around seven percent of the poorest category women were receiving medium level of MNC care. The percentage was minimum for the women from poorest category, seven percent. Age wise, the maximum prevalence (40%) of women having medium level of care was in age group 25-29 followed by women in the age group 20-24 years, (29%). As high as 67 percent of women whose age at first marriage was in the age group 18-20 had medium level of MCH care, the prevalence for those whose age at first marriage was less than 18 years was around 33 percent. As high as 32 percent of the women who had 3 or more children ever born received medium level of MCH care, those who had 2 children ever born for then the prevalence was around 35 percent. Around 70 percent and 30 percent of the rural and urban women received such level of care respectively.

Social Characteristics	MCH Care					Chi-square	p-value
	Non-schedule caste (Non-SC)						
	Low	Medium	High	Total	N		
Religion						2.10E+03	0.000
Hindu	64.67	76.16	74.67	73.7	15,818		
Muslim	33.24	18.17	13.41	17.68	3,795		
Christian	0.07	0.08	0.31	0.21	44		
Others	2.03	5.59	11.6	8.41	1,805		
Education of women						2.10E+03	0.000
Illiterate	48.18	25.65	13.78	22.29	4,784		
1 – 5 standard	14.29	13.46	9.56	11.42	2,451		
6 – 12 standard	31.69	45.22	52.04	47.07	10,102		
12+ standard	5.83	15.67	24.62	19.22	4,125		

Amongst the non-SC women who had high level of MNC care, maximum percent of women who received High level of MNC care were Hindus (75%), others (12%) and Muslims (18%). The maximum percent of women receiving high level of MNC care were secondary educated (52%), followed by higher educated (25%). When education level of husband was considered, it was found that, the highest level (62%) of MCH care was found amongst the women who had secondary educated husbands, this was lowest and almost equal for the women who had illiterate and primary educated husbands. Richest category women had highest (24%) of women receiving high level of MNC care services.

Table 3: Percent distribution of level of MCH care (low, medium and high) by non-scheduled caste women with respect to selected background characteristics in North Indian, 2015-16.

Social Characteristics	MCH Care					Chi-square	p-value
	Non-schedule caste (Non-SC)						
	Low	Medium	High	Total	N		
Education of Husband						244.94	0.000
Illiterate	22.33	9.75	5.67	9.05	353		
1 – 5 standard	15.02	11.21	5.94	8.69	339		
6 – 12 standard	53.56	59.97	62.19	60	2,355		
12+ standard	9.09	19.08	26.21	21.85	852		
Wealth Index						2.40E+03	0.000
Poorest	17.44	7.29	2.82	6.26	1,344		
Poorer	25.04	16.75	9.23	13.77	2,956		
Middle	24.35	21.47	15.74	18.71	4,016		
Richer	18.58	22.86	23.53	22.63	4,856		
Richest	14.59	31.62	48.67	38.63	8,290		
Demographic variables							
Age (in years)						288.56	
15 – 19	2.06	2	1.38	1.67	358		
20 – 24	29.7	28.95	28.37	28.73	6,167		
25 – 29	35.14	40.49	42.39	40.78	8,752		
30 – 34	18.91	19.81	20.61	20.12	4,319		
35 – 39	8.72	6.86	5.88	6.58	1,413		
40 – 44	3.97	1.45	1.16	1.65	354		
45 – 49	1.51	0.44	0.2	0.46	99		
Age at Marriage							
< 18 years						643.62	0.000
18 - 20 years	45.49	33	23	30	6,343		
21+ years	54.51	66.53	77	70	15,119		
CEB						1.00E+03	0.000
1	21.4	32.98	41	36	7,663		
2	29.76	35.27	38.05	36.03	7,732		
3+	48.84	31.74	21.07	28.27	6,067		
Residence / State						194.17	0.000
Rural	78.27	69.6	65.32	68.47	14,694		
Urban	21.73	30.4	34.68	31.53	6,768		

The women aged between 25-29 years had maximum prevalence of those receiving high level of such care, 42 percent. The women who were aged less than 18 years at their first marriage, around 23 percent of them received high level of MNC care. The women who has 1 and 2 children ever born, for them the prevalence of high level of care was 41 percent and 38 percent respectively. Among the women who received high level of MNC care, 65 percent were rural women and around 35 percent urban.

Table 4 shows the results of multinomial logistic regression of the level of MCH care in northern states of the country for non-SC women. Multinomial regression gives us relative risk with respect to the reference category. Here it being 'low level of MCH care'. The relative risk ratio is the value with 'Low level of MCH care' as the reference category. In comparison to the women who received low level of MCH care and keeping those who lived in urban area as the reference category, the rural women were 39 percent less likely to have medium level of MCH care. The same level of care for primary educated women was 58 percent more in comparison to the illiterate women. Further, keeping women who were illiterate as reference category, the secondary educated and higher educated women were 2.4 times and 2.8 times more likely to have medium level of MCH care. When the education level of husband, the wealth index of women and total children ever born, age at first marriage were looked up on, it was found that it didn't have much significant effect on the level of MCH care received by non-SC women. However, religion was found to be significantly affecting the level of MCH care of the non-SC women. Keeping low level of MCH care as the

reference category and in comparison, to Hindu women, Muslim women were 36 percent less likely to receive medium level of MCH care.

Table 4: Multinomial logistic regression showing results of level of MCH care by non-scheduled caste women with respect to selected background characteristics in north India, 2015-16.

Factors	Medium				Higher			
	Relative risk ratio	p-Value	Lower CI	Upper CI	Relative risk ratio	p-Value	Lower CI	Upper CI
Place of residence								
Urban®								
Rural	0.61	0.001	0.45	0.82	0.70	0.015	0.53	0.93
Education level								
Illiterate®								
Primary	1.59	0.008	1.13	2.24	1.84	0.000	1.31	2.57
Secondary	2.41	0.000	1.76	3.29	3.11	0.000	2.29	4.22
Higher	2.83	0.000	1.61	4.97	4.45	0.000	2.60	7.63
Education level of husband								
Illiterate®								
Primary	1.38	0.118	0.92	2.06	1.01	0.957	0.67	1.53
Secondary	1.25	0.199	0.89	1.76	1.31	0.114	0.94	1.84
Higher	1.33	0.271	0.80	2.19	1.33	0.250	0.82	2.17
Wealth index								
Poorest®								
Poorer	1.19	0.362	0.82	1.74	1.20	0.365	0.81	1.78
Middle	1.40	0.093	0.95	2.07	1.67	0.012	1.12	2.49
Richer	1.39	0.129	0.91	2.13	2.59	0.000	1.69	3.96
Richest	1.57	0.069	0.97	2.56	3.37	0.000	2.08	5.45
Total children ever born								
One®								
Two	0.90	0.510	0.65	1.24	0.73	0.044	0.54	0.99
Three and above	0.64	0.017	0.44	0.92	0.45	0.000	0.31	0.63
Age at marriage								
17 years and below								
18 years and above	1.06	0.678	0.82	1.36	1.15	0.263	0.90	1.48
Age of the respondent								
15-19®								
20-24	0.94	0.889	0.40	2.20	1.47	0.366	0.64	3.39
25-29	1.23	0.639	0.52	2.93	1.74	0.204	0.74	4.09
30-34	1.37	0.494	0.56	3.37	2.08	0.106	0.86	5.05
35-39	1.32	0.577	0.50	3.44	2.19	0.104	0.85	5.65
40-44	0.57	0.344	0.18	1.83	1.33	0.615	0.44	4.06
45-49	1.48	0.562	0.39	5.59	1.08	0.924	0.23	4.96
Religion								
Hindu®								
Muslim	0.64	0.001	0.50	0.83	0.71	0.007	0.55	0.91
Christian	0.71	1.000	0.00	.	4535678.00	0.993	0.00	.
Others	1.88	0.129	0.83	4.23	2.99	0.006	1.36	6.53
Constant	1.44	0.440	0.57	3.62	0.85	0.726	0.34	2.12

® = Reference category, RRR = Relative Risk Ratio, CI = Confidence Interval

In comparison to the women who received low level of MCH care and keeping those who lived in urban area as the reference category, the rural women were 30 percent less likely to have medium level of MCH care. Education wise, in comparison to illiterate non-SC women, primary educated women were 1.8 times more likely to have received high level of MCH care. Keeping the same reference category, secondary educated women were 3 times more likely to have high level of MCH care. For higher educated women, in comparison to illiterate women, the level of MCH care was 4.4 times more. When educational attainment of

husband was looked up on, it was found that it did not significantly affect the level of care. Wealth wise, keeping poorest women as reference category, the middle wealth category women were 67 percent more to have high level of MCH services, the same for the women belonging to richer and richest category were 2.5 times and 3.4 times more. When the total children ever born was looked up on, it was found that in comparison to those who had one child, the level of care was 55 percent less for those who had three and above children. Religion wise, in comparison to Hindu women, Muslim women were 29 percent less likely to receive high level of MCH care. For the same base category i.e. Hindu women, the women from other religion were 3 times more likely to have high level of MCH care in comparison to those who had low level of MCH care.

II. CONCLUSIONS AND DISCUSSIONS:

The schedule caste (SC) women are in the lowest strata of the society. Poverty is prevalent in this social group. However, the multinomial regression analysis indicated that poverty is causing the SC women to go for low MCH care. In other words, poverty is the culprit for low MCH care and not the women by virtue of being in the SC group. The multinomial regression analysis clearly indicated that as the SC women if rise-up in the economic status then they are more likely to receive MCH care. This is an important finding and it states that by virtue of being in a deprived social group does not reduce the chances to receive the MCH care. Conversely, economic status plays a vital role as compared to social group when it comes to MCH care. The number of children has inverse relationship with high level of MCH care among the SC women. As the number of children increases there is low probability for MCH care among the DC women. In the SC community the high prevalence of home delivery and after two or three live birth the mother is more familiar with home delivery. Therefore, she may not choose the NCH care. However, further research is required to establish one to one relationship. The age of the women seems to be related with medium and high MCH care. The women in the age group 20 to 24, 25 to 29 and 30 to 34 are more likely to receive MCH care. However, the relationship with women in relatively higher age group is not statistically significant though the relationship is positive. The women in the said age group are most productive and largest number of births takes place in this age group. Therefore, there is high probability that women in these age groups may seek more MCH care.

The non-SC women are those who are considered up in the ladder of social juxtaposition. It is believed that non-SC women utilises the MCH services better than SC women. The non-SC women belonging to rural areas are less likely to use medium and high level of MCH services in comparison to their urban counterpart. Same is the case with SC women but, the relationship is statistically not significant. This implies that every two out of five non-SC women from rural areas are less likely to use the medium level of MCH care in comparison to low level of MCH care. Education of women is positively related to the level of MCH care. As the educational level of non-SC women increases, there is more probability of medium and high level of MCH care. However, this was not the case with the SC women. Similarly, as a non-SC women move up in the ladder of wealth quintile there is high probability of her to use the high level of MCH care. The women in the both the group is wealthy may have better access to the health care facility and they are better informed about the services. this phenomenon may cause the higher quintile women to access high level of MCH care. Opposite to the SC women, if the non-SC women have two or more living children then they the women is more likely to access the high level of MCH care. The literature suggest that the non-SC women are aware about the MCH services and there is highly likely that she must have taken the services during her earlier pregnancies. Therefore, she understands the benefits of MCH services. However, same is not the case with the SC women since there is highly likely that she may not have earlier received the MCH services. The Muslim women who belong to the non-SC community are less likely to access the medium and high level of MCH services as compared to low level of MCH services.

III. ACKNOWLEDGMENT

The Author thankful to Mr. Ajit Kumar Jaiswal and Mr. Chandra Shekhar, Research Scholars, IIPS, Mumbai for his feedbacks and methodological support that enrich this paper technically.

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