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Antenatal care among currently married women in Rajasthan, India

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ABSTRACT

Objective: To assess the utilization of antenatal care (ANC) services among currently married women in Rajasthan. **Methods:** The data have been extracted from District Level Household and Facility Survey (DLHS-3) which was conducted during 2007–2008, all over India. A total of 12458 currently married women in the age group of 15–49 were taken as the sample for the study. Cross tabulation and binary logistic regression method were applied to determine the factors influencing ANC. **Results:** Out of 12458 respondents, 43.4 percent women not received even a single ANC during their pregnancy period. 45.1 percent of the women not received tetanus toxoid injection and 13.0 percent of the women not received Iron folic acid tablets during their pregnancy period. Only 6.6 percent of women fulfilled the minimum recommendation with regard ANC services. **Conclusions:** The study points to the avenues through which policy makers can formulate and implement policies on a realistic basis by identifying critical variables and target groups for effective utilisation of ANC.

1. Introduction

Maternal and child healthcare is one of the eight basic components of primary healthcare in the Declaration of Alma-Ata^[1]. Antenatal care (ANC) is a pivotal factor for the safe motherhood. The primary aim of ANC is to achieve healthy mother and a healthy baby at the end of a pregnancy. Mothers who had not received good quality ANC were found to be more at risk of having low birth weight babies and there is clear association between infant mortality rate and lack of or poor quality ANC^[2,3]. Moreover, substantial reduction in perinatal mortality takes place even if the initial antenatal check-up is availed by women as late as the third trimester^[4]. Antenatal visits may raise awareness about the need for care during delivery or give women and their families a familiarity with health facilities that enables them to seek help more efficiently during a crisis^[5,6]. Promotion of maternal and child health has been one of the most important components of the Family Welfare Programme of the Government of India and the National Population Policy–2000 reiterates the government's

commitment to the safe motherhood program within the wider context of reproductive health^[7]. Reproductive and Child Health Programme of the country aims at providing at least three antenatal check-ups which should include a weight and blood pressure check, abdominal examination, immunization against tetanus, iron and folic acid prophylaxis, as well as anaemia management (Ministry of Health and Family Welfare, 2005). Despite considerable improvements in health service delivery for pregnant women in India, maternal mortality rate is still high (212 per 100000 live births)^[8]. Almost half of 20–24 years old women in India (44.5%) are married before age 18^[9,10], and 22% of all 20–24 year old women have given birth by age 18 years^[10]. Such pregnancies have been consistently associated with increased risk of adverse pregnancy outcome, especially low birth weight, prematurity and high rates of neonatal, postneonatal and infant mortality and morbidity^[11]. Such early motherhood, in India and elsewhere, is associated with increased likelihood of neonatal death and stillbirth, low birthweight infants, and child and infant morbidity and mortality^[12]. While documenting the facts from developing countries like Malaysia and Vietnam, it was observed that adolescent mothers are more likely to face severe delivery complications resulting in higher morbidity as well as mortality for both mother and child^[13–15]. Poor access and utilization of antenatal and other health services continue to contribute to high maternal mortality rate along with other socioeconomic factors.

Rajasthan is the largest state (in terms of area in India.

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More than 60% of the state's total land area is desert, characterized by extreme temperature, low rainfall, and sparse habitation. With a maternal mortality ratio (MMR) of approximately 318 per 100 000 live births, the state of Rajasthan contributes significantly to India's burden of maternal deaths^[8]. Women in Rajasthan tend to marry at an early age, according to National Family Health Survey–3, 76 percent of women in the age group of 20–49 years were married by the age of 18 years in Rajasthan and the mean age at marriage for girls has been found as 17.7 years. Early marriages result in teenage pregnancies and births during which are considered as risky particularly when full and timely ANC is not available^[16]. At higher levels of infant mortality, children of adolescent mothers experience a 24 percent higher mortality risk as compared to children of mothers in the 20–24 age group^[17].

While there is an urgent need for full and timely coverage of ANC services, the performance of the study area is highly disappointing in terms of ANC as only six per cent of mothers had full antenatal check–up the corresponding figure for India has been recorded as 18.8 percent^[18].

With this backdrop, the present study evaluates the utilization of ANC services among currently married women in Rajasthan and also tries to identify socio–economic and demographic determinants of ANC utilisation.

2. Materials and methods

The present study utilizes data from the third round of the DLHS carried out in India during 2007–08. DLHS is one of the largest ever demographic and health surveys carried out in India, with a sample size of about seven lakh households covering all the districts of the country. The Ministry of health and family welfare (MoHFW), Government of India, initiated DLHS in 1997 to provide district level estimates on health indicators to assist policy makers and program administrators in decentralized planning, monitoring and evaluation. In DLHS–3, along with ever–married women age 15–49, never married women (age 15–24) are also included as respondents. DLHS–3 adopts a multi–stage stratified probability proportion to size sampling design. Fieldwork in Rajasthan was conducted during December 2007 to April 2008, gathering information from 40 052 households.

The survey covers a representative sample of about 41 447 ever–married women in the age group 15–49, who were captured in two phases from 32 districts of Rajasthan state, and out of all ever–married women interviewed 35 366 were currently married. Among the women interviewed, 12 458 currently married women age 15–49 who ever received any ANC preceding the survey were considered for the present study. This study considers only the most recent births and excludes multiple births. Full ANC includes those mothers who had a minimum of three antenatal visits, at least two tetanus toxoid (TT) injections during the pregnancy or received one TT injection during the pregnancy and at least one in the three years prior to the pregnancy, and received iron and folic acid tablets for 90 days or more^[10]. The provision of all components of ANC to the pregnant women is an integral part of the Reproductive and Child Health Programme in India^[20]. Important socioeconomic and

demographic predictors included in the analysis were: place of residence, religion, caste, age of women, age at marriage of women, education of women, education of husband and wealth index. The present study measures three outcome variables, namely, ANC visits, consumption of iron and folic acid tablets and TT vaccination by cross–tabulation of data. To identify determinates of ANC utilization among women, multivariate analysis was performed. Multivariate analyses used logistic regression to investigate which factors best explain and predict the utilization of the health outcome. Three outcome variables, namely number of ANC visits, consumption of IFA tablets and TT vaccination, were considered for the multivariate analyses. Further, multivariate analysis also employed to predict the utilization of the full package of ANC. The results are presented by estimated odds ratio with 95% confidence intervals (CIs). The analyses were conducted using SPSS version 16.0. The third wave of the DLHS (2007–08) was conducted under the scientific and administrative supervision of the International Institute for Population Sciences (IIPS), Mumbai, India. The institute conducted an independent ethics review of the 2007–2008 DLHS protocol.

3. Results

3.1. ANC visits

Table 1

Percentage distribution of women by antenatal check–ups.

Antenatal check–ups	Respondents	
	Percent	number
Antenatal visits for pregnancy		
No antenatal visits	43.4	5 406
1 visit	7.8	975
2 visits	21.2	2 635
3 visits	12.8	1 599
4+ visits	14.8	1 843
Total	56.6	7 052
Timing of first antenatal check–up (month)		
1	2.5	312
2	10.6	1 318
3	20.0	2 491
Before first trimester	33.1	4 121
4	12.0	1 496
5	6.1	764
6+	5.3	671
After first trimester	23.4	2 931

The number of ANC visits and the timing of the first visit are important for the health of the mother and the outcome of the pregnancy. Ministry of health and family welfare, Govt. of India, recommend at least four antenatal check–ups, one each during the third, sixth, eighth and ninth months of pregnancy^[19]. However, in India, the RCH programme recommends that a pregnant woman should have at least three ANC check–ups^[20]. Table 1 shows that 43.4 percent of the women had no ANC visits during their pregnancy period and another 29.0 of mothers received only one or two antenatal visit. Only 12.8 per cent of the mothers received ANC (at least three) which is recommended by WHO to

Table 2

Percentage distribution of women by antenatal check-ups, according to selected background.

Background characteristics	ANC visits			Total	Timing of first ANC check-up			
	No antenatal visits	2 or less visits	3 or more visits		Before 1st trimester	After 1st trimester	Total	
Place of residence	Rural	46.9	29.7	23.3	10257	54.8	45.2	5443
	Urban	26.9	25.4	47.7	2201	70.7	29.3	1609
Religion	Hindu	43.6	29.2	27.2	11211	58.1	41.9	6322
	Muslim	44.5	27.1	28.3	1080	58.4	41.6	599
Caste	Others	21.6	24.0	54.5	167	74.8	25.2	131
	Scheduled caste	49.8	27.8	22.4	2203	57.9	42.1	1107
	Scheduled tribe	51.5	29.1	19.4	2097	50.1	49.9	1016
	Others	39.6	29.3	31.2	8158	60.3	39.7	4929
Wealth index	Poorest	55.8	28.4	15.8	2725	50.3	49.7	1204
	Poorer	53.8	28.3	17.9	2823	50.7	49.3	1304
	Middle	45.6	30.3	24.2	2720	56.0	44.0	1480
	Richer	34.2	31.0	34.8	2382	60.9	39.1	1567
	Richest	17.2	26.4	56.4	1808	71.5	28.5	1497
	15–19	44.5	31.3	24.2	652	55.0	45.0	362
Age of women	20–24	39.6	30.1	30.3	4697	59.8	40.2	2837
	25–29	42.5	28.2	29.3	4140	59.1	40.9	2382
	30–34	47.2	29.6	23.2	1921	56.8	43.2	1015
	35–39	55.0	25.1	19.9	758	55.7	44.3	341
	40–44	59.9	22.8	17.3	237	41.1	58.9	95
	45–49	62.3	24.5	13.2	53	60.0	40.0	20
Women's age at marriage	<18	46.7	29.6	23.8	9942	56.3	43.7	5304
	18–21	33.2	26.7	40.1	2024	62.6	37.4	1353
	>21	19.7	26.2	54.1	492	72.9	27.1	395
	Illiterate	52.0	28.7	19.3	7964	53.0	47.0	3826
Education of women	0–5 years of schooling	38.0	31.5	30.6	1685	57.4	42.6	1045
	6–10 years of schooling	25.8	30.1	44.0	2094	65.4	34.6	1553
	11 and above years of schooling	12.2	22.5	65.3	715	76.4	23.6	628
	Illiterate	56.3	27.9	15.8	3217	49.1	50.9	1406
Education of husband	0–5 years of schooling	49.1	28.7	22.2	1892	52.8	47.2	963
	6–10 years of schooling	41.1	29.8	29.2	4994	59.3	40.7	2943
	11 and above years of schooling	26.1	29.0	44.9	2355	67.7	32.3	1740
Total		43.4	29.0	27.6	12458	58.4	41.6	7052

achieve the essential level of ANC^[21]. The timing of first ANC is imperative for the mother's health and for the foetus. In the area under study 23.4 of pregnant women received the ANC only after first trimester of their pregnancy period (Table 1). There is substantial difference in the proportion of women who had three or more ANC visits by their socio-economic and demographic characteristics (Table 2). More than forty percent (46.9%) of the rural mothers did not receive even a single ANC as against 26.9 per cent of urban mothers. Among Hindus and Muslims there was not any significant difference in terms of ANC visits. More than half of the scheduled tribes women had no ANC visits while the corresponding figure for scheduled caste and other caste women has been found 49.8 per cent and 39.6 per cent respectively. Table 2 reveals that 62.3 per cent of the mothers not received antenatal check-up in the age group of 45–49 among these 40.0 per cent received antenatal check-up only after first trimester of their pregnancy period. The proportion of mothers who did not receive antenatal check-up sharply decreases with their increasing educational level. Same pattern has been noticed while considering the impact of husband's education on wife's ANC. Majority of

Table 3

Percentage distribution of women by TT vaccination.

ANC services	Respondents	
	Per cent	Number
Tetanus injections before birth		
Received no injection	45.1	5618
Received injection	54.9	6840
Total	100.0	12458
Number of times given tetanus injections		
1	7.2	493
2	92.8	6347
Total	100.0	6840

women living with a richest wealth index had received three antenatal check-ups (56.4) conversely this proportion was low among women living with poorest wealth index (15.8). While looking into the recommended minimum number of ANC visits (3 visits), the educational level (both husband and wife) and their wealth index were positively correlated. Contrary to this, women's age at marriage has been found negatively correlated with three or more ANC visits. Among

the women who had any ANC check-ups more than forty per cent (41.6%) received it only after the first trimester (Table 2). In the rural area nearly half of mothers received the first check-up only after the first trimester 45.2 per cent and this proportion was quite lower among the highly literate group (23.6%) and women living household with high wealth index 28.5.

3.2. TT vaccination

Neonatal tetanus remains an important and preventable cause of neonatal mortality globally[22]. It is a rare disease in developed countries, but remains common in developing countries[23]. Neonatal tetanus which is an important cause of maternal and infant mortality can be prevented through immunization of mother during pregnancy. In India, it is mandatory that a pregnant woman should receive two doses of TT injections. The RCH Programme recommends that as part of ANC, a woman should receive two doses of TT vaccine, to prevent nearly all tetanus infections in both mother and her newborn children[24]. The results show that the coverage of TT in these states is a little less than the antenatal check-ups. About 45.1 per cent of the pregnant women did not receive even a single dose of TT injection during their pregnancy period (Table 3). According to the National Immunization Schedule, a pregnant woman should receive two doses of TT injection, the first when she is 16 weeks pregnant and the second when she is 20 weeks pregnant[25]. Table 3 reveals that women who had received TT injection were further asked how many times they had received the injection during their pregnancy period. Among them, 92.8 of the women received two or more doses of TT injection and at the same time, 7.2 of the mothers were received only a single dose. Education of women and wealth index of the household had their significant bearing on TT vaccination.

3.3. Iron/folic acid (IFA) tablets

Iron deficiency anaemia is the most common micronutrient deficiency in the world. It is a major threat to safe motherhood and to the health and survival of infants[10]. The provision of iron and folic acid (IFA) tablets to pregnant women to prevent nutritional anaemia forms an integral part of the safe motherhood services offered as part of the Reproductive and Child Health Programme in India[18]. The programme recommendation is that women consume 100 tablets of iron and folic acid during pregnancy. Table 4 shows that only 13.0 per cent mothers received IFA supplements during their pregnancy period. Among women who received IFA supplements during the pregnancy period, more than eighty (81.3) per cent women consumed all the tablets that were supplied to them. As compared with ANC check-ups and TT coverage, IFA coverage was far behind in the state. Here, again Education of women and wealth index of the household had positive correlation with the consumption of IFA tablets (Table 5).

3.4. Components of antenatal check-ups

The effectiveness of ANC in ensuring safe motherhood

depends in part on the tests and measurements done and the advice given as part of ANC[10]. The mothers who went for antenatal check-ups were asked whether they received each of several types of service or information at any time as part of their ANC. Table 6 shows the percentage of mothers receiving selected services during ANC. All of these measurements and tests are part of essential obstetric care or are required for monitoring high-risk pregnancies. Among women who received ANC, 55.5 percent had an abdominal examination, 52.0 per cent had their blood pressure checked, and 53.3 percent had their weight measured. Blood and urine tests were conducted for 64.4 and 73.5 per cent of women, respectively. It is quite worrisome that only 17.1 percent of women received information about the danger sign of pregnancy during their antenatal check-ups.

Table 4

Percentage distribution of women by receiving and utilisation of IFA tablets.

ANC services	Respondents	
	Percent	Number
Received/purchased IFA tablets for at least 3 months		
No	87.0	10839
Yes	13.0	1619
Total	100.0	12458
Consumed all tablets given		
No	18.7	302
Yes	81.3	1317
Total	100.0	1619
ANC services	Per cent	Number
Received/purchased IFA tablets for at least 3 months		
No	87.0	10839
Yes	13.0	1619
Total	100.0	12458
Consumed all tablets given		
No	18.7	302
Yes	81.3	1317
Total	100.0	1619

3.5. Full ANC coverage

Full package of ANC consists of at least three ANC check-ups, consumption of IFA tablets for 90 days or more and administration of at least two doses of TT (TT) vaccine[10]. Only three percent of 3.7 per cent mothers not received any kind of ANC service during their pregnancy period (Table 7). Only 6.4 per cent of the mothers received full ANC coverage during their pregnancy period. More than half (55.7 per cent) of mothers received only any one kind of service, 23.6 percent of received any two kind of services and also little more than one-tenth (10.6 percent) of mothers received any three kind of services during their pregnancy period. It concludes that only 6.4 per cent of women alone full fill the minimum recommendation with regards to ANC Services.

Table 5

Percentage distribution of women by antenatal services, according to selected background.

Background characteristics		TT vaccination			Consumed all IFA tablets			
		No injection	At least 1 dose	2 or more Doses	Total	No	Yes	Total
Place of residence	Rural	48.7	3.9	47.3	10 257	20.5	79.5	1 188
	Urban	28.3	4.0	67.7	2 201	13.7	86.3	431
	Hindu	45.3	4.0	50.7	11 211	18.7	81.3	1 451
Religion	Muslim	46.0	3.3	50.6	1 080	19.7	80.3	122
	Others	23.4	4.2	72.5	167	13.0	87.0	46
Caste	Scheduled caste	51.4	3.6	45.0	2 203	20.3	79.7	202
	Scheduled tribe	52.8	4.1	43.1	2 097	30.5	69.5	233
	Others	41.4	4.0	54.6	8 158	16.0	84.0	1 184
Wealth index	Poorest	57.8	4.0	38.2	2 725	27.1	72.9	225
	Poorer	55.5	3.5	40.9	2 823	20.7	79.3	237
	Middle	47.1	4.4	48.5	2 720	23.0	77.0	283
	Richer	35.8	3.7	60.5	2 382	19.1	80.9	371
	Richest	19.0	4.3	76.7	1 808	11.1	88.9	503
	15–19	46.2	3.4	50.5	652	20.5	79.5	83
Age of women	20–24	41.1	3.7	55.1	4 697	19.4	80.6	659
	25–29	44.4	4.0	51.6	4 140	16.5	83.5	565
	30–34	48.8	4.5	46.7	1 921	20.5	79.5	220
	35–39	56.6	4.4	39.1	758	25.7	74.3	70
	40–44	61.2	4.2	34.6	237	0.0	100.0	19
	45–49	66.0	0.0	34.0	53	33.3	66.7	3
Women's age at marriage	<18	48.4	4.0	47.6	9 942	20.2	79.8	1 094
	18–21	34.6	3.8	61.7	2 024	16.4	83.6	383
	>21	21.7	3.7	74.6	492	12.7	87.3	142
Education of women	Illiterate	53.7	3.9	42.4	7 964	23.7	76.3	697
	0–5 years of schooling	39.3	3.9	56.9	1 685	22.2	77.8	239
	6–10 years of schooling	27.7	4.4	67.9	2 094	14.7	85.3	422
	11 and above years of schooling	13.8	3.9	82.2	715	8.4	91.6	261
Education of husband	Illiterate	57.8	3.9	38.3	3 217	22.4	77.6	254
	0–5 years of schooling	50.5	3.3	46.2	1 892	26.4	73.6	197
	6–10 years of schooling	42.9	3.9	53.1	4 994	18.8	81.2	626
	11 and above years of schooling	27.9	4.7	67.4	2 355	13.8	86.2	542
Total		45.1	4.0	50.9	12 458	18.7	81.3	1 619

Table 6

Percentage distribution of women by components of antenatal check-ups.

Components of ANC	Respondents	
	Percent (%)	Number
Weight measured	53.3	3761
Blood pressure checked	52.0	3666
Blood test	64.4	4545
Urine test	73.5	5182
Abdomen test	55.5	3914
Antenatal diet advices	48.1	3391
Danger sign of pregnancy	17.1	1203
Delivery care	41.8	2950
New born care	43.9	3098

3.6. Determinants of maternal health status of women

To determine the contribution of selected variables with full ANC coverage, logistic regression has been applied in this study. The dependent variable (full ANC coverage) is dichotomous, indicating whether or not a woman received

full ANC coverage. The result of the logistic regression shows that age at marriage, education and wealth index were found to be highly significant factors for getting full ANC service among women (Table 8). It found that women with 11 or more years of schooling had a ten times more likelihood for getting full ANC coverage as compared to illiterate mothers. Similarly, women who got married above age 21 had 4.57 times more likelihood to utilise full package of ANC as compared to women who got married below age 18. The mothers living with richest wealth index had 9.54 times more likelihood to receive full ANC coverage as compared to poorest counterparts.

Table 7

Percentage distribution of women by full ANC coverage.

ANC Services	Respondents	
	Per cent	Number
Not received any service	3.7	461
Any 1 service covered	55.7	6939
Any 2 services covered	23.6	2940
Any 3 services covered	10.6	1 321
Full services covered	6.4	797
Total	100.0	12 458

Table 8

Logistic regression examining the effect of selected variables on full ANC coverage.

Covariates and category	Odds Ratio (Exp β)	95% confidence interval	
Place of residence**			
Rural (RC)	1.000		
Urban	2.979	2.563	3.463
Religion*			
Hindu (RC)	1.000		
Muslim	0.878	0.672	1.147
Others	2.781	1.830	4.228
Caste			
Scheduled caste (RC)	1.000		
Scheduled tribe	0.959	0.712	1.294
Others	1.897	1.520	2.368
Wealth index***			
Poorest (RC)	1.000		
Poorer	1.154	0.833	1.600
Middle	1.725	1.272	2.339
Richer	3.523	2.659	4.668
Richest	9.547	7.308	12.471
Age of women*			
15–19(RC)	1.000		
20–24	1.327	0.931	1.890
25–29	1.332	0.933	1.902
30–34	0.940	0.635	1.390
35–39	0.779	0.480	1.264
40–44	0.598	0.274	1.305
Women's age at marriage***	0.671	0.157	2.867
<18(RC)	1.000		
18–21	2.445	2.074	2.883
>21	4.527	3.553	5.768
Education of women***			
Illiterate(RC)	1.000		
0–5 years of schooling	1.855	1.464	2.350
6–10 years of schooling	4.168	3.485	4.984
11 and above years of schooling	10.946	8.911	13.447
Education of husband**			
Illiterate (RC)	1.000		
0–5 years of schooling	1.479	1.076	2.032
6–10 years of schooling	2.372	1.857	3.030
11 and above years of schooling	6.562	5.146	8.369

*** $P < 0.001$, ** $P < 0.01$, * $P < 0.05$. RC: Reference category.

Dependent variable: Full ANC package covered (Not fully covered=0 and fully covered=1).

4. Discussion

The study reveals that, a little more than one-fourth (27.6%) of the mothers received the minimum number of antenatal visit (three or more visits) which is recommended by WHO[21] to achieve the essential level of ANC. More than forty per cent (43.4%) of the mothers did not receive any kind of ANC during their pregnancy period. Nearly 45.1% and more than eighty per cent (87.0%) of the mothers not received TT injection and IFA tablets during their pregnancy period respectively. As a whole, it is very clear from the above analysis that the care received at each and

every stage of the pregnancy period is significantly far from the national averages. Utilization of reproductive health services is related to their availability and socio-economic, demographic and cultural factors such as women's age, education, employment, caste and autonomy[26–31]. These studies have shown that education of the mother is an important social variable that has a positive effect on the utilization of maternal and child health services. Some studies have shown a strong association between spouse's education and utilisation of reproductive health services[32,33]. In the present study, education of women has been identified as prime determinant of use of ANC services. Educational attainment of the husband also showed its positive impact on ANC. As access to and availability of health care services is greater in the urban areas, the study finds higher use among women in urban areas than among those in rural areas. The results show that religion is not a differentiating factor for the use of antenatal services. Documented evidence exhibits a strong association of the caste system with utilisation of maternal care services[34,35]. In the present study caste was an important factor for the use of ANC services. Women belonging to scheduled castes and tribes were less likely to use ANC services than other caste women. In the rural areas, scheduled caste and scheduled tribe groups are usually living in a separate habitation, which is away from the main settlement. Also, in the urban areas, significant proportions of scheduled castes and scheduled tribes are living in slums. The health facilities are usually in close proximity to the main settlement area. The spatial disadvantage combined with social and economic seclusion of these groups, could be the reason for the relative under-utilization of maternal health care services among the members of scheduled caste and scheduled tribe communities. Studies from developing countries relate income as important determinants of utilisation of ANC[36]. The economic status of the household also determines the utilization of ANC and delivery care services[37]. In the present study too, wealth index of the household is positively related with the use of ANC services.

Low level of female literacy and low age at marriage are the two major obstacles hindering the way of full coverage of ANC services. Therefore, appropriate strategies should be taken to increase female literacy as educational attainment has strong association with age at marriage for both men and women. With increase in educational attainment age at marriage is also increasing. Number of years spent in school is positively related with age at marriage. Hence, to achieve the goal of safe motherhood future strategies must take cognizance of critical variables (literacy and age at marriage), target groups (scheduled caste and scheduled tribe) and grey (rural) areas which put obstacles in adherence of full utilisation of ANC. While making policy for effective implementation of reproductive and child health programme, rural women with poor economic and educational background should be given due weightage.

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