Reproductive Morbidity among Currently Married Women in EAG States: Evidence from the Reproductive and Child Health survey 2002-2004

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Introduction and Context

India has the second largest population and the first national population programme in the world. The population programme saw a paradigm shift during the last decade especially after the importance of reproductive health was recognized in 1994 at the International conference on Population and Development (ICPD), Cairo. ICPD defined Reproductive Health as "*a state of complete physical, mental and social wellbeing, not merely the absence of disease or infirmity, in all matters relating to the reproductive system with couples being able to have sexual relations without fear of pregnancy and contracting disease".* Reproductive morbidity (RM) is defined as "*any morbidity or dysfunction of the reproductive tract or any morbidity which is a consequence of reproductive behaviors including pregnancy, contraceptive use, abortion, childbirth or sexual behaviour" (World Health Organization-1990)*.

Reproductive morbidity can be classified into three categories: Obstetric morbidity, Contraceptive morbidity and Gynecological morbidity. Obstetric morbidity refers to ill health in relation to pregnancy, delivery and post delivery periods. Life-threatening morbidity during pregnancy is swelling of hands and feet, paleness, vaginal bleeding, hypertension and convulsions etc. Morbidity conditions during delivery are prolonged/obstructed labour, excessive bleeding, loss of consciousness and rupture of uterus/vagina or cervix etc. Potential life-threatening morbidity conditions during the post-partum period are hemorrhage, foul discharge, high fever, lower abdominal pain and severe headache etc. Contraceptive morbidity includes conditions which result from efforts (other than abortion) to limit fertility, whether they are traditional or modern methods. Some of the problems related to contraceptive morbidity are body ache/backache, cramps, weight gain, dizziness, nausea/vomiting, irregular periods, white discharge etc. Gynecological morbidity includes any condition disease or dysfunction of the reproductive system which is not related to pregnancy, abortion or child birth, but may be related

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to sexual behavior. Itching/irritation, bad odour, severe abdominal pain during intercourse, fever etc are related to the gynecological morbidity.

Women are at risk of complications right from the onset of menstruation. They have to deal with unwanted pregnancy, suffer from the complications of unsafe abortions and bear the problems arising out of contraception. Bulut et al. (1997) have found that there is a strong relationship between contraceptive choice and reproductive morbidity in Istanbul. They have explained that current users of the intrauterine device were significantly more likely than users of other methods to report menstrual disorders. They are also at the risk of contracting and suffering complications of reproductive tract infections (RTIs) and sexually transmitted diseases (STDs), including HIV infection. Indian women suffer from various reproductive health problems and more than one lakhs women die in India annually for reasons related to pregnancy, abortion accounts for 12.3 percent of all maternal deaths in India (RGI, 1993).

Reproductive Morbidity is very high among currently married women in India. Some of the states having high fertility and mortality have been termed as Empowered Action Group (EAG) states. In India, cultural norms and values promote early marriage of women in EAG states because EAG states have been lagging behind in terms of reproductive and child health as compare to other states. The rural women, who are under-nourished and have early pregnancy along with this malnourishment, would enhance the risk of hazardous pregnancy outcomes. The available evidence regarding the level of reproductive morbidity is not comprehensive enough to give an accurate picture of EAG states. In current scenario RTI/STI is a challenging problem related to women because HIV infected women are on increase which affects their reproductive health. Although biological factors alone do not explain women's disparate health burden, the psychological, socio-cultural and service factors have a major impact on women's reproductive health.

The National Population Policy adopted by Government of India in 2000 (MOHFW) reiterates the government's commitments to safe motherhood programme within wider context of reproductive health. Most of the studies relate either to some specific morbidity or to a small specific population or are limited to a particular region. There are hardly a few studies which have dealt with the reproductive morbidity of women in EAG states. So, there is an urgent need to study about large population in certain regions of the country to know the level of reproductive morbidity among women.

Broadly, the present study attempts to understand the levels of reproductive morbidity and the relationship between socio-economic and demographic factors with reproductive morbidity. Also the paper to analyze the treatment seeking behavior among currently married women in EAG states.

Data and Methodology

The present study utilizes the data from District Level Household Survey (DLHS-2, 2002-04) under Reproductive and Child Health Survey in India. The survey DLHS-2 was conducted in 593 districts respectively in two phases. The Empowered Action Group (EAG) states are ***Bihar, Chhattisgarh, Jharkhand Madhya Pradesh, Orissa, Rajasthan, Uttar Pradesh and Uttaranchal***. In the survey, all the eligible women who had given last birth or still birth during the three years preceding the survey were asked if at any time during pregnancy, they had experienced any pregnancy related problems. Similar type of question was asked at the time of delivery while the incidence of post-delivery complication is judged by any of the problems during the first six-weeks of delivery.

In case of contraceptive morbidity, those women who are using modern contraceptive methods (like female sterilization, IUD/loop, Pill) were asked if they had experienced any problems, if yes type of health problems and sought treatment for contraceptive related health problems. In DLHS-RCH information was collected on the common symptoms of RTI and STI from women in the last three months immediately preceding the survey. In case of the present of at least one symptom they were further asked whether they had sought treatment for such problems.

The data has been analyzed using simple bivariate analysis. For the first objective the data has been analyzed each morbidity separately, firstly we see at least one problems related to pregnancy, delivery and post-delivery periods and then combining all three complications to see the levels of obstetric morbidity among EAG states. To understand the impact of various background and demographic variables on the reproductive morbidity, multivariate technique has been used. The logistic regression technique has been used to estimate the net effects of various socio-economic and demographic variables on the likelihood of reproductive morbidity. The following variables will be considered for the analysis:

Dependent variables -

Obstetric morbidity, Contraceptive morbidity and Gynecological morbidity

Independent variables -

Social characteristics - *Place of residence, Religion, Caste, Exposure to mass-media, Sanitation facility, Education level of women, Education level of husband, Standard of living index, Awareness about RTI/STI, Place of delivery, reproductive health care service utilization etc.*

Demographic characteristics - *Current age of women, Age at first marriage, Age of women at the time of first birth, Pregnancy wastage (at least one still birth or induced abortion or spontaneous abortion in the reproductive period), Contraceptive use, Children ever born, No. of children surviving, Marital duration etc*.

To study the third objective i.e. treatment seeking behaviour, whether the women who experienced any symptoms sought treatment from public sector or private sector for any reproductive health problems. The variable has been divided into three categories: *no treatment, treatment from public medical sector and treatment from private medical sector*. It has aimed to know which groups utilize private health care and up to what extent. The technique of multiple logistic regressions has been carried out.

Results and Discussion

Table 1: Percentage of currently married women suffering from different type of obstetric morbidity among EAG states, 2002-04

	Obstetric Morbidity			
States	Any Pregnancy Complication	Any Delivery Complication	Any Post-delivery Complication	Number of Women
Bihar	40.8	79.4	46.1	18177
Chhattisgarh	20.1	16.3	16.1	5459
Jharkhand	39.1	75.5	44.2	7280
Madhya Pradesh	36.4	36.1	35.1	16014
Orissa	41.6	44.1	42.2	9278
Rajasthan	35.9	18.9	27.1	13440
Uttar Pradesh	31.3	20.2	33.5	31137
Uttaranchal	24.3	20.1	26.9	3896
India	**34.2**	**40.8**	**31.4**	**195031**

Table 1 depicts the levels of obstetric morbidity, like at the time of pregnancy, delivery and post-delivery complication among EAG states. The table shows that among EAG states, 42% of the women experienced at least one pregnancy complication in Orissa (42%) while the proportion of delivery and post-delivery complications are high in Bihar which has reported 79% and 46% respectively followed by Jharkhand. Most of the states like Bihar, Jharkhand, Madhya Pradesh, Orissa and Uttar Pradesh are higher side of obstetric morbidity than the whole country, so the paper has tries to main focus among EAG states.

Table 2 shows the percentage of women who have been informed about side effect of accepting the current methods of contraception. Among users of sterilization, Orissa has reported higher percentage of morbidity (28%) followed by Jharkhand (22%) and UP (20%), while among IUD users MP has higher reported i.e. 21% followed by Bihar (18%) and such percentage among Pills users were 17% in Bihar followed by Orissa. Those women who are from Chhattisgarh and Uttaranchal had reported lower side of contraceptive morbidity than the India. Women who

belong to EAG states had reported higher side of contraceptive morbidity than the country as whole. The table also reveals that around one third of currently married women (32%) reported at least one gynecological health problems in India. All women who are from EAG states, have reported higher gynecological morbidity except Chhattisgarh (17%) as compare to overall India level. The morbidity is highest in Rajasthan (48%) followed by Uttaranchal (45%).

Table 2: Percentage of currently married women who had side effect/health problems due to use of contraception method and gynecological morbidity among EAG states, 2002-04

States	Contraceptive Morbidity			Gynecological Morbidity
	Female Sterilization	IUD/loop	Pill	Percentage of women who reported any RTI/STI symptoms
Bihar	19.3	17.6	17.2	39.5
Chhattisgarh	10.1	9.1	4.1	16.7
Jharkhand	21.6	8.1	10.7	38.9
Madhya Pradesh	19.1	20.8	12.2	38.8
Orissa	28.1	10.1	15.7	32.3
Rajasthan	19.5	*	*	47.5
Uttar Pradesh	19.9	11.2	9.4	35.6
Uttaranchal	12.1	8.7	6.6	45.2
India	**16.5**	**11.9**	**15.5**	**32.3**

Note: * represent less number of sample sizes

There is no such differential in reporting pregnancy complication among women who are either from rural areas or urban areas (***Table 3***) in both India as well as EAG states. Adolescent women had reported slightly higher complications in India and EAG states. Illiterate women or their husband reported higher pregnancy complication than their counterparts. Here it can be seen that Level of education of women has significant impact on pregnancy i.e. there is an inverse relationship between pregnancy complication and level of education of women. Muslim women have reported higher complication compared to Hindu and other caste. More than one third women are from higher status group has reported higher complication than their counterparts. In each of the background variables women from EAG states have reported higher complication compared to overall India level.

Table 4 depicts the prevalence of obstetric morbidity during pregnancy complication by some selected demographic variables in India and EAG states. Women who have lived with husband for more than 22 years, reported higher pregnancy complication and somehow it was higher reported by women from EAG states i.e. 40 percent. Children ever born were inversely related with pregnancy complication i.e. those women had four and more children, reported less complication during pregnancy compared to women with no children. Approximately half of the

women in India as well as EAG states, reported pregnancy complication, those who had no any child.

Table 3 Percentage of women who had Live/Still births during three years preceding the survey by Pregnancy complications & some selected Socio-economic characteristics, India & EAG States, 2002-04

Background Characteristics	Percentage of women with any pregnancy complications	
	India	**EAG States**
Place of residence		
Rural	33.7	34.5
Urban	35.5	36.6
Age group of women		
15-19	35.0	36.5
20-24	33.7	34.7
25-34	34.4	34.8
35-44	34.5	34.0
Education of women		
Non-literate	40.7	38.0
1-5 years	35.3	36.7
6-10 years	35.8	36.8
11 years and above	33.3	34.1
Education of husband		
Non-literate	42.3	43.7
1-5 years	34.3	35.1
6-10 years	34.6	34.8
11 years and above	33.8	34.7
Religion		
Hindu	33.4	34.5
Muslim	38.0	36.9
Others	36.2	37.3
Caste		
SC/ST	34.2	34.9
OBC	32.8	34.0
Others	36.3	36.7
Type of house		
Kaccha	35.0	34.9
Semi-kaccha	32.6	34.1
Pucca	35.1	35.8
Standard of living index		
Low	33.9	34.6
Medium	33.4	34.3
High	36.2	37.1
Total	**34.2**	**34.9**
Number of women	**195031**	**100550**

Table 4 Percentage of women who had Live/Still births during three years preceding the survey by Pregnancy complications by some selected Demographic characteristics, India and EAG states, 2002-04

Demographic Characteristics	Percentage of women with any pregnancy complications	
Age at which women started living with husband	**India**	**EAG States**
<15	34.2	35.4
15-18	33.3	33.5
18-22	34.7	36.2
>22	38.4	40.4
Children Ever Born		
0	50.0	50.4
1	36.8	37.2
2	32.1	33.6
3	33.2	34.4
4+	34.2	34.2
Any Pregnancy wastage		
Yes	46.4	48.2
No	33.7	34.3
Any Contraceptive method		
Yes	33.7	34.4
No	34.9	35.4
Total	**34.2**	**34.9**
Number of Women	**195031**	**100550**

Pregnancy wastage related with women experienced at least one still birth or induced abortion or spontaneous abortion in the reproductive period. Those women who reported any pregnancy wastage in the reproductive period they had highly reported pregnancy complication. About 46 percent of women in India reported complication that had any pregnancy wastage and this percentage was slightly highly reported in EAG states. Women, who had not been using any contraception method, had reported high pregnancy complication. It may be possible that due to less sample size, they had less reported complication.

Table 5 demonstrates the percentage of contraceptive morbidity among women by selected socio-economic characteristics in India and EAG states. Women from rural area (18 percent) have reported higher complication than their counterparts (13 percent) in India as well as in EAG states and it was reported higher (20 and 16 percent respectively). In case of age group it was inversely related to contraceptive morbidity in India. Two fifth adolescent women have reported complication in India. But in case of EAG states, it was directly related to complication due to use of contraceptive. About one third illiterate women reported complication in India, while only two fifth from combined EAG states. There was not much differential in reporting complication by religion. About two fifth Muslim women have reported complication in India and EAG states. SC/ST women have high complication compared to other castes.

Table 5 Percentage of currently married women who reported Contraceptive morbidity by some selected socio-economic characteristics, India & EAG states, 2002-04

Background Characteristics	*Percentage of women with any Contraceptive morbidity*	
Place of residence	***India***	***EAG States***
Rural	18.0	20.3
Urban	12.8	15.2
Age of women		
15-19	19.5	13.8
20-24	15.2	14.8
25-34	16.6	19.4
35-44	15.9	19.1
Education of women		
Non-literate	32.2	21.5
1-5 years	17.7	20.0
6-10 years	13.4	16.7
11 years and above	17.1	19.3
Education of husband		
Non-literate	29.4	24.1
1-5 years	18.6	21.3
6-10 years	15.4	18.7
11 years and above	15.8	18.3
Religion		
Hindu	16.0	18.9
Muslim	19.6	19.9
Others	13.9	17.9
Caste		
SC/ST	19.0	20.4
OBC	15.0	18.9
Others	15.4	17.6
Type of house		
Kaccha	21.2	20.9
Semi-kaccha	15.5	20.1
Pucca	12.8	15.7
standard of living index		
Low	20.4	21.3
Medium	15.6	19.2
High	11.2	13.6
Total	**16.2**	**18.9**
Number of women	**201600**	**59743**

Note: Only those women who are using modern method of contraception (female sterilization or IUD/Loop or pills)

Table 6 Percentage of currently married women who reported Contraceptive morbidity by some selected Demographic characteristics, India and EAG States, 2002-04

	Percentage of women with any Contraceptive morbidity	
Demographic Characteristics	***India***	***EAG States***
Age at which women started living with husband		
<15	19.9	21.3
15-18	15.9	18.4
18-22	12.5	15.6
>22	11.0	13.5
Children Ever Born		
0	13.6	7.7
1	13.6	13.6
2	13.4	16.4
3	16.3	19.0
4+	19.0	20.1
No. of surviving children		
0	13.9	11.7
1	14.5	15.1
2	13.9	17.3
3	16.7	19.2
4+	18.9	19.9
Follow up for current method		
Yes	17.2	22.5
No	15.8	17.6
Total	**16.2**	**18.9**
Number of Women	**201600**	**59743**

Note: Only those women who are using modern method of contraception (female sterilization or IUD/Loop or pills)

Table 6 gives an idea about health problems due to use of modern contraceptive method by some demographic characteristics. Contraceptive morbidity was higher for those women who were living with husband for less than 15 years i.e. 20 percent compared to women who were living with husband for more than 22 years (11 percent) and it was reported higher in each of the age at which women living with husband in EAG states. Women with 4 or more child (still/live) have reported higher (19 percent) compared to women with no child (14 percent). CEB is positively related with contraceptive morbidity. Number of surviving children is positively associated with health problems for use of contraception i.e. women with more number of surviving children have higher health problems with use of contraception. Women who are currently using any modern contraceptive method like female sterilization/IUD/Loop/Pills and

who are continuing using have reported higher complication than women who discontinue this method in India as well as in EAG states.

Table 7 Percentage of currently married women who reported any one symptoms of RTI/STI by some selected Socio-economic characteristics, India and EAG States, 2002-04

Background Characteristics	***Percentage of women with any gynecological morbidity***	
	India	***EAG States***
Place of residence		
Rural	33.7	37.9
Urban	29.3	36.3
Age of women		
15-19	29.7	32.1
20-24	30.9	35.0
25-34	33.1	38.9
35-44	33.0	39.8
Education of women		
Non-literate	41.4	37.2
1-5 years	34.4	39.7
6-10 years	31.5	37.3
11 years and above	32.2	37.3
Education of husband		
Non-literate	41.3	37.0
1-5 years	34.8	39.3
6-10 years	33.3	38.4
11 years and above	30.8	36.5
Religion		
Hindu	31.9	37
Muslim	36.2	41.4
Others	29.9	38.9
Caste		
SC/ST	33.9	37.3
OBC	31.4	37.2
Others	32.1	38.4
Standard of living index		
Low	34.6	37.4
Medium	32.3	38.8
High	28.4	36.1
Knowledge about of RTI/STI		
Yes	35.8	41.2
No	29.6	34.4
Total	**32.3**	**37.5**
Number of women	**507622**	**216711**

Table 8 Percentage of currently married women who reported Gynecological morbidity by some selected Demographic characteristics, India and EAG States, 2002-04

Demographic Characteristics	Percentage of women with any gynecological morbidity	
	India	**EAG States**
Age at which women started living with husband		
<15	35.0	38.7
15-18	33.3	37.5
18-22	29.2	36.5
>22	25.2	31.8
Children Ever Born		
0	30.1	34.3
1	27.5	32.9
2	29.7	35.8
3	33.7	39.4
4+	37.5	40.3
Any Pregnancy wastage		
Yes	40.9	46.4
No	31.9	37.1
Any Contraceptive method		
Yes	33.5	41.3
No	30.4	34.8
Place of delivery		
Home	32.9	35.1
Institution	32.1	38.9
Currently menstruating		
Yes	32.5	38.2
No	31.7	35.8
Total	**32.3**	**37.5**
Number of Women	**507622**	**216711**

Table 7 presents the percentage of women with any RTI/STI symptoms. About one third women from rural India and 38 percent from EAG states had reported any symptoms of RTI/STI compared to their counterparts. There was high differential for reporting symptoms of RTI/STI in each age group of women in EAG states. It is worth mentioning that two fifth of the illiterate women from India reported symptoms of RTI/STI and the percentage was lower among educated women. Women whose husbands were illiterate had reported more complication in India (41 percent) compared to EAG states (37 percent). Thirty six percent Muslim women reported complication which was lower than other religions in India; Women from low SLI group have higher problems compared to high SLI group. Knowledge of RTI/STI is an important indicator to determine the nature and extent of relations between husband and wife in reporting complications

during sexual relationship. In India women who were aware of RTI/STI reported higher prevalence of symptoms (36 percent) than those who were not (29 percent)

The multinomial logistic regression model has been used to analyze the treatment seeking behavior by the women. The response variable for the treatment seeking behavior has been categorized into three mutually exclusive and exhaustive categories: respondents suffering from reproductive morbidity but didn't seek any treatment during the reference period, respondents suffering and sought treatment from the public health sector and women suffering and sought treatment from the private health sector. The reference category for the multinomial logit model is "women suffering from reproductive morbidity but didn't seek any treatment during the reference period".

The multinomial logistic regression analysis results for seeking treatment for pregnancy, post-delivery, contraceptive and RTI/STI suggested that, women who belonged to urban areas were significantly more likely to seek treatment from public as well as private sector compared to no treatment than their counterparts in India as well as in EAG states for contraceptive morbidity (***Table 9***). Among age category, the probability of seeking treatment from private sector as well as public sector was significantly higher among women in the age group of 20-24 and 25 and above years than women in the age group of less than 20 years and it was significant in India as well as EAG states.

It is interesting to note that older women i.e. 20-24 and more than 24 years are 2 and 4 times to seek treatment for contraceptive morbidity from public sector than adolescent women. Similarly is the case of EAG states, but in case of private sector only 2 times more likely to report for seek treatment than their counterparts.

Other religions are less likely to seek treatment for contraceptive morbidity from private health sector in EAG states. Women who belong to OBC and other castes are less likely to seek treatment from public sector and more to seek treatment from private sector for India as well as EAG states.

Women who belong to medium and high SLI status are more likely to seek treatment from public as well as private sector than women who belong to low SLI group. High status women are 2 times more likely to seek treatment from private sector than women who are from low SLI group. Age at which women started living with husband is negatively associated with treatment sought for contraceptive morbidity, either for woman who received treatment from public as well as private sector.

Table 9 Relative risk ratios from multinomial logistic regression for sought treatment for Contraceptive morbidity by selected background characteristics, India and EAG States, 2002-04

	Government sector/ No treatment		Private sector/ No treatment	
	India	EAG States	India	EAG States
Background characteristics	**Exp(β)**	**Exp(β)**	**Exp(β)**	**Exp(β)**
Place of residence				
Rural®				
Urban	1.28**	1.28**	1.01	1.14**
Age group of women				
<20®				
20-24	2.56*	2.56**	1.50**	1.67
>24	4.06**	4.06*	2.30**	2.76**
Education of women				
Non-literate®				
1-5 Years	1.29	1.29	0.78	0.62*
6-10 Years	1.24	1.24	0.8	0.65*
11 Years and above	1.03	1.03	0.72*	0.57**
Education of husband				
Non-literate®				
1-5 Years	1.01	1.05	0.95	0.94
6-10 Years	0.87	0.87	0.92	0.91
11 Years and above	0.84	0.84	0.99	0.92
Religion				
Hindu®				
Muslim	1.02	1.02	0.97	0.91
Others	0.77	0.77	0.75**	0.75*
Caste				
SC/ST®				
OBC	0.81**	0.81**	1.19**	1.16**
Others	0.79**	0.79**	1.09*	1.11*
Standard of living index				
Low®				
Medium	1.22**	1.22**	1.52**	1.40**
High	1.31**	1.31**	2.03**	1.71**
Age at which women started living with husband				
<18®				
18-22	1.10**	0.99	0.76**	0.83**
>22	0.92	0.60**	0.68**	0.69**
Children ever born				
0®				
1	1.24	0.44	0.52	1.23
2	1.89	0.87	0.63	1.01
3+	1.83	0.82	0.57	0.87
No. of children surviving				
0®				
1	1.01	1.79	2.36	2.19
2	1.02	1.6	2.33	3.21
3+	0.96	1.33	2.33	3.37
Follow up for current method				
Yes®				
No	0.62**	0.59**	0.85**	0.95
Number of cases	***30643***	***13997***	***30643***	***13997***
log likelihood	***-32378.59***	***-14447.966***	***-32378.59***	***-14447.966***
Pseudo R square (Nagelkerke)	***0.0183***	***0.0182***	***0.0183***	***0.0182***

Note: Significant at **P<=0.01, *P<=0.05

Table 10 Relative risk ratios from multinomial logistic regression for sought treatment for any one symptoms of RTI/STI by selected background characteristics, India and EAG States, 2002-04

	Government sector/ No treatment		Private sector/ No treatment	
	India	EAG States	India	EAG States
Background characteristics	**Exp(β)**	**Exp(β)**	**Exp(β)**	**Exp(β)**
Place of residence				
Rural®				
Urban	1.08*	1.48**	1.12**	1.10**
Age group of women				
<20®				
20-24	1.38**	1.28*	1.05	0.97
>24	1.61**	1.37**	1.27**	1.18**
Education of women				
Non-literate®				
1-5 Years	1.60**	2.40**	1.12	1.04
6-10 Years	1.85**	2.64**	1.24*	1.15
11 Years and above	1.35	1.83*	1.12	0.91
Education of husband				
Non-literate®				
1-5 Years	0.76*	0.98	0.99	0.82
6-10 Years	0.76*	0.88	1.04	0.84
11 Years and above	0.72*	0.92	1.09	0.85
Religion				
Hindu®				
Muslim	1.44**	0.94	1.34**	1.35**
Others	1.09*	0.59**	0.60**	0.78*
Caste				
SC/ST®				
OBC	0.71**	0.83**	1.27**	1.22**
Others	0.82**	1.01	1.22**	1.23**
Standard of living index				
Low®				
Medium	1.31**	1.18**	1.23**	1.21**
High	1.06	1.05	1.60**	1.49**
Knowledge about RTI/STI				
Yes®				
No	1.44**	1.47**	1.01	1.24**
Age at which women started living with husband				
<18®				
18-22	1.27**	1.08	0.88**	0.91**
>22	1.51**	1.22	0.96	1.12*
Children ever born				
0®				
1	1.13*	0.96	0.83**	0.88*
2	1.18**	1.12	0.82**	0.90*
3+	1.06	1.03	0.78**	0.89*
Number of cases	**80275**	**43045**	**80275**	**43045**
log likelihood	**-57775.535**	**-29226.915**	**-57775.535**	**-29226.915**
Pseudo R square (Nagelkerke)	**0.0262**	**0.0191**	**0.0262**	**0.0191**

Table 10 presents the relative risk ratios for treatment sought for any one symptoms of RTI/STI in India and in EAG states. Women who belonged to urban areas are significantly more likely to seek treatment from public as well as private sector compared to no treatment than their counterparts in India and EAG states for RTI/STI problems. Among age category, the probability of seeking treatment from public as well as private sector is significantly higher among women in the age group of 20-24 and 25 and above years than women in the age group less than 20 years and it is significant for India as well as EAG states.

The results also demonstrate that educated women from EAG states are two times more likely to seek treatment from public sector for RTI/STI symptoms than those who are uneducated. Muslim women are 44 percent and 34 percent more likely to seek treatment from public sector and private sector respectively compared to Hindu women and no treatment in India. But other women are 9 percent more likely to seek treatment from public sector and 40 percent less likely from private sector compared to Hindu women in India and same relationship exists in EAG states.

In case of caste categories, OBC and other caste women are less likely to seek treatment from public sector but more likely to seek treatment from private sector compared to SC/ST women in India as well as in EAG states. Women who belonged to medium as well as high SLI are more likely to seek treatment from public and private sector in India as well as EAG states. Knowledge of RTI/STI is a good indicator for treatment seeking behavior for symptoms of RTI/STI. Women who had no knowledge are more likely to seek treatment for RTI/STI symptoms in India and EAG states. Women with more number of children are more likely to seek treatment for RTI/STI compared to women with no children at India level but, they are less likely to seek treatment from private sector than their counterparts.

Summary and Conclusions

The study suggests that obstetric morbidity i.e. complications during pregnancy, delivery and post-delivery periods are high in Bihar, Jharkhand and Orissa states compared to all India. In case of contraceptive morbidity, sterilized women had higher morbidity compared to IUD/Loop users and pills users in India as well as in EAG states. For complications due to modern contraceptive methods, most of the serious problems reported were in Madhya Pradesh, Orissa and Jharkhand. The prevalence of any one symptom of RTI/STI was quite high among currently married women aged 15-44 years in the combined EAG states. It was marginally higher than prevalence at the all India level. Among EAG states, the prevalence was higher in Rajasthan and Uttaranchal.

Although the use of contraception prevents unwanted pregnancy and in some cases provides shelter from reproductive tract infections and sexually transmitted diseases, it may also raise the risk of infections, resulting in contraceptive morbidity. Women from rural area reported

higher complications than their counterparts in India as well as in EAG states. About one third illiterate women reported complications in India, while only two fifth from combined EAG states.

The prevalence of any one symptoms of RTI/STI is quite high in rural areas and among illiterate women of India and EAG states. It is observed that age, education level of women and her husband have significant influence on gynecological morbidity. Multivariate analysis suggests that a number of socio-economic and demographic variables influence the prevalence of obstetric, contraceptive and gynecological morbidity in India as well as in EAG states.

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