

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 haemorrhage, 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 to sexual behaviour. 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 behaviour 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, Chhatisgarh, 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 will be analyzed using simple bivariate analysis. For the first objective the data will be analyzed each morbidity separately, firstly we will 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 will be used. The logistic regression technique will be 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 will be carried out.

Note: *The present study is continuing to prepare the different tables like different type of problems due to use of contraception, any symptoms relate to gynecological morbidity, the relationship between socio-economic and demographic factors with various types of reproductive morbidity and to understand the association between treatments seeking behaviour among women with different types of reproductive morbidities.*

Preliminary Results

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

States	Obstetric Morbidity			Number of Women
	Any Pregnancy Complication	Any Delivery Complication	Any Post-delivery Complication	
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

Table 3 presents the different type of complication during pregnancy, delivery and post-delivery periods among EAG states. The major problems reported by women at the time of pregnancy were swelling of hands and feet (20%), paleness (13%) and visual disturbance (8%). Those women who are from EAG states except Chhattisgarh had higher reported pregnancy complication i.e. swelling of hands and feet, paleness, visual disturbance and convulsion than India as whole. At the time of delivery, the major problems reported were obstructed labor (21%), prolonged labor (16%), premature labor (12%) and excessive bleeding (6%). Bihar and Jharkhand had highest reported of obstructed labor i.e. 57% and 55% respectively than compare to any of the problems related with obstetric morbidity either at the time of pregnancy, delivery and post-delivery periods. Women reported high fever (20%) in Jharkhand and Orissa, 29% lower abdomen pain in Jharkhand, foul smelling vaginal discharge is high in Rajasthan, and excessive bleeding 13% in Orissa which are the highest as compare to India as whole.

Table 3: Percentage of currently married women aged 15-44 who had reported type of complications during pregnancy, delivery and post-delivery periods among EAG states, 2002-04

Obstetric Morbidity	India	Bihar	Chhattisgarh	Jharkhand	Madhya Pradesh	Orissa	Rajasthan	Uttar Pradesh	Uttaranchal
Pregnancy Related Problems									
Swelling of hands and feet	19.8	23.1	14.8	24.2	19.5	24.2	19.4	19.8	17.2
Paleness	12.7	11.2	3.6	10	12.2	12.3	18.6	11.2	8.3
Visual disturbance	7.9	11.1	3.6	12.2	10.8	14.1	11.7	6.7	3.5
Bleeding	2.1	0.9	0.8	0.9	3.4	3.4	3.2	0.8	1.2
Convulsion	4.2	4.4	2.4	5.3	11.3	11.7	4.4	3.2	0.9
Weak or no movement of fetus	2.6	2.2	2.1	2.3	4.3	2.9	4.1	3.4	4.5
Abnormal position of fetus	1.5	2.2	1.3	0.8	0.3	2.1	0.8	0.7	1.5
Others	6.2	13.5	2.4	1.8	4.6	8.4	3.7	2.3	2.2
Delivery Complication									
Premature labor	11.7	13.2	4.4	22.5	14.3	23.2	3.4	3.9	3.5
Excessive bleeding	6.4	6.1	3.7	7.6	7.3	17.4	5.8	2.6	3.5
Prolonged labor	15.5	30.8	7.8	23.8	18.2	20.9	9.6	10.7	12.2
Obstructed labor	20.6	57.4	4.9	54.7	22.6	10.4	4.1	6.8	7.5
Breech presentation	3.1	3.9	2.2	2.9	2.4	3.5	2.2	3.2	2.1
Others	3.2	4.2	1.3	2.2	0.9	2.8	1.9	1.3	0.5
Post-delivery Complication									
High fever	14.3	17.8	8.3	19.6	16.9	19.6	15.3	19.6	11.8
Lower abdominal pain	18.5	32.8	9.2	28.6	22.1	22.1	12.7	20.4	18.1
Foul smelling vaginal discharge	5.4	8.2	2.4	5.7	7.6	8.4	12.6	6.3	5.3
Excessive bleeding	6.7	8.3	4.4	7.9	8.2	13.4	5.9	5.9	6
Convulsion	3.4	4.6	2.3	5.6	9.4	10.7	5.3	2.7	1.2
Severe headache	12.1	15.8	6.4	15.8	14.3	15.9	3.1	12.8	10.8
Others	2.9	4.3	1.3	2.9	2.4	5.2	2.4	1.7	1.2

The paper is continuing for some other analysis, which will be submitted as soon as possible.....