

# TRENDS AND DIFFERENTIALS IN FERTILITY AND FAMILY PLANNING INDICATORS IN JHARKHAND

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Fertility and Family Planning is a valuable indicator for accessing the achievements of national family planning programs. This study was undertaken with the objectives to compare and analyse the levels, trends and differentials in fertility and family planning indicators among the married women of reproductive age group (15–49 yrs) on socio-economic characteristics. Data was mainly drawn from NFHS – 2 (1998-99) and NFHS – 3 (2005-06). Low contraceptive prevalence rate and high unmet need and total fertility rate was observed. Education and wealth shows positive impact on fertility and contraception. Muslims disadvantage groups and adolescents have high fertility rate. The results highlight the need of an effective implementation on information, education and improvement in the quality of advice and care services related to family planning.

**Key Words:** Total Fertility Rate; Contraceptive Prevalence Rate; Unmet Need

## INTRODUCTION

In the past two to three decades there has been a profound change in fertility rates in India. It has experienced substantial decline in fertility in most of the states but Jharkhand continues having high fertility with 3.3 children per woman. High fertility levels not only have several adverse implications for societies but also for an individual. Hence quick and substantial reduction in fertility in low resource settings is highly desirable goal. What works best for achieving maximum reduction in fertility is still a much debated issue. However previous studies conducted in different settings around the world have established the fact that contraception is one of the most important proximate determinants of fertility (Sibanda et al; 2003; Kakri & Krishna. 2008; Bongaarts et al. 1984). Family Planning being a viable solution to control such fast growing population not only help in spacing and limiting the number of children but also improves maternal child health, empowers women and boost economic development. In spite of that an estimated 225 million women who want to avoid a pregnancy are not using an effective contraceptive method (Susheela Singh, Jacqueline E Darroch, Lori S. Ashford et al; 2014).

Jharkhand is the focus of study for several reasons. According to 2011 census, Jharkhand is having 3,29,88,134 (33 million) population with a decadal growth rate of 22.4 percent, a level where Kerala and Tamilnadu were forty years ago. The decadal growth rate is much above the national level (17.6%). Merely 1 percent decline in decadal growth rate during 2001-11 is a serious concern for the state. Further Jharkhand is a poor state with high fertility, high unmet need, high maternal and child mortality, low literacy and low life expectancy is great challenge for government and policy makers. Unfortunately very little research has focussed on this subject. Hence, this study aims to examine the trends and differentials in Fertility and Family Planning indicators in Jharkhand.

## DATA AND METHODS

This is an analysis of secondary data drawn mainly from NFHS – 2 (1998-99), NFHS – 3 (2005-06) and census to study fertility and family planning indicators focusing on the trends and

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differentials in certain crucial indicators such as the total fertility rate (TFR), contraceptive prevalence rate (CPR), the current scenario of the method mix and the unmet needs for contraception. The two NFHS survey adopted multi – stage sampling design – two stage sampling design in rural areas and three stages in urban areas. The sampling design remained similar in both surveys which allow a comparison with the estimates of the consecutive rounds.

The NFHS collected data using different interview schedules – household schedules and eligible women / individuals schedule. In Jharkhand the survey collected information from 1614 women in NFHS – 2 and 2983 women (age 15 – 49) in NFHS – 3. The household response rate was 98.7% in NFHS – 2 and 96.3% in NFHS – 3.

## RESULTS

### Levels and Trends in Total Fertility Rate

Total Fertility Rate (TFR) is a summary measure based on the age specific fertility rate (ASFR) that indicates the number of children a woman would bear during her reproductive years.

**Figure – 1 : Total Fertility Rate by Residence**

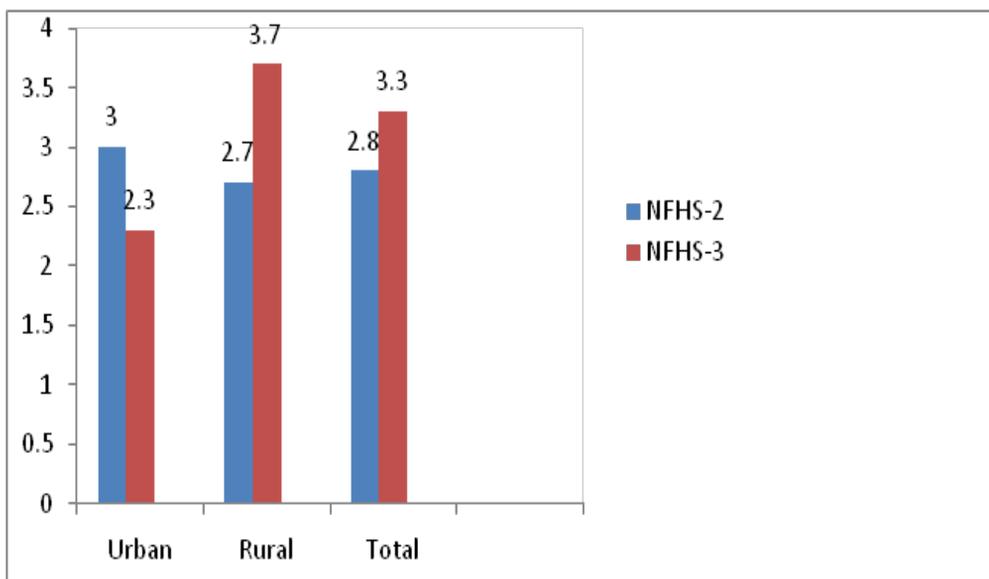
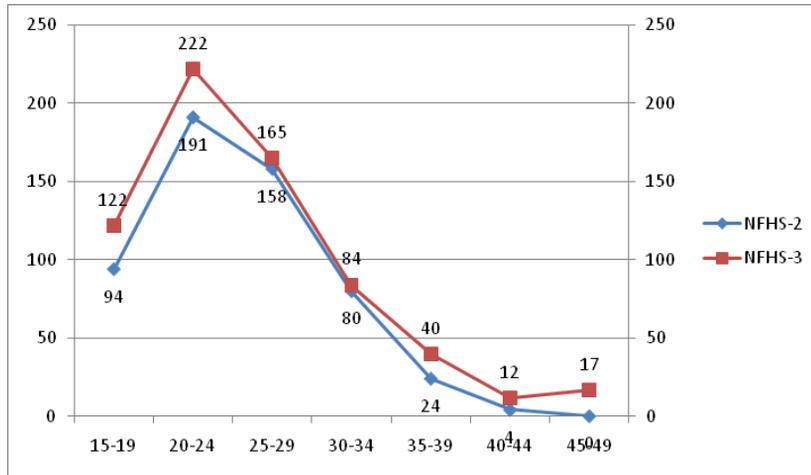


Figure – 1 shows the total fertility rate by residence, currently a woman in Jharkhand will have an average of 3.3 children in her lifetime which is higher than it was seven years ago, 2.8 percent in NFHS – 2. The rural total fertility is 3.7 children per woman much higher than urban total fertility of 2.3 children per woman is quite close to replacement level in NFHS – 3 while the urban total fertility rate 3.0 percent was higher than rural total fertility Rate 2.7 percent in NFHS – 2. Fertility in Jharkhand is higher than in most of other states of India and for the country as a whole (2.7 percent) Fertility rates are higher among women in disadvantaged groups. (3.1 among the scheduled Castes, 3.8 among the scheduled tribes and 3.3 among the other backward classes) than among woman who do not belong to any of these groups according to NFHS –3

**Figure – 2 : Trends in Age-Specific Fertility Rates**

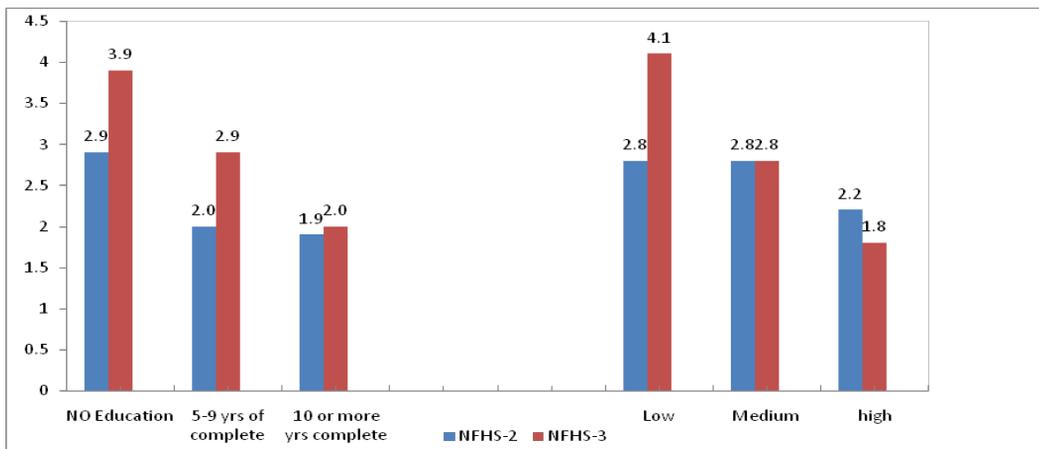
Birth per 1,000



Age of women in years

Figure – 2 represents trends in Age – specific Fertility Rate. The trend suggests a clear increase in the fertility between NFHS – 2 and NFHS –3. Highest increase is depicted among the 15 – 24 years of women age. Fertility at ages 35 and older shows a decline in both the survey. According to NFHS –3 report (28%) of women age 15 – 19 have begun child bearing which is highest than any other states in India. Seven percent are pregnant with first child. Young women in rural areas are almost thrice as likely to be mothers as young women in urban areas. Adolescents 15 – 19 yrs contribute about 16% of total fertility in the country.

**Figure – 3 : Total Fertility Rate by Education and Household Wealth**



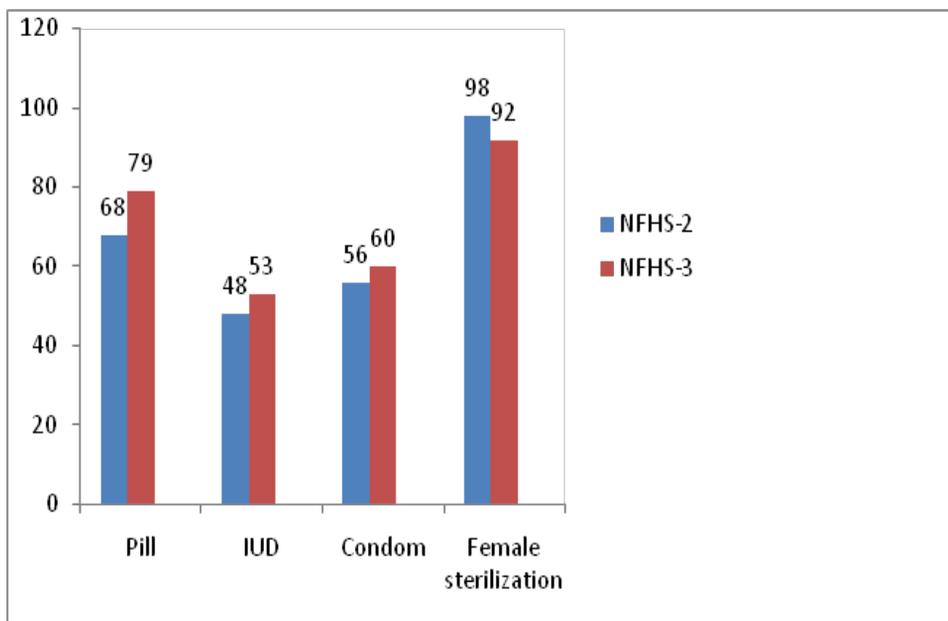
Education

Wealth Index

Figure – 3 shows the fertility differentials by education and wealth in both NFHS-2 and NFHS-3, there has been decline in fertility by the years of education and wealth index. In NFHS-2 the fertility decline from 2.9 percent with no education to 1.9 percent with 10 or more yrs of complete education. Similarly, in NFHS – 3 the decline is from 3.9 percent to 2.0 percent. A decline of 1.9 percent in NFHS-3 which was greater than 1 percent in NFHS-2. At current fertility rates among lowest wealth quintile will have 4.1 more children than women in the highest wealth quintile 1.8 children in NFHS – 3.

### Knowledge of Contraceptive Methods

**Figure – 4 : Knowledge of contraceptive methods among currently married women in Jharkhand, NFHS-2 and NFHS-3**



Knowledge of contraceptive methods is fundamental to the ability of women and men to make informed choices about reproductive health decisions. Figure – 4 shows the knowledge of contraceptive methods. Trends from NFHS – 2 and NFHS-3 shows that knowledge of contraception has increased over the years. The knowledge of any contraceptive method among currently married woman was almost universal i.e. 95 percent. The knowledge of modern spacing methods namely pill, IUD and condoms has shown a rising trend among all age groups. 79 percent of currently married women know about the pills compared with 68 percent in NFHS – 2. The knowledge of IUD has increased from 48% to 53% in NFHS-3. The knowledge of pill has shown 11 percent increase between the two survey. Knowledge of female sterilization has fallen from 98% in NFHS – 2 to 92 percent in NFHS – 3. A decline of 6 percent between 1998 – 99 to 2005 – 06. This report shows that spacing method is being popularise among the reproductive women.

## Levels and Trends in Contraceptive use and Method Mix

The current level of contraceptive use or the contraceptive prevalence rate (CPR) is one of the principal determinants of fertility. It is defined as percentage of currently married woman age 15 – 49 yrs who are currently using a contraceptive method or whose husbands are using it. It is also an indicator of the success of family planning programmes.

**Table 1 : Current use of contraceptive methods among currently married women 15 – 49 yrs, according to residence, Jharkhand 1998 – 99 to 2005 – 06.**

Contraceptive Method	NHFS-2			NHFS-3		
	Urban	Rural	Total	Urban	Rural	Total
Any method	40.2	25.0	27.6	60.0	28.2	35.7
Any modern method	37.5	22.2	24.9	49.3	25.2	31.1
Pill	4.0	0.9	1.5	4.9	3.4	3.8
IUD	0.8	0.2	0.3	1.4	0.4	0.6
Condom	4.6	0.4	1.1	7.9	1.1	2.7
Female sterilization	27.3	19.8	21.1	36.0	19.8	23.4
Male sterilization	0.8	0.9	0.9	0.5	0.3	0.4
Any traditional method	2.4	0.9	1.1	10.1	2.9	4.7
Rythem/Safe method	0.8	0.4	0.5	4.1	1.4	2.1
Withdrawal	1.6	0.5	0.7	5.1	0.9	2.0

Not using any method

According to Table – 1, the contraceptive prevalence rate in Jharkhand among currently married women is 35.7 percent up from 27.6 percent in NFHS – 2. The level of contraceptive use in Jharkhand is much lower than in the nation as a whole (56%) and in all states other than Meghalaya, Nagaland and Bihar. Between 1998 – 06 both modern method and traditional method has shown a rising trend. Female sterilization is the most popular modern method of contraception. Female sterilization is 23.4 percent compared to 21.1 percent in NFHS – 2. The male sterilization has further decline from 0.9 percent to 0.4 percent in NFHS – 3. The three spacing methods pill, IUD and condom have shown a remarkable increase. Among three the most widely used method is pill (3.8 percent). Still about 64.3 percent women according to NFHS-3 is not using any method of contraception

Both urban and rural areas has shown a steadily increase in the level of contraception but the pace of change is faster in urban areas. Between the periods the contraception of modern method has increased by 11.8 percent in urban areas compare to only 3 percent in rural areas. Female sterilization in urban areas rises from 27.3 percent in NFHS-3. But in rural areas the female sterilization is stagnant at 19.8 percent in both survey. The spacing method together increases from 9.4 percent in NFHS-2 to 14.2 percent in NFHS-3 i.e. a rise of 5 percent between 1998 – 2006. Muslim women are less likely to use contraceptive 27 percent than Hindu women 41 percent (NFHS-3). Among all the groups of women by caste, education and wealth it is woman from the scheduled tribes 19% (NFHS-3) has the lowest contraceptive prevalence.

## LEVELS AND TRENDS OF DEMAND AND UNMET NEED FOR FAMILY PLANNING

Unmet need for Family Planning is an important indicator to access the potential demand for FP services. Unmet need for family is defined as the percentage of currently married women who either want to space their next birth or stop childbearing entirely but are not using contraception.

**Table 2 : Levels and Trends in demand for family planning in Jharkhand 1998–2006**

YEAR	1998-1999	2005-2006
<b>Unmet need for family planning</b>		
For spacing	11.1	11.3
For limiting	9.9	11.9
Total	21.0	23.1
<b>Met need for family planning</b>		
For spacing	1.7	3.2
For limiting	25.9	32.5
Total	27.6	35.7
<b>Total demand for family planning</b>		
For spacing	12.8	14.5
For limiting	35.8	44.4
Total	48.7	58.8

Table-2 shows the demand for family planning about 48.7 percent of all women in reproductive ages were in need of family planning in Jharkhand in 1998 – 99. However it increased by 10 percentage points to reach 58.8 percent.

The total demand of family planning for limiting increased from 36 percent in NFHS-2 to 44 percent in NFHS-3 about 8 percent increase during 1998 – 06. The level of unmet need among women from reproductive ages in Jharkhand was about 21 percent, which increased to 23 percent in 2005- 06 – a rise of 2 percent points in last seven years. Looking separately at unmet need for spacing and limiting purpose has been rising steadily over the period. In Jharkhand the percentage of unmet need for family planning is much above the national level (12.8%). Including unmet and met need, 59 percent of currently married women in Jharkhand have demand for family planning of which 61 percent is satisfied.

**Table 3 : Preparation of currently married women having unmet need for family planning by selected background characteristics in Jharkhand, 1998–2006**

Background Characteristics	Unmet need for family planning	
	NFHS-2	NFHS-3
Age		
15 – 19	25.3	34.2
20 – 24	30.9	32.1
25 – 29	24.4	27.8
30 – 34	26.0	23.8

Background Characteristics	Unmet need for family planning	
	NFHS-2	NFHS-3
Age		
35 – 39	12.1	14.3
40 – 44	6.1	6.1
45 – 49	2.5	1.8
Place of residence		
Urban	20.7	13.4
Rural	21.1	26.2
Education		
Illiterate	21.0	23.9
Literate (High school & above)	21.8	14.4
Religion		
Hindu	19.6	20.6
Muslim	30.8	29.5
Caste/Tribe		
Schedule Caste	19.6	23.6
Schedule Tribe	20.1	29.2
Other backward class	21.6	21.3
Standard of living Index		
Low	21.5	30.3
High	16.9	7.9

Table – 3 shows, the adolescent (15 – 19 yrs.) unmet need increases from 25 percent in NFHS-2 to 34 percent in NFHS-3, a rise of 9 percent within the same period. Unmet need decreases with age from 34 percent for women age( 15 – 19)yrs to 2 percent for women age( 45 – 49)yrs in NFHS-3. Rural women have a higher unmet need than urban women for spacing as well as limiting. Urban women unmet need declines from 21% in NFHS-2 to 13%in NFHS-3. whereas reverse is the position among rural women with increase in unmet need from 21 percent in NFHS-2 to 26 percent in NFHS-3. In 2005 – 06 the level of unmet need among literate women declined from 22 percent to 14 percent while the unmet need among illiterate women increases to 23.9 percent from 21 percent in 1998 – 99. Unmet need is particularly high for Muslims 30 percent than Hindus 21 percent in 2005 – 06. Though Hindus have witnessed 1 percent increase in unmet need while Muslims showed 1 percent decrease from 1998 – 06. Women belonging to Schedule Tribe show higher unmet need for family planning than SCs and Other Backward class during 2005 – 06. Unmet need decreases with an increase in wealth quintiles. For low quintile reverse pattern is evident.

## DISCUSSION AND CONCLUSION

The analysis reveals that the total fertility rate in Jharkhand is much above the replacement level. Total fertility rate is higher in rural areas, which can be attributed to various factors such as strong patriarchal and gender-based societal norms and structural socio-economic inequalities. Adolescents in Jharkhand also has high total fertility rate. The fertility rate increases with the illiteracy and low

standard of living. Huge disparity in fertility rate has been observed for the disadvantaged groups in Jharkhand. Kerala was the first state in South India to reach the replacement level of fertility as early as in the late 1980's followed by Tamilnadu and Andhra Pradesh in the mid 1990's. This suggests that our policy and programmes focussing on family planning need a serious review.

Knowledge of any family planning method and any modern method is universal in Jharkhand. Current use of any family planning method is higher in urban areas than in rural areas. The three spacing methods and female sterilization is higher in urban areas in comparison to rural areas. More than two-thirds of the women opt for sterilization in Jharkhand and its neighbouring states like Bihar, Chhattisgarh, and Orissa and UP. This suggests a need to expand the basket of choices available for contraception to include injectables, diaphragms and the Standard Days Method. These methods are already available through the private sector and can be added to the current national basket. Male sterilization is very low. This indicates non-availability or non-accessibility of services for permanent methods and lack of awareness regarding advantages and safety of male sterilization. High unmet need among the reproductive women leads to a larger number of unintended pregnancies, unsafe abortions and poor maternal and child health outcomes. Socio-economic differentials in unmet need indicate that there are many sub-groups such as adolescents, poor, illiterate, schedule tribe where the unmet need has increased over the study period. The govt. should not only focus on spacing methods but also try to target groups to encourage contraceptive use among them.

Concerted efforts are required to meet the unmet need for contraception by promoting the existing methods of contraception and adding newer methods while ensuring wider access to contraceptive methods for eligible couples. In addition the favourable implementation of women's empowerment programme, higher rate of participation of women in labour market and dispersed development programmes is considered conducive for the decline in fertility and unmet need for family planning in Jharkhand.

## References

- International Institute for Population Sciences (IIPS) and Macro International, 2007. National Family Health Survey (NFHS – 2), 1998-09, India Volume – I Mumbai: IIPS.
- Office of the Registrar General and Census Commissioner, India, 2011
- S. Aditya, K. Amit (2013), "Trends and Determinants of Unmet Need for Family Planning in Bihar (India). Evidence from National Family Health Surveys".
- Susheela Singh et al (2003), adding it up: "The Benefits of Investing in Sexual and Reproductive Health Care", New York : Guttmacher Institute and UNFPA.
- Sidney B. Westhey, Robert D. Rutherford (2000), "New Survey Measure Fertility and Family Planning Trends in India", Asia Pacific & Population Policy, vol-5.
- Srivastava R.K et al (2012), "Trends and Differentials in Fertility and Family Planning Indicators of EAG States in India".