

**Original Article**

# TRENDS OF UTILIZATION OF FAMILY PLANNING METHODS AT DISTRICT HOSPITAL OF MADHYA PRADESH: A RETROSPECTIVE STUDY

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## ABSTRACT

**Introduction:** Population stabilization is the answer to curtail existing population growth of 1.2% in India and it can be achieved by effective use of contraception by couples. This study was designed to analyze the trends of utilization of different family planning methods in relation with socio-demographic factors at district hospital in last five years.

**Material and Method:** A retrospective study was done by analyzing last five year records from family planning clinic at district hospital.

**Results:** At family planning clinic, 1,84,522 individuals visited out of 12,33,753 individuals came for utilization of outdoor services at hospital during the five year period. Among them, 96% individuals utilized temporary methods and only 4% utilized permanent methods. Among temporary methods, 81.4% utilized condom, 10% OCP's and 3.8% IUCD, whereas among permanent methods, 3.4% utilized tubectomy and 0.6% vasectomy. The trend of utilization of family planning methods was found decreasing from 84.4% to 78% among male whereas increasing among female from 15.6% to 22% in last five year duration.

**Conclusion:** The utilization of contraceptive methods was more common among male especially temporary (condom) as compared to the female but the utilization of permanent methods was more in rural folks as compared their urban counterparts.

**Key words:** Trends, Utilization, Family Planning methods

## INTRODUCTION

Growing population is the burning problem adversely affecting the development and social security in the world today, mainly in Asia, South America, and Africa and especially in India.

India with a population of 1.22 billion (according to 2011 census) is the second most populous country in the world.<sup>1</sup> With current trends, the Indian population with a growth rate of 1.2%

annually, will increase from 1.028 billion to 1.4 billion during the period from 2001-2026, an increase of 36% in 25 years and is further projected to reach 1.53 billion by the year 2050.<sup>1</sup>

Current annual increase in the population is also adversely affecting the resources, endowment and environment.<sup>2</sup> Thus population stabilization is the answer to all these problems and it can be achieved by effective use of contraception. But unmet need of contraception poses a challenge to family planning programme – to reach and serve

million of women who for some or other reason are not using contraceptive. <sup>2</sup>

It is a well known fact that the acceptance of contraception by a couple is governed by many factors like availability of services and facilities for provision of contraceptive devices. Apart from it, various socio demographic factors like age, sex, religion, education, income, occupation, urban /rural differences, and family size also affecting the use of contraceptives by couple.

Thus present study attempts to analyze the trends of utilization of different contraceptive services in last five years at District hospital of Madhya Pradesh.

## MATERIAL AND METHODS

A retrospective record based study was done to analyze the trends of utilization of different contraceptive methods in last five year. The data was collected by analyzing the records of last five year i.e. from April 2006 to March 2011 from family planning clinic in District hospital, Sehore, a small town in Madhya Pradesh.

An inclusion criterion for this study was the individuals who adopted contraceptive methods at family planning clinic.

The various socio-demographic factors like age, gender, religion, family size and utilization pattern in reference to urban and rural area were analyzed for adoption of different family planning methods.

Data were analyzed by using statistical tests like semi average method of time series and Z test of proportion.

## RESULTS

During the five year period, 12,33,753 individuals utilized the services on outdoor basis at District hospital. Out of this, 1, 84,522 (15%) individuals visited at family planning clinic and adopted various kinds of contraceptive methods like condom, intrauterine contraceptive device, oral contraceptives, medical termination of pregnancy, tubectomy, and vasectomy.

At family planning clinic, 96% individuals utilized temporary methods whereas only 4% utilized permanent methods. Among temporary methods, 81.4% utilized condom, 10% utilized OCP's and 3.8% IUCD, whereas among permanent methods, 3.4% utilized tubectomy and 0.6% vasectomy. (Table 1)

**Table 1: Utilization Pattern of different contraceptive methods in last five years**

Year	Condom (%)	Vasectomy (%)	OCP's (%)	IUCD (%)	MTP (%)	T.T. (%)	Attendees at FP clinic
2006-07	26218 (83.8)	195 (0.62)	2692 (8.6)	1055 (3.37)	244 (0.78)	877 (2.8)	31281
2007-08	29065 (84.05)	192 (0.55)	2702 (7.8)	1258 (3.63)	278 (0.8)	1084 (3.1)	34759
2008-09	29133 (83.09)	219 (0.62)	2921 (8.3)	1363 (3.8)	295 (0.84)	1128 (3.2)	35059
2009-10	31064 (80.55)	236 (0.61)	3908 (10.1)	1575 (4.07)	350 (0.9)	1455 (3.7)	38688
2010-11	34696 (77.47)	253 (0.56)	6085 (13.5)	1730 (3.85)	383 (0.8)	1668 (3.7)	44915
Total	150176 (81.4)	1095 (0.6)	18308 (10)	6981 (3.8)	1550 (0.8)	6212 (3.4)	184522

**Table 2: Age wise utilization of contraceptive methods in last five years**

Year	18-22 yr. (%)	23-27 yr. (%)	28-32 yr. (%)	>32 yr. (%)	Total (%)
2006-07	3308 (1.8)	12550 (6.8)	11025 (6)	7800 (4.2)	34683 (18.8)
2007-08	4200 (2.3)	13275 (7.2)	12112 (7)	8544 (4.7)	38131 (20.7)
2008-09	5680 (3)	15525 (8.5)	13734 (7.5)	10426 (5.7)	44365 (24)
2009-10	3182 (1.8)	13883 (7.6)	9961 (11.8)	7755 (4.2)	34781 (18.8)
2010-11	3402 (1.9)	12256 (6.7)	11234 (6)	4670 (2.6)	32562 (17.7)
Total	19772 (10.8)	67489 (36.6)	58066 (31.5)	39195 (21.2)	184522

The maximum utilization of family planning methods was found in age group of 23-27 year (36.6%) (Table 2) and among Hindus (57.4%). However, utilization of permanent methods was more in rural folks (66.2%) as compared their urban counterparts (33.8%).

The utilization of contraceptive methods was more common among male as compared to the female, but the trend was found decreasing from 84.4% to 78% among male whereas increasing among female from 15.6% to 22% in last five year duration. (Table 3)

**Table 3: Gender wise utilization of different contraceptive methods**

Year	Male (%)	Female (%)	Attendees at FP clinic (%)
2006-07	26413 (84.43)	4868 (15.6)	31281 (16.95)
2007-08	29257 (84.6)	5322 (15.4)	34579 (18.74)
2008-09	29352 (83.7)	5707 (16.3)	35059 (19)
2009-10	31400 (81.6)	7288 (18.8)	38688 (21)
2010-11	35059 (78.3)	9866 (22)	44915 (24.34)
Total	151371(82.09)	33051(17.91)	184522 (15)

Figure in parenthesis indicate percentage

**Table 4: Trend of Tubectomy with family size in last five year**

Year	2 children(%)	3 children(%)	>3 children(%)
2006-07	285 (32.5)	307 (35)	285 (32.5)
2007-08	334 (31)	402 (37)	348 (32)
2008-09	373 (33)	429 (38)	326 (29)
2009-10	435 (30)	588 (40.5)	432 (30)
2010-11	447 (27)	701 (42)	520 (31)
Total	1874 (30.2)	2427 (39)	1911 (30.8)

The trend of tubectomy was consistently increasing with 3 children i.e. from 35% in 2006-07 to 42% in 2010-11(Table 4), whereas the trend of vasectomy among couples having 2 children was found consistently increasing in last five year from 38% to 45%. (Table 5)

**Table 5: Trend of Vasectomy with Family size in last five year**

Year	2 children(%)	3 children(%)	>3 children(%)
2006-07	74 (38)	66 (34)	55 (28)
2007-08	75 (39)	53 (28)	64 (33)
2008-09	90 (41)	74 (34)	55 (25)
2009-10	104 (44)	54 (23)	78 (33)
2010-11	114 (45)	45 (18)	94 (37)
Total	457 (41)	292 (27)	346 (32)

**Table 6: Trend of MTP services in last five yrs**

Year	MTP services	Z value	P value	Significant
A	0.78	5.71	<0.0001	Highly significant
B	0.84			
A	0.78	11.4	<0.0001	Highly significant
C	0.9			
A	0.78	6.65	<0.0001	Highly significant
D	0.85			

A = 2006-07, B = 2008-09, C = 2009-10, D = 2010-11

The trend of utilization of MTP services were found increasing from 0.78% to 0.9% in duration between 2006-07 to 2009-10 and then decrease from 0.9% to 0.85% from 2009-10 to 2010-11. Semi average method of time series was applied in the

trend of utilization of permanent methods and no significant results were found. Z test of proportion was applied in the trend of MTP services in last five years and were found results highly significant. (Table6)

## DISCUSSION

The present study revealed that 96% individuals accepted temporary methods for spacing and limiting birth whereas only 4% beneficiaries chosen permanent methods. Out of 96%, majority of beneficiaries (81.4%) preferred the use of condom and followed by oral contraceptives by 10% and intrauterine contraceptive device preferred only by 3.8% beneficiaries. Out of permanent methods, utilization of tubectomy (3.4%) is higher as compared with vasectomy (0.6%). A study in urban population of North India <sup>3</sup> and another at Karachi <sup>4</sup>in 2008 too had found that condom was the most common method followed by oral pills and IUCD which is in tandem with our study. This could be due to easy availability of condom at vending machine at hospital and more bold T.V. campaigns for use of condom by media for prevention of HIV/AIDS created more awareness.

However, results of several other studies in neighboring country are contrary to our findings like at Lahore <sup>5</sup>and Sindh <sup>6</sup> it was reported that tubal ligation was the most common method of family planning followed by condom and IUCD which may be due to social customs, fear and cultural misbeliefs about accepting IUCD of that particular area.

Utilization of contraceptives is found highest among Hindus (57.4%) as compare to Muslims (33.8%) in present study which is similar with finding reported by Renjhen <sup>7</sup> at Sikkiam.

The interesting finding emerged out of this study is that adoption of permanent methods was more among rural folks as compared to their urban counterparts. This is contrary to another studies conducted by Tuladhar et al in Nepal <sup>8</sup>and Sajiid et al at Lahore <sup>5</sup>. More acceptances of permanent methods among rural folks in our study could be due to targeted approach given to health care providers with the result more mass camps are being organized in rural area with lucrative incentive to achieve allotted target. These camps are patronized by high level government functionary and active social workers which motivate rural folk to seek surgical methods.

Decline trend of utilization of services by beneficiaries from 84.4% to 78% amongst male (2006-07 to 2010-11) may be due to a number of reasons to name few availability of better quality product in the market at competitive price, availability of alternative health services i.e. sponsored campaigns by various NGO's closer to door steps, where such services could be received and new privately owned specialist clinics in the area. However, traditionally female beneficiaries do not visit alone to such facilities and continued to patternize government service providers.

## CONCLUSION

In present study, trend of utilization was found most common for temporary (96%) as compared with permanent (4%). Among temporary methods, 81.4% utilized condom, 10% utilized OCP's and 3.8% IUCD, whereas among permanent methods, tubectomy was more preferred method (3.4%) as compared with vasectomy (0.6%).

Utilization of permanent methods was more in rural folks (66.2%) as compared their urban counterparts (33.8%). The trend of utilization of family planning methods was found decreasing among male whereas increasing among female in last five year duration.

## RECOMMENDATIONS

More emphasis should be given on imparting the training of health care providers on how to engage the couples and promote the usage of various contraceptive methods by using flip charts, lecture and talk show. Proper counseling and motivational activities for target couples should be boosted up. More and more beneficiaries should be encouraged for adopting the permanent methods of family planning as it is very cheap, safe, and easy to perform and free of side effects.

## LIMITATIONS OF STUDY

1. As it is a Hospital based study, in which, records were taken from only one hospital. Hence these results cannot be extrapolated to general population.
2. Information on some important variables of socio demographic factors like education, occupation, income of family planning acceptors was not available from records.

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