Modern Contraceptive Use Among Currently Married Women of Reproductive Age Group in Bihar: An Introspection

By

Devashish Singh

Dissertation submitted for the partial fulfillment of the
MBA Hospital and Health Management

Academic year, 2016-2018

The IIHMR University, Jaipur

1, Prabhu Dayal Marg, Sanganer, Airport
Jaipur 302029, Rajasthan
Ph: 0141 3924700, Fax: 3924738
Website: **www.iihmr.edu.in**

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Ph: 0141 3924700, Fax: 3924738
Website: **www.iihmr.edu.in**

INSTITUTE OF HEALTH
MANAGEMENT RESEARCH
(WHO Collaborating Centre for District Health System Based on Primary Health Care)

IIHMR UNIVERSITY

TO WHOMSOEVERMAY CONCERN

This is to certify that **Dr. Devashish Singh** student of MBA Hospital and Health Management from The IIHMR University, Jaipur has undergone internship training in **CARE India** from **5th-Feb -2018 to 5th May-2018.**

The Candidate has successfully carried out the study designated to him during internship training and his approach to the study has been sincere, scientific and analytical.
The Internship is in fulfillment of the course requirements.

I wish him all success in all his future endeavors.

Dr. (Col) Ashok Kaushik
Dean, Academics and Student Affairs
The IIHMR University, Jaipur

for **Dr.D.K Mangal**
Dean Research
The IIHMR University, Jaipur

1, Prabhu Dayal Marg, Near Sanganer Airport, Jaipur- 302029, Rajasthan, India.
Ph.: 0141- 3924700, 2791431- 32, Fax: 0141 3924738, E-mail: iihmr@iihmr.edu.in, Web.: www.iihmr.edu.in

CARE INDIA
Solution for Sustainable Development
14, Patliputra Colony
Patna 800 013, Bihar
Tel +91-612-2274957, 2274389, 2270464
Fax +91-612-2274957
www.careindia.org
CIN : U85100DL2008NPL178133

CERTIFICATE OF DISSERTATION COMPLETION

The certificate is awarded to

Dr. Devashish Singh

In recognition of having successfully completed his
Dissertation in the department of

Concurrent Measurement & Learning

and has successfully completed his Project on

Modern contraceptive use among currently married women among reproductive age group in Bihar.

Date: 4th May 2018

Organization: CML unit, CISSD -BTSP Care India, Bihar

He comes across as a committed, sincere & diligent person who has a strong drive and zeal for learning

We wish him all the best for future endeavors

Tanmay Mahapatra

CML Team Lead

Deputy Director-Human Resource

CARE INDIA
Solution for Sustainable Development
14, Patliputra Colony
Patna 800 013, Bihar
Tel +91-612-2274957, 2274389, 2270464
Fax +91-612-2274957
www.careindia.org
CIN : U85100DL2008NPL178133

Reference: Dissertation 11/05/2018

Dissertation Completion Certificate

Certified that Dr. Devashish Singh, pursuing Master of Business Administration in Hospital and Health Management from IIHMR University, Jaipur was placed at CARE India during 5th February to 4th May`2018 for academic dissertation on "Modern contraceptive use among currently married women among reproductive age group in Bihar: An introspection". He was placed in Gaya District under CML unit, CISSD, BTSP CARE India, Bihar Project, as a District Monitoring, Learning & Evaluation Officer.

During dissertation under the guidance of Dr. Sai Mala, MLE Manager Nutrition and Family Planning, CML unit of CARE India in Bihar, He has met the necessary requirement and worked closely with the Concurrent Measurement & Learning team. He has been found to be sincere and dedicated towards the responsibilities bestowed on him.

We wish to see him well stationed in life with bright future ahead.

Regards

CML Team Lead

Deputy Director-Human Resource

IIHMR UNIVERSITY

THE IIHMR UNIVERSITY, JAIPUR

CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled **Modern contraceptive use among currently married women of reproductive age group in Bihar: An introspection** and submitted by **Dr. Devashish Singh** Enrollment No. **0410** under the supervision of **Dr. D.K. Mangal** for award of MBA in Hospital and Health Management of the University carried out during the period from **05/02/2018 to 05/05/2018** embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other institute or other similar institution of higher learning.

Devashish Singh
19/5/18

Signature

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Dr. Devashish Singh

List of abbreviations:

AHS	Annual Health Survey
ANM	Auxiliary Nurse Midwife
CML	Concurrent Measurement & Learning
CMWRA	Currently Married Women of Reproductive Age
CPR	Contraceptive Prevalence Rate
ECP	Emergency Contraceptive Pills
FLW	Front Line Worker
FP	Family Planning
IUCD	Intra uterine contraceptive device
LAM	Lactational Amenorrhea Method
MCPR	Modern Contraceptive Prevalence Rate
NFHS	National Family Health Survey
OBC	Other Backward Caste
OCP	Oral Contraceptive Pills
SC	Schedule Caste
ST	Schedule Tribe
RCH	Reproductive and child health
TFR	Total Fertility rate

Contents

PROJECT TITLE:

Modern contraceptive use among currently married women of reproductive age group in Bihar: An introspection

INTRODUCTION:

One of the most important pillars for women empowerment is to enable them to achieve freedom and control of their body. This can be ensured if they start using appropriate modern contraceptives through informed self-choice. As far as Bihar is concerned, total women population under reproductive age group (15 yrs to 49 yrs) is 23,042,786 and among them currently married women are 18,572,000 as per census 2011. Considering this enormous numbers there is a great amount of opportunity for modern contraceptive, but the real scenario is totally different. As per National Family Health Survey (NFHS) 2015-16 usage of modern contraceptive method in Bihar is half (23.3) of our National average (47.8).

The primary factors for low use of modern contraceptive could be low levels illiteracy among women population which is merely 51.50% (Census- 2011) and marriage at early age, women age 20-24 years married before age 18 years in Bihar is as higher as 42.5% (NFHS 2015-16). There could be other factors also like women's and her family's socio-economic background, male child preference, relationship with husband, exposure to print and digital media and awareness etc.

This study shows the predictors of using the modern contraceptives among currently married women of reproductive age group in Bihar. This study based on literature review and secondary data from NFHS 2015-16 and Census- 2011.

As per current scenario of Bihar, the total fertility rate (TFR) is 3.4 which is highest in the country and Bihar is also a most densely populated State in the Country. So, it is the need of the hour to give high focus to increase the uptake of family planning services and simultaneously special attention needs to be given on women empowerment and literacy, which will help us in long run. More importantly by giving special focus on family planning, the State can improve the indicators associated with it. Family planning is one of four pillars with antenatal care, safe delivery, and postnatal care that were introduced by the Safe Motherhood Initiative in 1987 to reduce maternal mortality in developing countries, where 99% of all maternal deaths occur (Ahmed et al., 2012). Family planning also has a direct bearing on women's health and well-being as well as on the consequence of each pregnancy (World Health Organization, 2011). So, by giving importance to this aspect, Bihar can improve on numerous poor health indicators.

PROBLEM STATEMENT:

Most women do not desire a pregnancy in their early married life but are unclear about contraceptive usage, unmet need of contraception or due to unawareness of spacing methods. This results in unplanned and undesired pregnancies, which in turn increases induced abortion rates and consequently maternal morbidity and mortality. Continuation of these unplanned pregnancies is also associated with greater maternal complications and adverse perinatal outcomes.

REVIEW OF LITERATURE

- Tubal sterilisation was the commonest method of contraception among women surveyed (20.6 per cent of women). The incidence of sterilisation increased significantly as the age increased-11.6 per cent of women aged 21 to 30 had tubal sterilisation, whereas the incidence was 51 per cent in women aged 31 to 40 years. Reversible forms of contraception (IUD, oral pills and condoms) were used by only 6.8 per cent of women included in the study. Married girls aged 15 to 20 were not using any contraceptive. It was also noted that none of the women surveyed had used any contraceptive prior to her first pregnancy. 40% of women in the age group 21 to 30 years and a similar percentage (41.1 per cent) in the age group 31 to 40 years had two or more live children but did not use any contraceptive. The results reveal that tubal sterilisation is the most popular method of contraception among women living in rural areas of the state. Birth spacing, or delaying the birth of the first child by the use of reversible forms of contraception, is not the common practice among these women. **(C. kumari May 16 2018)**

- 705 married women of reproductive age group were surveyed and it was found that out of 705 women only 230 (32.65%) were using contraceptive methods. Amongst the users 70.87% were using permanent method of contraception and that too female sterilization. Of the temporary method users (29.13%) 2.60% were using condom, 15.21% were using OCP (oral contraceptive pills) and 11.30% were using IUCD (Intra Uterine Contraceptive Device). Choice of contraceptive method was mostly OCP (71.4%) when duration of marriage was <5 years. Greater the duration of married life more was the acceptance of Tubectomy. The main reasons for non-acceptance of contraceptives method was desire for child (31.17%) followed by fear of side effects (21.05%). Want of male child and opposition by husband accounted for 8.45% &12% respectively. Conclusions: There is tremendous need to increase use of temporary contraceptives for spacing after one or two children. Male involvement in RCH care is essential. It is important to increase their participation as husbands often influence their wife's decision regarding reproductive health. **Vijay shree et al 2017**

- According to **population council report 2014** on unmet need of family planning in Bihar, the exposure to family planning messages through mass media in Bihar among women is , around 66 % were having no exposure , around 30 % having partial exposure and nearly 3% were fully exposed

- in Bihar, the trend of methods used for spacing method is fluctuating by socio-economic characteristics. It also exhibits a nominal increase in the rural areas and among scheduled caste population. This increase can be attributed some the programmes run by national and international agencies through social marketing in rural areas. However, the highest fertility in the state and higher unmet need for family planning needs a greater intervention to increase contraceptive rate in the state, thereby partly curtailing maternal and child mortality in the state. **Ranjan k prusty et al 2018**

- Male participation in family planning is abysmally low in Bihar. Adoption of male sterilisation method is almost nil as per NFHS-4 data. Despite being safer, quicker and easier, male sterilisation in last 10 years has fallen from 0.6% to 0% among currently married men in 15-49 years age

bracket. The skewed sterilisation ratio points to the fact that family planning is seen primarily as women's duty. **(TOI ruchir Kumar 17 nov 2017.)**

- **Sharma A. et al** in their study which was conducted in hospitals of Kota which caters to the needs of south east Rajasthan found out that the highest acceptance for modern contraceptives was seen in women in the age group ranging from 21-30 years (82.96%), those with having secondary level of education (56.95%), women coming from urban areas (61.72%), Hindus (82.23%) and those with middle socioeconomic status (55.67%). A higher acceptance rate was also observed among multipara (69.59%) and those who had a desire for future pregnancy after an interval of more than 2 years (75.64%).
- **Jairaj S. and Dayyala S.** conducted a study at Gandhi hospital Secundarabad in which they found that Mean age of acceptance was 23.70±2.95 years. Majority were from urban area (79.75%). Acceptance was more in those who completed their secondary school level education (23.3%). Women undergoing caesarean section were accepting modern contraceptives, more frequently than those who underwent normal vaginal delivery. Majority (67.12%) accepters told that they accepted IUCD because it is a reversible method
- **Shashi kant et al** in his study which was conducted in two PHC's of Faridabad found that low monthly family income was significantly associated with higher acceptance of PPIUCD. PPIUCD acceptance rate was lowest (33.2%) when the women did not have any previous living child. The acceptance rate gradually improved as the number of previous living children increased. It was 38.2% and 45.2% when number of the previous living children was 1 and ≥2, respectively. Using multivariate binary logistic regression, the independent predictors of accepting PPIUCD were, having a monthly family income of < USD75 (odds ratio : 2.29, 95%), and belonging to the Muslim religion with respect to Hindu religion

RATIONALE:

India is the second most populous country in the world and in the next few decades it will cross china if it keeps on increasing by this exponential growth. India was the first country in the world to launch the family planning program in 1951. Despite this fact India still lags behind in practicing contraception and limiting their family size. Even though various measures for encouraging the usage of contraception have been taken up, the achievement in this field was not up to the expectation due to various social and cultural factors.

According to Population council report 2014, the level(%) of unintended pregnancy (including mistimed and unwanted) is nearly 25 percent in Bihar this is causing serious problems. Using the contraceptives may not only decrease the above figure of unintended pregnancy but also the total fertility rate, infant mortality rate, maternal mortality ratio and other problems significantly.

RESEARCH QUESTION:

1)What is the pattern of modern contraceptive use among currently married women among reproductive age group in all the districts of Bihar?

2)What are the socio-demographic characteristic pertaining to the modern contraceptive usage among currently married women among reproductive age group in all the districts of Bihar?

OBJECTIVES:

1. To describe the pattern of modern contraceptive use among currently married women of reproductive age group in Bihar.
2. To identify the socio-demographic characteristics pertaining to the modern contraceptive use among currently married women of reproductive age group in Bihar.

RESEARCH METHODOLOGY:

Study area: all the districts of Bihar.

Study design: Descriptive study based on secondary data analysis

Data: This study used the data from round 1 of "Currently married women of reproductive age (CMWRA)" study conducted by Care India, Bihar, Concurrent monitoring and Learning (CML) unit in 2016 with objectives to understand the intent and practices among CMWRA across the areas of family planning including TFR, unmet need, CPR (Modern and Traditional), method mix of contraceptives and also to identify the reasons for non-usage of methods. The CMWRA was a state level representative survey of 22800 married women of reproductive age group (15-49 years) i.e, 600 per district. CMWRA survey adopted multistage cluster sampling with a systemic component in the final stage.

Data Analysis: The analytical approach in this study includes descriptive analysis by using ratio, rate and proportions. The data was analysed on SAS 9.4 software with focus to examine the differentials in various components of utilization of various contraceptive methods (method mix) with different socio-economic & demographic independent variables.

Variables:

- **Dependent-** use of modern contraceptive
- **Independent-**
  religion, caste, husband's education, number of living children, economic status (asset index quartile), FP related decision-making, status of the respondent, FP-related interaction with FLWs and ease of access to modern FP methods

Inclusion and exclusion criteria of respondents in CMWRA study

Married women of reproductive age group (15-49 years)

- Had been living in the selected household for at least 3 months (i.e. if a married daughter had been staying at her paternal house for >= 3 month then she was also eligible to be selected)
- Exclusion –
  - Widow and divorcee /separated
  - Visitors/guests

    Working women living in a hostel like structure

Results:

The results of this study are mentioned under following components:

- Socio-Demographic determinants for any contraceptive use among currently married women in reproductive age group in Bihar
- Use of contraceptives among rural and urban respondents of currently married women among reproductive age group
- Use of contraceptives among rural and urban respondents of currently married women among reproductive age group.
- Reproductive Profile of Bihar
- Type and distribution of modern contraceptive use among currently married women of reproductive age group in Bihar

Tab 1.1 Socio-Demographic characteristics for any contraceptive use among currently married women in reproductive age group in Bihar.

Age	N	CPR	
		No	%
15-19	**1519**	125	**8.2%**
20-24	**4955**	1101	**22.2%**
25-29	**4929**	2151	**43.6%**
30-34	**4219**	2451	**58.1%**
35-39	**3496**	2132	**61.0%**
40-44	**2332**	1346	**57.7%**
45-49	**1350**	691	**51.2%**
Total	**22800**	9997	**43.8%**
Education			
Illiterate	**13709**	6017	**43.9%**
1-8	**4493**	2015	**44.8%**
>8	**4598**	1965	**42.7%**
Total	**22800**	9997	**43.8%**
Religion			
Others	**3567**	954	**26.7%**
Hindu	**19233**	9043	**47.0%**
Total	**22800**	9997	**43.8%**
Caste			
SC/ST	**6200**	2598	**41.9%**
OBC	**13596**	5973	**43.9%**
Others	**3004**	1426	**47.5%**
Total	**22800**	9997	**43.8%**

Interpretation of tab 1.1-The analysis for socio-demographic characteristics suggests that the use of contraceptive increases with age increase in age of respondents in terms of any contraceptive methods. Whereas the respondents educated upto class 8 (almost 43%) were more likely to use the contraceptive in comparison with respondents who were less or more educated. The analysis further suggests that the respondents from a particular religion i.e Hindu (47%) were utilizing the contraception more than respondents of other religion.

Tab 1.2 Use of contraceptives among rural and urban respondents of currently married women among reproductive age group

Var	Indicator	Bihar					
		Rural				Urban	
		N	No	%	N	No	%
Cpr	**CPR** - Proportion of CMW aged 15–49 who are using (or whose partners are using) any contraceptive method at the time of the survey	20618	8992	**43.6**	2182	1005	**46.1**
Method mix – Composition of current methods used by currently married women age 15-49*							
methodmix	Female Sterilization	8992	6925	**77.0**	1005	720	**71.6**
	Male Sterilization	8992	57	**0.6**	1005	7	**0.7**
	IUCD/LOOP	8992	112	**1.2**	1005	27	**2.7**
	Injectables	8992	90	**1.0**	1005	9	**0.9**
	Pills	8992	192	**2.1**	1005	24	**2.4**
	Emergency contraception	8992	5	**0.1**	1005	0	**0.0**
	Male condom/Nirodh	8992	252	**2.8**	1005	49	**4.9**
	Female Condom	8992	6	**0.1**	1005	0	**0.0**
	Standard days method	8992	110	**1.2**	1005	14	**1.4**
	Lactational amenorrhoea method (LAM)	8992	188	**2.1**	1005	18	**1.8**
	Other modern method	8992	33	**0.4**	1005	1	**0.1**
	Rhythm method	8992	976	**10.9**	1005	124	**12.3**
	Withdrawal	8992	368	**4.1**	1005	54	**5.4**
	Other traditional method	8992	44	**0.5**	1005	0	**0.0**

Tab 1.3 Method mix of first contraception use according to age at first contraceptive use

First time use of contraceptive method	Age at first contraceptive use							Total
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
Female Sterilization	6.8%	27.8%	35.6%	20.8%	7.7%	1.2%	0.2%	6793
Male Sterilization	13.2%	15.8%	26.3%	23.7%	18.4%	0.0%	2.6%	38
IUCD/LOOP	12.6%	47.7%	28.0%	7.4%	4.3%	0.0%	0.0%	350
Injectables	15.2%	34.0%	32.0%	14.2%	3.6%	1.0%	0.0%	197
Pills	15.1%	42.4%	25.2%	10.8%	5.5%	0.9%	0.1%	694
Emergency contraception	8.1%	43.2%	43.2%	0.0%	2.7%	2.7%	0.0%	37
Male condom/Nirodh	24.0%	44.9%	21.9%	7.5%	1.4%	0.2%	0.0%	857
Female Condom	33.3%	16.7%	0.0%	50.0%	0.0%	0.0%	0.0%	6
Standard days method	24.4%	37.5%	22.8%	10.9%	4.1%	0.3%	0.0%	320
Lactational amenorrhoea method	30.4%	48.0%	13.2%	5.6%	2.4%	0.5%	0.0%	790
Other modern method	22.5%	50.6%	19.1%	5.6%	2.2%	0.0%	0.0%	89
Rhythm method	29.0%	46.3%	15.9%	5.9%	2.4%	0.5%	0.0%	2616
Withdrawal	31.1%	44.1%	16.1%	7.1%	1.4%	0.0%	0.1%	1121
Other traditional method	30.4%	36.2%	15.9%	7.2%	10.1%	0.0%	0.0%	69
Non users								10842
Total	1814	4148	3391	1809	675	107	14	22800

Interpretation of Tab 1.2 and 1.3-The above table suggests the current methods used by the respondents in CMWRA study. There were 8992 users of modern contraceptive among rural population and 1005 users belonged to urban population among currently married women among reproductive age group. Further the analysis suggests that 77% respondents were more likely to opt for female sterilization and around 0.6 percent of male counterparts of respondents opted the male sterilization method. Whereas around 1 percent respondents were using the IUCD and almost same number of respondents were using the injectables. There were to significant finding that near about 11% of respondents of CMWRA were using rhythm method as their contraception method and more than 4% respondents withdrawn from using any contraceptive due to many reasons. Whereas the second table suggests that the female sterilization was found to be increasing with the increase in the respondent's age as their first choice of any contraceptive. Respondents from age group 20-24 were more likely to use the contraceptive pills. The use of injectables, IUCD, emergency contraception and female condom found to be significantly low among all the age groups.

Tab 1.4 Reproductive Profile of Bihar

Reproductive Profile of Bihar (CMWRA,2016)	Total
Median age of first sex (years)	17
Median age of first marriage (years)	16
% of women married before 18 y	61.1
% of women with first birth by 18 y	40.8
Median age of first contraceptive use (years)	25
Median age of sterilization (years)	26.0
Mean number of living children at first contraceptive use	2.7

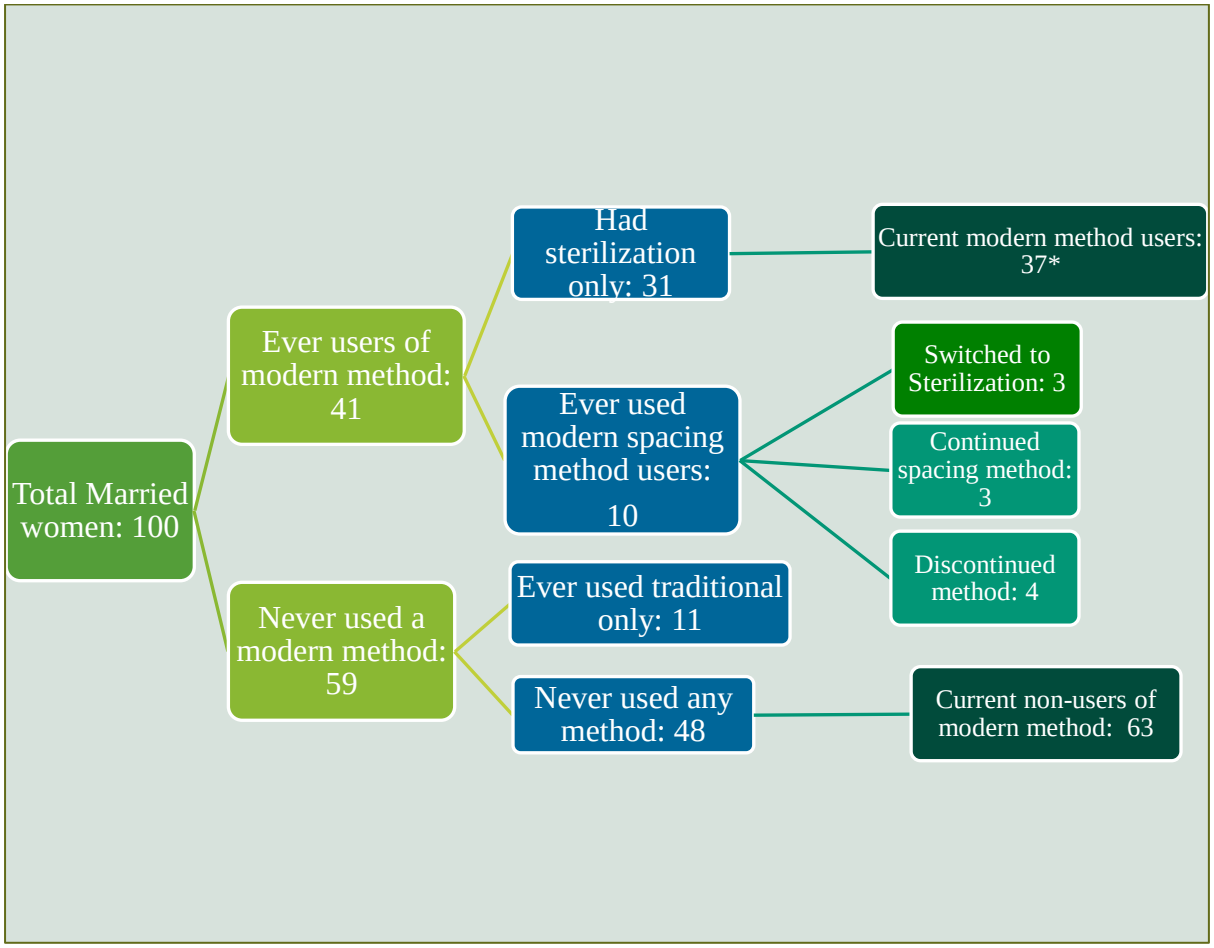
Interpretation of table 1.4 data suggests that in total sample of 22,800 respondents from all the districts of Bihar, the median age of first sexual activity was found to be around age of 17 years, whereas they used the contraceptive for the first time more likely around 25 years of age. Nearly 61% of respondents were married before 18 years of their age in which near about 41% of respondents gave birth to child before the age of 18. The analysis further suggests that the respondents were having about 3 living children before the first use of contraception.

Tab 1.2 CMWRA stats vs AHS, NFHS4

	CMWRA %(2016)	AHS 2012-13	NFHS-4(2015-16)
Female Sterilization	76.5%	74.5%	85.9%
IUCD	1.4%	1.5%	2.1%
Condoms/ Nirodh	3.0	6.8%	4.2%
Pills	2.2%	3.4%	3.3%
Injectables	1.0%	N/A	N/A

Interpretation of Tab 1.2 The above table is a comparison with findings of CMWRA survey along with Annual Health survey 2012-13 and National family health survey-4. Tab 1.2 suggests that the respondents who ever opted for any modern contraceptive method in their reproductive age group, around 76 % selected female sterilization whereas the respondents preferred IUCD, Condoms And pills were around 1%, 3%, 2% respectively. Furthermore the respondents utilizing injectables were about 1% whereas the information regarding injectables was not the part of AHS 2012 and NFHS-4.

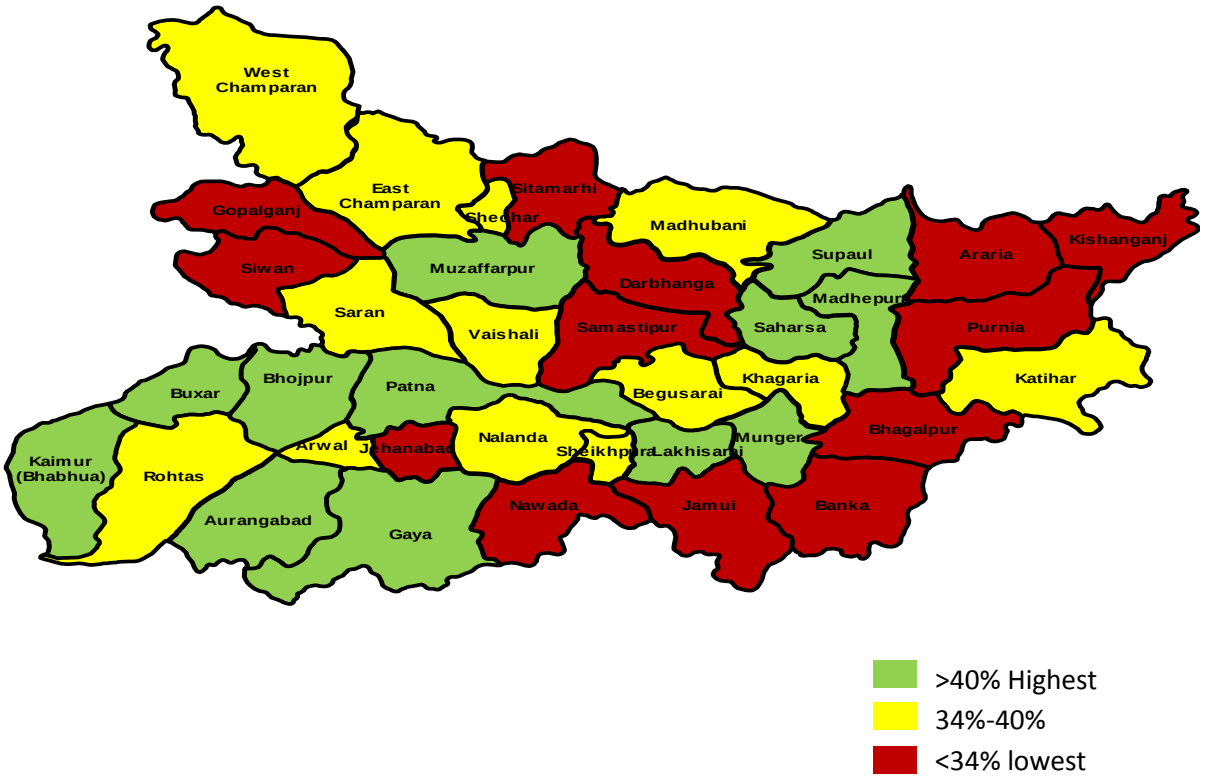
Chart 1.1 – Type and distribution of modern contraceptive use among currently married women of reproductive age group in Bihar



Interpretation of chart 1.1-The above chart is the decision tree of respondents based upon the ever and never used any contraception method. This tree suggests that around 41 of the respondents used modern contraception at least once in their reproductive age in comparison with around 59 never used any method of modern contraception. Further it suggests among 41 of ever users of modern contraception, 31 respondents opted only for female sterilization and 10 took decision to opt for other available spacing methods in which 3 out of 10 respondents opted for other spacing methods switched to female sterilization and also 4 out of 10 respondents discontinued the contraception method due to various reasons. Rest of the 3 out of 10 respondents continued the spacing methods. Among never users of any contraception

method 11 out of 59 respondents were those who used traditional contraceptive methods for spacing and rest of them never used any type of contraception method.

Map.1.1 Distribution of CPR in Districts of Bihar.



Map 1.1 trend of modern contraceptive use CMWRA in all the districts of Bihar.
The above map is indicating the MCPR among all 38 districts of Bihar on the basis of CMWRA survey. The districts with Green , red and yellow colour denotes Highest , middle and lowest level of MCPR respectively.

Conclusion:

CMWRA survey was crucial to understand intent and practice related to family planning among Married Women of Reproductive Age (MWRA) and areas like Total Fertility Rate. Intent of using Family Planning methods and also the reasons for non-usage of methods etc. Whereas understanding the social recognition of MWRA including- mobility, independence, self- respect and exposure to domestic violence was one of the important objective of this survey, in the end we can conclude with the key learnings we found after analysing the data are.

- The gap between mean age at first sex/ marriage and first contraceptive use is **~8 years**. On an average, women have **2.7 children** by the time they first start using contraception
- **Female sterilizations** still remain the **most popular modern** contraceptive method (over 90%) used across the state
- Only **half the population** of Bihar are **aware of temporary spacing methods** like Pills, Male condoms, IUCDs and Injectables
- Surprisingly, **high proportion** of family planning method users in the younger age groups (15 to 29 years) prefer using **traditional methods** of contraception - 73% (15 – 19 years), 41% (20 – 24 years) and 20% (25-29 years)

REFERENCES

.

- Jain AK (1989) Fertility reduction and the quality of family planning services. Stud Fam Plann 20(1): 1-16.
- Singh A, Ogollah R, Ram F, Pallikadavath S (2012) Sterilization regret among married women in India: implications for the Indian national family planning program. Int Perspect Sex Reprod Health
- International Institute for Population Sciences (IIPS) (2010). District Level Household and Facility Survey (DLHS-3), 2007-08: India. Mumbai: IIPS.
- Prusty RK (2014) Use of contraceptives and unmet need for family planning among tribal women in India and selected Hilly states. J Health Popul Nutr Iyer S (2002) Religion and the decision to use contraception in India.
- Journal for the Scientific Study of Religion 41(4): 711-722.
- Campbell OM, Graham WJ, Lancet Maternal Survival Series steering group (2006) Strategies for reducing maternal mortality: getting on with what works. The lancet 368(9543): 1284-1299.
- Ram F, Roy TK (2004) Comparability issues in large sample surveys-some observations. In: Roy TK, et al. (Eds), Population, health and development in India-Changing Perspectives, International Institute for Population Sciences, Mumbai. Rawat Publications, New Delhi, India p. 40-56.
- International Institute for Population Sciences (IIPS) & ORC Macro (2007). National Family Health Survey, India 2005-06: All India. Mumbai: International Institute for Population Sciences, Mumbai,
- Census of India 2011. Demographic Indicators. Office of registrar general and census commission, government of India, New Delhi.
- Park JE, Park K. Text Book of Preventive and Social Medicine. 21st ed. Jabalpur: M/s. Banarsidas Bhanot Publishers; 2011
- Kumar, A and Singh, A. Trends and determinants of unmet need for family planning in Bihar (India): evidence from National Family Health Surveys. Adv Appl Sociol. 2013
- Jain, AK and Jain, A. Family planning in Asia and the Pacific addressing the challenges. ((accessed Jan 8, 2017).
- Kansal A, Kandpal SD, Negi KS. Epidemiological correlates of contraceptive prevalence in rural population of Dehradun dist. Indian J Community Med. 2005.
- National Family Health Survey-4 Bihar report Available at: http://www.rchiips.org/nfhs/nfhs4.shtml. Accessed on 3 March 2018.
- District Level House hold survey (DLHS-3) 2007-2008. Fact sheet Bihar. Available at:
- http://www.jskgov.in. Accessed on 3 March 2018. Khan ME, Rao S. Determinants of family planning acceptance in rural Bihar population and development in Bihar. B.R. Publishing Corporation 2010.
- Baburajan PK, Verma RK. Psycho-social determination of contraceptives in India. J Family
- Welfare.
- Donovan P. About 40% of Indian women practice contraception; only one in four users rely on reversible methods. Int Family Planning Perspectives. 1995
- Kumari C. Contraceptive practices of women living in Bihar. Bihar J Family Planning. 1998

- Bhasin SK, Pant M, Metha M, Kumar S. Prevalence of usage of different contraceptive methods in east Delhi-A cross sectional study. Indian J Community Med. 2005;30(2):53-5. Rajaretnam T. Family size desire, sex preference, socio-economic condition and contraceptive use in rural Karnataka, India. Demography India. 1995.
- Mohanan P, Kamath A, Sajjan BS. Fertility Pattern and Family Planning Practices in a Rural Area .