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Unmet need for Family Planning and Unintended Fertility in Odisha, India

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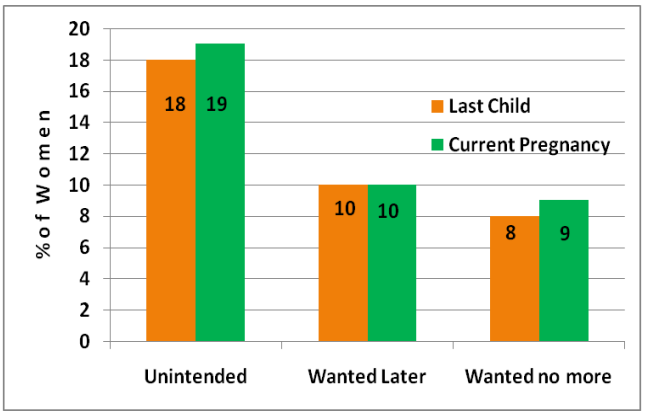
Abstract

The poor reproductive health in women population is the outcome of prevailing unintended fertility due to lack of family planning practices at the time of need. The present study aims to assess unmet need and unintended fertility in Odisha, India. Odisha has moderate fertility but very high infant, child and maternal mortality in India which is still higher among tribal population. The paper examines the regional variation along with the background characteristics of women in the population. It uses data from the National Family Survey-1 to 4. Multinomial logistic regression (m-log) models and GIS have been used to analyze the data. The study reveals that the programme should look into the unmet need of women who are young, lower parity, illiterate, non-working, lower standard of living and poor inter-spouse communication about family planning in order to address the unmet need for family planning, maternal and child health among the tribal population.

Introduction

Throughout the world, many women too often become pregnant sooner than they wanted or when they do not want any more children. Such unintended pregnancy is a pregnancy that is mistimed, unplanned, or unwanted at the time of conception. It occurs for a variety of reasons, in particular the lack of access to a preferred contraceptive methods or incorrect use of a method. In addition, some women are vulnerable to social pressure from their husbands or other family members or some program factors from supply side on family planning issues and do not have the power to decide for themselves whether or when to become pregnant. It is a core concept to better understand the fertility of populations and the unmet need for contraception i.e. birth control and family planning.Individuals' freedom to decide the number and timing of their children is acknowledged as a basic human and reproductive right.Universal access to reproductive health services that include family planning is one of the targets of the Millennium Development Goals (MDGs) for 2015. Providing all women access to high-quality family planning services would reduce unintended pregnancies, contributing directly to three MDGs: promoting gender equality and empowering women (MDG-3); reducing child mortality (MDG-4) and improving maternal health i.e. MDG-5 (UNO,2010).



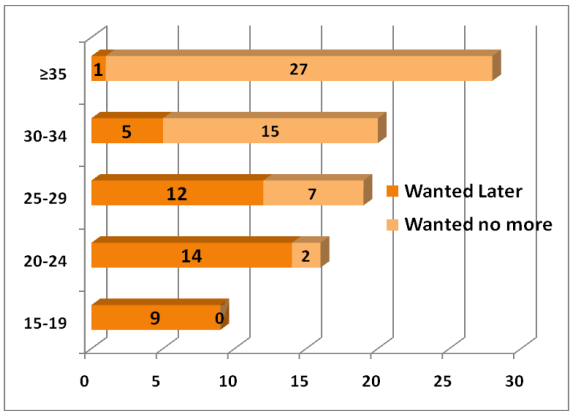


Fig.–1: Percentage of women whose pregnancy Fig-2:% of women whose pregnancy unintendedwas unintended by women's age

It is an important public health issue in developing countries like India because of its association with adverse social and health outcomes. Studies conducted in various developed and developing countries revealed that unintended pregnancies can have serious health, social, and economic consequences (Singh S, et.el, 2010 & Kaufmann, 1997) for both the family and the nation. Unintended pregnancy can adversely affect pregnancy outcomes. Several studies have shown that unwanted fertility has unfavorable

effects on antenatal, postnatal, preventive and curative care for the mother as well as the child. Women who experience an unwanted pregnancy having poor intention are likely to receive care than women who had an intended pregnancy (Marston & Cleland, 2003, Eggleston, 1998). The negative consequences of unwanted pregnancies are increased risk of low birth weight and premature babies; as a result, infants as well as the mother have a high risk of mortality. Many researchers have assessed the effect of unintended pregnancies mostly on place of delivery, child immunization and breastfeeding behavior (Chinebuah & Pérez, 2001, Dye,2010).

Reporting of one-fourth of the women that their pregnancy was unintended in all three rounds of National Family Health Surveys (IIPS & Macro International, 2007; 2000; 1995) is a clear manifestation of a greater challenge associated with the reproductive health program of the country. With in the country the prevalence of unmet need and unintended pregnancy are still high and there are wide variations in fertility preferences across the states and regions based on the socio-economic background characteristics. Although the demographers had studied this issue at the country level, it has remained inadequately researched at the state and regional level where the health programs are implemented and evaluated for corrective measures and interventions. And more over the causes and determinants affecting unintended pregnancy may reveal some factors which may be specific to the state or the region itself either in terms of the population characteristics or in terms of the operational characteristics of program implementation. This study has a special focus as because the state is showing a paradoxical demographic situation of very high infant mortality, maternal mortality and a burden of diseases coupled with a very low fertility.

Objectives of the Study

It is often presumed that assessing the prevalence of unmet need for family planning is the measure of future unintended pregnancies**.** The unintended pregnancy for the last child measures the past intention and current pregnancy measures the present intention for the unwanted pregnancy of the woman. Thus the study aims to assess the unmet need for family planning as well as unintended pregnancy in the state of Odisha. The study has the following specific objectives, i.e.

a) To study the Levels and determinants of unmet need for family planning and unintended pregnancy
b) To identify the factors and causes associated with unmet need and unintended pregnancy
c) To study the unintended pregnancy in relation to contraception
d) To assess the unintended pregnancy and its bearing on fertility

Materials and Methods

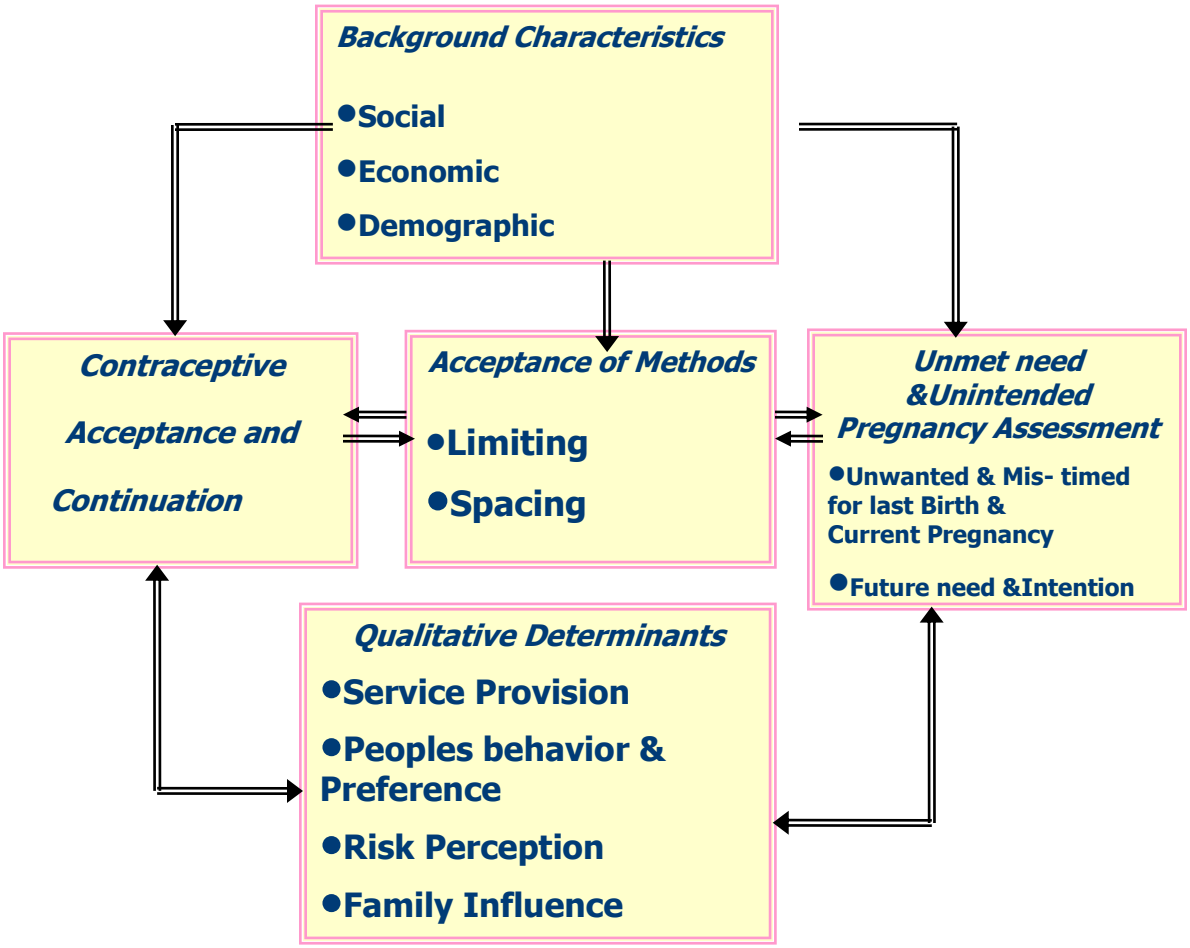
In this study the definition provided by Casterline et.el, 2007 and Jain, 1999, who defined unintended pregnancies as the sum of both unwanted and mistimed pregnancies is used. The data for this study has been taken from the latest National Family Health Survey-3 (NFHS-3) conducted during 2005-06. This survey covered a representative sample of 4,450 women in the age group of 15-49 years. Sampling method used under NFHS-3 was multistage systematic random sampling. There are two ways of estimating the level of unintended fertility from the NFHS data. One is based on Women's response to a question as to "whether the last birth in the 5 years preceding the survey was planned (wanted then), mistimed (wanted but at a later stage) or unwanted (wanted no more children)".

Another way of measuring unwanted fertility uses data on ideal family size to calculate that "the total fertility rate would be if all unwanted births were avoided (Sarkar, 2009)". This has also its own demerits because women will not report an ideal family size smaller than their actual family size. This dichotomous variable is used in this analysis of the levels, causes and determinants of unintended pregnancies. Thus the dependent variable for the present study is the unintended pregnancy to the ever-married women at the time of survey. A large number of explanatory variables were initially considered for analysis, but only a few meaningful ones were included owing to the lack of association with the outcome variable. The women's age, parity, education and working status of the women and her spouse,

nature of the residence (Urban / Rural), religion, caste composition, wealth index, standard of living etc. are used as the independent variables in a bi-variate and multi-variate analysis of the causes and determinants of unintended pregnancies.

NFHS-3 collected information of status of last birth which occurred in five years preceding the survey, and also it collected information about the status of current pregnancy (IIPS, 2000). To fulfill the above objectives of the study, those women were considered who reported their pregnancy status of last birth and current pregnancy which were unwanted or mistimed. A conceptual framework for understanding unintended fertility is given in Table -1.

Table-1: Conceptual Framework on Unintended Pregnancy



Methodology

The general form of the multiple regression prediction equation is as follows:

$Y' = a+b_1x_1 + b_2 x_2 + b_3x_3+ ... +b_{14}x_{14}$ (1)

Where Y' be the predicted or estimated value of Y, "a" be the intercept and xi (i=1,2, ..., 14) are the independent variables, bi be the partial slope of each independent variable,

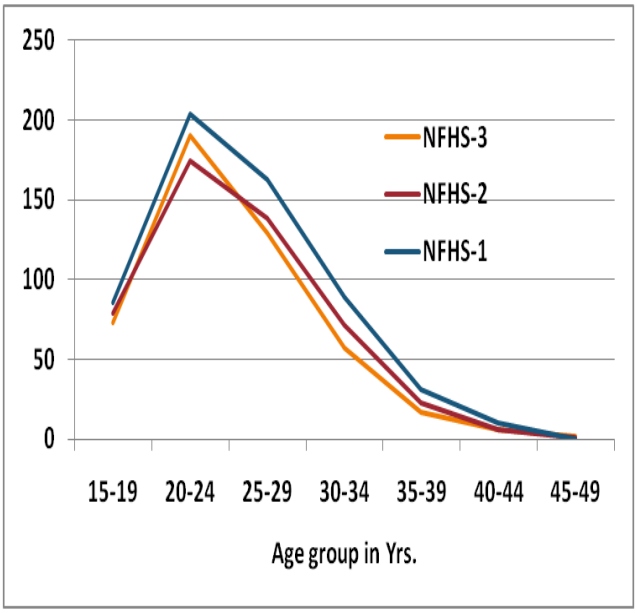
x_i (i=1,2, ..., 14) i.e. the amount of change in Y for each unit of change in x_i holding the other independent variables constant. This b_i's are also known as the unstandardised regression coefficients. The multiple regressions in standardised form is given by $Z'y = \beta_1z_1+\beta_2z_2+\beta_3z_3+ ... +.\beta_{14}z_{14}$ (2)

Where, β_i (beta weight or beta coefficient) = bi (s_i/s_y), i = 1,2,….14 (a conversion of b_i values to standardised z-scores of independent variables. The standardised beta weights or beta coefficients (β_i's) are all on the same units of measurements and are thus directly comparable to one another. The measure of coefficient of multiple determination (R^2) indicating the total variation in the dependent variables that

could be explained by independent variables. Again the log of the ratio of the odds that a case will experience the event to the odds that the corresponding control will experience the event can be written:

$$\log\left(\frac{\text{odds of event for case}}{\text{odds of event for control}}\right) = \sum_{i=1}^{14} \beta_i D_i$$

Where β_i is the coefficient for the ith non-matched independent variable, and D_i is the difference in values between the case and its matched control. Relative Risk Rate and its confidence interval and odds ratio can be computed for the comparison of the strength of independent variables for explaining their impact on the unintended pregnancy (dependant variable) and need for family planning. The present study is based on the data from the National Family Health Survey. The main objective of the NFHS was to provide reliable and up-to-date data on health including state and national level information on various aspects of population, family planning, fertility, mortality, maternal and child health etc.



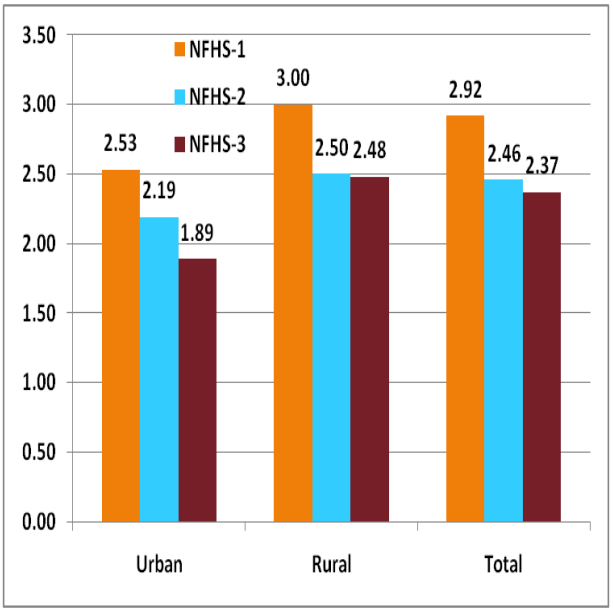


Figure -3: Trend of age specific fertility rate Figure – 4: Total fertility rate by residence (Births per 1,000 women)

Demographic Background

Odisha is one of the constituent states of India with a population of 41.8 million as per 2011 census. It has a moderate fertility of 1.89 which is less than the national average of 2.68. But however, the state has a paradoxical situation of very high infant mortality rate of 57 for 1000 live births in comparison to the country's IMR of 44. Similarly the state has a high maternal mortality of 2.58per 1, 00,000 live births against the country's figure of 2.12. The Table-2 gives a broad view of the age specific fertility rates of Odisha and its trend in NFHS-1,2, 3& 4.

Table -2: Trend in Age Specific Fertility Rates (Births per 1,000 women), Odisha

Sl. No	Age group in years	NFHS-3	NFHS-2	NFHS-1
1	15-19	73	79	86
2	20-24	190	174	204

3	25-29	129	138	163
4	30-34	57	71	89
5	35-39	17	23	31
6	40-44	6	6	10
7	45-49	2	1	-

The above table also reveals that the TFR of the state has declined by 0.55 children between NFHS-1 and 3. This decline is by 0.5 children in rural areas and by 0.64 children in urban areas.

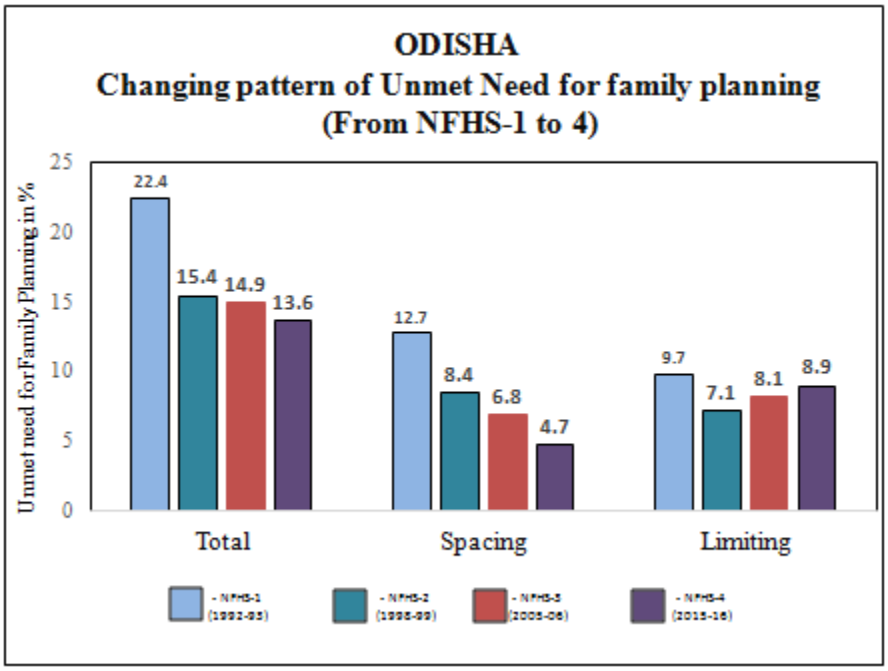


Figure – 5

Table –3: Total wanted fertility, current fertility and increase in unwanted children in Odisha

Sl. No	Back ground characteristics	Total Wanted Fertility Rate	Total Current Fertility Rate	Unwanted Children
1	Rural	1.87	2.48	0.61
2	No Education	2.36	3.13	0.77
3	Scheduled Tribe	2.13	3.14	1.01
4	Lowest Wealth Index	2.11	3.00	0.89
5	Total	1.80	2.40	0.59

As per the above background characteristics of the eligible women of NFHS – 3, the unwanted pregnancy in the state is nearly 20% (Fig.-1). This is high from the women of the rural areas, women with no education, women of the scheduled tribes and those women from the houses with the lowest wealth Index (Table-3). In Odisha the teen age pregnancy (in the age group of 15-19yrs) is 14 %. It is little less than the country figure of 16 %. But this is very high among the women of the scheduled castes (25%), illiterate women (32%) and women with the lowest wealth index (20 %).

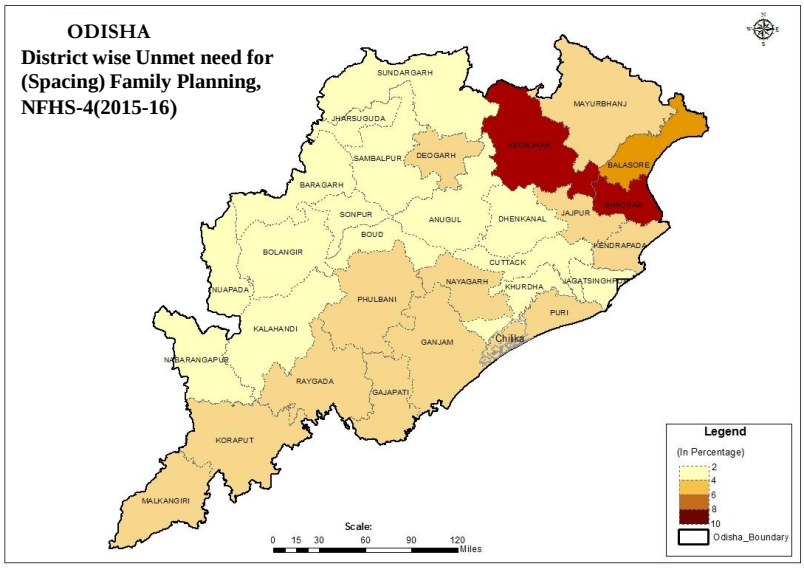


Figure- 6

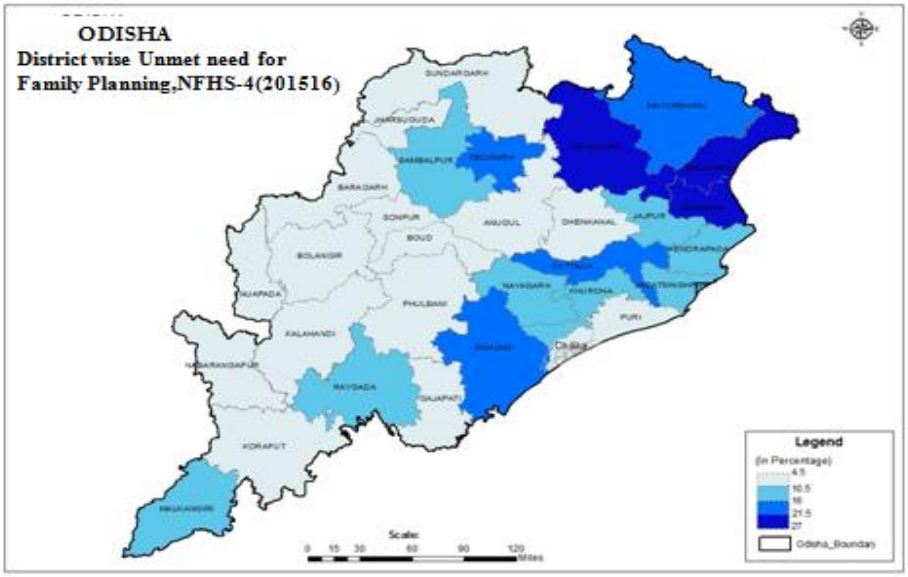


Figure-7

Table-4: % Distribution of currently married women in the age group of 15-49yrs who are not using contraception and not intend to use in future by different reasons (NFHS - 3)

Sl. No	*Reasons of discontinuation*	*Reason for not intending to use contraception in future*	*Preferred reasons for not using in future*
1	Fertility related reasons	42.9	61.4
2	Opposition to use	11.4	07.0
3	Lack of knowledge	08.6	13.1
4	Method related reasons	37.1	17.8
5	Total	100.00	93.7

Contraceptive discontinuation rate is also high in the state. It is 30% for any family planning method. For oral pills, the discontinuation rate is 42%, for male condom it is 50%, and for any spacing method it is 39%. The major reasons of discontinuation are fertility related, opposition to use, lack of knowledge and method related causes. The reasons of discontinuation and the percent of women under these categories are given below in the Table - 4.

Analysis and Results

Level of Unintended Pregnancy

The Table-5 shows the intention of women about their current pregnancy as well the pregnancy for the last child. Combining both the categories i.e. unwanted and mistimed, the rate of unintended pregnancy is 19% for the last child and 20% for the current pregnancy. This means 19% women reported that their pregnancies were unintended. As far as the place of residence is concerned, the rate of unintended pregnancy is significantly higher among rural women (14%) as compared to urban women (5%). There is no significant difference of these figures in comparison to the current pregnancies (Table-2). 20% of the women reported that their current pregnancies are unintended. Rate of unintended pregnancy is little higher for the urban residents (6.7%) in current pregnancy in comparison to the pregnancy of the last child (4.8%).

Table -5: % distribution of women by their intention of pregnancy during the last child and during the current pregnancy(NFHS-3, 2005-06).

Intention	*Place of Residence*					
	For the last child			*For the current pregnancy*		
	Urban	*Rural*	*Total*	*Urban*	*Rural*	*Total*
Wanted then	286	794	1080	27	105	132
(in %)	22	61	82	17	64	81
Wanted later	35	95	130	7	12	19
(in %)	3	7	10	4	7	12
Waned no more	29	84	113	4	9	13
(in %)	2	6	9	2	6	8
Total	350	973	1323	38	126	164
(in %)	27	74	100	23	77	100
Total unintended rate of unintended pregnancy	64	179	243	11	21	32
	5	13	19	6	13	20

Factors Associated with Unintended Pregnancy

The Table-6 shows the rate of unintended pregnancy by the background characteristics of the respondent women and her husband. The background characteristics are mostly the socio-demographic variables. According to these variables considered in this study, there is no difference in the unintended pregnancy between urban and rural areas for the last child in the bivariate analysis.But for the current pregnancy the unintended pregnancy is higher in the urban areas than that of rural areas. Compared to illiterate women, higher educated women were less likely to report unintended pregnancy. 6% of the literate women reported unintended pregnancy as compared to 17 percent of illiterate women for the last child. But however, the difference is relatively less for the current pregnancy.

Working women are showing lower unintended pregnancy than nonworking women. The older women had reported a much higher level of unintended pregnancy then their younger counter parts. The age of the respondents show a consistently inverse relationship in relation to unintended pregnancy varying from 9% in the age groups of 15 to 19 years and 28% in more than 35 years age group (Fig-2).

Similar situation is also seen with the women with current pregnancy. The unintended pregnancy is lower for the Hindu women and higher for the women of .other religion like Muslim and Christians. As per the wealth index and standard of living the richer women have a higher unintended pregnancy than the poorer women (Fig.-3).It is also noticed that the unintended pregnancy decreases with increasing birth interval. Husband's occupation and education has no significant impact on unintended pregnancy.

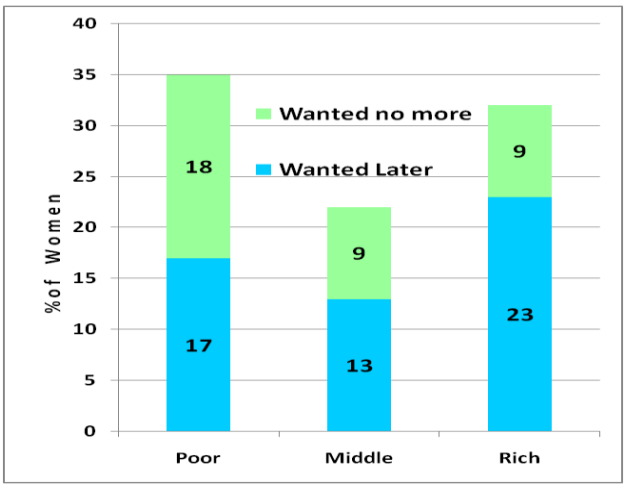


Figure -8: % of women whose pregnancy was unintended by Wealth

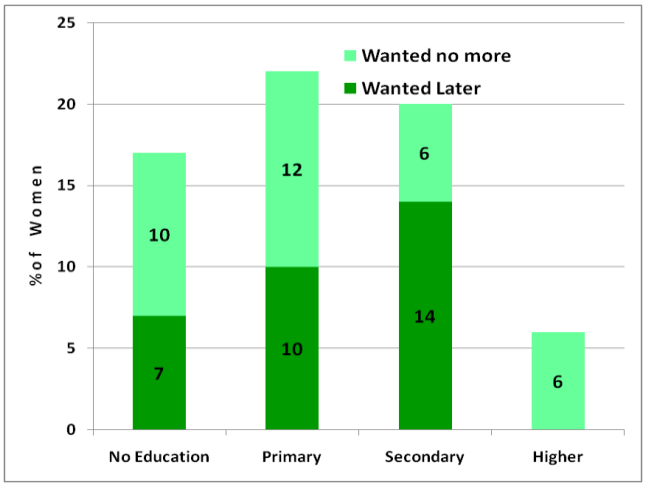


Figure -9: % of women whose pregnancy Index was unintended by women's education

The level of unintended pregnancy is lower among the women whose husbands are illiterate and non working. It is also further revealed that the level of unintended pregnancy is high with increasing birth order. The mothers having one son and no daughter have a higher level of unintended pregnancy than that of the mothers with no son and daughters. Among the SC and ST population, the level of unintended pregnancy is higher than their counter parts. It is also worth to mention here that the women with currently using family planning methods have a higher unintended pregnancy.

Table-6: Rate of unintended pregnancy by background characteristics, NFHS-3

Sl. No	*Variables*	*% women whose pregnancy was unintended*		*Unmet Need*	
		For Last Child	*Current Pregnancy*	*Spacing*	*Limiting*
1	**Age of the respondent Women**				
	15-19 years	09	15	22	2
	20-24 years	16	15	18	8
	25-29 years	19	29	9	12
	30-35 years	20	25	2	12
	35+ years	28	29	-	5
2	**Place of residence of the respondent**				
	Urban	18	29	6	7
	Rural	18	17	7	8
3	**Educationof the respondent woman**				
	No Education	17	15	6	10
	Primary	22	15	3	6
	Secondary	21	30	10	7
	Higher	6	12	8	7
4	**Education of the husband**				

	No Education	14	18	6	9
	Primary	22	23	6	9
	Secondary	20	20	7	6
	Higher	16	19	7	6
5	**Religion**				
	Hindu	18	18	7	8
	Muslim	33	50	9	13
	Others	15	40	9	11
6	**Ethnicity**				
	SC	16	15	7	8
	ST	18	17	8	10
	OBC	16	17	8	7
	Others	22	28	6	8
7	**Wealth Index**				
	Poorest	19	13	8	10
	Poorer	16	18	5	8
	Middle Class	22	23	6	6
	Rich	16	28	5	4
8	**Standard of Living Index**				
	Low	19	12	5	7
	Medium	21	29	5	6
	High	17	26	3	4
9	**Occupation respondent woman**				
	Non working	20	23	6	6
	Professional/ Managerial	07	50	1	2
	Sales & Business	40	-	2	6
	Agricultural Employee	13	07	3	6
	Service	17	20	4	7
	Skilled/ Unskilled worker	16	20	4	4
10	**Occupation of the husband**				
	Non Working	13	-	4	7
	Professional/Managerial	16	08	4	5
	Sales & Business	17	13	6	7
	Agricultural Employee	20	17	5	8
	Service	17	54	7	6
	Skilled/Unskilled worker	18	21	8	8
11	**Birth Interval**				
	Up to 12 months	50	-	5	3
	13-24 months	33	32	3	8
	25-36 months	26	27	4	9
	37 months or more	16	21	3	19
12	**Child Loss**				
	No Child Loss	17	32	7	8
	At least one child loss	22	15	3	8
	Two child loss	-	09	2	2
13	**Sex & Living Children**				
	No son or daughter	09	09	2	-
	One daughter & no son	08	30	21	4
	One son & No daughter	-	27	13	6
	others	23	26	4	9
14	**Birth order**				

	No child	-	9	2	-
	1-2 Child	14	24	10	7
	3+ Child	25	34	2	9

Contraceptive Use and Unintended Pregnancy

In the NFHS -3 interviews, questions were asked to those women who reported currently being pregnant as to whether they were currently using any family planning methods to avoid their pregnancy. When they reported using some type of method, they were asked about which method they used. The answers to these two questions are cross tabulated in table -4 below. From the table it can be observed that about one fourth of the women are reporting unintended pregnancy but are not using any type of contraceptive methods to avoid pregnancy. This is an indication of an unmet need for family planning among the population in the state. Another important component which can be observed from the table that her are women who do not want any more children but are still using temporary methods like pills, condom, abstinence and with drawl

Table -7: % distribution of women with unintended pregnancy by currently using family planning methods (NFHS-3, 2005-06)

Sl No	*Variable*	*Wanted later*	*Wanted no more*	*Total (unintended)*
1	Ever use of any Method			
	Yes	13	14	27
	No	14	12	26
2	Current use of any Method			
	Pill	13	14	27
	IUD	08	00	08
	Condom	14	05	19
	Female Sterilization	08	16	24
	Male Sterilization	00	25	25
	Abstinence	14	03	17
	Withdrawal	22	06	28
	Other Traditional Methods	00	40	40

Besides this there are still 40 percent women who do not want any more children are adapting to other traditional methods of contraception to avoid pregnancy. It is also noticed that 14 percent of the women who wanted no more children are using pill as a method of contraception. It is revealed that the dependency on pill has resulted a considerable proportion of unintended pregnancies (Table-7).

Table-8: % of women having intention to use different contraceptive method by background characteristics, NFHS-3, 2005.06.

Sl. No	Variable	Contraceptive Non-users				
		Intend to Use	Not intend to use	Does not know any method	Never used any method	Currently not using any method
1	**Age of the Respondent**					
	15-19 years	16.4	4.5	5.0	97.1	98.1
	20-24 years	42.9	7.0	1.5	75.0	84.1
	25-29 years	33.7	12.9	0.4	47.1	57.7
	30-35 years	19.0	16.7	0.1	31.0	39.0
	35+ years	5.5	30.2	0.1	28.3	36.6

2	**Place of Residence**					
	Urban	15.8	14.8	0.4	48.6	58.2
	Rural	23.9	16.5	1.8	56.3	62.7
3	**Educational attainment of the respondent woman**					
	No Education	24.3	24.8	2.3	54.9	58.9
	Primary	20.7	15.8	0.8	43.2	51.3
	Secondary	19.7	8.5	1.0	57.6	67.2
	Higher	16.8	9.8	-	57.0	69.2
4	**Educational attainment of the husband**					
	No Education	28.1	27.5	0.9	51.8	-
	Primary	28.0	19.4	0.5	40.2	-
	Secondary	29.1	17.6	0.2	34.5	-
	Higher	26.6	16.4	-	23.0	-
5	**Religion**					
	Hindu	21.4	15.9	53.8	53.8	61.1
	Muslim	17.2	17.2	53.1	53.1	67.2
	Others	22.9	16.9	58.5	58.5	66.9
6	**Ethnicity**					
	SC	22.8	16.9	1.0	53.3	59.9
	ST	29.7	22.1	3.1	67.1	71.8
	OBC	21.1	14.0	1.5	53.7	60.5
	Others	16.4	13.6	0.4	47.2	56.9
7	**Wealth Index**					
	Poorest	26.7	19.9	3.0	61.4	66.0
	Poorer	23.2	18.0	0.8	55.1	62.4
	Middle Class	21.4	15.5	0.7	54.1	62.0
	Rich	15.0	11.1	0.3	45.8	55.6
8	**Standard of Living Index**					
	Low	24.6	20.7	0.1	60.1	65.1
	Medium	20.0	15.0	-	51.9	58.9
	High	14.3	11.4	-	44.6	54.8
9	**Occupation respondent woman**					
	Non working	22.4	25.3	0.7	52.3	61.0
	Professional/ Managerial	7.0	52.0	-	61.0	67.0
	Sales & Business	14.9	19.4	-	35.8	46.3
	Agricultural Employee	20.9	16.9	2.9	55.8	59.6
	Service	20.4	13.1	-	49.6	63.5
	Skilled, Unskilled Worker	20.0	27.4	3.8	65.8	68.8
10	**Occupation of the husband**					
	Non Working	19.6	37.0	-	45.7	56.6
	Professional/ Managerial	18.9	20.6	-	21.9	39.5
	Sales & Business	27.9	15.3	0.2	27.7	43.2
	Agricultural Employee	28.0	21.2	0.5	42.3	49.2
	Service	19.1	20.7	-	25.8	39.9
	Skilled & Unskilled Worker	34.2	21.9	0.7	48.7	56.1
11	**Birth Interval**					
	Up to 12 months	10.4	19.4	-	25.4	29.9
	13-24 months	16.7	16.1	0.3	25.0	32.9
	25-36 months	17.8	17.8	0.3	25.9	35.2
	37 months or more	21.2	21.1	0.3	31.2	42.2

12	**Child Loss**					
	No child Loss	25.1	17.3	0.3	31.2	42.4
	At least one child loss	19.7	27.1	0.6	40.2	46.8
	Two child loss	16.6	7.3	3.5	97.6	99.4
13	**Sex & Living Children**					
	No son or daughter	16.6	7.3	3.5	97.6	99.4
	One daughter & no son	47.8	19.7	0.7	65.3	75.4
	One son & No daughter	41.2	20.3	0.6	51.8	64.5
	others	18.7	18.7	0.3	27.9	37.5
14	**Birth Order**					
	No child	16.6	7.3	3.5	97.6	99.4
	1-2 Child	33.7	19.7	0.5	41.5	53.4
	3+ Child	14.7	20.3	0.2	26.5	35.0

Regarding contraceptive use and intention it can be seen that 34% are using modern methods and 5% are using traditional methods. Among the non users 21.4% intend to use where as 16% are not intending to use any kind of contraception. As per the background characteristics, the contraceptive non-users who do not intend to use increases with increasing birth order, age, and sex of the living children and decreases with education of the mother and spouse, wealth index and standard of living, loss of the child, occupation of the mother and spouse. It is also high in rural areas in comparison to urban areas, among ST and SC population, Among the contraceptive non users intend to use is more among the 20-29 years age group, rural and illiterate women, whose standard of living and wealth index is low and non working category of women.

Table-9: Future Preferred Method to be strengthened to reduce unintended Pregnancy in Odisha

Sl.No	*Types of Methods*	*Areas to be strengthen up as per preferred future method*
1	Female Sterilization	30-34 age group(61%),Rural no education(57%), Other backward caste (61%), Poor agricultural laborers , Birth Interval less than one year, 3+ birth order, No child Loss
2	Male Sterilization	35+, Scheduled Caste, poor, High Educational Level, Husband works in sales, (7o%), 3YR Birth interval
3	Oral Pill	Age Group 20-24(34.2%), 35yr + (40.8%), Rural, No Education, Muslim (64%), SC & ST, Poorest Illiterate, Service Holder, Unskilled Agricultural Labourer, At least one child loss.
4	IUD	15-34, Urban (2.3%), Higher Educational Level (6.3%), Hindu, SC, Rich, Professional/ Technical , Birth Oder 1-2
5	Injection	Urban, Higher Educational Level, Hindu, other caste, Rich, Sales and Services , Birth Oder 1-2
6	Condom	25-34 age group, Urban, Higher Educational (10%),
7	Periodic Abstinence and Withdrawal,	Muslim, General Caste, Rich(9%), Professional and Sales, 2-3yr birth interval, No Child
8	Unsure	35+ yr. age group, Urban area, Muslim, other caste group, Rich, High Educational Level, Professional and Service Holder, 1-2 yr birth interval, at least 2 child loss, Zero birth order

- Significant at 0.05 level

Summary & Conclusion

Unintended pregnancy is an important parameter which influences the fertility pattern of a population. The analysis of data from the NFHS-3 reveals that nearly 19 % of the women are reporting that their pregnancies are unintended. Nearly half of these unintended pregnancies were unwanted. 75%

of these unwanted pregnancies were from the rural areas of the state. Higher percentages of unintended pregnancies are associated with women who are depending on either traditional method of contraception or on pills. The prevalence of unwanted pregnancy among the adolescent age group is a matter of concern in the state. The variables like higher education, higher age group of women, high birth order, lower standard of living and caste category are associated with high unintended pregnancies. The analysis indicates that the various socio-demographic factors have played a crucial role in influencing the unintended pregnancy in shaping the unintended fertility of the state. The study also points towards its scope for policy and programmatic research in understanding the nature of unintended pregnancy. There is a need to invest more in research, program development and evaluation of interventions to reduce unintended pregnancies in under developed states like Odisha.

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