

## SHORT ARTICLE

**Assessment of Unmet Need for Contraception among eligible couples in Urban Slums of Raipur city of Chhattisgarh state**Nirmal Verma<sup>1</sup>, Dhiraj Bhawnani<sup>2</sup>, Gopal Prasad Soni<sup>3</sup>, Gayatri Bandhi<sup>4</sup><sup>1</sup>Associate Professor, <sup>3</sup>Associate Professor, Department of Community Medicine, Pt. J.N.M. Medical College, Raipur, Chhattisgarh, <sup>2</sup>Assistant Professor, Department of Community Medicine, C M Medical College, Durg, Chhattisgarh,<sup>4</sup>Community Medicine, DSO, CMHO office, Bilaspur, Chhattisgarh, India

<a href="#">Abstract</a>	<a href="#">Introduction</a>	<a href="#">Methods</a>	<a href="#">Result</a>	<a href="#">Conclusion</a>	<a href="#">References</a>	<a href="#">Citation</a>	<a href="#">Tables</a>
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**Background:** India was the first country to launch National Family Planning Program in 1952. Even though various measures have been taken to encourage the usage of contraception but the achievement in this field was not to the extent expected due to various social and cultural factors. **Objective:** To assess the prevalence and its determinants of unmet need for contraception among eligible couples in urban slums of Raipur city. **Methodology:** A cross sectional community based study was conducted using cluster sampling in urban slums of Raipur city from November 2011 to October 2012. During the study, 711 fecund married women, age group 15-49 years were included and predesigned and pretested proforma was used as a study tool. The obtained data were analyzed using appropriate statistical test. **Results:** Among all eligible married women 45 % were concentrated in the prime reproductive age 20-29 yrs. Majority of women were not educated. The total unmet need for family planning comes out to 32.9%. Age, Education, literacy, Occupation, Type of Family, No of living children, Birth Order, No of male child, No of female child, Husband literacy were the most significant predictor of unmet need. **Conclusion:** Percentage of unmet need is higher as compared to national data, so there is urgently need to ensure the same.

**Key Words**

Unmet need; Contraception; Eligible couple; Raipur; Chhattisgarh

**Introduction**

In 1952, India was the first country in the world to launch a national programme, emphasizing family planning to the extent necessary for reducing birth rates. [1]

Since the 1960's, survey data have indicated that substantial proportions of women wanted to stop or delay child bearing but are not practicing contraception. This discrepancy is referred to as the unmet need for contraception. It poses a challenge to family planning programme of reaching & serving millions of women whose reproductive attitude resemble those of contraceptive users but whom, for some reason or combination of reasons, are not using contraception. [2]

It is estimated that if all unwanted births could be eliminated, the total fertility rate would drop to the replacement level of fertility. [3]

According to the national family health survey [3] (2005-2006) [4, 5] an unmet need of contraception 13.2 % in India, 6.8 for spacing & 6.3 for limiting.

According to district level house hold survey 3 (2007-08) [4, 5] an unmet need of contraception 20% in Chhattisgarh, 9.8 % for spacing & 11.7 % for limiting. Among the common reasons for unmet need are difficulty with access to & quality of family planning services, health concerns about contraceptive & side effects, large family or male child preference, opposition from husbands/families & communities, little perceived risk of pregnancy, Lack of information. [6]

Exploring the Causes of Unmet Need the causes of unmet need are complex. Surveys and other in depth research from the 1990s reveal a range of obstacles and constraints that can undermine a woman's ability to act on her childbearing preferences. [7]

Unmet need can be a powerful concept for family planning programs. First, it is based on women's own statements in answer to survey questions. Second, it identifies the group most likely to be interested in contraception but not already using contraception. Third, it poses a clear challenge-to reach and serves

these women. The concept is usually applied to married women but also can apply to the unmarried and even to people whose current family planning method is inappropriate or inadequate. [8]

Understanding the size of unmet need for contraception and the characteristics of women with unmet need can help planners strengthen programs will help to reduce the number of unwanted pregnancy & reduce the birth. [7]

### Aims & Objectives

To assess the prevalence and its determinants of unmet need for contraception among eligible couples in urban slums of Raipur city. This study will be helpful for priority setting and resource allocation under family planning programme in Raipur city.

### Methods

A cross sectional community based study was conducted in the urban slums of Raipur City (C.G.), India from November 2011 to October 2012. The method utilized for data collection was 40 cluster sampling method. Each slum was considered as a cluster. The list of 279 slums & map of Raipur city was obtained from the municipal Corporation Raipur (C.G.). All these slums of 70 wards were arranged in alphabetic order along with their respective & cumulative population. Sampling interval was determined by using the formula (Total cumulative population divided by 40 clusters). Cluster interval was obtained. Then 1<sup>st</sup> cluster was identified by choosing random number. Subsequent cluster were identified by adding sample interval in random number. Thus 40 clusters (slums) were identified for data collection. The sample size was calculated using the formulas  $N = \frac{4pq}{L^2}$ . The sample size was fixed at 711. During the study all fecund married women, age group of 15-49 years & residing in study area were included. House to house visit was made to collect data through interview technique after informed consent. Subsequent houses were visited till minimum 17 subjects were interviewed. Data from 40 clusters was collected in same manner.

Data was compiled in MS Excel and checked for its completeness and correctness. Then it was analyzed with the help of medcalc online statistical calculator and chi square test were applied for the statistical significant. P value of < 0.05 was considered statistically significant for interpretation of finding.

### Result

[Table 1] shows that the age distribution of eligible married women of reproductive age shows that about 45 % women are concentrated in the prime reproductive age 20-29 yrs. About 18 % of the women fall in 30-34 years age group. The mean age of the women was 27.3 yrs. 57.1% women were literate.

Majority of women were house wife (80.8 %) followed by unskilled (18%). More than half of the families are living in nuclear family 72.2 %. 3/4th (75.1%) of the husbands were literate. Majority of husband were unskilled (50.3%) followed by skilled (20.3%).

[Table 2], sub divides need for family planning methods in to different components only 14.5% of the women have unmet need for spacing however there is considerable unmet need for limiting (18.4 %). The total unmet need for family planning comes out to 32.9%.

As shown in [Table 3], the results for unmet need indicated that Age, literacy, Occupation, Type of Family, No of living children, No of male child, No of female child , Husband literacy were the most significant predictor of unmet need. Prevalence of unmet need was higher in age group below 25 year. Significant reduction of unmet need with increase in the total number of living children and was nil with those with more than 6 living children. Prevalence of unmet need (52.2%) was greater among having one male child. Unmet need was increased in women with one female child, then after decreased in on ward child. Among the women with no children or one child the unmet need is higher.

### Discussion

Present study revealed that 32.9% of married women have unmet need for family planning services which is more than the prevalence 21.7%, 21%, 7%, 17% and 25% as reported by Srivastava D.K., Gautam P., Gautam R. et al (2011) [9], Bhattacharyya S.K., Ram R., Goswami D.N. et al(2006) [10], Ray Karmakar P., Haldar D., Bisoi S. et al (2011) [11], Indu D.(2011) [12] and Bhandari GP., Premarajan KC, Jha et al(2006) [13]. Percentage of unmet need in our study was less than 45.1% and 52.4% as reported by Patil S.S., Durgawale MP., Patil SR(2010) [14] and Mekonnen W., Worku A. (2011) [15]. Our finding is also higher than NFHS III [4, 5] and DLHS III [4, 5] where overall prevalence of unmet need was 13.2% and 20.9% respectively. Our finding is nearly similar to 35% in Meghalaya by NFHS III. [4, 5] Percentage of unmet need was observed 32.9% in our study. The reason may be that the inhabitants of slum areas are usually of low education, socioeconomic status, less aware regarding health seeking behavior and have limited access to family planning services. The place of residence has been shown to affect unmet need. This was demonstrated in Turkey where the unmet need in the rural areas was 17.1 and 8.3% in urban areas. [16]

From study of unmet need, conducted in Department of Community Medicine, Calcutta National Medical College, India revealed that 23.1 % of women had unmet need. A study on hospital setting may show less prevalence than a study on community. [17] Our

findings is similar to the study on unmet need for family planning in Nepal by S. Thapa that showed the unmet need in Nepal was 27.7 % in 1991, and 31.4 % in 1996. [18]

In this study, prevalence of unmet need was highest in age group below 25 year (36.7%) and below 30yr (68.7%). ( $p < 0.0001$ , Significant). Similar finding were reported by Saini N.K., Bhasin S.K., Sharma R. et al (2007) [19], Bhattacharyya S.K., Ram R., Goswami D.N. et al (2006) [10] and Sengupta R., Lhungdim H. (2004) [20]. These finding correlate to the study done by Patil S.S., Durgawale MP., Patil SR (2010) [14] where they observed 81.3% of women in the unmet group belong to the age 15-29 yrs.

In the present study, proportion of unmet need was significantly decreased in higher education level ( $p < 0.0053$ ) which is similar to study reported by Korra A.(2002) [21], Singh N., Kaur G., Singh J.(2009) [22] ( $p < 0.001$ ), Dhingra R., Manhas S., Kohli N. et al(2010) [23], Bhattacharyya S.K., Ram R., Goswami D.N. et al (2006) [10], Patil S.S., Durgawale MP., Patil SR (2010) [14], Yadav K., Singh B., Goswami K.(2009) [24] and Bhandari GP., Premarajan KC, Jha et al (2006) [13].

In the current study, it is observed that majority of respondents (80.8%) were housewives which correlate to the study done by Saini N.K., Bhasin S.K., Sharma R. et al (2007) [19] where they observed 92.2% respondents were housewives. Study by Patil S.S., Durgawale MP., Patil SR (2010) [14] found that there was no significant association found between women's occupational pattern and her unmet need while it was observed statistically significant in our study. ( $p < 0.0013$ )

In the present study, it was observed that 74.4% of women with unmet need were living in nuclear family. ( $p < 0.0001$ , Significant) A study from Uttar Pradesh by D Radha Devi et al. in National Family Health Survey subject Reports, showed that 63% of women with unmet need were living in joint family. [25] Study by Yadav K., Singh B., Goswami K. (2009) [24] found that the unmet need was more (47.53%) for females belonging to joint family than the nuclear family (38.63%).

There was significant association between parity and unmet need in this study( $p < 0.0001$ ), which is similar to study reported by Patil S.S., Durgawale MP., Patil SR (2010) [14] and Ray Karmakar P., Haldar D., Bisoi S. et al(2011). [11]

In this study, it was found that unmet need was increased in women with one female child then after decreased in on ward child ( $p < 0.0001$ ) which correlate to the study done by Bhandari GP., Premarajan KC, Jha et al (2006) [13] where they observed percentage of unmet need high (47, 40 and 33%) in those who have

two, three and four plus daughters but no sons respectively. ( $p < 0.001$ )

Husband education had significant influence on following contraceptive uses in the current study, which is similar to study reported by Indu D (2011) [12].

Husbands' occupation did not influence the unmet need in this study. In contrast the study done by Indu D (2011) [12] observed significant relationship between husbands' occupation and unmet need. ( $p < 0.05$ ).

## Conclusion

Despite the extensive family planning program in Raipur, the unmet need for family planning is 32.9% among married women of reproductive age group.

## Recommendation

As observed, unmet need is higher as compared to national figures, so gap needs to be filled up with, adequate Information and Guidance should be provided to them with the help of mass media. Behavior change communication with close guidance and supervision should be regularly done by Health Workers. Social marketing of contraceptives should be improved for fulfilling the unmet need of contraception. The coverage of Government schemes like Janani Suraksha Yojana (JSY), Rashtriya swasthya bima yojna (RSBY) etc. should be extended to cover the inter-conceptional period for addressing determinants of unmet need for contraception. National Urban health mission (NUHM) can play an important role in the awareness of contraception among women of urban slum areas. USHA should be prepared for these.

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## References

1. National Commission on Population Policy, National Population Policy 2000 – Introduction 2004
2. Puri A, Garg S, Mehara M. Assessment of unmet need for contraception in an urban slum of Delhi Indian M. Journal of Community Medicine All Medical journals issues contents Editorial Board & Information. 2009;29(3):9.
3. Santhya K G. Changing family planning scenario in India: KG Population Council, New Delhi, India. 2003 15-18.
4. Gupta P; Text Book of Preventive & Social Medicine 2010 3rd edition, Page 586,585.
5. National family health survey (NFHS-3) 2005-2006. Available at <http://www.rchips.org>. Accessed 5 December 2012.
6. Rao PD, Babe MS. Knowledge and Use of Contraception Among Racha Koyas of Andhra Pradesh 2005 Department of Anthropology, Andhra University, Visakhapatnam 530003, Andhra Pradesh, India. Contraceptive Kamla-Raj Anthropologist. 2005;7(2):115-119.
7. Asford Lori; Unmet Need for Family Planning: Recent Trends and Their Implications for Programs by 2003.
8. Population reports meeting unmet need new strategies (j 43) September 1996
9. Srivastava DK, Gautam P, Gautam R. A Study to Assess the Unmet Needs of Family Planning in Gwalior District and to Study the Factors

that Helps in determining it. National Journal of Community Medicine. 2011;2(1).

10. Bhattacharyya SK, Ram R, Goswami DN. Unmet Need for Family Planning among Women of Reproductive Age Group Attending Immunization Clinic in a Medical College of Kolkata. Indian Journal of Community Medicine 2006;31(2).
11. Ray Karmakar P, Haldar D, Bisoi S. Bridging the unmet need in contraceptive practice with natural methods: a study from Kolkata, India The Health. 2011;2(3):78-81.
12. Indu D. Unmet needs for family planning in urban slums of Trivandrum corporation area- A cross sectional study Calicut Medical Journal 2011; 9(2):e5 Page number not for indexing purposes Dept of Community Medicine, Medical College, Trivandrum.
13. Bhandari GP, Premarajan KC, Jha. Prevalence and determinants of unmet need for family planning in a district of eastern region of Nepal Kathmandu University Medical Journal. 2006,4(2);14,203-210.
14. Patil SS, Durgawale MP, Patil SR. Epidemiological Correlates Of Unmet Need For Contraception In Urban Slum Population Children. AJMS Al Ameen J MedSci. 2010,3(4):312-316.
15. Mekonnen W, Worku A. Determinants of low family planning use and high unmet need in Butajira District, South Central Ethiopia Reproductive-health-journal.com2011 / article/ 10. 1186/1742/4755/8/37 Bottom, Top Bio Med Central Journals Gateways studies October 2009-dec.2009, Reproductive Health 2011, 8:37 doi: 10.1186/1742-4755-8-37 Published: 8 December
16. Dinç G, Eser E, Cihan UA, Ay S, Pala T, Ergör G, Ozcan C. Fertility preferences, contraceptive behaviors and unmet needs: a gap between urban and suburban parts of a city. Eur J Contracept Reprod Health Care. 2007 Mar;12(1):86-94. PubMed PMID: 17455050. [\[PubMed\]](#)
17. Rama R et al. Study of unmet need for family planning among married women of Reproductive Age attending immunization clinic in a medical college of Calcutta. Indian Journal of Community Medicine. 2000;25(1):22-25.
18. Thapa S. Unmet need for family planning in Nepal. Nepal Popul Dev J. 1997;(Spec No):98-107. PubMed PMID: 12293772. [\[PubMed\]](#)
19. Saini NK, Bhasin SK, Sharma R. Study of Unmet Need for Family Planning in Are settlement Colony of East Delhi Health and Population Perspectives and Issues. 2007;30(2):124-133.
20. Sengupta R., Lhungdim H.(2004); Factors associated with Contraceptive Practices and Unmet Need among Young Currently Married Women in the Rural Areas of Empowered Action Group (EAG) States of India.
21. Korra A.; Attitudes toward Family Planning and Reasons for Nonuse among Women with Unmet Need for Family Planning in Ethiopia CARE-Ethiopia ORC Macro Calverton, Maryland USA November 2002)
22. Singh N, Kaur G, Singh J. The Use of Contraceptives and Unmet Need for Family Planning in Rural area of Patiala District. 2009;55(2).
23. Dhingra R, Manhas S, Kohli N. Attitude of Couples towards Family Planning Department of Home Science, University of Jammu, Kamla-Raj. J Hum Ecol. 2010;30(1):63-70.
24. Yadav K, Singh B, Goswami K. Unmet Family Planning Need: Differences and Levels of Agreement between Husband-Wife, Haryana, India J Community Med. 2009;34(3):188–191.
25. International Institute for Population Sciences.1996.

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**Tables**

**TABLE NO. 1 BACKGROUND CHARACTERISTIC OF THE STUDY POPULATION (N=711)**

Characteristics	No.	Percentage (%)
<b>Age of Eligible married Women (in years)</b>		
15-19	14	2.0
20-24	171	24.0
25-29	149	21.0
30-34	128	18.0
35-39	105	14.8
40-44	74	10.4
45-49	70	9.8
<b>Literacy status</b>		
Illiterate	305	42.9
Literate	406	57.1
<b>Occupation</b>		
House wife	573	80.8
Skilled	1	0.1
Semiskilled	2	0.3
Un skilled	129	18.0
Clerical	5	0.7
Professional	1	0.1
<b>Family type</b>		
Joint	198	27.8
Nuclear	513	72.2
<b>No. of living children's</b>		
0	66	9.2
1	127	17.9
2	177	24.9
3	187	26.4
4	115	16.2
5	25	3.5
6	11	1.5
7	2	0.3

8	1	0.1
<b>No. of male child</b>		
0	175	24.6
1	289	40.7
2	174	24.5
3	65	9.1
4	8	1.1
<b>No. of female child</b>		
0	208	29.3
1	273	38.5
2	143	20.1
3	64	9.0
4	18	2.5
5	3	0.4
6	1	0.1
7	1	0.1
<b>Husband's Literacy</b>		
Literate	534	75.1
Illiterate	177	24.9
<b>Husband's occupation</b>		
Un employed	12	1.7
Skilled	144	20.3
Semiskilled	77	10.8
Unskilled	358	50.3
Clerical	91	12.8
Professional	29	4.1

**TABLE NO. 2 EXTENT OF UNMET AND MET NEED**

Need for family planning methods	No.	Percentage (%)
Unmet need	234	32.9
Met need	377	53.0
No Demand	100	14.1
Total	711	100

**TABLE NO. 3 PROPORTION OF THE RESPONDENTS WITH UNMET NEED STRATIFIED BY BIOSOCIAL CHARACTERISTICS (N=34)**

Characteristics	No.	Percentage (%)	$\chi^2$ test, df, p value
<b>Age of Eligible married Women</b>			
15-19	1	7.14	$\chi^2=31, df=12,$ $p < 0.0001$ Significant
20-24	86	50.29	
25-29	74	49.66	
30-34	35	27.34	
35-39	24	22.86	
40-44	12	16.22	
45-49	2	2.86	
<b>Literacy status</b>			
Illiterate	88	28.85	$\chi^2=18.03, df=2,$ $p < 0.0001.$ Significant
Literate	146	35.96	
<b>Occupation</b>			
House wife	195	34.03	$\chi^2=28.81, d.f.=10,$ $p < 0.001,$ Significant
Skilled	0	0	
Semiskilled	0	0	
Un skilled	39	30.23	
Clerical	0	0	
Professional	0	0	

<b>Family type</b>			
Joint	60	30.3	$\chi^2=23.74$ , df=2, p<0.0001. Significant
Nuclear	174	33.92	
<b>No. of living children's</b>			
0	0	0	$\chi^2=388.71$ , df=12, p<0.0001, Significant
1	83	65.35	
2	72	40.68	
3	49	26.20	
4	23	20	
5	4	16	
6	3	27.27	
7	0	0	
8	0	0	
<b>No. of male child</b>			
0	67	38.28	$\chi^2=279.75$ , df=8, p < 0.0001,Significant
1	122	42.21	
2	34	19.54	
3	10	15.38	
4	1	12.5	
<b>No. of female child</b>			
0	63	30.29	$\chi^2=186.40$ , df=14, p< 0.0001, Significant
1	100	36.63	
2	41	28.67	
3	22	34.37	
4	6	33.33	
5	1	33.33	
6	0	0	
7	1	100	
<b>Husband's Literacy</b>			
Literate	178	33.33	$\chi^2=10.52$ , df=2, p<0.0052. Significant
Illiterate	56	31.64	
<b>Husband's occupation</b>			
Un employed	4	33.33	$\chi^2=15.14$ , df=10, p>0.1269, Insignificant
Skilled	40	27.78	
Semiskilled	32	41.56	
Unskilled	110	30.73	
Clerical	35	38.46	
Professional	13	44.83	