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Utilization and comparison of family planning services through national family health survey in Uttarakhand, India

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ABSTRACT

Background: India was the first country to start family planning program in 1952. In the first 50 years there have been many changes in India. The family planning program name was changed from time to time. At the present scenario, its name is Reproductive and Child Health. In this study, authors evaluate utilization of family planning services with an objective to compare distribution of family planning services between the two regions of Uttarakhand: Garhwal and Kumaon.

Methods: In this study, data mining was done using secondary database with the permission from International Institute for Population Sciences (IIPS) NFHS-4 data to carried out during 2015-2016 in Uttarakhand, India and estimate of the values for all the parameters of Family Planning was estimated. A statistical Z-score test was performed in the estimated of proportions in all study parameters of the family planning.

Results: The study indicates that between the two divisions Garhwal has more utilization of family planning services as comparatively higher than Kumaon. Pithoragarh from the Kumaon division has more utilization proportion of family planning services in comparison to the other districts in the division, while Almora were recorded as the minimum use of family planning services. Uttarkashi in Garhwal region accounted for major proportion of utilization of family planning services, while Haridwar had minor proportions.

Conclusions: Though overall utilization of family planning services of Uttarakhand is far better than other states in India but between the two divisions, Kumaon requires more attention in terms of utilizing services and awareness programmes. In fact, certain districts in Garhwal also require intervention from the Government to improve health quality. Both hilly and urban districts have different issues, which needs to be targeted to improve the health quality of the state.

Keywords: Family planning, Garhwal, Kumaon, National family health survey

INTRODUCTION

India was the first country to start family planning program in 1952. In the first 50 years there have been many changes in India. The family planning program name was changed to family welfare program and at the present time its name is Reproductive and Child Health. The family planning name was changed due to increase and acceptance of these methods.¹ "Family planning is

the practice of controlling the number of children in a family and the intervals between their births, particularly by means of contraception or voluntary sterilization". Family planning may involve the choice of woman over the number of children she wants to have or having no children at all, including the age at which she wants to have children. This is affected by a number of external factors such as consideration of career, marital situation, financial position of the family and any disability which may influence the couple's ability to have children, besides some other considerations.² The National Family Health Survey (NFHS) has conducted a large scale, multi-round survey conducted over a representative sample of households throughout India.³ First-time survey was conducted in 1992-1993 which was succeeded by additional three rounds of the survey. Highlights of the survey include information on the family planning practices, fertility, child and maternal health, infant and child mortality, nutrition, anemia, reproductive health, utilization and quality of health and family planning services in every state and across the nation.

The Ministry of Health and Family Welfare (MOHFW), Government of India designated International Institute for Population Sciences (IIPS) Mumbai as the nodal agency. In which, IIPS assists, coordinates and provide technical guidance for the surveys.⁴

The second time survey (NFHS-2) which was conducted in 1998-1999 provided a provided an all-inclusive chronicle of health, population, and nutrition of overall India, and that of each state. It also included various topics with important policy implications, such as women's autonomy, women's nutrition, reproductive health, domestic violence, and salt iodization.⁵ The third National Family Health Survey (NFHS-3) which was done in 2005-2006 consisted of data regarding population, health and nutrition in India and each of its 29 states along with some new topics such as health of slum population and HIV/AIDS-related behavior. It also consisted of information regarding men and unmarried women which was not included in any of the past surveys.⁶ The most recent (fourth) National Family Health Survey (NFHS-4) was conducted in 2015-2016, which consisted of information on many new indicators of family planning.⁷

Medical definition of family planning

Planning intended to determine the number and spacing of one's children through effective methods of birth control as provided by different service providers at different locations of rural and urban area as shown in Table 1. In this study, authors use the z-score test to comparison between the Family planning services in eligible couples in Kumaon and Garhwal division in Uttarakhand.⁸ In this study, authors use to 14 key indicators to use the comparison of Kumaon and Garhwal division in eligible couples. Its indicators are given below:

- Women married before 18 years of age between 20-24.
- Men married before 21 years of age between 25-29 years.
- Women aged 15-19 years who were already mothers or pregnant at the time of the survey.
- Any method
- Any modern method
- Female sterilization
- Male sterilization
- IUD /PPIUD
- Pill
- Condom
- Total unmet need
- Unmet need for spacing
- Health workers ever discussed about family planning with female nonusers
- Current users ever reported side effect of current methods.

Family Planning Method	Service Provider	Service Location
Spacing Methods		
IUD 380 A/IUCD 375	Trained and certified ANMs, LHVs, SNs and doctors	Sub-center and higher levels
Oral Contraceptive Pills (OCPs)	Trained ASHAs, ANMs, LHVs, SNs and doctors	Village level
Sub-center and higher levels		
Condoms	Trained ASHAs, ANMs, LHVs, SNs and doctors	Village level
Sub-center and higher levels		
Limiting Methods		
Minilap	Trained and certified MBBS doctors and specialist doctors	PHC & higher levels
Laparoscopic Sterilization	Trained and certified MBBS doctors and specialist doctors	Usually CHC and higher levels
NSV: No Scalpel Vasectomy	Trained and certified MBBS doctors and specialist doctors	PHC and higher levels
Emergency Contraception		
Emergency Contraceptive Pills (ECPs) Trained ASHAs, ANMs, LHVs, SNs and docto		Village level, Sub-center and higher levels

Table 1: Distribution of family planning methods with service providers and locations.

Source: Official website of MoHFW (www.mohfw.gov.in).

METHODS

In this study, data mining was done using secondary database with the permission from International Institute for Population Sciences (IIPS) using NFHS-4 data to carried out during 2015-2016 in Uttarakhand, India and estimate of the values for all the parameters of Family Planning was estimated. A statistical Z-score test was performed in the estimated of proportions in all study parameters of the family planning.

Statistical analysis

In this topic, authors use the z-score test to analyses the average proportion of the Kumaon and Garhwal division in Uttarakhand.⁶

Z-score definition

A z-score indicates how many standard deviations an element is from the mean. A z-test is a statistical test used for proportions for which the distribution of the test statistics under the defined null hypothesis can be approximated by a normal distribution.⁴ p-value was calculated on the basis of the all parameters at 5% level of significance.

A formula for Z-test for two population proportion is

$$Z = \frac{(\widehat{(p1)} - \widehat{(p2)}) - (p1 - p2)}{\sqrt{\overline{(pq)}\left(\frac{1}{n1} + \frac{1}{n2}\right)}}$$

Where,

p1= First population proportion mean p2 = Second population proportion mean

p = Average of two population proportion mean

n1 = Total sample in the first population proportion

n2 = Total sample in the second population proportion

A statistical hypothesis of the two-population proportion is given below under-

 H_0 = There lies no significance difference between the average proportion of the Kumaon and Garhwal division.

 H_1 = There is a significance difference between the average proportion of Kumaon and Garhwal division.

The level of significance usually denoted as α has the following criterion as: if p<0.05 then the hypothesis is said to be significant.

Family planning	Kumaon	Garhwal	Uttarakhand pro.	Kumaon vs Garhwal (p-value)	Kumaon vs Uttarakhand (p-value)	Garhwal vs Uttarakhand (p-value)		
Marriage and fertility								
Women married before 18 years of age between 20-24 years (%)	18.28	10.64	26.80	0.00	0.00	0.00		
Men married before 21 years of age between 25-29 years (%)	7.15	3.89	20.30	0.001	0.00	0.00		
Women age 15-19 years who were already mothers or pregnant at the time of the survey (%)	3.87	2.43	7.90	0.05	0.0001	0.00		
Current use of family planning methods (currently married women age 15-49 years)								
Any method (%)	55.82	60.36	53.50	0.03	0.30	0.001		
Any modern method (%)	52.52	56.77	47.80	0.053	0.04	0.00		
Female sterilization (%)	34.72	37.77	36.00	0.149	0.54	0.40		
Male sterilization (%)	1.38	0.61	0.30	0.071	0.01	0.32		
IUD/PPIUD (%)	1.67	1.59	1.50	0.9	0.72	0.86		
Pill (%)	2.47	2.93	4.10	0.6	0.04	0.14		
Condom (%)	12.20	13.70	5.60	0.00	0.00	0.00		
Unmet need for family planning (currently married women age 15-49 years)								
Total unmet need (%)	15.85	13.96	12.90	0.2	0.06	0.47		
Unmet need for spacing (%)	5.77	4.89	5.70	0.4	0.92	0.42		
Quality of family planning services								
Health workers ever discussed about family planning with female nonusers (%)	13.42	18.29	17.70	0.002	0.008	0.72		
Current users ever reported side effect of current methods (%)	47.58	43.94	46.50	0.09	0.62	0.24		

Table 2: Distribution of family planning services according to regions and its comparison with state.

RESULTS

From table no. 2, it is shown that the current scenario of family planning services in Uttarakhand and its comparison with the two regions namely Kumaon and Garhwal and also the comparison of region with its districts.

The comparison of the family planning services are as follows

Comparison of Kumaon and Garhwal

There is significant difference in (Women married before 18 years of age between 20-24 years with p-value (0.00), (Men married before 21 years of age between 25-29 years with p-value (0.001) in marriage and fertility. There is a significant difference in (Any other method, p-value

(0.03), [Condom, p-value (0.00)] in current use of family planning method. There is a significant difference in (Health workers ever discussed about family planning with female non-users, p-value (0.002).

Comparison of Kumaon and Uttarakhand

There is a significant difference in all the indicator of marriage and fertility with p-value (0.00). There is a significant difference in [(Any modern method, p-value 0.04), (Male sterilization, p-value 0.01), (Pill, p-value 0.04), (Condom, p-value 0.00) in current use of family planning method].

There is a significant difference in (Health workers ever discussed about family planning with female nonusers, p-value 0.008) in the quality of family planning service.

 Table 3: Distribution of family planning services in Kumaon region and its comparison with its corresponding districts.

Family planning	Kumaon division	Pithoragarh	Bageshwer	Almora	Nainital	Champawat	Udham singh nagar		
Current scenario for marriage and fertility									
Women married before 18 years of age between 20-24 years (%)	18.28	20.1(0.30)	20.1(0.30)	9.7(0.00)	15.1(0.05)	19.5(0.49)	18.7(0.81)		
Men married before 21 years of age between 25- 29 years (%)	7.15	-	-	-	3.7(0.00)	-	39.2(0.00)		
Already mothers or pregnant between 15-19 years at the time of the survey (%)	3.87	4.1(0.81)	4.1(0.81)	0.8(0.00)	2.5(0.07)	4.2(0.72)	4.8(0.32)		
Family planning methods fir currently married women age 15-49 years									
Any other method (%)	55.82	57.9(0.34)	57.9(0.34)	57.1(0.55)	48.5(0.00)	63.3(0.00)	38(0.00)		
Any modern method (%)	52.52	54.4(0.39)	54.4(0.39)	54.7(0.32)	44.9(0.00)	59.2(0.00)	35.1(0)		
Female sterilization(%)	34.72	40.6(0.00)	40.6(0.00)	37.4 (0.20)	22 (0)	44.2(0)	13.6(0)		
Male sterilization (%)	1.38	2.8(0.02)	2.8(0.02)	1.7(0.58)	2.(0.23)	1 (0.41)	0(0.00)		
Iud/ppiud (%)	1.67	2.2(0.41)	2.2(0.41)	1.4(0.58)	1.8(0.86)	1(0.17)	1.3(0.45)		
Pill (%)	2.47	0.9(0.00)	0.9(0.00)	2.4(0.88)	4.9(0.00)	2.3(0.77)	2.7(0.77)		
Condom (%)	12.20	8.2(0.00)	8.2(0.00)	11.8(0.77)	13.7(0.31)	10.4(0.20)	17.3(0.00)		
Unmet need for family pla	nning (curre	ntly married wo	men age 15-49	years)					
Total unmet need (%)	15.85	17.8(0.25)	17.8(0.25)	14.8 (0.49)	18.2(0.17)	13.6(0.14)	19.1(0.06)		
Unmet need for spacing (%)	5.77	6.7(0.40)	6.7(0.40)	6.3(0.63)	5.6(0.84)	4.6(0.22)	7.3(0.17)		
Quality of family planning services									
Health workers ever discussed about family planning with female nonusers (%)	13.42	15.7(0.14)	15.7(0.14)	16(0.10)	12(0.34)	10.8(0.07)	13.7(0.84)		
Current users ever reported side effect of current methods (%)	47.58	54.4(0.00)	54.4(0.00)	30.5(0)	43.2(0.04)	53.9(0.00)	41.8(0.00)		

Table 4: Distribution of family planning services in Garhwal region and its comparison with its							
corresponding districts.							

Family	Garhwal	Uttarkashi	Chamoli	Rudraprayag	Tehri	Pauri	Dehradun	Haridwar
planning				Kuurupruyug	garhwal	garhwal		Hai lu wai
Marriage and ferti	lity							
Women aged 20-24 years married before 18 years of age (%)	10.6	11.6(0.47)	12.3(0.23)	10.3(0.82)	10(0.65)	6.2(0.00)	8.6(0.12)	15.5(0.00)
Men married before 21 years of age between 25-29 years (%)	3.9	0.00	-	-	0.00	0.00	7.2(0.00)	20(0)
Already mothers or pregnant between 15-19 years at the time of the survey (%)	2.4	5.4(0.00)	1.3(0.06)	2.1(0.65)	0(0.00)	3.9(0.05)	1.7(0.27)	2.6(0.77)
Current use of fam		-	•					
Any method (%)	60.4	68.5(0.00)	60.2(0.92)	61(0.78)	64.3(0.07)	67.2(0.0)	59.8(0.78)	41.5(0)
Any modern method (%)	56.8	64.9(0.00)	58.4(0.47)	59.1(0.29)	62.7(0.0)	62.3(0.01)	53.1(0.09)	36.9(0)
Female sterilization (%)	37.8	50.1(0)	47(0)	46.6(0.00)	43.4(0.01)	41.5(0.09)	23.5(0)	12.3(0)
Male sterilization (%)	0.6	1.1(0.22)	1.2 (0.15)	0.5(0.76)	0.1(0.05)	0.6(1)	0.7(0.77)	0.1(0.05)
IUD/PPIUD (%)	1.6	0.9(0.15)	0.3(0.00)	1.2(0.44)	2.6(0.11)	3.2(0.01)	1.7(0.85)	1.2(0.44)
Pill (%)	2.9	1.6(0.05)	2.3(0.40)	2.3(0.40)	2.4(0.48)	3.7(0.31)	3.3(0.60)	4.9(0.02)
Condom (%)	13.7	11.3(0.10)	7.7(0)	8.3(0.00)	14.1(0.79)	13.2(0.74)	23.6(0)	17.7(0.01)
Unmet need for fa	mily plann	ing (currently	married wor	nen age 15-49 y	ears)5			
Total unmet need (%)	14.0	11.2(0.05)	14.2(0.89)	11.6(0.10)	15.6(0.31)	15.6(0.31)	11.7(0.12)	17.8(0.02)
Unmet need for spacing (%)	4.9	4.5(0.67)	6.5(0.12)	4.6(0.74)	5.8(0.37)	4.3(0.52)	3.8(0.22)	4.7(0.83)
Quality of family planning services								
Health workers ever discussed about family planning with female nonusers (%)	18.3	20.8(0.15)	20.3(0.25)	20.4(0.23)	19.5(0.49)	16.4(0.26)	17(0.44)	13.6(0.00)
Current users ever reported side effect of current methods (%)	43.9	42.2(0.44)	43.9(1)	35.6(0.00)	49(0.02)	44.4(0.81)	53(0)	39.5(0.04)

Comparison of Garhwal and Uttarakhand

There is a significant difference in all the indicator of marriage and fertility with p-value (0.00). There is a significant difference in (Any method, p-value 0.001)

(Any modern method, p-value 0.00), [Condom, p-value 0.00)] in the current use of family planning method.

Comparison of Kumaon division and its districts

From Table 3, it is found that in marriage and fertility, there is a significant difference in only the Almora in the

indicator (Women married before 18 years of age between 20-24 years, p-value- 0.00), Nainital and Udham Singh Nagar are significant difference with p-value 0.00 respectively, There is a significant difference only Almora in the indicator (Already mothers or pregnant between 15-19 years at the time of the survey with pvalue 0.00).

1. Current use of family planning methods (For Kumaon Region)

There is a significant difference in Nainital, Champawat, Udham Singh Nagar with indicator (Any modern method) with p-values is 0.00 in all district. There is a significant difference in Pithoragarh, Bageshwar, Nainital, Champawat, Udham Singh Nagar with indicator (Female sterilization) with p-values is 0.00 in this district. There is a significant difference in Pithoragarh, Bageshwar, Udham Singh Nagar with indicator (Male sterilization) with highly significant values in this district. There is a significant difference in Pithoragarh, Bageshwar, Nainital with indicator (Pill) with p-values 0.00 in this district. There is a significant difference in Pithoragarh, Bageshwer, Udham Singh Nagar with indicator (Condom) with p-values 0.00 in this district.

2. Quality of family planning services (For Kumaon Region)

There is a significant difference in all the district of Kumaon division with indicator (Current users ever reported side effect of current methods) with p- values is 0.00 in all the district of Kumaon division.

3. Unmet need for family planning (For Kumaon Region)

There is no significant difference between the variables in different districts of Kumaon region for the unmet need for family planning.

Comparison of Garhwal division and its district

From table 4, it is illustrated that in marriage and fertility, there is a significant difference between in Pauri Garhwal and Haridwar with indicator (Women aged 20-24 years married before 18 years of age) with its p-values is 0.00 in this district respectively. In this indicator, higher value in Uttarkashi, Chamoli, and Haridwar where it is lesser in Rudraprayag, Tehri Garhwal, Pauri Garhwal and Dehradun as compared to overall Garhwal which is statistically significant at 5% level of significance. There is a significant difference between the in Dehradun, Haridwar with indicator (Men aged 25-29 years married before 21 years of age) with its p-values is 0.00 in this district respectively. In this indicator, higher value in Dehradun and Haridwar as compared to overall Garhwal which is statistically significant at 5% level of significance. There is a significant difference between in Uttarkashi, Tehri Garhwal with indicator (Women aged 15-19 years who were already mothers or pregnant at the time of survey) with its p-values is 0.00 in this district respectively. In this indicator, higher value in Uttarkashi, Pauri Garhwal, Haridwar where it is lesser in Chamoli, Tehri Garhwal, Rudraprayag, Dehradun as compared to overall Garhwal which is statistically significant at 5% level of significance.

1. Current use of family planning methods (For Garhwal Region)

There is a significant difference between in Uttarkashi, Pauri Garhwal and Haridwar with indicator (Any method) with its p-values is 0.00 in this respectively. In this indicator, higher value in Uttarkashi, Rudraprayag, Tehri Garhwal and Pauri Garhwal where it is lesser in Chamoli, Dehradun and Haridwar as compared to overall Garhwal which is found as statistically significant at 5% level of significance.

There is a significant difference between in Uttarkashi, Tehri Garhwal, Pauri Garhwal Haridwar with indicator (Any modern method) with its p-values is 0.00 in this district respectively. In this indicator, higher value in Uttarkashi, Chamoli, Rudraprayag, Tehri Garhwal and Pauri Garhwal where it is lesser in Dehradun and Haridwar as compared to overall Garhwal which is statistically significant at 5% level of significance. There is a significant difference between in Uttarkashi, Tehri-Garhwal, Chamoli, Rudraprayag, Dehradun; Haridwar with indicator (Female sterilization) with its p-values is 0.00 in this district respectively.

In this indicator, higher value in Uttarkashi, Chamoli, Rudraprayag, Tehri-Garhwal and Pauri-Garhwal where it is lesser in Dehradun and Haridwar as compared to overall Garhwal. In this indicator (Male sterilization), higher value in Uttarkashi, Chamoli, Dehradun where it is lesser Rudraprayag, Tehri-Garhwal, Haridwar as compared to overall Garhwal.

There is a significant difference between in Chamoli, and Pauri Garhwal with indicator (IUD/PPIUD) with its pvalues is 0.00 and 0.01 in this district respectively. In this indicator, higher value in Tehri-Garhwal, Pauri Garhwal and Dehradun where it is lesser in Uttarkashi, Chamoli, Rudraprayag, Haridwar as compared to overall Garhwal. There is significant difference between in only Haridwar with indicator (Pill) with its p-value is 0.02 in this district. In this indicator, higher value in Pauri Garhwal, Dehradun, Haridwar where it is lesser in Uttarkashi, Chamoli, Rudraprayag, Tehri-Garhwal as compared to overall Garhwal. There is a significant difference in Chamoli, Rudraprayag, Dehradun, Haridwar with indicator (Condom) with its p- value is 0.00 in this district respectively. In this indicator, higher value in Tehri-Garhwal, Dehradun, Haridwar where it is lesser in Uttarkashi, Chamoli, Rudraprayag, Pauri Garhwal as compared to overall Garhwal.

2. Unmet need for family planning (For Garhwal Region).

There is a significant difference between in only Haridwar with indicator (Total unmet need) with its pvalue is 0.02 in this district. In this indicator, higher value in Chamoli, Tehri-Garhwal, Pauri Garhwal, Haridwar where it is Uttarkashi, Rudraprayag, Dehradun as compared to overall Garhwal. In this indicator (Unmet need for spacing) higher value in Chamoli, Tehri-Garhwal where it is lesser in Uttarkashi, Rudraprayag, Pauri Garhwal, Dehradun, Haridwar as compared to overall Garhwal.

3. Quality of family planning services (For Garhwal Region).

There is a significant difference between in Haridwar with indicator (Health worker ever talked to female nonusers about family planning) with its p-value is 0.00 in this district. In this indicator, higher value in Uttarkashi, Chamoli, Rudraprayag, Tehri-Garhwal where it is lesser in Dehradun, Haridwar, Pauri Garhwal as compared to overall Garhwal. There is a significant difference between in Rudraprayag, Tehri-Garhwal, Dehradun, and Haridwar with indicator (Current users ever told about side effect of current methods) with p- values are 0.00, 0.02, 0.00, 0.04 in this district. In this indicator, higher value in Tehri-Garhwal, Pauri Garhwal, and Dehradun where it is lesser in Uttarkashi, Rudraprayag, and Haridwar as compared to overall Garhwal.

DISCUSSION

Unmet need for family planning is 21.3% as per report of DLHS-III conducted in 2007-2008 in Uttarakhand region is very high as compared to NFHS-4 is 12.90% because of day by day increasing healthcare facilities and awareness regarding the family planning methods.¹ In NFHS-4 Kumaon division for unmet need for family planning is 15.85 is low as compared to the census data. In NFHS-4 Garhwal division for unmet need for family planning is 13.96 is low as compared to the census data. (Women who were married before 18 years of age) in Uttarakhand is 5.7 is very low as compared to NFHS-4 in the same indicator and its value is 26.80.9 In the indicator, (women married before 18 years of age) in Uttarakhand is 5.7% as per report of DLHS-3 conducted in 2007-2008. In Uttarakhand region is very low as compared to Kumaon division is 18.28%. In the indicator, (women married before 18 years of age) in Uttarakhand is 5.7% as per report of DLHS-3 conducted in 2007-2008. In Uttarakhand region is very low as compared to Udham Singh Nagar is 18.7%. In the indicator, (women married before 18 years of age) in Uttarakhand is 5.7% as per report of DLHS-3 conducted in 2007-2008. In Uttarakhand region is very low as compared to Nainital is 15.1%. In the indicator, (women married before the age of 18 years) in Uttarakhand is 5.7% as per report of DLHS-3 conducted in 2007-2008. In Uttarakhand region is very low as compared to Pithoragarh is 26.6%. In the indicator, (women married before 18 years of age) in Uttarakhand is 5.7% as per report of DLHS-3 conducted in 2007-2008. In Uttarakhand region is very low as compared to Champawat is 19.5%. In the indicator, (women married before the age of 18 years) in Uttarakhand is 5.7% as per report of DLHS-3 conducted in 2007-2008. In Uttarakhand region is very low as compared to Bageshwar is 20.1%. In the indicator, (women married before the age of 18 years) in Uttarakhand is 5.7% as per report of DLHS-3 conducted in 2007-2008. In Uttarakhand region is very low as compared to Bageshwar is 20.1%. In the indicator, (women married before the age of 18 years) in Uttarakhand is 5.7% as per report of DLHS-3 conducted in 2007-2008. In Uttarakhand region is low as compared to Almora is 9.7%.¹⁰

CONCLUSION

In this paper, this study shows that Kumaon has better marriage and fertility, Unmet need for family planning than Garhwal which is shows that Kumaon is more developed than Garhwal for marriage and fertility and unmet need for family planning. This study shows that Uttarakhand has better than Kumaon for the marriage and fertility but Kumaon has better than Uttarakhand for the unmet need for family planning.

This study shows that Uttarakhand has better than Garhwal for the marriage and fertility and as well as Uttarakhand has also better than the Garhwal for the unmet need for family planning. Among all the district of Kumaon, Pithoragarh and Bageshwar both are more developed in the term of marriage and fertility. This shows that both are more representative in comparison of the others Kumaon division. Udham Singh Nagar is more developed in the term of unmet need for family planning which shows that Udham Singh Nagar is more representative in comparison of the others Kumaon division.

Among all the district of Garhwal, Haridwar is more developed in the term of marriage and fertility which shows that Haridwar is more representative in comparison of the others Garhwal division. Haridwar is more developed in the term of unmet need for family planning. This shows that Haridwar is more representative in comparison of the others Garhwal division. Current use of family planning method is improved by the awareness of health facilities, to promote this awareness by our government program policies.

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