Effect of The Challenge Initiative's Family Planning Program on intention to use Contraceptives among non-user women in selected cities of India

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Background: Intention to use contraceptives appears to be an important predictor of actual contraceptive practice than the unmet need. We examined coverage of The Challenge Initiative for Healthy Cities (TCIHC) program on family planning (FP) and its effect on the intention to use contraceptives among non-user women in selected cities of India.

Data and methods: This study analysed output tracking survey (OTS) data of 8,319 currently married women aged 15-49 years. Bivariate analysis and multivariate logistic regression analysis were applied to examine the coverage of FP program and intention to use contraceptives.

Preliminary findings: Among the current non-users, one-tenth of them intended to use a modern contraceptive method in the next 12 months. Results of the multivariable logistics regression analysis showed that exposure to the FP program through a health worker (AOR:1.65; CI:1.24-2.21), exposure through a visit to a health service delivery point (AOR:2.17; CI:1.68-2.81) as well as both (AOR=1.88; CI:1.31–2.71] had a significant positive effect on the intention to use modern contraceptives.

Conclusion:
The TCIHC program has a positive effect on the intention to use contraceptives among non-user women, making this program important particularly for the ongoing family planning program in India to prepare the health systems making the family planning services more available and accessible to women.

Keywords: Family planning program, The Change Initiative, Intention to use, cities, propensity score matching, India.

Background

By 2050, additional 2.5 billion people will be added to the global urban population, and around 90% of this growth will take place in Asia [1]. The majority of this growth in urban population is expected due to natural increase rather than rural-urban migration [2-4], which will take place in smaller cities and towns that have high-poverty rates and are institutionally least equipped to provide basic services related to health and well-being of its population [5-7]. For instance, in India, over 80 percent of poor urban households live in non-slum neighbourhoods [5-6]. The expected changes in urban demography of developing countries, including India required prioritizing family planning intervention in urban areas. It is argued that focusing on urban family planning is important for achieving many of the Sustainable Development Goals (SDGs) because of its cross-cutting association with gender, employment, poverty, and health issues [8-9].

Intention to use contraceptives is one of the two ways, another being unmet need, of measuring demand for family planning services in a community [10]. Unlike unmet need, intention to use draws on a woman's directly expressed desire to use contraception or her interest to use in the future and better predict need and actual use [11-12]. Several research increasingly documented that women who intend to use contraceptives have a high propensity to use contraceptives subsequently [13-16]. Therefore, it is important to understand the demand for contraceptives in urban areas, particularly within cities. This will help the timely provision of contraceptives along with the choice for women who are in demand of contraceptives.

Previous studies have identified several factors influencing the intention to use contraceptives use across developing countries. Those factors range from age at cohabitation, age of women, number of living children, the experience of pregnancy termination [17-18], level of education, husband's schooling, household economic status [19-21], exposure to family planning messages, to distance to the nearest health facility [13, 22]. However, less is known about the effect of intensive family planning programming on the intention to use a contraceptive, particularly in India. Previous studies in India, though few, provide a critical assessment of capacity-building efforts undertaken by government functionaries on family planning outcomes [23-24]. However, these studies did not explore the effect of the programs on the intention to use modern contraceptives. Though one study examined the effect of health workers' outreach on intention to use contraceptives [25], this study focused at the national level and did not show the situation within urban areas. Moreover, information collected on health worker's outreach is not reflected intensive intervention in family planning, rather than part of the usual family planning program ongoing in the country.

In this paper, we, examined the effect of intensive family planning program on the intention to use modern contraceptives among non-user women in selected cities in three states of India. Specifically, this study, addresses three research questions – (i) what is the level of family planning program outreach, and who are getting benefitted most from the programs? (ii) what is the extent of intention to use the modern method among current non-user? and (iii) do family planning programs affect intention to use modern contraceptives? The findings of the paper

will be useful in two ways. First, to fill a critical gap in family planning literature in India by assessing the impact of a global urban health program that focuses on building the capacity of local health systems for delivering family planning services on intention to use contraceptives. Second, the evidence will support scaling the intensive family planning program across India.

The TCI Program Intervention

Population Services International (PSI) in partnership with National Health Mission (NHM), India and support from the Bill & Melinda Gates Institute for Population and Reproductive Health, and USAID has implemented a project entitled "The Challenge Initiative for Healthy Cities (TCIHC)" to strengthen existing service delivery platforms at the city-level health systems to improve demand for and access to family planning services among urban poor in India. The TCIHC program was implemented between 2016 and 2020 in 31 cities of India across three states, namely – Uttar Pradesh, Madhya Pradesh, and Odisha.

Under this program, PSI helped the NHM to create coaching platforms across all levels of health administration such as, at the state, division, district, block, and community levels. The coaching focused on improving the ability of healthcare workers, primarily the ASHAs (Accredited Social Health Activists) to address the issues/challenges faced by the family planning programs in the respective cities. As a part of the TCIHC coaching intervention, the ASHAs were provided with printed handouts of training material along with other job aids to help them improve their ability to counsel eligible couples. ASHAs were also coached on various key issues such as maintaining the urban health index register (UHIR), the basket of choices for contraceptives, and the male engagement strategy. The ASHAs were also trained to have more confidence while counseling couples to adopt suitable contraceptive methods, especially among the first-time parents.

The facility-based TCIHC program focused on ensuring the optimal family planning service provision at health facilities such as urban primary health centres (UPHC), outreach camps (ORC), and at urban health and nutrition days (UHND). Under this program, site orientations were conducted at the facilities/health service delivery points to ensure that these sites can effectively deliver activities aimed at improving knowledge and information about family planning, ensure widespread availability and access to family planning services, and uptake in contraceptive use. For example, the provision of Adolescent and Youth Sexual and Reproductive Health (AYSRH) services at the UPHC level ensured that all staff is trained to facilitate reproductive health counseling for adolescents on 2-3 select days a week. Additionally, the TCIHC program also helped coach UPHC staff on new contraceptive options introduced in the Indian family planning program, namely Antara (injectables) and Chayya (pills). This included training on these newer contraceptives and their potential side effects, along with effective management of supply and other logistics. Hence, the entire coaching intervention of the TCIHC is broadly categorized as follows – (i) improving the capacities of ASHAs and other frontline health workers, (ii) ensuring optimal functioning of UPHC, UHND, and ORC which are, usually the first point of contact for a community member within the urban

public health system, and (iii) enabling data-based evidence generation and planning of activities.

Methods

Data

This study analyzed data from output tracking survey (OTS) conducted in 14 selected cities (out of 31 program cities) across three states of India, in September 2019. The survey aimed to collect information on knowledge about family planning methods, contraceptive use, method mix, determinants of contraceptive use, demand for family planning, and exposure to family planning information through various community and health facility-based platforms. The OTS adopted a multi-stage stratified random sampling design to select currently married women aged 15-49 years. Individual level data were collected from a representative sample of 8,319 (4,194 from slum areas and 4,125 from non-slum areas) currently married women ages 15-49 years. Lot Quality Assurance Sampling (LQAS) was used for collecting the data. Initially, 15 lots, each from slum and non-slum areas were selected across all 14 cities, covering 30 lots in each city. In each lot, 21 households were selected and in each of the selected household one eligible woman (currently married and aged 15-49 years) were interviewed.

This research study was approved by the Institutional Review Board at Johns Hopkins Bloomberg School of Public Health, Population Services International, and locally by SIGMA-IRB and has been consistent with international research standards and ethical conduct of research. Participation of all the respondents was voluntary and confidential.

Measures

Outcome variable

Intention to use contraceptives in the next 12 months was the key outcome variable in the study. This variable was defined as currently married women aged 15-49 years who were not using any modern contraceptive method at the time of the survey but intended to use any modern methods (such as female/male sterilization, intrauterine contraceptive device, injectables, oral pills, or condom) in the next 12 months.

Key predictors

Three family planning program indicators were key predictors in the study. In the OTS survey, data were separately collected on exposure to family planning information through each of the healthcare/community providers such as ASHA, Family Planning Associates (FPA), and group meetings; and each of the health service delivery points such as UPHC, ORC, and UHND. In the study, we combined the exposure to the information received from all the health workers/community worekrs and group meetings into one variable and exposure at the health service delivery points into another. The family planning program variables used in the study are defined as follows:

Exposure to family planning information through health workers– This variable was defined if a woman met ASHA or with FPA or participated in group meetings for family planning information and counseling in last the six months before the survey.

Exposure to family planning information at a service delivery point – This is defined if a woman visited a service delivery point such as UPHC or ORC or UHND for seeking family planning services or care in the last six months before the survey.

Exposure to family planning information through health workers and health service delivery points – if a woman met the health workers and or visited any of the service delivery sites for family planning information, counseling, or services in the six months before the survey.

Other confounders

Along with the family planning program variables, we also used the following background variables in the analysis while examining the difference in family planning programs exposure and intention to use contraceptives – area of residence (slum, non-slum), age of women (15–24 years, 25–34 years, 35–49 years), number of living children/ parity (0 child, 1 child, 2 and more children), women's completed years of schooling (<5 years of schooling, 5-10 years of schooling, more than 10 years of schooling), currently working (no, yes), religion of women (Hindu, non-Hindu), caste of women (Scheduled Caste [SC]/Scheduled Tribes [ST], Other Backward Caste [OBC], Others), household wealth status (poor, non-poor). Poor and non-poor are defined based on the household wealth quintiles, which were computed following the standard procedure used in the Demographic Health Surveys [26-31]. Using the five wealth quintiles (poorest, poorer, middle, richer, richest), the poorest and poorer are clubbed as poor, and the remaining three categories are clubbed as non-poor. States were adjusted in the analysis to account for geographical variations in the program exposure and outcome variable. All these variables were considered in the current study given the evidence of their association with contraceptive use from previously published studies [32-24].

Statistical analysis

Descriptive statistical analyses were carried out to understand sample characteristics of women as well as coverage of exposure to family planning program information. Bivariate analysis was used to examine the association between exposure to family planning programs by selected demographic and socioeconomic characteristics, as well as the association between intention to use contraceptives and background characteristics. A chi-square test was applied to see the statistical strength of the association. Intention to use contraceptives – the outcome variable – was coded into 1 and 0 (1=intention to use contraceptive, and 0=otherwise). Multivariate binary logistic regression analysis was carried out to examine the effect of demographic and socioeconomic variables on intention to use as well as the effect of program exposure variables on intention to use contraceptives. The results of the multivariate analysis were presented as adjusted odds ratios (AOR) along with 95% of confidence interval (CI).

An important concern in analyzing the effect of family planning program exposure on intention to use contraceptives is that women who were exposed to FP programs may have different characteristics than women who are not exposed to the programs. To account for this selectivity issue, we used propensity score matching (PSM) analysis. PSM is a statistical technique that estimates the effect of program exposure or treatment by adjusting for covariates that predict receiving the program exposure [35-36]. For computing the average treatment effect (i.e., the effect of exposure to family planning programs), a counterfactual model is estimated. The counterfactual model is the potential outcome that we would have obtained in case the women were not exposed to the program. With the help of the counterfactual model, the average treatment effect of the treated (ATT) is defined as the difference between the intention to use contraceptives among women who were exposed to family planning programs and the expected intention to use if those women were not exposed to the programs. Similarly, the average treatment effect on the untreated (ATU) is defined as the difference between the expected outcome if women were not exposed to family planning programs was supposed to be exposed to the program and the outcome among women who were not exposed to the program. The average treatment effect (ATE) is the difference between the expected outcome for women who were exposed to the program and the women who were not exposed to the program. Details of the mathematical presentation of ATT, ATU, and ATE can be obtained in the previous study [35], whereas details about the PSM can be obtained elsewhere [36-40]. We applied survey weight in all the analyses to account for the sampling design. All analyses presented hereafter were carried out using STATA 16.0.

Ethical Considerations

This study was approved by the Institutional Review Board at Johns Hopkins Bloomberg School of Public Health, Population Services International, and locally by SIGMA-IRB which has been consistent with international research standards and ethical conduct of research. Participation of all the respondents was voluntary and was kept confidential.

Results

Sample characteristics of the study population

The mean age of the sampled women was 32 years and the mean age at marriage was 19 years (Table 1). One in every six women (15%) was in the age group 15-24 years. On average, women had two living children. Only 6% of women were currently pregnant, however about one-fifth (18%) of them reported that the pregnancy was unwanted. Half the women (52%) completed 10+ years of schooling and only 16% of women were engaged in any economic activities at the time of the survey. The majority of women belonged to the Hindu religion (75%) and over two-fifths (45%) belonged to the poor house. Over two-fifths of women (43%) reported that they have seen any FP-related message on television in the last three months before the survey.

Family planning program coverage

Exposure to the TCI lead family planning program was limited to women. Only 18% women were exposed to family planning information through health workers, 19% women were exposed to family planning information through health service delivery points visit, and only 8% of women were exposed to family planning information through both, i.e., health workers as well as health service delivery points visit (Table 2/Figure 1).

Exposure to the programs was significantly higher among women residing in slums than non-slum areas. For instance, exposure to family planning information through health workers was 33% higher among women in slum areas compared to only 3% among women in non-slum areas (Table 3). Similarly, exposure to family planning information was higher among young women (age 15-24 years) than other age groups. For instance, exposure to family planning information through both health workers and health service delivery point visits was 14% among women aged 15-24 years, 9% among women aged 25-34 years, and 4% among women 35+ years. The program reach was higher among less educated and poor women compared to more educated and non-poor women respectively. For instance, exposure to the program through health workers was 22% among women who have <5 years of schooling, 17% among women who have 5-10 years of schooling, and 15% among those who received 10+ years of schooling. Similarly, exposure to family planning information through health service delivery points visit was 22% among poor women compared to 16% among non-poor women.

Intention to use contraceptives by women's background characteristics

Among the women who were not using contraceptives, 11% intended to use a modern contraceptive in the next 12 months (Table 4). Intention to use contraceptives was higher among – women residing in slum areas (15%) than women residing in non-slum areas (8%), younger than older women (17% among women aged 15-24 years, 15% among women 25-34 years, and 3% among women 35+ years), high than low parity women (4% among women with 0 child, 11% among women with one living child, and 13% among women with 2 and more living children). These differences appeared in multivariate analysis as well, after adjusting for several demographic and socioeconomic factors. For instance, AOR for intention to use modern contraceptives was 0.71 [CI: 0.56–0.90] among women in the non-slum area compared to the women in the slum area. Intention to use modern contraceptives was similar across women's education status and among poor and non-poor women.

Effect of family planning program on intention to use contraceptive

Intention to use contraceptives was higher among women who were exposed to the TCI lead family planning program compared to those who were not exposed. For instance, the intention to use contraceptives was 19% among women who were exposed to family planning information through health workers compared to 10% among those who were not (Table 5). Similarly, intention to use was 26% among women who were exposed to family planning

information through health workers as well as health service delivery points visit compared to 10% among those who were not exposed to both platforms simultaneously.

Result of the multivariate analysis also showed that, after adjusting for the demographic and socioeconomic characteristics of women, the intention to use contraceptives was significantly higher among women who were exposed to the program than those who were not. For instance, the odds of intention to use was 1.6 times higher (AOR:1.65; 95% CI:1.24–2.21) among women who were exposed to family planning information through community health workers. Similarly, odds ratio was 2.2 times higher (AOR:2.17; 95% CI:1.68–2.81) among women who were exposed to family planning information through health service delivery points visit, and odds was almost 2 times higher (AOR:1.88; 95% CI:1.31–2.71) among women who were exposed to family planning information through both the platforms, such as through health workers and health service delivery points visit.

The propensity scores matching analysis showed that among the unmatched sample, the difference in intention to use contraceptives between those who were exposed to family planning information through health workers and those who were not exposed was 0.093 (9%) (Table 6). This indicated that women who are exposed to family planning information were more likely to intend for contraceptive use compared to those women who were not exposed. The estimated ATT values among treated and control groups were 0.196 and 0.161 respectively indicating that the intention to use contraceptives increased by 4% points because of exposure to family planning information through health workers. For the exposure to family planning information through health service delivery points visit, the ATT value was 0.268 and 0.168 among treated and control respectively, indicating that intention to use was 10% points higher because of exposure to family planning information through health service delivery points visit. A similar result was found for the exposure to family planning programs through health workers as well as health service delivery points visits.

Discussion

Using data from a global urban health program, which focuses on building the capacity of local health systems for delivering family planning services on intention to use contraceptives in the selected cities of India, this study examined coverage of the program as well as the intention to use contraceptive across different segment of urban women. Furthermore, this study examined the effect of the intensive family planning program on the intention to use among married women who were not using a contraceptive.

The findings of the study showed that exposure to the family planning program was limited among women. Despite the low coverage, exposure to the program reach was better among young, less educated, women belonging to poor households, and women residing in slum areas. While this finding does match with previous evidence in India, which documented that family planning program outreach is better among educated and rich women than their counterparts [25], such contradictory findings can be explained as the TCI lead program focusing more on young, marginalized, and poor women of urban areas, therefore resulting in higher exposure to the program among these women. Intention to use modern contraceptives among non-user

women was significantly high in slum areas, among young women, and among women with high parity. This finding is in line with previous studies which documented that intention to use contraceptives is higher among younger than older women [13, 41-43]. This can be explained by the fact that many of the younger women of zero or one parity, particularly in the states where this study was conducted, initiate contraceptive use after having one child (in the case of the reversible method) or completing their family size (in case of non-reversible method). Hence, the high intention to use among these younger or high parity women may be because they are now in a situation where they can adopt a family planning method. On the other hand, low intention among older women might be due to the low risk of conception among them.

Our findings clearly showed that exposure to intensive family planning programs had a positive, strong, and significant effect on the intention to use contraceptives among non-user women. Though the type and quality of the counseling, conversation, and inter-personal exchange when women connect with the health workers or visit the services delivery points were not captured in the survey, one can expect that exposure to family planning information through health workers or by the visit to health service delivery points may increase correct and in-depth knowledge about different contraceptive methods, their availability, and accessibility, effectiveness, related side-effects, as well as reduce the myths and misconception of specific methods. All of these can give confidence to women for adopting contraceptives when they need to use them. Lack of comprehensive knowledge about the method, perceived side-effects, as well as myths and misconceptions, are important barriers to adopting contraceptive methods in developing countries [44-45].

Findings further indicated that exposure to health services delivery points visit had a greater effect than the meeting with health workers. This finding was consistent across the analysis, either in the multivariate or on PSM results. The relative advantages of the program through service delivery points could be explained in two ways. First, facility-based health services providers such as doctors or nurses are better educated and have comprehensive knowledge about family planning and contraceptive methods than community-based health workers such as ASHA. So, they can counsel women/couples more confidently and effectively, which can convince women for adopting a method of their choice. Second, during the visit to service delivery points, counseling can be done by providing a basket of choice available to the health facility/service delivery points, and women have the chance to connect with other women/couples who came for obtaining family planning services. This can make the women more confident and determined about their intention to use contraceptives in near future.

This study has some limitations, notably, we did not account for the components and quality of the family planning programs in our analyses as such information was not captured in the survey. Second, cities might be at different level of population level socioeconomic characteristics which may influence differential effect on the receipt of the program and demand of the contraceptives, which was not captured in the study, although, we adjusted cities in the final analysis. Finally, there may be important unmeasured factors that explain the observed associations, that were not captured in the dataset used in this study.

Conclusions

The findings that emerged from the study have several programmatic implications relevant to the TCI program. First, this study highlighted that the TCI program has a positive effect on the intention to use contraceptives among non-user women. This is important for the ongoing family planning program in India to prepare the health systems making the family planning services more available and accessible in near future, as women who have the intention to use are more likely to adopt contraceptives. Second, exposure to the program was high among young and marginalized women. This indicates that such program should be continued and scaled up within cities for generating the demand for contraceptives among urban women in general, as well as young and marginalized women in particular. Third, the program through service delivery points showed greater effect on the intention to use. Therefore the service delivery points should continue the family planning counselling side by side keeping themselves prepared for delivering quality family planning services with choice.

The program exposure has a relatively greater effect among younger than older women. Furthermore, exposure to the FP program can yield a similar effect among the poor compared to the non-poor. Continuing the program in urban areas will not only help in increasing women's intention to use modern methods but will also promote contraceptive use uptake among younger and poor women which are key to achieving the Sustainable Development Goals 3.7, which calls for universal access to reproductive health services.

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Table 1: Background characteristics of study sample, 2019

Characteristics	Percentage/mean
Mean age of women	32.3
Mean age at marriage	19.4
% in age group 15-24 years	15.2
Mean number of children	2.2
% currently pregnant	5.9
% whose current pregnancy is unwanted	18.0
Mean years of schooling	13.6
% completed 10+ years of schooling	51.5
Mean years of schooling of husband	13.0
% currently working	16.4
% belonging to Hindu religion	75.0
% who are poor	45.0
% seen family planning messages message on television	42.5
Total number (unweighted)	**8,319**

Table 2: Percentage of women exposed to family planning program in selected cities, 2019

	Percentage
Exposure to FP information through ASHA in last 6 months	15.7
Exposure to FP information through FPA in last 6 months	8.7
Exposure to FP information through group meeting in last 6 months	2.0
Exposure to FP information at UHND in last 6 months	13.9
Exposure to FP information at ORC in last 6 months	2.9
Exposure to FP information at UPHC in last 6 months	8.2
Exposure to FP information through any health workers[1] in last 6 months	17.7
Exposure to FP information at health service delivery sites[2] in last 6 months	18.9
Exposure to FP information through health workers and visit to health service delivery sites in last 6 months	8.1

[1]Health workers mean exposure through ASHA or FPA or a group meetings
[2]Health service delivery sites mean exposure through UHND or ORC or UPHC

Table 3: Percentage of women who had exposure to family planning by selected background characteristics, 2019

	Exposure to FP information through any health worker	Exposure to FP information at health services delivery sites	Exposure to FP information through health workers as well as health service delivery sites
Area of residence within city	*p<0.001*	*p<0.001*	*p<0.001*
Slum	32.5	27.1	14.7
Non-slum	2.8	10.5	1.3
Age of women	*p<0.001*	*p<0.001*	*p<0.001*
15-24 years	24.7	33.7	14.2
25-34 years	21.1	21.7	9.2
35+ years	11.1	9.7	4.3
Duration of marriage	*p<0.001*	*p<0.001*	*p<0.001*
<2 years	13.5	23.1	6.2
2-5 years	25.9	34.3	14.7
5-10 years	24.4	25.4	12.2
10+ years	13.0	11.2	4.6
Number of living children	*p<0.001*	*p<0.001*	*p<0.001*
0 child	12.7	17.2	5.7
1 child	22.7	26.9	11.5
2 and more	16.9	16.7	*7.3*
Women schooling	*p<0.001*	*p<0.05*	*p<0.001*
<5 years	21.6	18.3	9.5
5-10 years	17.4	20.73	8.6
10+ years	14.6	17.3	6.3
Working status	*Nothing significant*	*p<0.10*	*Not significant*
Not working	18.1	18.5	7.9
Currently working	16.1	20.5	8.5
Household wealth status	*p<0.001*	*p<0.001*	*p<0.001*
Poor	23.5	22.2	11.1
Non-poor	13.0	16.1	5.6

P values are obtained using the chi-square test

Table 4: Intention to use contraceptives among non-user women and its association with women's selected background characteristics, 2019

	Percentage	Adjusted Odds ratio [95% of CI]
Intention to use modern method in next 12 months	*11.2*	
Area of residence within city		
Slum	14.9	Ref.
Non-slum	7.6	0.71 [0.56, 0.90]**
Age of women		
15-24 years	17.4	Ref.
25-34 years	15.3	0.71 [0.50, 0.99]**
35+ years	3.4	0.14 [0.09, 0.24]***
Duration of marriage		
<2 years	13.0	Ref.
2-5 years	17.2	0.41 [0.24, 0.70]**
5-10 years	16.8	0.29 [0.16, 0.53]***
10+ years	6.2	0.25 [0.13, 0.47]***
Number of living children		
0 child	4.2	Ref.
1 child	10.8	5.07 [2.80, 9.16]***
2 and more	12.8	17.44 [9.22, 32.99]***
Women's schooling		
<5 years	9.5	Ref.
5-10 years	12.6	0.95 [0.71, 1.27]
10+ years	11.4	1.16 [0.84, 1.60]
Working status		
Not working	11.3	Ref.
Currently working	10.8	1.15 [0.84, 1.56]
Household wealth status		
Poor	12.1	Ref.
Non-poor	10.5	0.89 [0.69, 1.15]

Ref. reference category
Figures in parenthesis are 95% confidence intervals
Odds ratio are adjusted for exposure to FP message on television, religion, caste, and study cities.
***$p<0.001$; **$p<0.05$; *$p<0.10$

Table 5: Effect of family planning program exposure on the intention to use contraceptives, 2019

	Percentage	Adjusted Odds Ratio [95% of CI]
Exposure to FP information through any health workers in last 6 months		
No	9.6	Ref.
Yes	19.3	1.65 [1.24, 2.21]***
Exposure to FP information at health service delivery sites in last 6 months		
No	8.4	Ref.
Yes	25.0	2.17 [1.68, 2.81]***
Exposure to FP information through health workers as well as health service delivery sites last 6 months		
No	10.1	Ref.
Yes	26.0	1.88 [1.31, 2.71]***

Ref. reference category
Figures in parenthesis are 95% confidence intervals
Analyses are adjusted for age of women, parity, education, current working status, religion, caste, exposure to FP message on television and study cities.
***p<0.001; **p<0.05; *p<0.10

Table 6: Results of propensity matching estimates showing the effect of family planning program exposure in last six months on the intention to use contraceptives, 2019

Intention to use modern contraceptive	Exposed to program	Not exposed to program	Differences	Standard Error	p>z	95% Confidence Interval
Exposure to FP information through health workers						
Unmatched	0.196	0.103	0.093	0.015		
ATT	0.196	0.161	0.035	0.056	0.190	[-0.014, 0.071]
ATU	0.103	0.203	0.100			
ATE			0.090			
Exposure to FP information at health service delivery sites						
Unmatched	0.268	0.088	0.180	0.015		
ATT	0.268	0.168	0.100	0.046	0.000	[0.055, 0.143]
ATU	0.088	0.244	0.156			
ATE			0.147			
Exposure to FP information through health workers as well as health service delivery sites						
Unmatched	0.257	0.108	0.149	0.022		
ATT	0.257	0.171	0.086	0.060	0.008	[0.022, 0.147]
ATU	0.108	0.123	0.015			
ATE			0.020			

ATT: Average treatment effect among treated (exposed to the program)
ATU: Average treatment effect among untreated (not exposed to the program)
ATE: Average treatment effect