Research/Program Brief #7

Post-partum and post-abortion family planning use among women in Uttar Pradesh

1 Background

To achieve the Sustainable Development Goal for Universal Health Coverage in family planning (FP) by 2030, governments in India envisioned the potential of post-partum family planning (PPFP). While the percentage of institutional deliveries in India has more than doubled in the last 15 years (from 39% in 2005–06[1] to 89% in 2019–21[2]), 65% of Indian women had an unmet need for FP in the post-partum period[3]. To increase the use of FP among post-partum women, in 2014, the Government of India (GoI) sought to capitalize on increased institutional deliveries and introduced post-partum and post-abortion intrauterine contraceptive devices (IUCD) and female sterilization services at facilities with high caseloads.

As part of comprehensive post-abortion care, governments in India also emphasized post-abortion family planning (PAFP) counseling and services that had previously been neglected in India for a long time[4]. Integrating contraceptive services into other sexual and reproductive health services during the post-partum and post-abortion periods can reduce unintended pregnancies that often lead to unsafe abortion practices, unintended births, maternal and child morbidity, and mortality.

2 Programmatic efforts toward PPFP and PAFP in India

As the GoI's FP programming is built on the integrated Reproductive, Maternal, Newborn, Child Health and Adolescents (RMNCH+A) platform, the post-partum period provides opportunities to start a new contraceptive regime. During the post-partum and post-abortion periods, women meet healthcare providers and frontline health workers more frequently, for example during their stay in hospital, during postnatal check-ups, and for immunization of the child. During these periods providers have a unique opportunity to discuss women's reproductive health needs.

To address the need for improved PPFP and PAFP in the country, the GoI revitalized PPFP services by introducing post-partum IUCDs (PPIUCDs) throughout the country, along with post-partum female sterilization (PPFS) and other contraceptive services. The program aimed to improve pregnancy spacing, while at the same time keeping the provision of permanent methods for those who wanted to limit their childbearing by using a long-term method. In 2016, the GoI rolled out the Mission Parivar Vikas (MPV) in 146 high-fertility districts. The MPV uses a five-pronged strategy, including the introduction of new contraceptives like injectables and the wider rollout of Centchroman.

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2. International Institute for Population Sciences (IIPS) and ICF. 2021.National Family Health Survey (NFHS-5), India, 2019-21: Uttar Pradesh. Mumbai: IIPS.
3. Borda M. (2009). Family Planning Needs during the Extended Postpartum Period in India Access to Clinical and Community Maternal, Neonatal and Women's Health Services, Family planning initiative (ACCESS-FP). Baltimore, MA.
4. Banerjee SK & Manning V. 2010. Post-abortion contraception: A neglected public health domain. Paper presented at the Asian Population Association Conference, New Delhi, India.

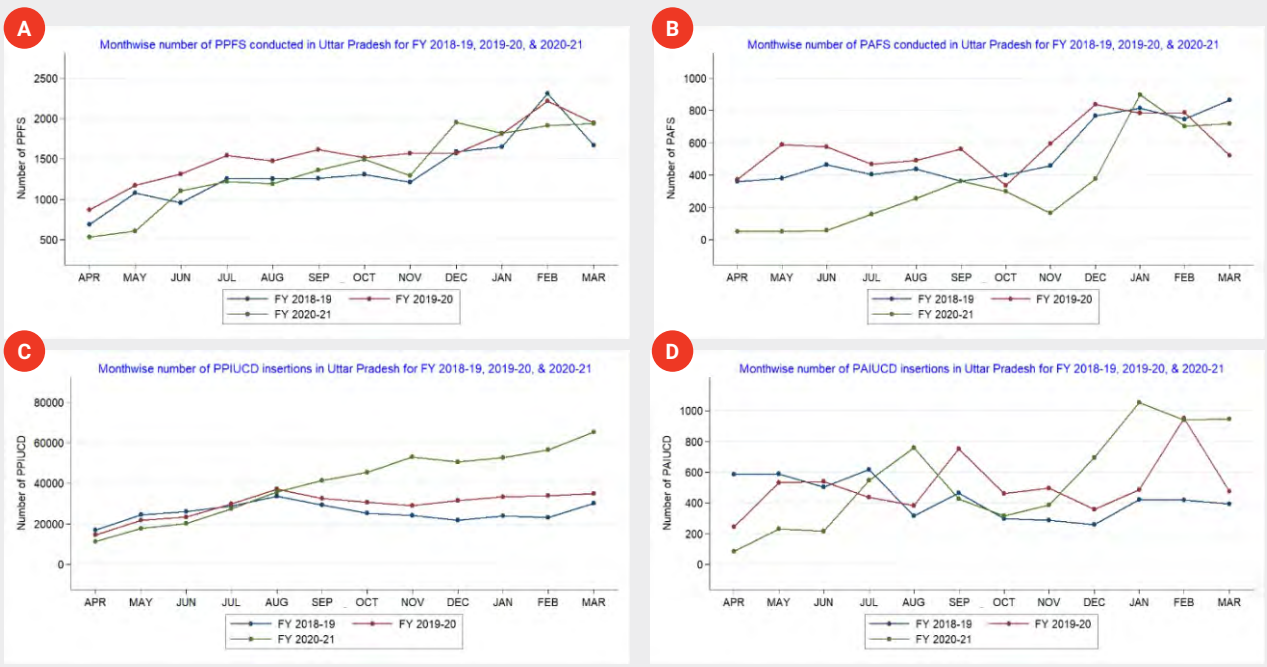
3 Programmatic efforts toward PPFP and PAFP in Uttar Pradesh

Uttar Pradesh is one of the high-fertility states where MPV was rolled out, with the program reaching 57 of the state's 75 districts. Historically the state showed low use of modern contraceptives (18% in 1992–93, 29% in 2005–06, and 32% in 2015–16), with a balanced method mix of permanent methods (40% contraceptive prevalence in 2005–06, and 38% in 2015–16), modern reversible methods (27% contraceptive prevalence in 2005–06, and 31% in 2015–16), and traditional methods (32% contraceptive prevalence in 2005–06, and 30% in 2015–16), as well as a high unmet need for contraceptives (20% in 1992–93, 21% in 2005–06, and 18% in 2015–16). In 2013, to extend various strands of techno-managerial support to the Government of Uttar Pradesh (GoUP), the University of Manitoba and the India Health Action Trust established the Technical Support Unit (TSU). The TSU aids the implementation of the government's FP program in the state by providing support to training of provider doctors on PPIUCD and PPFS procedures, engaging newly trained doctors in FP services under the supervision of more experienced doctors, and supporting the GoUP to train frontline health workers and others cadres of the health workforce on FP counseling during pregnancy and the post-partum/post-abortion period. Other actors such as the Ipas Development Foundation also work with the government to train providers on comprehensive abortion care throughout the state, including on post-abortion contraception services.

4 Service uptake of PPFP and PAFP in Uttar Pradesh

Performance data from the Uttar Pradesh health management information system (HMIS) show a slow but consistent increase in the uptake of post-partum and post-abortion female sterilization and IUCDs over the last three financial years (2018–19 to 2020–21) (Figure 1, panels a–d). This finding is particularly important because in FY2020–21 the service uptake of most maternal and child health services was seriously hampered due to the COVID-19 pandemic. After the initial lockdown period in April 2020, the Ministry of Health and Family Welfare (MoHFW) of the GoI issued a guideline to include FP services among the essential non-COVID-related services and recommended that state governments' health departments continue providing PPFS and PPIUCD services.

Figure 1: The uptake of post-partum and post-abortion female sterilization and IUCD services in Uttar Pradesh during FY2018–19, 2019–20, and 2020–21



5 PPFP and PAFP use in Uttar Pradesh: Estimates from population-based data

Analysis of the data from a state-wide Integrated Family Planning Survey (IFPS) among currently married women of reproductive age (15–49 years) shows that about 34% of women have adopted any contraceptive method within the six-month post-partum period (Table 1). The survey was conducted between December 2020 and February 2021 and collected reproductive calendar data over the three years before the survey date (further details about the study design and analysis are given in Appendix 1). The estimation showed a 2% increase in the use of any FP method, from 31% in 2015–16 to 33% in 2020–21, but the use of modern contraceptives during the same time decreased by 3%. The method with the highest prevalence during the post-partum period was condoms (10%), followed by female sterilization (2%), and IUCDs (2%). Additionally, about 18% of women adopted a traditional method such as the rhythm method (16%) or withdrawal (2%) during their post-partum period.

Among the different methods used during the post-partum period of six months, a 5% increase in the use of the rhythm method was found from 2015–16 to 2020–21 and a 1% increase in the adoption of PPIUCDs. However, in the same period, the use of condoms during the post-partum period declined by about 2% and the adoption of female sterilization decreased by 1%.

The reproductive history of participants in the IFPS 2020–21 showed that about 29% of women adopted any modern method within a month post-abortion. Most women adopted condoms (18%) followed by daily pills (4%) and female sterilization (3%) (see Table 2). About a quarter of these women adopted a traditional method such as the rhythm method (20%) or withdrawal (5%). Within the 12-month post-abortion period about 40% of women adopted any modern method and about 34% used any traditional method.

Between 2015–16 and 2020–21, the acceptance of any modern method within a month of abortion also increased by 9%, while acceptance within the six-month post-abortion period increased by 3%. Method-wise, the acceptance of post-abortion IUCDs increased by 2%. Among other methods, the acceptance of condoms increased by 4% and of female sterilization by 2%.

Table 1: Use of FP methods within six months of delivery, Uttar Pradesh, 2015–16 to 2020–21

Methods	NFHS 2015-16	IFPS 2020-21
Female sterilization	2.9	2.3
IUCD/PPIUCD	1.0	1.6
Injectable	0.3	0.4
Pill	1.5	0.5
Condom	12.3	9.7
Other modern methods	0.0	0.5
Rhythm method	11.2	16.3
Withdrawal	2.1	2.4
Using any modern methods	18.0	14.9
Using any methods	31.2	33.2
Not using any method	68.8	66.8

Table 2: Use of FP methods within one, six, and 12 months of abortion, Uttar Pradesh, 2015–16 to 2020–21

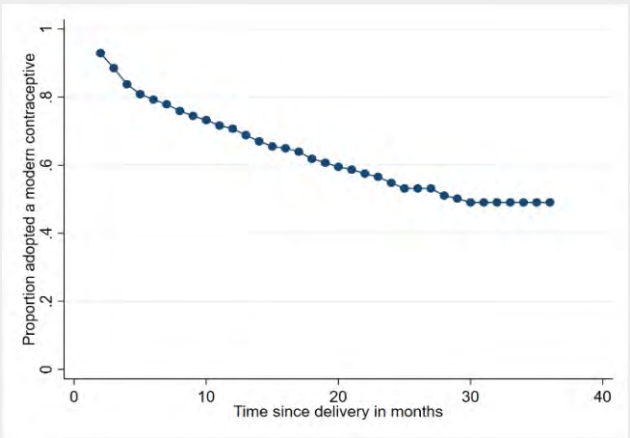
	Within one month of abortion		Within six months of abortion		Within 12 month of abortion	
	NFHS 2015-16	IFPS 2020-21	NFHS 2015-16	IFPS 2020-21	NFHS 2015-16	IFPS 2020-21
Female sterilization	2.6	3.0	4.5	5.9	6.5	5.9
IUCD/PPIUCD	0.8	2.1	2.0	3.0	2.2	5.0
Injectable	0.6	1.3	1.5	1.8	1.1	0.8
Daily pill	3.2	3.8	5.6	2.4	5.4	2.5
Weekly pill		1.3		1.2		1.7
Condom	13.5	17.9	19.8	22.5	20.5	22.7
Other modern methods		0.1		0.1	0.8	0.1
Rhythm	8.5	19.6	17.0	24.3	17.2	25.2
Withdrawal	3.9	5.5	5.5	7.7	6.1	8.4
Any modern methods	20.8	29.4	33.5	36.8	35.8	39.4
Any methods	33.2	54.5	56.0	68.8	59.1	73.0
Not using any method	66.8	45.5	44.0	31.2	40.9	27.0

The use of a traditional method within a month post-abortion increased by 13% during the same period.

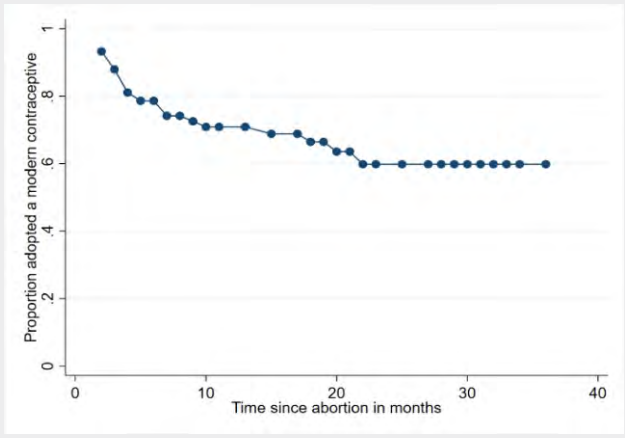
Women who had three or more children (AOR 1.70, 95% CI 1.38–2.10) or who received counseling on FP from a healthcare provider during their last pregnancy (AOR 1.38, 95% CI 1.10–1.75) had higher odds of using a contraceptive within six months of delivery (see Appendix 2 for details). However, only 18% of women who delivered a child in the last three years received FP counseling during their last pregnancy. Also, adopters of PPFP were more likely to be from well-off families (i.e. from the fourth or fifth wealth quintiles). The analysis further revealed that PPFP acceptance had significantly higher adjusted odds in the southern zone of the state (AOR 1.71, 95% CI 1.27–2.31) and lower adjusted odds in the eastern zone (AOR 0.66, 95% CI 0.49–0.89).

Of those women who started using a modern reversible method during their post-partum period, about 80% continued using a modern reversible method after six months of method use and 70% were continuing use after 12 months (Figure 2). The continuation rate was about 10% higher among women aged 25 years or more (73%) compared to women of 15–24 years (63%). The receipt of counseling for FP during pregnancy, delivery, or the post-partum period did not have any significant effect on method continuation.

Figure 2: Survival curves showing the continuation of use of reversible modern methods during the post-partum and post-abortion periods, Uttar Pradesh, 2020–21



(a) Survival curve of use of any reversible modern methods post-partum



(b) Survival curve of use of any reversible modern methods post-abortion

6 Programmatic recommendations

Program managers in India recognized the scope of PPFP and PAFP and revitalized current FP programs through their inclusion. The evidence from both service data and population-based estimates suggests that FP services during the post-partum and post-abortion periods are being utilized by the women of Uttar Pradesh during the last three years, including during the COVID-19 pandemic. The learnings from the data highlight the following potential areas of improvement:

1. There is a need to increase the coverage of FP counseling by all levels of health workers among young and low parity women, especially during pregnancy, so that women can decide and prepare for their PPFP use well in advance. Also include family planning as a key decision to be made in the birth preparedness plan.
2. PPFP counseling should be scaled up and implemented more effectively as, although the data suggest a significant effect of counseling on the adoption of FP methods during the post-partum period, currently less than 20% of women receive such counseling.
3. PPFP counselling should be integrated during all interactions with post partum women within the first year such as during HBNC visits, immunization visits to CiVHNDs and at Annaprasan at six months at aganwadi centres. Ideally counselling should begin during the ANC period.
4. Districts in the Southern zone of the state showed a high prevalence of PPFP, while the Eastern zone showed lower acceptance of PPFP. Increased cross-learning in program implementation across the zones would be useful.
5. Although earlier surveys in the state revealed a high level of awareness about FP and contraceptives, correct knowledge about their use, advantages and disadvantages, and possible side effects was low. Therefore, the program needs to capacitate FLWs to educate couples on new contraceptive options like injectables and weekly pills in order to increase uptake of these methods during the post-partum and post-abortion periods.

6. The high use and continuation of traditional methods during the post-partum and post-abortion periods demonstrate the popularity of these methods among couples in Uttar Pradesh. Counselling should include information about the relatively higher risk of failure of traditional methods and the use of emergency contraception to minimize the risk of unintended pregnancy and efforts should be to counsel women on the effective modern methods. With non-hormonal methods such as centchroman also being in the basket of choice, couples should be made aware of such methods.
7. Although the continuation rate of reversible modern methods during the post-partum period is quite high in the state, the use of such methods is subject to discontinuation. Therefore, follow-up care is essential to improve women's retention in using modern methods.
8. To strengthen PPFP, facility based counselling needs to be prioritized so that women coming for institutional deliveries are counselled on contraceptives before they leave the facilities as data also shows that receptivity to information to avoid pregnancy during the period post-delivery is the highest.
9. Channels such as pharmacies and private sector clinics should also be explored for PPFP counselling.

APPENDIX 1

The Integrated Family Planning Survey in Uttar Pradesh

The Integrated Family Planning Survey (IFPS) 2020–21 in Uttar Pradesh was designed to generate evidence and estimates at the regional level of the state. The sample size of each of the 18 administrative divisions varied between ~400 to ~800. These were determined considering variations in several population-level indicators such as contraceptive use, unmet need for contraception, fertility patterns, and reproductive preferences. The survey was conducted in both rural and urban areas with a 75:25 ratio in the study sample. In each division, a two-stage sampling technique was adopted for the survey. In the first stage, primary sampling units (PSUs) were randomly selected from each division using a simple random sampling procedure from the list of PSUs (i.e. the list of Accredited Social Health Activist [ASHA] areas for rural areas and Census Enumeration Blocks for urban areas). Altogether, 508 PSUs were selected across the state. The number of PSUs for each division was proportionate to the number of ASHA areas of the division. In the second stage, approximately 27 households from each selected PSU were randomly selected from the list of households using a systematic random sampling procedure. All the eligible women were interviewed in the selected households in each PSU. In total, 12,200 women were interviewed in the IFPS 2020–21 study of Uttar Pradesh.

The survey collected information on a calendar of reproductive history from each participant and recorded the key reproductive events that had occurred since January 2018, thus covering the last 36 months from the day of the interview. The current analysis considered the use of modern contraceptives if the participant or her husband reported using either female or male sterilization, IUCDs, injectables, weekly pills, daily pills, or condoms. The participants were considered to use any FP method if they reported using any modern contraceptive method, the rhythm method, or withdrawal.

APPENDIX 2

Table A1: Logistic regression analysis showing the association of modern contraceptive use within six months of the post-partum period with background characteristics of mothers

Characteristics of women		AOR[1]	95% confidence interval	
			Lower limit	Upper limit
Number of living children				
	1 child	Ref.	-	-
	2 children	1.08	0.88	1.33
	3 children	**1.70**	1.38	2.10
'Wantedness' of the last child				
	Wanted then	Ref.	-	-
	Mistimed	**1.38**	1.10	1.75
	Unintended	1.22	0.92	1.61
Received counseling during last pregnancy				
	No	Ref.	-	-
	Yes	**1.75**	1.43	2.14
Education level of mother				
	No education	Ref.	-	-
	Primary 1-5	0.79	0.60	1.05
	Secondary 6 -10	1.05	0.84	1.32
	Higher 10+	1.20	0.94	1.54
Wealth index				
	Poorest	Ref.	-	-
	Poor	1.23	0.94	1.61
	Middle	1.14	0.86	1.49
	Rich	**1.52**	1.14	2.03
	Richest	**2.35**	1.71	3.23
Religion				
	Hindu	Ref.	-	-
	Non-Hindu	0.90	0.72	1.14
Social groups				
	SC/ST[2]	0.85	0.65	1.11
	OBC[2]	**0.74**	0.58	0.93
	General	Ref.	-	-
Geographic zone				
	North	Ref.	-	-
	West	1.19	0.90	1.57
	Central	0.90	0.65	1.25
	East	**0.66**	0.49	0.89
	South	**1.71**	1.27	2.31

1 AOR = adjusted odds ratio
2 Scheduled caste (SC), scheduled tribes (ST) and other backward classes (OBC) are marginalized groups in India designated by the government and recognized by the Constitution of India.

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