RESEARCH ARTICLE

Where there is a will, there is a way: Enhancing contraceptive uptake in Pakistan

Ali Mir[1], Steve Pearson[2], Irfan Masood[3]

Abstract

Objective: To assess the contribution of a series of interventions on contraceptive uptake and reduction in unmet need in areas covered by the Family Advancement for Life and Health project.

Method: The study was conducted from 2008-09 to 2011-12 in 14 districts across Pakistan. The sample comprised all urban and rural households in each district. A total of 40 blocks/villages were selected, with 13 households selected per block/village. Within each household, all married women of reproductive age 15-49 years were interviewed, and their husbands who were present at the time were also interviewed to a maximum of 5 per block. Baseline data was collected in 2008-09, while end line data was collected in 2010-11. Change in family planning uptake attributed to the project interventions were estimated. Besides, a situation analysis of service delivery points was also conducted. Data was analysed using SPSS 21.

Results: The panel comprised 5,304 women and 950 husbands. Interventions with the most robust effects were LHWs' home visits, attending women's group meetings, and watching family planning messages on television ($p<0.05$). The greatest changes were observed in Khyber Pakhtunkhwa province, in urban areas and among younger women ($p<0.05$).

Conclusion: Investing in public-sector services does pay off in terms of meeting family planning needs, and so do better, wider and clearer communication.

Keywords: Contraception, Pakistan, FALAH. (JPMA 73: 1374; 2023) **DOI: https://doi.org/10.47391/JPMA.4880**

Submission completion date: 17-12-2021 - **Acceptance date:** 08-10-2022

Introduction

While the rest of South Asia is moving towards completing a demographic transition, with fertility rates in Bangladesh, India and even Nepal moving towards replacement level, Pakistan stands out with its relatively high levels of fertility[1] and low contraceptive prevalence. Towards the end of the 1990s, the country had seemed poised to achieve a rapid fertility transition: contraceptive uptake increased by almost 2% a year between 1991 and 1998, and fertility rates fell during the same period by 1.5 births per woman, from 6.3 to 4.8.[2] There was optimism that the momentum of fertility decline would continue.[3] However, between 2006-7 and 2017-18, fertility decreased by only 0.5 births, to 3.6 births per woman.[4] The contraceptive prevalence rate (CPR), which is much above 50% in other South Asian countries, increased slowly to only 35% in 2012-13 and stagnated again at 34% in 2017-18.

The lethargic fertility transition has raised questions as to whether conditions are anomalous in Pakistan, and what obstacles are hindering progress in improving reproductive health.[5] Among other issues, the creation of a dedicated Population Welfare Department (PWD) soon after the launch of the country's formal family planning (FP) programme in the 1960s inadvertently led to reduced recognition within the public health sector that FP is part of its responsibility. This is especially problematic given the PWD's low coverage: the department has approximately 4,000 centres, mainly situated in urban areas, to serve a population of 200 million.

Such issues and questions gain considerable importance in view of the pledge by the Government of Pakistan at the London Summit 2012 to achieve a 55% CPR by 2020 (later modified to 50%), which remains unattained. There was a major policy breakthrough in December 2018, when the Supreme Court took up a case about alarming high rates of population growth in Pakistan. Consequently, the federal and provincial governments agreed to implement a national plan of action to raise the CPR to 55% by 2025 and to 60% by 2030.

With new impetus from the international community and given the large size of the population, it is imperative to resolve Pakistan's demographic challenges. Is it possible to achieve the national FP goals in such a short period, and what is needed to trigger a change in course? These are critical questions.

The Family Advancement for Life and Health (FALAH),[6] which is a project supported by the United States Agency for International Development I (USAID), shows that

[1,3]Population Council Pakistan Office, Islamabad, Pakistan;
[2]School of Medicine, University of Leeds, Leeds, United Kingdom.
Correspondence: Ali Mir. e-mail: amir@popcouncil.org
ORCID ID. 0000-0001-8613-1228

change is possible in Pakistan in a short period if the right interventions are implemented.

The project was conceived against a background of low contraceptive prevalence, high unmet need for FP, and high maternal mortality. Its design was informed by earlier research[7] regarding unmet need for FP and barriers to contraception use. It aimed at lowering unmet needs and raising contraceptive prevalence by revitalising communications, improving services in the public sector, engaging the private sector, and increasing commercial sector involvement for improving access to services.

FALAH was implemented by a consortium of organisations, led by the Population Council, from June 1, 2007, to March 31, 2012. Its original target area included 20 of the most underdeveloped and remote districts in the four major provinces of Pakistan, but work in some districts was eventually curtailed due to security reasons. There were 14 districts where both baseline (2008-09) and endline (2011-12) surveys were conducted. These were Bahawalpur, Dera Ghazi Khan, Jhelum and Rajanpur in the province of Punjab; Dadu, Ghotki, Larkana, Sanghar, Sukkur and Thatta in Sindh; Charsadda, Mansehra, Mardan and Swabi in Khyber Pakhtunkhwa (KP). The districts were selected purposively in consultation with government functionaries.

Within each target district, FALAH aimed at increasing the use of modern contraceptive methods by 10%; equip 80% of public service delivery points to provide appropriate FP services; and ensure an understanding of birth spacing and ways of achieving it by 75% of the target population over a 5-year period. The project's approach for achieving these targets integrated a comprehensive Communication, Advocacy and Mobilisation (CAM) strategy with capacity strengthening for quality FP services delivered through the public health sector.

FALAH, using the CAM strategy, reached out to communities with accurate information about FP, and facilitated interpersonal communications to dispel common misgivings, mitigate religious opposition, and enhance social acceptability of FP. It introduced a new messaging paradigm, "birth spacing saves lives," moving away from the emphasis on "small families," which had been advocated with limited success for many decades. Multiple reinforcing channels were employed, including mass media (television commercials, radio spots, and documentaries), and interpersonal communication and community mobilisation activities, which entailed household visits and group meetings with married women and their husbands by lady health workers (LHWs) and outreach workers. The mass media components targetted the entire country, while community mobilisation and interpersonal communication activities were particularly targetted at poor and disadvantaged groups living in small and remote villages with limited exposure to mass media.

Concurrently, FALAH strengthened FP service delivery by facilitating the availability of contraceptives at the facility level and by strengthening the capacity of both public- and private-sector healthcare providers, who were trained to be more client-centred, more responsive to clients' reproductive health needs, and to proactively offer high-quality FP services, using the Salutation, Assessment, Help, and Reassurance (SAHR) framework developed by the Population Council for interacting with clients. They were also trained in contraceptive technology, and oriented to the role of FP in family wellbeing and its permissibility within the religion. In addition, to support the provision of long-term and permanent methods, district surgeons and women medical officers were trained on intrauterine device (IUD) counselling, use and removal, and mini-laparotomy and vasectomy surgeries. Health managers were trained in contraceptive logistics management to remove bottlenecks and to ensure contraceptive availability at the facility level.

While reasonably trained in providing FP services and information, the 14,000 community-based LHWs in the FALAH districts were retaught how to provide reproductive health services with a client-centred approach. The training combined technical knowledge with a psychological component to facilitate an attitudinal and behavioural change so that providers viewed their work as a social responsibility rather than an obligation.

FALAH also worked closely with the leadership of the health department at the federal, provincial and district levels. District managers were sensitised on the importance of providing FP services as a health intervention to improve maternal and child health outcomes and provided specialised leadership training.

The current study was planned to assess the contribution of a series of interventions on contraceptive uptake and reduction in unmet needs in FALAH areas.

Subjects and Methods

The study was conducted from 2008-09 to 2011-12 in 14 districts across Pakistan. The sample comprised all urban and rural households in each district. Baseline data was collected in 2008-09, while endline data was collected in 2010-11.

To assess whether the project implemented to enhance FP uptake achieved its desired results and created the expected impact, several evaluation methods were used, including third-party evaluations of specific interventions.

The main evaluation methodology comprised baseline and endline surveys on a panel of currently married women of reproductive age (MWRA) 15-49 years, and a randomly selected sample of 25% of their husbands per primary sampling unit (PSU) in the FALAH districts.

A systematic stratified random sampling technique was used for the baseline survey. The survey was representative at the district level and designed to provide estimates of all indicators of interest. A total of 40 blocks/villages, or PSUs, were selected from each district using the sampling frame of the Pakistan Bureau of Statistics[8] with 15 households selected per PSU. A census of all households was conducted to construct a sampling frame for selecting the sample of households.

The sample was raised using systematic stratified sampling technique.

For the urban sample, numbers of enumeration blocks were selected with probability proportional to size (number of circles) by adopting a multistage stratified sampling design. First, the "enumeration circles", as demarcated by the Population Census Organisation[8] were selected. The circle composed of approximately 250-300 households and one block was randomly selected from each circle. A fixed number of 13 households were drawn from each sample enumeration block by using systematic random sampling.

For the rural sample, list of villages was used as the sampling frame from which villages were selected as PSUs. Households constituted secondary sampling units (SSUs). A fixed number of 13 households were selected from each sample enumeration village using systematic random technique.

Within each household, all MWRAs were interviewed. In addition, husbands of MWRAs present were also interviewed to a maximum of 5 per block; if <5 husbands could be interviewed from the 13 sampled households, additional interviews were sought from neighbouring households.

In the endline survey, households sampled in the baseline survey were revisited and women who were still of reproductive age were interviewed. While this approach generated a larger cross-sectional sample, the final sample was restricted to those who were interviewed both in the baseline and the endline surveys. The detailed questionnaire administered to the women was designed to measure changes in their perceptions, attitudes and practices, perceptions about their husbands, and changes in FP outcomes, including unmet needs, adoption and continuation of contraceptive usage.

To evaluate health system changes, a situation analysis of service delivery points was conducted concurrently in the endline survey to assess the readiness of health facilities in delivering FP services. This part of the study comprised interviews with managers of health facilities, care providers, observations and exit interviews with clients. The facilities that had a trained provider and contraceptives available on the day of the visit were chosen as indicators of improvement in contraceptive uptake as part of public-sector service delivery.

The findings of the baseline and endline surveys were compared with two rounds of the Pakistan Demographic and Health Survey (PDHS), conducted in 2006-07 and 2012-13, which provide province-level and national-level representative estimates of the same measures of FP outcomes used in the programme evaluation surveys.[9,10]

To assess the collective contribution of FALAH interventions, an index was developed to score the project districts based on the proportion of providers at rural health facilities, like basic health units (BHUs) and rural health centres (RHC); coverage by trained LHWs; and the proportion of facilities with contraceptive stocks available on the day of the visit by the survey team. Against each of these three parameters, the districts were assigned a score ranging from 0=no coverage to 1=100% coverage. A district's total score, as such, ranged 0-3. The change in relevant indicators was assessed over 3.5 years between the baseline and endline surveys.[12]

Data was analysed using SPSS 21. Bivariate analysis was done with proportion of met and unmet needs, and uptake of modern and all contraceptive methods as dependent variables. In the final analysis, multivariate analysis was applied on the panel of women to estimate how much of the change in FP uptake could be attributed to the main FALAH interventions. Analysis was performed using chi-square test of significance, independent sample t-test and logistic regression models. $P<0.05$ was considered statistically significant. Data were checked for normality prior to tests of significance.

Results

The panel comprised 5,304 women and 950 husbands. The other part of the study comprised interviews with 141 managers of health facilities, 175 care providers, 432 observations and 432 exit interviews with clients.

Despite hitches in implementation, widespread flood-related damages witnessed in Pakistan in 2009-10, and changing programme priorities, contraceptive prevalence increased in the FALAH districts from 29.4% (1559) at baseline to 37.9% (2010) at endline. In comparison, PDHS

data reported contraceptive prevalence change from 29% to 35% from 2006-07 to 2012-13 (Figure).

Unmet FP needs declined by 2% as 'met' needs increased, but, more significantly, the overall demand for contraception went up by 7%. The increase was largest in KP, followed by Punjab and Sindh (Table 1).

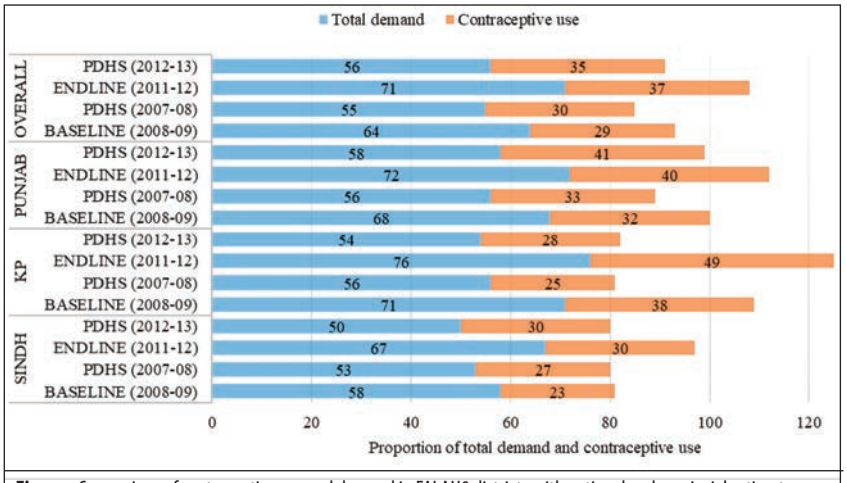

Figure: Comparison of contraceptive use and demand in FALAH8 districts with national and provincial estimates.
Sources: *FALAH baseline survey (2008–09) and endline survey (2010–11), PDHS 2006–07, and PDHS 2012–13. FALAH: Family Advancement for Life and Health, PDHS: Pakistan Demographic and Health Survey.*

Overall demand for family planning rose from 64% to 71%. Women's approval of FP increased from 83% to 90%, and women's perceptions of their husband's approval increased from 68% to 79% (Table 2).

There was greater adherence to client-centred care standards by trained providers compared to those who had not been trained. The trained providers were more mindful of maintaining clients' privacy, offered them a range of contraceptive options to choose from, and provided appropriate referral information (Table 3).

Improvements in public health services achieved through the training of 29,000 providers in client-centred family planning services positively impacted FP uptake of family planning. More than 60% district headquarters hospitals (DHQs), 75% tehsil headquarters hospitals (THQs), 83% RHCs, and 63% BHUs in FALAH districts had a trained female provider on premises, and >70% rural health facilities reported having at least one contraceptive available on the day of the visit. Contraceptive continuation rates based on a 36-month calendar for all

Table-1: Total demand for contraceptives, met demand, and proportion of demand met in the FALAH districts at baseline (2008-09) and endline (2011-12), (n=5,304)

Province/ Background characteristics	Unmet need (%)			Met demand (%)			Total demand (%)			Proportion met demand (%)		
	Baseline	Endline	Change	Baseline	Endline	Change	Baseline	Endline	Change	Baseline	Endline	Change
Province												
Sindh	35.1	37.3	2.2	22.6	30.1	7.5	57.7	67.4	9.7	39.2	44.7	5.5
KP	32.7	27.8	-4.9	38.2	48.6	10.5	70.9	76.4	5.6	53.9	63.6	9.7
Punjab	36.8	31.6	-5.2	31.5	40.0	8.5	68.3	71.6	3.2	46.1	55.9	9.7
Age (years)												
15 - 24	31.4	35.2	3.8	13.2	22.3	9.1	44.6	57.5	12.9	29.6	38.8	9.2
25 - 34	36.7	35.4	-1.3	30.0	34.8	4.8	66.7	70.2	3.5	45.0	49.6	4.6
35 - 49	36.3	30.9	-5.4	41.6	45.4	3.8	77.9	76.3	-1.6	53.4	59.5	6.1
Literacy												
Literate	29.9	25.2	-4.7	36.7	49.3	12.6	66.6	74.5	7.9	55.1	66.2	11.1
Illiterate	37.0	36.4	-0.6	25.9	32.9	7.0	62.9	69.3	6.5	41.2	47.5	6.3
Education												
No education	37.0	36.2	-0.8	25.8	33.2	7.3	62.8	69.4	6.5	41.1	47.8	6.8
Up to primary	34.7	31.1	-3.6	30.4	39.1	8.7	65.1	70.2	5.1	46.7	55.7	9.0
Up to Secondary	27.6	23.0	-4.6	40.6	53.6	13.1	68.2	76.6	8.4	59.5	70.0	10.4
Above secondary	22.8	20.3	-2.5	43.5	60.8	17.3	66.3	81.1	14.9	65.6	75.0	9.4
Socio-economic Status												
Low	41.4	41.6	0.2	17.6	25.4	7.8	59.0	67.0	8.0	29.8	37.9	8.1
Medium low	37.2	35.1	-2.1	24.9	34.1	9.3	62.1	69.2	7.2	40.1	49.3	9.2
Medium high	33.3	30.7	-2.6	32.5	42.6	10.1	65.8	73.3	7.4	49.4	58.1	8.7
High	28.0	24.1	-3.9	40.7	50.2	9.6	68.7	74.3	5.6	59.2	67.6	8.3
Region												
Rural	37.0	35.7	-1.3	25.5	34.5	9.0	62.5	70.2	7.6	40.8	49.1	8.3
Urban	26.7	24.1	-2.6	42.9	49.0	6.1	69.6	73.1	3.5	61.6	67.0	5.4
All	35.1	33.5	-1.6	28.8	37.2	8.4	63.9	70.7	6.8	45.1	52.6	7.5

Source: FALAH baseline survey (2008–09) and endline survey (2011–12). FALAH: Family Advancement for Life and Health, KP: Khyber Pakhtunkhwa.

Table-2: Approval of family planning among couples in FALAH districts, comparison between baseline (2008-09) and endline (2011-12) data (n=5,304).

Province/Background characteristics	Women approve FP use (%)		Women who perceive their husbands approve FP use (%)		Total	
	Baseline	Endline	Baseline	Endline	Baseline	Endline
	% (n)	% (n)	% (n)	% (n)	n	n
Province						
Sindh	74.9 (1899)	87.9 (2230)	58.0 (1470)	75.2 (1907)	2537	2537
KP	96.9 (1159)	95.2 (1137)	78.7 (941)	86.2 (1031)	1195	1195
Punjab	84.5 (1329)	87.7 (1379)	74.5 (1172)	79.8 (1254)	1572	1572
Age (years)						
15 - 24	80.1 (1209)	87.7 (750)	59.2 (893)	76.2 (652)	1510	855
25 - 34	82.6 (1796)	88.9 (1991)	69.5 (1511)	78.8 (1765)	2173	2239
35 - 49	85.2 (1381)	90.7 (2005)	72.7 (1178)	80.3 (1775)	1621	2210
Literacy						
Literate	91.7 (1288)	94.1 (1318)	81.0 (1137)	88.0 (1233)	1404	1401
Illiterate	79.4 (3098)	87.8 (3428)	62.7 (2446)	75.8 (2959)	3900	3903
Education						
No education	79.2 (2987)	87.7 (3352)	62.6 (2360)	75.6 (2890)	3772	3822
Up to primary	88.3 (672)	92.9 (666)	73.8 (562)	85.8 (615)	761	717
Up to secondary	94.9 (524)	95.6 (520)	85.8 (474)	89.9 (488)	552	543
Above secondary	92.7 (203)	93.9 (209)	85.3 (187)	89.4 (199)	219	222
Socio-economic status						
Low	73.0 (930)	82.5 (1153)	51.9 (662)	68.8 (962)	1275	1389
Medium low	81.2 (1149)	90.7 (1349)	64.1 (907)	79.9 (1189)	1415	1488
Medium high	86.1 (1196)	92.7 (1262)	74.1 (1030)	82.5 (1123)	1389	1361
High	90.7 (1111)	92.8 (982)	80.4 (984)	86.7 (917)	1224	1058
Region						
Rural	81.1 (3790)	88.8 (3820)	65.2 (2805)	77.5 (3336)	4304	4304
Urban	89.5 (896)	92.6 (926)	77.7 (778)	85.5 (855)	1000	1000
All	82.7 (4386)	89.5 (4746)	67.5 (3583)	79.0 (4192)	5304	5304

Source: FALAH baseline survey (2008–09) and endline survey (2011–12). FALAH: Family Advancement for Life and Health, KP: Khyber Pakhtunkhwa.

Table-3: Proportion of service providers who were observing client-centred family planning (FP) practices at endline (n=432).

	Trained providers	Untrained providers	*p*-value*
	% (n)	% (n)	
Maintained privacy	67.2 (160)	44.8 (87)	<0.001
Identified concerns, worries, and fears	79.4 (189)	55.2 (107)	<0.001
Provided range of family planning options	35.7 (85)	6.2 (12)	<0.001
Empowered client through information exchange	59.2 (141)	36.6 (71)	<0.001
Provided appropriate referral information	62.0 (148)	22.0 (43)	<0.001
Reassured client about other options if needed	45.4 (108)	27.3 (53)	<0.001
n	238	194	

Source: Situation Analysis of Health Facilities in FALAH Districts, 2011–12 -- * Chi square test of significance

Table-4: Contraceptive continuation rates in the FALAH districts, by type of family planning (FP) method.

Method	Continuation rate	n
	% (n)	
Pill	34.0 (33)	97
IUD	53.3 (49)	92
Injectable	30.6 (52)	170
Condom	56.7 (136)	240
Withdrawal	61.8 (115)	186
Female sterilization	100.0 (370)	370
Male sterilization	100.0 (6)	6
Any modern contraceptive method	67.4 (764)	1134
Any family planning method	70.3 (1072)	1525
Total		5304

Note: Measurements based on 36-month calendar. IUD: Intrauterine device.

methods improved (Table 4).

The index values for districts ranged from 1.24 to 2.63, with 4 districts in Group 1 scoring 1.2-1.6; 5 in Group 2 scoring 1.7-2.0; and 5 in Group 3scoring 2.1-2.6.

The average increase in CPR in rural areas was 6.9% for Group 1, 9.2% for Group 2, and 10.9% for Group 3.

Contraceptive uptake was significantly higher among women who had attended women's group meetings, women who were visited at their homes by the LHWs, and women with a trained LHW in their community (Table 5).

Logistic regression analysis showed an association between LHWs' household visits and women's contraceptive intentions and behaviour (Table 6). Similarly, key messages aired on television also contributed to contraceptive uptake ($p<0.05$).

Discussion

The FALAH project demonstrated that the situation in

Table-5: Total demand for contraceptives expressed as percentage of women served by FALAH community interventions at baseline (2008-09) and endline (2011-12) (n=5,304).

		Women who participated in women group meeting	Women who were visited by LHW in last 3 months	Communities where LHWs are functional	Women whose husbands participated in men group meeting	Total
Unmet need	Baseline	33.6 (160)	34.5 (1140)	33.9 (1297)	33.9 (43)	35.1 (1861)
	Endline	30.4 (145)	32.6 (1079)	32.3 (1240)	30.1 (38)	33.5 (1775)
	Change	-3.2	-1.4	-1.6	-3.8	-1.6
	p*-value	0.297	0.268	0.131	0.515	0.082
Met demand	Baseline	35.7 (170)	33.2 (1097)	32.9 (1264)	30.1 (39)	28.8 (1526)
	Endline	45.8 (218)	40.3 (1332)	40.3 (1548)	39.6 (51)	37.2 (1974)
	Change	10.1	7.1	7.4	9.5	8.4
	p*-value	0.001	0.001	0.001	0.112	0.001
Total demand	Baseline	69.3 (330)	67.2 (2221)	66.8 (2566)	64.0 (82)	63.9 (3387)
	Endline	76.2 (363)	72.9 (2409)	72.6 (2789)	69.7 (89)	70.7 (3749)
	Change	6.9	5.7	5.8	5.7	6.8
	p*-value	0.016	0.001	0.001	0.336	0.001
Proportion of demand met	Baseline	51.5 (246)	49.4 (1633)	49.3 (1894)	47.0 (60)	45.1 (2392)
	Endline	60.1 (287)	55.2 (1824)	55.5 (2132)	56.8 (73)	52.6 (2790)
	Change	8.6	5.8	6.3	9.8	7.5
	p*-value	0.023	0.001	0.001	0.203	0.001
n		**477**	**3305**	**3841**	**128**	**5304**

Source: FALAH baseline survey (2008–09) and endline survey (2011–12); * Independent sample t-test of means; FALAH: Family Advancement for Life and Health

Table-6: Contraceptive prevalence rate.

	Model 1		Model 2		Model 3		Model 4		Model 5	
	Odds Ratio	*p*-value	Odds Ratio	*p*-value	Odds Ratio	*p*-valuee	Odds Ratio	*p*-value	Odds Ratio	*p*-value
Survey										
Baseline										
End-line	1.213 (1.105–1.332)	<0.001	1.177 (1.072-1.294)	0.001	1.153 (1.047-1.270)	0.006	1.057 (0.946-1.183)	0.345	1.059 (0.947-1.185)	0.338
Region										
Rural										
Urban	1.341 (1.192-1.510)	<0.001	1.330 (1.182-1.497)	<0.001	1.336 (1.187-1.505)	<0.001	1.329 (1.181-1.497)	<0.001	1.328 (1.180-1.496)	<0.001
Age (years)										
15-24										
25-34	2.522 (2.168-2.936)	<0.001	2.508 (2.156-2.920)	<0.001	2.502 (2.151-2.913)	<0.001	2.502 (2.151-2.913)	<0.001	2.501 (2.150-2.912)	<0.001
35-49	4.069 (3.491-4.735)	<0.001	4.081 (3.501-4.750)	<0.001	4.068 (3.490-4.735)	<0.001	4.071 (3.493-4.739)	<0.001	4.071 (3.492-4.738)	<0.001
Literacy										
Illiterate										
Literate	1.246 (1.110-1.397)	<0.001	1.229 (1.094-1.378)	0.001	1.222 (1.088-1.371)	0.001	1.199 (1.067-1.346)	0.004	1.200 (1.068-1.347)	0.004
Socio-economic Status										
Low										
Medium Low	1.291 (1.122-1.486)	0.001	1.241 (1.077-1.430)	0.004	1.239 (1.076-1.428)	0.004	1.212 (1.051-1.397)	0.011	1.212 (1.051-1.397)	0.011
Medium High	1.580 (1.369-1.824)	<0.001	1.510 (1.307-1.746)	<0.001	1.503 (1.300-1.737)	<0.001	1.441 (1.244-1.670)	<0.001	1.441 (1.244-1.671)	<0.001
High	1.909 (1.634-2.232)	<0.001	1.829 (1.565-2.141)	<0.001	1.824 (1.559-2.135)	<0.001	1.723 (1.467-2.025)	<0.001	1.724 (1.468-2.026)	<0.001
Province										
Sindh										
KP	1.415 (1.258-1.591)	<0.001	1.416 (1.259-1.592)	<0.001	1.423 (1.265-1.600)	<0.001	1.445 (1.285-1.627)	<0.001	1.445 (1.285-1.627)	<0.001
Punjab	1.138 (1.019-1.272)	0.033	1.136 (1.017-1.269)	0.036	1.132 (1.013-1.265)	0.042	1.147 (1.026-1.282)	0.025	1.146 (1.025-1.281)	0.026
Visited by LHW										
No										
Yes			1.255 (1.139-1.382)	<0.001	1.246 (1.130-1.372)	<0.001	1.239 (1.124-1.365)	<0.001	1.239 (1.124-1.365)	<0.001
Attended women's group meeting										
No										
Yes					1.248 (1.013-1.537)	0.042	1.227 (0.996-1.513)	0.061	1.228 (0.996-1.514)	0.061
Watched FP ad. on TV										
No										
Yes							1.237 (1.079-1.418)	0.004	1.238 (1.080-1.420)	0.004
Heard FP ad. on radio										
No										
Yes									0.969 (0.731-1.284)	0.827

LHW: Lady Health Worker; FP: Family planning.

Pakistan was ripe for a rapid rise in FP demand and use, and the real obstacles lie in lack of access to high-quality services and information about contraception.[12] The findings showed that changes were most dramatic in the areas where access had been lacking previously, i.e., among younger women, and in KP, which is the province with the most conservative of practices.

The fact that younger women's unmet need could be addressed effectively and contraceptive prevalence among them increased is perhaps the most encouraging result, which also speaks of the effectiveness of the messaging, communications, and other interventions of the FALAH project.

The findings demonstrated that unmet FP need in Pakistan is relatively easy to redress through well-designed and focussed interventions. While the FALAH approach may seem multi-pronged and complex, it was carefully designed to meet key communication and service needs: the project reached out to men and women with appropriate messaging that helped overcome some of the socio-cultural barriers that have prevented the rapid uptake of contraception to plan families in Pakistan, and at the same time improved services to ensure that once couples had mutually decided to adopt FP, affordable services were available to them within reasonable distances. In Zambia, only 21.5% couples were using modern contraceptive methods at baseline, but >90% had adopted modern contraceptive methods after couple counselling.[13]

Placing these results in a larger context, rural Pakistan is ripe for rapid fertility change. With data from rural districts reflecting that 75% women want to curtail fertility, but only 35% are using a contraceptive method, it is obvious that the right combination of interventions can dramatically increase FP usage. This finding complements global evidence showing that the provision of quality FP services can rapidly increase uptake, prevalence and continuation of contraception.[14,15]

The 'demon' of fear of modern contraceptive methods can be tackled with effective counselling and communication skills. Furthermore, FALAH effectively used messages from religious leaders in its television advertisements, which favourably influenced people's decision-making and social factors hindering behavioural and attitudinal change in rural Pakistan. Evidence from Indonesia similarly showed that Muslim leaders in villages often played a pivotal role in affecting the success of FP programmes because many potential clients consulted them for advice in this regard.[16] Private institutions and the government must collaborate in leveraging initiatives and bridging gaps for a robust advocacy with clergymen and religious scholars to support the larger cause of FP and birth spacing.[17] Men can become supportive if they are directly addressed with information and arguments linking birth spacing with maternal mortality.

The question of access is more complicated and a major challenge in raising contraceptive prevalence in rural areas where services are scarce. Whatever additional efforts Pakistan needs to raise its contraceptive prevalence rates, mobilisation must be equitable to meet the needs of the rural and urban population for improving FP access. While physical access is adequate, the availability of trained providers and modern contraceptives must be assured. Exposure to FP information and services among women increased by 22%, from 56.6% to 78.6% between 2014 and 2016 ($p<0.001$) in Karachi.[198] Under the LHW Programme, launched in 1994 and later renamed the National Family Planning and Primary Healthcare Programme, LHWs create awareness through door-to-door meetings and provide short-term, modern contraceptive supplies to women who express an intention to adopt FP. Although the national programme has been shown to increase the use of a modern FP method, the latest evaluation[19] found that improvements are needed to reach the most disadvantaged population groups. This is particularly relevant given the demonstrated and persistent socio-economic gap in the use of FP methods in Pakistan.[20] Moreover, the programme is not being fully utilised for FP service delivery of a quality that could counter all the obstacles that impede contraceptive uptake.

The current findings showed that the presence of a FALAH-trained LHW and attending an LHW-facilitated group meeting were both independently associated with increased contraceptive uptake. This impact was apparent after LHWs were trained by FALAH to adopt a client-centred approach in counselling, providing advice, and providing contraceptives or referring clients. The findings support the idea that client-centred training improves the quality of services provided and its outcomes.[21] A study in Malawi also reported that counselling had an added impact on modern family planning uptake and continuation 6 months after the initiation of door-to-door counselling through community-based health workers (CHWs).[22] Substantial evidence demonstrates the effectiveness of CHWs in delivering a range of preventive and curative services related to reproductive, maternal, newborn and child health.[23,24]

The impact of the FALAH project's focussed interventions was most acutely seen among rural and poor women. This reflected in part the choice of districts, which were largely rural, but also the project's focus on replacing traditional

communication modes and messages and directly addressing social barriers to FP uptake. This type of approach addresses the needs of the 'hard-to-reach' groups — those highlighted by the PDHS 2017-18 as the ones that have higher unmet need and lower contraceptive prevalence — i.e., the rural and the young. Poor rural women in Pakistan continue to suffer from the triple disadvantage of limited geographic access, inability to pay for transportation and care, and restricted mobility and autonomy reflected by no or little education. These disadvantages can be reduced by upgrading existing facilities at district and sub-district levels to provide integrated maternal, newborn and child health (MNCH) services that include FP services as part of a comprehensive essential services package.

The FALAH project's major focus was on helping women and couples in Pakistan who were disadvantaged by limited geographical access, inability to pay for transportation and care, and restricted mobility and autonomy. The project demonstrated that these obstacles can be minimised by upgrading the existing health facilities at district and sub-district levels to provide high-quality FP services.

Conclusion

Investing in public-sector services does pay off in terms of meeting FP needs, and so do better, wider and clearer communication.

Disclaimer: None.

Conflict of Interest: None.

Source of Funding: None.

References

1. Pakistan Economic Survey 2011-12. Islamabad: Ministry of Finance, 2012.
2. Zeba S, John B. Casterline. The onset of fertility transition in Pakistan. Population Dev Rev. 1998; 24: 773-96. Doi:/10.2307/2808024
3. Feeney G, Alam L. Fertility, population growth and accuracy of census enumeration in Pakistan 1961-1998. In: Kemal AR, Irfan M, Mehmood N, eds. Population of Pakistan: An analysis of 1998 Population and Housing Census. Islamabad: Pakistan Institute of Development Economics/ UNFPA.
4. NIPS/Pakistan and ICF. Pakistan Demographic and Health Survey 2017-18. Islamabad: and Rockville: NIPS and ICF, 2019.
5. Sathar ZA. Family planning: a missing priority in Pakistan's health sector? Lancet. 2013; 381: 2140-1. doi: 10.1016/S0140-6736(13) 60763-1
6. Mahmood A. Birth Spacing and Family Planning Uptake in Pakistan: Evidence from FALAH. 2012. Islamabad. [Online] 2012 [Cited 2023 March 27]. Available https://knowledgecommons. popcouncil.org/ cgi/ viewcontent.cgi? article=1121&context= departments_sbsr-rh
7. Casterline JB, Sathar ZA, ul Haque M. Obstacles to contraceptive use in Pakistan: a study in Punjab. Stud Fam Plann. 2001; 32:95-110. doi: 10.1111/j.1728-4465.2001.00095.x.
8. Mahmood A. Birth Spacing and Family Planning Uptake in Pakistan: Evidence from FALAH. 2012. Islamabad. [Online] 2012 [Cited 2023 March 27]. Available from: URL: https://knowledgecommons. popcouncil.org/cgi/viewcontent.cgi?article=1121&context=depart ments_sbsr-rh
9. NIPS/Pakistan, and Macro International. Pakistan Demographic and Health Survey 2006-07. Islamabad, Pakistan: NIPS/Pakistan and Macro International, 2008.
10. NIPS/Pakistan and ICF International. Pakistan Demographic and Health Survey 2012-13. Islamabad, Pakistan: NIPS/Pakistan and ICF International, 2013.
11. Mahmood A. Birth Spacing and Family Planning Uptake in Pakistan: Evidence from FALAH. [Online] [Cited 2019 January 29]. Available from: URL: https://knowledgecommons.popcouncil.org/ departments_sbsr-rh/122/ Same as Ref 8
12. Stephenson R, Walika BV, Greenberg L, Ahmed Y, Walika CV, Chomba E, et al. A randomized controlled trial to promote long-term contraceptive use among HIV- serodiscordant and concordant positive couples in Zambia; J Womens Health (Larchmt). 2011; 20:567-74. doi: 10.1089/jwh.2010.2113.
13. Hancock NL, Stuart GS, Tang JH, Chibwesha CJ, Stringer JSA, Chi BH, et al. Renewing focus on family planning service quality globally; Contracept Reprod Med. 2016; 1:10. DOI: 10.1186/s40834-016-0021-6.
14. Cavallaro FL, Benova L, Owolabi OO, Moazzam Ali. A systematic review of the effectiveness of counselling strategies for modern contraceptive methods: what works and what doesn't? BMJ Sex Reprod Health. 2020; 46:254-69. doi: 10.1136/bmjsrh-2019-200377.
15. Warwick DP. The Indonesian Family Planning Program: Government Influence and Client Choice. Population Develop Rev. 1986; 12:453-90. Doi:10.2307/1973219
16. Shaikh BT, Azmat SK, Mazhar A. Family Planning and Contraception in Islamic Countries: A Critical Review of the Literature. J Pak Med Assoc. 2013; 63:S67-72.
17. Najmi H, Ahmed H, Halepota GM, Fatima R, ul Haq M, Yaqoob A, et al. Community-based integrated approach to changing women's family planning behaviour in Pakistan, 2014–2016. Public Health Action. 2018; 8:85-90. doi: 10.5588/pha.17.0097
18. Lady Health Worker Programme; External Evaluation of the National Programme for Family Planning and Primary Health Care; Oxford Policy Management October 2009. [Online] [Cited 2022 August 12]. Available from: URL: https://www.opml.co.uk/files/Publications/6241-evaluating-lady-health-worker-programme/lhw-4th-evaluation-summary-of-results.pdf?noredirect=1
19. Gheorghe A, Zaman RU, Scott M, Witter S. Delivering reproductive health services through non-state providers in Pakistan: understanding the value for money of different approaches. Glob Health Res Policy. 2028; 3:33. doi: 10.1186/s41256-018-0089-4
20. Shafaat M, Aftab S, Qayyum K. Impact of Lady Health Workers' Client Cantered Family Planning Services Training: A Third-Party Evaluation Study. Pakistan: TNS Aftab Consultants, 2011.
21. Lemani C, Tang J H, Kop D. Contraceptive uptake after training community health workers in couples counselling: a cluster randomized trial. PLoS One. 2017; 12: 1-10. doi: 10.1371/journal. pone.0175879.
22. Scott K, Beckham SW, Gross M. What do we know about community-based health worker programs? A systematic review of existing reviews on community health workers. Hum Resour Health 2018; 16:39. doi: 10.1186/s12960-018-0304-x.

23. Lewin S, Munabi- Babigumira S, Glenton C. Lay health workers in primary and community health care for maternal and child health and the management of infectious diseases. Cochrane Database Syst Rev 2010:CD004015. doi: 10.1002/14651858.CD004015

24. Perry HB, Zulliger R, Rogers MM. Community health workers in low-, middle-, and high- income countries: an overview of their history, recent evolution, and current effectiveness. Annu Rev Public Health. 2014; 35:399–421. doi: 10.1146/annurev-publhealth-032013-182354.