

# EXPEDITING FERTILITY DECLINE AND RESPONDING TO UNMET NEED FOR FAMILY PLANNING IN PUNJAB:

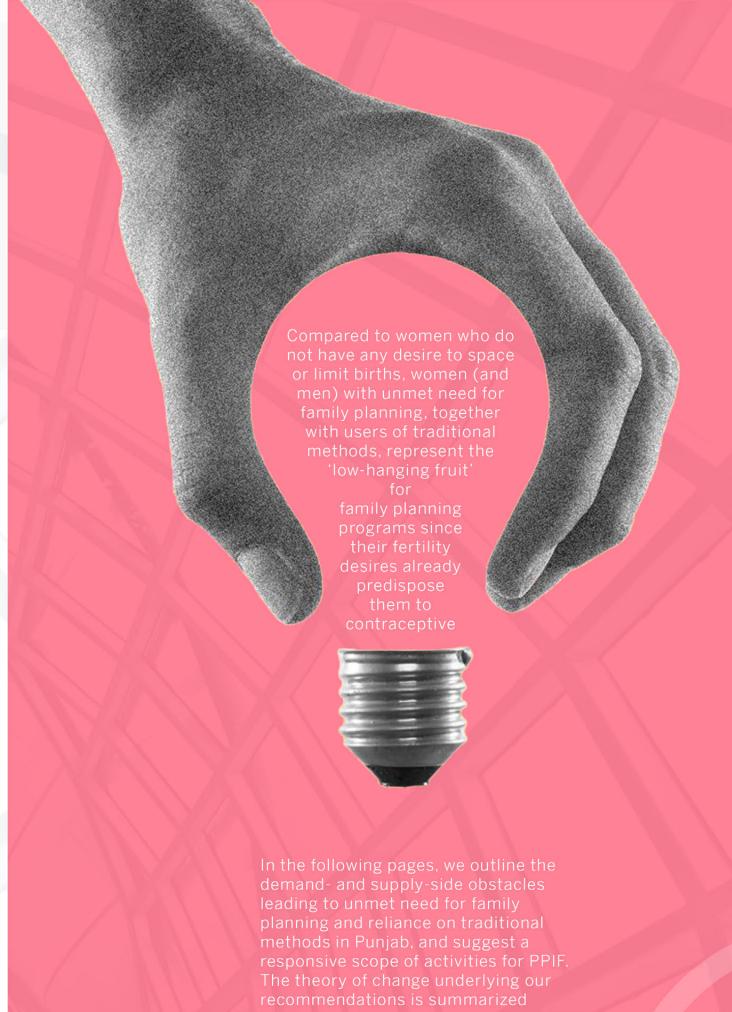
#### The role for the Punjab Population Innovations Fund

The population growth rate in Punjab, as in the case of Pakistan, has clearly seen its peak but still hovers around 2 percent. Much of the pace of future population growth will be determined by the speed of the fertility decline and population momentum. After impressive gains between 1991 and 2007 — when the province's total fertility rate (TFR) fell from 5.4 births per woman to 3.9 and the contraceptive prevalence rate (CPR) rose dramatically from 13% to 33% (PDHS) — fertility decline in Punjab now appears to be stalling. The PDHS 2012-13 found TFR had declined only to 3.8 births per woman, while CPR had risen to 41%.1

While Punjab has the highest CPR among the provinces of Pakistan, being the most developed, it lags behind other regions and countries with similar levels of per capita income and development. The recently announced Punjab Population Policy calls for achieving replacement level fertility by 2030. Of the estimated 17.5 million married women of reproductive age (MWRA) in Punjab, 7.1 million women are using any family planning method and, among these, 2 million (about 12%) are using the less reliable traditional methods, and therefore not entirely free of the risk of unwanted fertility. Meanwhile, unmet need for family planning is in the region of 18%. This represents an improvement over previous levels in Punjab (31% in 1991 and 23% in 2006-07), and also compares favorably with the current proportions of unmet need in other provinces

However, in terms of numbers, Punjab houses 3.1 million or about half of the national population of women with unmet need for contraception.2 The desperation underlying unmet need is perhaps best reflected in the high incidence of induced abortions in the province. The abortion rate in Punjab is estimated at 51 per 1,000 women of reproductive age.3 Every year, an estimated 1.3 million women opt to abort their pregnancies, predominantly in medically unsafe environments, at a cost of roughly Rs. 5,000 per abortion (Sathar et al. 2013). This translates into an annual expenditure of about Rs. 6,500 million (\$62.5 million) on avoiding unwanted pregnancies in Punjab through abortions alone.

The choice of voluntary family planning programs as the principal policy instrument for reducing fertility is based essentially on the existence of a considerable unmet need for family planning, as in Punjab. In such contexts, family planning programs can reduce unwanted fertility by reducing the various social, economic, and health barriers to the use of contraception. In view of the substantial levels of unmet need of family planning in Punjab and the limited resources available, a strong focus on improving access to quality family planning services would likely be a more effective and practicable short-term strategy increasing for contraceptive prevalence than attempting to generate additional demand through, for example, livelihood programs for women. . In accordance with the SDGs and FP 2020 goals, the Punjab Population Policy 2017 is also focused on increasing outreach and coverage of an family planning services.





### THEORY OF CHANGE

for Suggested PPIF Interventions



#### **Aims of PPIF**

- To support the Punjab Growth Strategy 2018 objective of reducing fertility to couples' desired levels.
- •To reduce the proportion (18%) and number (3 million) of women with unmet need for family planning services in Punjab, especially in rural, poor and underserved areas, and existing users of traditional methods (2 million) to convert them into modern contraceptive users.





#### **Objectives**

 Reduce the demand- and supply-side barriers causing unmet need and reliance on traditional methods

#### **Demand-side barriers**

- Limited information pathways, especially for men, about details of contraceptive methods, side effects to expect, and sources
- Fear and experience of side effects as a reason for non-use and discontinuation
- Costs and time associated with accessing services, especially in the public sector, officially mandated to provide services (particularly in rural areas)
- Poor quality of care lack of trust of in existing services (especially in public sector)

#### **Supply-side barriers**

- Policy restrictions on provision by non-physician cadres
- Poor or non-supply of contraceptives for providers
- Perceived low demand and associated lack of financial incentive
- Gaps in capacity to provide or to manage side effects
- Perceived cultural unacceptability of provision bymale providers, and doubts about the religious permissibility of family planning, especially amongpharmacists



#### **Expected Impact**

- · Fertility reduced by half a child
- CPR increased by 10 percentage points
- Unmet need reduced by 5 percentage points
- Unwanted fertility reduced



#### The Innovations

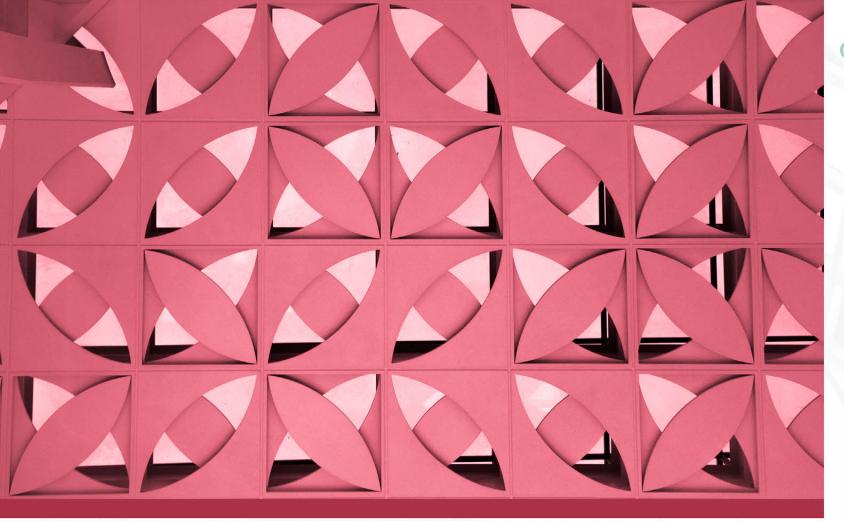
#### **Expected Outcomes**

- Couples with unmet need better informed of choices of methods and services
- Increased acceptability of family planning due to diffusion of information
- More providers offering services readily
- Providers offering wider range of FP services
- Providers offering better quality of care
- Increase in uptake of modern contraceptive methods due to increased access and reduced costs
- Decrease in discontinuation of contraceptive use due to better information and counseling

#### **Key Interventions**

- Mitigating information related obstacles that lower the demand for and access to modern family planning methods among current and potential users, including both men and women;
- Increasing the uptake of these methods through advisory services and counseling that help address concerns related to usage;
- Delivering contraceptive products & services to users at their doorstep in communities not adequately served by public health workers;
- Enabling private static health service providers to initiate & sustain provision of an adequate range of quality familyplanning services for underserved communities and households with unmet need





## WOMEN WITH UNMET NEED AND USERS OF TRADITIONAL METHODS:

### Who they are and the barriers they face

Globally, unwanted fertility is more common among poor, rural, and uneducated women than among their well-off, urban, and educated counterparts, although this disparity is much smaller in countries with strong family planning programs (Bongaarts et al. 2015). Similarly, Wulifan et al. (2016) find the same factors to be associated with unmet need across different low and middle-income country (LMIC) settings: it is negatively associated with a woman's age and educational attainment, and positively associated with parity, husband's opposition, and her own fear of side effects or health concerns. Probing perceptions of health professionals to construct a profile of women who undergo abortions, Sathar et al. (2013) found they were most likely to be married (88%), poor (77%), uneducated (70%), have 5 or more children (65%), be over 30 (64%), and residents of rural areas (60%).

PDHS 2012-13 data show a similar pattern among women with unsatisfied demand for family planning in Punjab. Among women with unmet need in Punjab, 31% live in urban areas and the remaining 69% in rural areas. Overall, 43% are "never users," who have never tried any method of family planning before, while 57% are "past users," who have tried a traditional or modern method at some stage and then discontinued. The different experiences and perspectives of these two categories of women have implications for programming.



Additionally, Pakistan has one of the highest rates of discontinuation of contraceptive use, which is attributed largely to experience of side effects, and retaining current users of modern methods therefore needs to be as important a priority as taking on never users. An analysis of reasons for discontinuation also indicates method-related barriers.

According to PDHS 2013, discontinuation within the first year of method adoption is 56% for the pill; 61% for the injection; and as high as 25% for the intrauterine device (IUD).

which is intended for long-term use. Side effects and health concerns are the primary causes for discontinuation of pills, injections and IUDs. For the condom and withdrawal, the main causes are method failures and desire for pregnancy.



**Table 2.1** summarizes the profiles of the three categories of potential users of modern contraceptives in Punjab. Notably, users of traditional methods have the smallest proportion of uneducated women, are generally richer than women with unsatisfied demand, and have the highest proportion in urban areas.

Numerous studies have documented the barriers that prevent women from starting and sustaining use of family planning methods in Pakistan (see, for example, Kamran et al. 2015). Broadly, the main problems are lack of information, difficulty in physically accessing services or products, experience of side effects or other health concerns, and problems in affording family planning care.

## Profiles of Women with Unmet Need and Women using Traditional Methods in Punjab

SEGMENT	MEDIAN AGE	NO. OF CHILDREN	EDUCATIONAL ATTAINMENT	WEALTH	TOTAL NUMBER	PROPORTION IN URBAN AREAS
Never users with unmet	27.7 years	1 to 2 (44%)	Mostly uneducated (51%)	Middle quintiles	1.3 million	28%
Past users with unmet need	34.6 years	4+ (66%)	Mostly uneducated (54%)	AII quintiles	1.7 million	33%
Users of traditional methods	32.7 years	2-4 (48%)	Uneducated (40%)	Higher quintiles	2 million	44%

Source: Population



In a recent landscape study of family planning in Pakistan (Population Council 2016), data was collected in four districts of Punjab (Faisalabad, Multan, Lahore, and Rawalpindi) about consumer perspectives on the major barriers they faced to use of family planning. Across all four districts, and in both urban and rural areas, men and women cited the following as their biggest challenges:

- Lack of information, especially for men
- Experience of side effects of modern methods
- Poor quality of services at public health facilities (except in urban Rawalpindi)

In the rural domains covered (Faisalabad and Rawalpindi), the following additional reasons were just as strongly expressed:

- Difficulty in accessing family planning services;
- Lack of method choice due to access problems; and
- High cost of using family planning.

Notably, these problems are often multifaceted and interrelated. For example, "lack of information" can range from ignorance of the possibility (or moral permissibility) of birth control to lack of information about alternative method choices, their sources or usage, or fears about side effects. Problems in physical access might be compounded by both lack of knowledge and financial constraints. Similarly, experience of side effects may be worsened by lack of information about appropriate method use and follow-up; by access issues that make repeat visits difficult; and by financial constraints that make it difficult to pay for quality care in the first place, and for treatment of side effects when they do arise.

The link between side effects and cost of family planning services is a particularly important one as it impacts users' willingness to pay for family planning services. Our qualitative findings indicate that, initially, men and women of all income levels are willing to pay for family planning services (Population Council 2016). Indeed, poorer men and women are ready to pay even more than couples in the middle class—with the caveat that they receive a good quality of services in return. For such care, they will willingly arrange the necessary funds by sacrificing a portion of their food budget, borrowing money from someone, or selling valuable belongings. However if use of contraceptives leads to adverse health effects and further associated costs, the willingness to pay will not be sustained. As an extreme example, one interviewed user complained that while she obtained an implant for free from a family planning camp, she later had to spend more than Rs. 50,000 on treatment for side effects (Population Council 2016).

WHAT POTENTIAL
CONSUMERS PERCEIVE TO BE
THEIR MAIN BARRIERS VARIES
ACCORDING TO THEIR
EXPERIENCE WITH FAMILY
PLANNING (POPULATION
COUNCIL 2016):

- Never users with unmet need are discouraged most by lack of information about contraceptive methods, particularly for men, who do not have any direct source or mechanism for reliable information. Low access to health services is also a hurdle, especially in rural communities not served by LHWs. The third major barrier is fear of side effects perpetuated by lack of information and negative testimonials from past users.
- Past users with unmet need are deterred first and foremost by their past experience of side effects, which affected not only their health but also other aspects of their lives. They are also put off by their experience of poor quality of health services, which has convinced them they will not find adequate support from the health system should they experience side effects again. Finally, cost of side effect management, which this group knows from experience to be potentially high, is a barrier to resumed contraceptive use.
- Traditional method users are mainly reluctant to use modern methods due to fear of side effects as well as lack of information about specific methods.

## PROVISION OF FAMILY PLANNING PRODUCTS AND SERVICES IN PUNJAB:

#### **CURRENT SUPPLY BARRIERS AND THE POTENTIAL TO EXPAND**

Availability of family planning products and services in Punjab is currently far from universal. Findings of the Population Council's recent landscape study (2016) indicate that there are not enough health facilities to begin with, especially in the public sector. Of those available, large proportions, especially in the private sector, are not providing any family planning services in both rural and urban areas (Figure 3.1). Many facilities in the public sector observe very short timings and are not available when it is most convenient for clients to visit.

Among those providing family planning services, most provide only a limited range of methods. Similarly, a significant proportion of pharmacies do not sell contraceptives (Figure 3.2) and those that do sell usually offer a very narrow range of options. Quality of service provision—in terms, for example, of respectful and client-friendly attitudes among providers, adequate counseling and information provision, maintenance of hygiene practices, availability of contraceptive choice, etc.—is a major gap. While public health facilities show better facility preparedness, private facilities offer more respectful treatment, which clients seem to value more.

COMPARISON OF PRESENCE AND FAMILY PLANNING SERVICE PROVISION AMONG PUBLIC AND PRIVATE HEALTH FACILITIES IN FAISALABAD. PUNJAB

Distribution of Total Public/Private & Those Providing FP Services in Faisalabad District

All Public Facilities N=3906

Only 13% of Private Facilities are providing Any One Fp Method

Only 13% of Private Facilities are providing Any One Fp Method

As the map of Faisalabad above shows (Figure 3.1), in terms of numbers and spread, the most widely accessible channels are pharmacies, LHWs, and private non-physician and traditional providers (i.e., Lady Health Visitors [LHVs], nurses, midwives, dispensers, hakeems, and homeopaths).

**Source: Population Council 2016** 

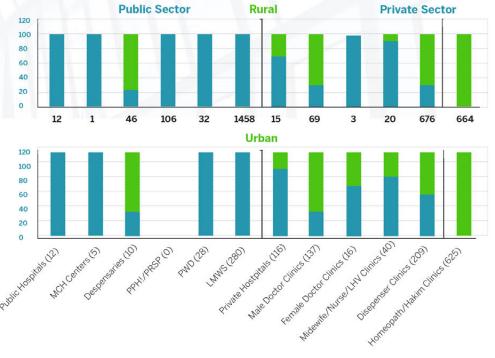
COMPARISON OF PROVISION OF AT LEAST ONE CONTRACEPTIVE METHOD IN THE PUBLIC AND PRIVATE SECTORS IN TWO DISTRICTS, BY TYPE OF FACILITY, BY URBAN/

#### Distribution of Public/Private Facilities and Those Providing atleast One Family Planning Method in Faisalabad District



Providing Not Providing

### Distribution of Public/Private Facilities and Those Providing atleast One Family Planning Method in RahimYarKhan District



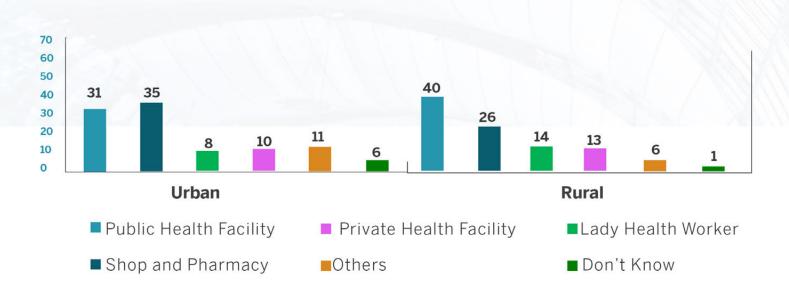
■Providing ■ Not Providing



Most consumers prefer the private sector where quality is perceived to be better, but since costs of health care are mainly borne out of pocket, poorer consumers find themselves without much choice. In the public sector, Lady Health Workers (LHWs), who are friendly and available at the doorstep, are a valued resource, especially in rural households. Current sources of contraceptives for users in Punjab

are shown in Figure 3.3. It is pertinent to mention that all of the estimated 1.3 million induced abortions that take place in Punjab every year are carried out by private service providers. The public sector does not provide abortion services; only post-abortion care.

### FIGURE 3.3: PERCENT DISTRIBUTION OF USERS OF MODERN CONTRACEPTIVE METHODS IN PUNJAB, BY SOURCE OF SUPPLY AND BY URBAN/RURAL RESIDENCE



**Source: Pakistan Demographic and Health Survey** 

# REASONS FOR NON-PROVISION

#### PERSPECTIVE OF PROVIDERS AND PHARMACISTS

In interviews with health service providers and pharmacists in eight districts (including three districts in Punjab), the main reasons given for not providing family planning services included policy barriers, poor or non-supply of contraceptives, perceived low demand and associated lack of financial incentive, gaps in capacity to provide or to manage side effects, perceived cultural unacceptability of provision by male providers, and doubts about the religious permissibility of family planning, especially among pharmacists (Population Council 2016).

Policy restrictions bar some cadres from providing any methods, and limit the repertoire of others. In particular, LHWs are not allowed to administer the first dose of injectables and do not provide emergency contraceptive pills. Their potential impact is diluted further by heavy involvement in competing programs (especially polio eradication). While they are widely perceived as a valuable resource by communities, their inability to manage side effects is mentioned by men and women as a critical gap. Among male non-physician providers, dispensers are not allowed to provide any family planning services, though they are widely present and respected in rural areas. Hakeems and homeopaths, also a widely present and used resource, have very recently been permitted to offer some family planning methods in Punjab.

Irregular or non-supply of contraceptives is cited frequently as a reason for non-provision by private sector providers and rural pharmacies. It affects both the public sector, where a formal contraceptive supply chain exists, and the private sector, where distribution is limited by relatively low sales volumes, especially in rural areas, where the market is more diffused. A large proportion of pharmacies are not licensed, which means they need to purchase from wholesalers, further reducing profit margins.

With respect to financial motivation, non-physician cadres offer greater potential than doctors, who can earn more fees from other services such as deliveries. However, sound training would have to be ensured, especially for proper information provision and counseling and management of possible side effects of both short and long term hormonal methods. Many male providers and pharmacists are keen to participate but are held back by fears about cultural sensitivities and doubts about acceptability of family planning.



## RECOMMENDATIONS FOR PPIF PROGRAM DESIGN

The preceding discussion of suboptimal use and provision of family planning services in Punjab and the underlying demand- and supply-side barriers provides the context for our proposed theory of change, shown in Figure 1.1, and the catalytic role we envisage the PPIF will play, as outlined below.

#### AIM AND SCOPE OF ACTIVITIES

More than one million induced abortions and an additional million unwanted children are an outcome of the gap between need for family planning and the supply and uptake of necessary services in Punjab. Since this gap has persisted for a decade or more, traditional approaches are unlikely to escalate change. The PPIF, as its name suggests, offers an opportunity to innovate and find out-of-the-box, more effective approaches for family planning communication and service delivery. The outcomes of its interventions must be a reduction of the barriers perpetuating unmet need, among both potential users and providers. The eventual impact should be a reduction in fertility and an increase in contraceptive use at a pace that significantly exceeds the current trend.

The PPIF is a market maker with the immediate goal of accelerating a rise in contraceptive prevalence and reduction in unmet need for family planning services to meet FP2020 targets.

Its fundamental role is to test the impact of innovations that spark off a significant increase in consumer market for family planning through greater determination and information availability, enhanced provider motivation, and wider provision of quality family planning services in certain selected areas. The learning agenda is an essential part of the PPIF, and once impact and change are established, the secondary goal is to devise ways of achieving universal access to reproductive health services in Punjab.

For the present, we recommend that the Fund be seen to augment the role of the provincial government departments of Health and Population Welfare, rather than a resource for streamlining their inner workings.

PPIF's role will remain neutral and independent of existing systems. For this reason it has been launched as a private sector company with an incubation period in the Planning department. Since it is designed as an innovation fund, it must retain that mandate of doing things out of the system and out of the box and collecting evidence for upscale and expansion, leaving room for recourse and correction.

The Punjab Population Innovations Fund is a route for testing out innovative (including previously untried) models for serving the unmet need of men and women, both never users and past users, as well as users of traditional methods, with a special emphasis on the poor. The direct goal of all interventions will be to increase access to services, especially in the underserved urban and rural areas, through innovative approaches in communication and service delivery.

Recognizing the need for increasing both acceptability and availability simultaneously, the Fund will support interventions in areas of high poverty and high unmet need for family planning. Also, with regard to whether demand should be funded or supply subsidized, it will be desirable to test both approaches as separate options as well as together as complementary approaches. Interventions will ensure that consumers are able to make fully informed method choices that fit their reproductive intentions, health condition, and cultural, socioeconomic, and other constraints and advantages.





We see the earlier phase of PPIF as having area-specific targets that indicate that the interventions are impactful, with the later phase involving larger efforts that accelerate increase in CPR. Initial calls will be set up to be responsive in a shorter time period. This approach serves the objective of producing some quick gains in a short period of time to upscale. It is also conducive to monitoring, evaluation and learning as it allows more accurate and frequent measurement of increase in provision and use of family planning services.

With regard to interventions on the communications front, there is an urgent need to respond to the widely reported fear of side effects and apprehensions about modern contraception. This issue affects all segments of potential users. There is also a need to disseminate direct, accurate, and detailed information about family planning—specifically, choices of contraceptives, their pros and cons, how to use, where to get, who to approach, possible side effects, what to do in case of side effects, etc. This information needs to be provided not only to women, but also and especially to men and youth as well. At the same time, an environment of acceptability of family planning needs to be created.

For wider coverage, the information needs to be disseminated through multiple networks and channels that are both accessible and provide some measure of privacy. Extensive penetration of mobile technology and growing digital literacy can be harnessed to meet the need for information so frequently voiced by women, men and youth. In unserved communities in particular, mobile applications can be valuable sources of both information and basic counseling. Social media, mobile apps, and other routes of communicating could form the basis of solutions that are easy to implement and upscale. The apps or communications platforms could become the "go to" for improving knowledge of individual contraceptive methods and linked with pharmacies, help lines, etc.

In terms of service delivery, poor and rural residents with unmet need are faced with lack of local providers who have sufficient contraceptive information and choices. Moreover, the information and service needs of male users, who now account for half of contraceptive use in the country, are often greatly neglected under current women-centered approaches. To address service delivery constraints and increase choices of where, when and how users can get contraceptive advice and commodities. the large unutilized potential of the low-cost private sector can be tapped, particularly the wide network of informal sector health providers who are present in much larger numbers than physicians, especially in rural areas, and located closer to and utilized more for sexual and reproductive health needs by most men and women. New service providers (especially males) could be incentivized to provide family planning services and the contraceptive choices they can offer subsidies enhanced through commodities and training through the PPIF.



This would give underserved and unserved areas greater coverage of family planning services and save users travel related costs and time; it would also be a positive move towards the SDGs and national and provincial targets pertaining to universal access to reproductive and family planning services in Punjab. Another advantage of inducting private providers is that it opens up the possibility of a longer term change and medium or longer term sustainability. Once providers are given the initial induction into family planning, they will add it to their repertoire and find ways of setting up supply chains through local pharmacies and wholesale suppliers. It is assumed that the private sector will not need long-term propping and financial support, especially if consumer interest is stoked simultaneously. Since we also know that the poor already rely on low-cost private sector services for reproductive health needs and are making considerable payments out of pocket for abortion, antenatal, and delivery services, adding family planning services would be a natural choice and would not require additional advertisement and trips for them. For example, 52% of cited sources of modern contraceptives are outside of the public sector (PDHS 2012-13).

Specific interventions once fully developed can be tested and calibrated based on a careful appraisal of the locally prevailing conditions and barriers to contraception use, and the variant market and service delivery environment in selected areas.

Following from the above, we propose four major ideas for PPIF to support in its first year: (1) Mitigating information related obstacles that lower the demand for and access to modern family planning methods among current and potential users, including both men and women;

- (2) Increasing the uptake of these methods through advisory services and counseling that help address concerns related to usage;
- (3) Delivering contraceptive products and services to users at their doorstep in communities not adequately served by public health workers; and
- (4) Enabling private static health service providers to initiate and sustain provision of an adequate range of quality family planning services for underserved communities and households with unmet need.

# LOCATION & SCALE OF INTERVENTIONS

Although unmet need for family planning has been reported in both urban and rural areas and across all districts of Punjab, there is considerable diversity across the province. Obstacles leading to unmet need vary also, if not in terms of reasons, then in intensity of the blockages reported.

There will definitely have to be a phased approach with a province the size of Punjab. At the same time there is a need to demonstrate impact of the PPIF interventions at a level that encourages continuity of funding and support both from the Government and donor sources.

The strategy used for the selection of locations of the interventions is to focus on the more deprived areas with highest number of absolute numbers of women with unmet need (for example, on districts that have more than 120,000 currently married women with unmet need). This leads to the choice of districts like Lahore, Faisalabad, Multan, Rawalpindi, Bahawalpur, Rahim Yar Khan, Gujranwala, and Muzaffargarh, which collectively comprise more than 40 percent of the population of women with unmet need in Punjab. The concentration of women with unmet need across the districts, in terms of numbers and proportions, along with levels of fertility, are presented in Table A.1 in the appendix.

As mentioned above, in its earlier phase, PPIF will focus interventions on relatively smaller and clearly demarcated areas for closer monitoring and to demonstrate impact within a shorter time frame of within 12 months. Interventions may be targeted at tehsils (sub-districts) or at clusters of providers and users in a defined geographic spread (for example, 5- to 10-kilometer radius) within selected tehsils. Clusters could be formed once the tehsils are selected for intervention.

## MONITORING, EVALUATION, AND LEARNING

framework for monitoring, learning and evaluation (MLE) has to be developed to assess PPIF and its interventions. Outlined below are some initial thoughts about each element. The PPIF offers an opportunity of a major learning agenda through the development and testing of new ways of communicating and service delivery that extend beyond the boundaries and parameters of the PPIF to other provinces and nationally.

Monitoring of the PPIF will be a regular feature to assess progress at each stage, particularly the disbursement of grants.

Primary monitoring will relate to measuring the impact of interventions in terms of growth in access to and utilization of family planning and reproductive health services, sources of information, and products accruing from innovations. The evaluation agenda will test the impact of the innovations against indicators such as changes in family planning use behavior and need fulfillment during implementation.

By introducing innovations in a restricted area, demarcated by sub-district boundaries or as clusters, we will monitor progress through a combination of household surveys, qualitative interviews, and observation of client/provider interactions to assess change in the overall environment for family planning in terms of breaking barriers to unmet need.

Progress will be measured in terms of changes and difference in proportion of satisfied clients, rise in contraceptive prevalence, and proportion of need satisfied, before and after the interventions. A layered design will be utilized with one set of evaluations of specific innovations, such as the communication products and their efficacy and impact, and another set of evaluations looking at the impact of programmatic inputs such as the incentivization of private sector providers and induction of private sector doorstep delivery of family planning services.

Alongside we will be utilizing other supporting evidence such as the MICS surveys, the PDHS 2017, and Health surveys in Punjab to come up with data concerning changes in family planning and health seeking behavior. In particular, the MICS data will be disaggregated to the tehsil level to assess changes in unmet need and contraceptive prevalence.

The overall expected change in Punjab is that the CPR growth, which is averaging around 1.5 percentage points a year, should rise to at least 2 percentage points or more a year as a result of the additional efforts including the PPIF. A fuller evaluation will take place three years after initiating the interventions to allow changes to translate into province or district level impact.



#### References

Bongaarts, John, John Cleland, John W. Townsend, Jane T. Bertrand, and Monica Das Gupta. 2015. Family Planning Programs for the 21st Century: Rationale and Design. New York: The Population Council.

Kamran, I., Zeba Tasneem, Tahira Parveen, and Yasmeen Z. Zaidi. 2015. Investigating Low Modern Contraceptive Use in Pakistan. Islamabad: Population Council.

NIPS and ICF International. (2013). Pakistan Demographic and health Survey 2012-13. Islamabad. Islamabad and Calverton, Maryland, USA: National Institute of Population Studies. Population Council. 2016. Landscape Analysis of the Family Planning Situation in Pakistan. Islamabad: Population Council.

Wulifan, Joseph K., Stephan Brennar, Albrecht Jahn, and Manuela De Allegri. 2016. A scoping review on determinants of unmet need for family planning among women of reproductive age in low and middle income countries. BMC Women's Health 16:2, DOI: 10.1186/s12905-015-0281-3.

#### **Appendix**

Currently Married Women with Unmet Need in Punjab, by District - 2015, Population Council Projections

Division/ Production	rojected Population 2015 (000)	%age of CMWA	Number (000) CMWA	TFR	CPR (%)	Unmet need (%)	(000) CMWA with Unmet need
The Punjab	105,621	16.24	17,153	3.5	38.7	17.5	17.5
Bahawalpur Di	<b>v.</b> 11,336	16.26	1,843	3.5	29.0	19.4	19.4
Bahawalpur	3,664	17.01	623	3.8	25.7	21.5	21.5
Bahawalnagar	2,876	15.66	450	3.4	35.2	16.4	16.4
R.Y.Khan	4,796	16.07	771	3.3	27.9	19.5	19.5
D.G. Khan Div.	10,040	16.03	1,609	4.8	25.3	25.3	25.3
D.G.Khan	2,541	16.79	427	4.9	22.1	27.3	27.3
Layyah	1,694	15.08	255	3.5	30.6	21.2	21.2
Muzaffargarh	4,105	16.14	663	4.6	27.1	26.2	26.2
Rajanpur	1,700	15.44	262	6.2	21.8	24.0	24.0
Faisalabad Div	13,694	16.03	2,195	3.4	36.0	17.7	389
Faisalabad	7,665	15.66	1,200	3.4	37.8	17.6	211
Chiniot	1,282	16.08	206	3.2	28.3	16.9	35
Jhang	2,556	16.48	421	3.7	31.7	20.1	85
T.T.Singh	2,191	16.73	367	3.3	40.0	15.7	58
Gujranwala Div	15,961	16.31	2,603	3.3	46.9	14.9	388
Gujranwala	4,988	15.69	783	3.3	46.9	17.7	139
Gujrat	2,801	15.44	433	2.9	46.1	14.5	63
Hafizabad	1,144	16.44	188	3.3	50.3	12.6	24
Mandi Baha-ud	-Din 1,524	17.08	260	3.1	40.6	14.8	39
Narowal	1,678	15.99	268	4.3	51.0	15.0	40
Sialkot	3,826	17.49	669	3.1	47.6	12.4	83

Division/ District	Projected Population 2015 (000)	%age of CMWA	Number (000) CMWA	TFR	CPR (%)	Unmet need (%)	(000) CMWA with Unmet nee
Lahore Div.	17,953	15.76	2,829	3.5	45.6	16.4	464
Lahore	9,943	15.86	1,577	3.1	47.3	15.9	251
Kasur	3,398	15.39	523	4.5	42.3	14.9	78
Nankana Sal	nib 1,358	16.17	220	3.5	45.7	17.0	37
Sheikhupura	3,253	15.68	510	3.5	43.4	18.8	96
Multan Div.	12,129	16.88	2,047	3.4	39.4	16.2	332
Multan	4,513	16.99	767	3.6	39.0	16.6	127
Khanewal	2,901	16.62	482	3.4	39.5	15.7	76
Lodhran	1,699	17.05	290	3.9	39.2	15.7	45
Vehari	3,016	16.87	509	2.8	40.4	16.6	84
Rawalpindi	<b>Div.</b> 9,334	16.43	1,534	2.9	44.4	14.5	222
Rawalpindi	4,887	15.88	776	3.1	43.2	15.8	123
Attock	1,744	17.03	297	3.0	48.2	12.5	37
Chakwal	1,442	17.62	254	2.7	44.9	12.8	33
Jhelum	1,262	16.96	214	2.3	42.7	14.3	31
Sahiwal Div	7,437	16.55	1,231	3.8	37.7	17.4	214
Sahiwal	2,499	16.52	413	3.9	37.6	15.6	64
Okara	3,121	16.51	515	3.8	37.4	20.3	105
Pakpattan	1,817	16.66	303	3.7	38.6	15.0	45
Sargodha D	iv. 7,737	16.41	1,270	3.1	33.3	18.0	229
Sargodha	3,539	16.70	591	2.6	34.6	19.1	113
Bhakkar	1,520	15.56	236	3.9	31.9	17.6	42
Khushab	1,213	16.60	201	3.3	32.2	18.2	37
Mianwali	1,466	16.56	243	3.3	32.9	15.8	38

