Strengthening the Community-based Healthcare System through the Community Midwives Plus Project

June, 2024

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Strengthening the Community-based Healthcare System through the Community Midwives Plus Project in Sindh

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Abbreviations

ANC	Antenatal Care
CHWs	Community Health Workers
CMWs	Community Midwives
CPR	Contraceptive Prevalence Rate
DDHOs	Deputy District Health Officers
DMP-SC	Depo-Medroxyprogesterone
FGDs	Focus Group Discussions
FP	Family Planning
GANC	Group Antenatal Care
Hb	Haemoglobin
HDI	Human Development Index
IDIs	In-Depth Interviews
IRB	Institutional Review Board
IUCD	Intrauterine Contraceptive Device
LARCs	Long-Acting Reversible Contraceptives
LHW	Lady Health Worker
LMICs	Low-Middle Income Countries
MIS	Management Information System
MOU	Memorandum of Understanding
PPHI	People's Primary Healthcare Initiative
PPFP	Postpartum Family Planning
PPIUCD	Postpartum Intrauterine Contraceptive Device
PWD	Population Welfare Department
RTI	Regional Training Institute
RNMCH	Reproductive Maternal, Neonatal and Child Health
SDGs	Sustainable Development Goals
TMK	Tando Muhammad Khan

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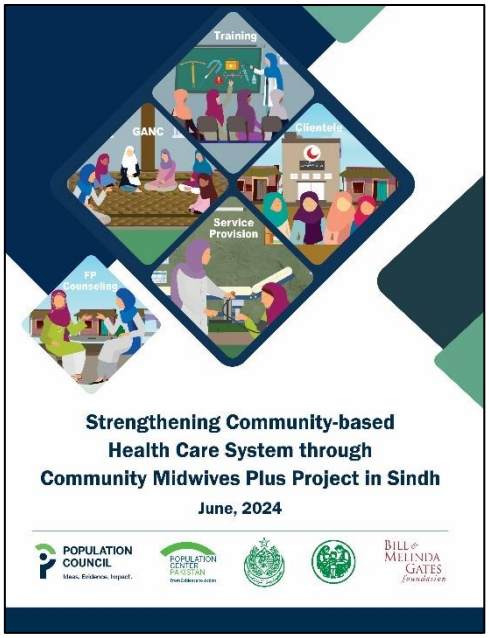
Executive Summary

The community-based health system in Pakistan caters at the most basic level, especially in rural areas. Community midwives (CMWs) are the mainstay of the system, providing essential reproductive health services, including antenatal, delivery, postnatal, and family planning (FP) services. However, recent data indicate that CMWs have not been actively engaging in their communities for various reasons.



Project Background

The Population Council designed and successfully piloted a model to optimize the engagement of CMWs in rights-based FP services, with a particular focus on post-pregnancy FP in the district of Tando Allah Yar during 2019–2020. The main objective was to strengthen the community-level healthcare system and to address access issues for women, particularly regarding FP. The project proved that CMWs can play a vital role in scaling up FP and reproductive health services.

Following the pilot's success, the Population Council expanded the CMW model to the Matiari and Tando Muhammad Khan (TMK) districts of Sindh during 2023–2024. This project, titled “Strengthening Community-based Healthcare System through Community Midwives Plus Project in Sindh,” was implemented with support from the Bill and Melinda Gates Foundation. Local collaborators were the Department of Health Sindh (RMNCH Program), the Population Welfare Department, Sindh, and the Population Council.

Interventions

The following interventions were carried out:

- **Trainings:** Focused on FP and postpartum family planning (PPFP), including hands-on training regarding the insertion of intrauterine contraceptive devices (IUCDs) and intrauterine contraceptive devices (PPIUCDs). CMWs were also trained on emergency preparedness for providing FP services during natural disasters like floods.
- **Regular contraceptive supply:** Free contraceptives were provided to the CMWs according to their needs through PWD, Sindh. Sayana Press and IUCD were provided for the first time, increasing the choice of methods available to clients.
- **Equipment Provision:** Basic functional medical equipment and essential IUCD kits were supplied to the CMWs.
- **Group Antenatal Care (GANC) Model:** Introduced for the first time at community-level in Pakistan through CMWs, GANC focused on PPFP counseling and services.
- **Supportive supervision:** Senior female medical doctors visited CMWs’ birth stations to assess service quality and provide on-the-job guidance.
- **Digital monitoring:** Two mobile applications were developed for CMWs to record client and service data for FP and GANC separately.

Evaluation Design

The project evaluation used a quasi-experimental design with a mixed-methods approach, including an intervention and comparison group. This approach assessed CMWs' opinions, attitudes, and knowledge before and after the interventions.

The evaluation combined quantitative and qualitative research techniques—such as surveys, in-depth interviews, and focus-group discussions—to provide a comprehensive understanding. This approach facilitated the exploration of both numerical data and, importantly, nuanced qualitative insights. Baseline data was collected in March 2023 and endline data was collected in November 2023[1].

Evaluation Results

Improved Readiness of CMWs to Provide FP and PPFP Services

- At baseline, less than half of the CMWs in both intervention districts had birth stations; by endline, 97% in Matiari and 91% in TMK had functional birth stations.
- At baseline, the majority of CMWs' birth stations lacked essential equipment. By the endline, all CMWs in intervention districts had essential equipment, including IUCD kits.
- At baseline, the contraceptive stock was available to a limited number of CMWs in both intervention districts; by endline, over 90% had sufficient contraceptive stock (94% in Matiari, 97% in TMK).

Enhanced Capacities of CMWs to Provide FP and PPFP Services

- CMWs were trained in FP and PPFP, including IUCD and PPIUCD insertion.
- Trainings increased CMWs' knowledge, skills, and income.
- The GANC model was introduced for the first time in Pakistan to promote PPFP with CMWs conducting GANC sessions.

Expanded Scope of Service Provision

- At baseline, only 28% of CMWs in Matiari and 41% in TMK provided FP methods. However, by endline, all CMWs (100%) in both districts were providing at least three methods.
- 74% of CMWs provided an increased choice of contraception: 5 or more methods, including Sayana Press and IUCD.
- The range of services offered by CMWs increased at the endline in intervention districts, including antenatal services through GANC sessions and FP and PPFP counseling and services.

Family Planning Clientele

- 66 CMWs served over 25,000 clients regarding FP from June 2023 to March 2024.
- Among clients, oral pills were the most common method chosen (9,051), followed by injectables (6,369) and condoms (3,110).
- A total of 207 clients opted for IUCD from the CMWs.

Promoting PPFP through the Group Antenatal Care Model

- CMWs registered 70 cohorts from their communities comprising 650 pregnant women
- Out of 640 pregnant women (with complete records available), 508 (79.3%) opted for a PPFP method after delivery.

[1] Initially project timelines were till December 2023, however, after endline survey in November 2023, the project got extension till June 2024.

- A total number of 50 women chose PPIUCD, with most insertions performed by CMWs and 15 women opted for tubal ligation.
- The GANC model proved to be a promising approach for promoting PPFP.

Conclusion

The project findings support that, with proper training and supplies, CMWs can become an empowered cadre of the health system, particularly for FP and PPFP. They can significantly strengthen the community-based health system, especially by providing services to residents of rural areas who have limited access to healthcare.

Community members appreciate having local reproductive health workers providing FP services, saving them time and money on travel. Previously, they had to travel long distances outside of their communities if they wanted to acquire any FP services.

The community-based GANC model was introduced for the first time in Pakistan to promote PPFP. PPFP was promoted through consistent counseling during multiple GANC sessions. 79.3% of GANC members opted for PPFP after their deliveries. Women had multiple FP method choices and selected the ones they found reliable and convenient.

Recommendations

- Replicate this model across the districts of Sindh and other provinces to utilize the existing resource of CMWs towards advancing FP and PPFP.
- Expand the CMW mandate to include additional contraceptive methods like implants, increasing client choice.
- Engage CMWs in multifaceted reproductive health related services, including pre-eclampsia detection, post-natal care, substance-use awareness, immunization, and mental health counseling.
- Organize regular refresher trainings for CMWs to keep their knowledge current and relevant.
- Replicate the GANC model in rural areas facing access challenges for pregnant women seeking PPFP services.
- Test the feasibility of the GANC approach through randomized control trials.
- Establish a mechanism between CMWs and the RMNCH program to monitor CMW performance and provide contraceptive supplies as needed.

1 Introduction

Background

The high fertility rate in countries like Pakistan—more than double the global annual average—poses significant challenges to the planet's economy, climate, living standards, and sustainability (Zahir, 2023). Pakistan's rapid population growth outpaces its improvements in health, education, and the economy. With only seven years left until 2030, the Global Sustainable Development Report 2023 warns that current efforts are insufficient to meet the Sustainable Development Goals (SDGs). Urgent and decisive global action is needed to ensure substantial progress by 2030 (United Nations, 2015).

SDG 3 (good health and well-being) and Family Planning (FP) 2030 have laid a foundation for improving family planning and maternal and infant healthcare—essential for enhancing living standards in the densely populated country. Research shows that FP can significantly reduce preventable maternal and infant deaths, making it a critical health intervention (Askew et. al., 2024). Despite government and public-private partnership efforts, including outreach initiatives like the Lady Health Workers (LHW) program, Pakistan's contraceptive prevalence rate (CPR) has remained between 30% and 35% since 2007. The Council of Common Interests advises a rapid increase in CPR by 178% to reach 50% by 2030 (Government of Pakistan, 2018; Abdullah et. al., 2023).

Long-acting reversible contraceptives (LARCs) are highly effective, reliable, and affordable compared to other FP methods. Gynecologists strongly recommend LARCs to prevent unwanted pregnancies (Sheikh et. al. 2023). Intrauterine contraceptive devices (IUCDs), when used after pregnancy, are termed postpartum IUCDs (PPIUCDs). These can be inserted immediately, within 10 minutes of delivery, up to 48 hours after delivery, or even up to one year postpartum. PPIUCDs can potentially reduce the unmet need for FP, and it is crucial to empower and encourage reproductive health workers to provide PPIUCDs as a FP option (Zafar et al., 2023).

Pakistan's community-based healthcare system operates at the most basic societal level, with community health workers (CHWs)—like Lady Health Workers (LHWs) and Community Midwives (CMWs)—being the key components. Particularly during natural disasters, CHWs can reach remote segments of society disconnected from the official healthcare system. Introduced by the government of Pakistan in 2007, CMWs primarily address reproductive health needs, including antenatal, delivery, postnatal, and FP services at the community level. While LHWs' roles are not limited to reproductive health, their support for CMWs is vital for optimal community health outcomes. However, latest data indicates that CMWs have not been actively engaged in communities.

Research shows that women experiencing natural disasters face increased unplanned pregnancies. Emergency health providers, under immense pressure to prioritize life-saving cases, often neglect

reproductive health in these situations. Being at the forefront, CMWs can play a crucial role in delivering sexual and reproductive health services during such emergencies (Kamran et al., 2021).

CMWs hold substantial promise as primary service providers for reproductive health in rural areas, addressing accessibility and affordability barriers. Strengthening the role of CMWs in Pakistan is a critical step towards addressing the healthcare needs of underserved rural populations. By enhancing CMWs' capacities and effectively integrating them within the healthcare system, we aim to improve access to essential reproductive health services and achieve better health outcomes in the region.

Rationale

Sindh, Pakistan's second most populous province, has over 50 million people and a CPR of about 31%. In 2019–2020, the Population Council piloted a project in Sindh with 47 CMWs in the Tando Allah Yar district to optimize their engagement in providing FP services. The findings from this pilot study, "Optimizing Provision of Rights-Based Family Planning Services by Community Midwives (CMWs) in Tando Allah Yar," demonstrated that involving CMWs in FP interventions yields transformative results. The study found that CMWs are trusted in their communities for FP services, contraceptive knowledge and awareness, and reproductive health guidance (Kamran et al., 2021). Being community members themselves, their proximity to patients plays an important role in building trust and in healthcare accessibility. Research also shows that counseling provided by midwives benefits women's mental health (Coates et al., 2019).

Encouraged by the evaluation results, the Population Council replicated the model with some enhanced components in two additional districts in Sindh.

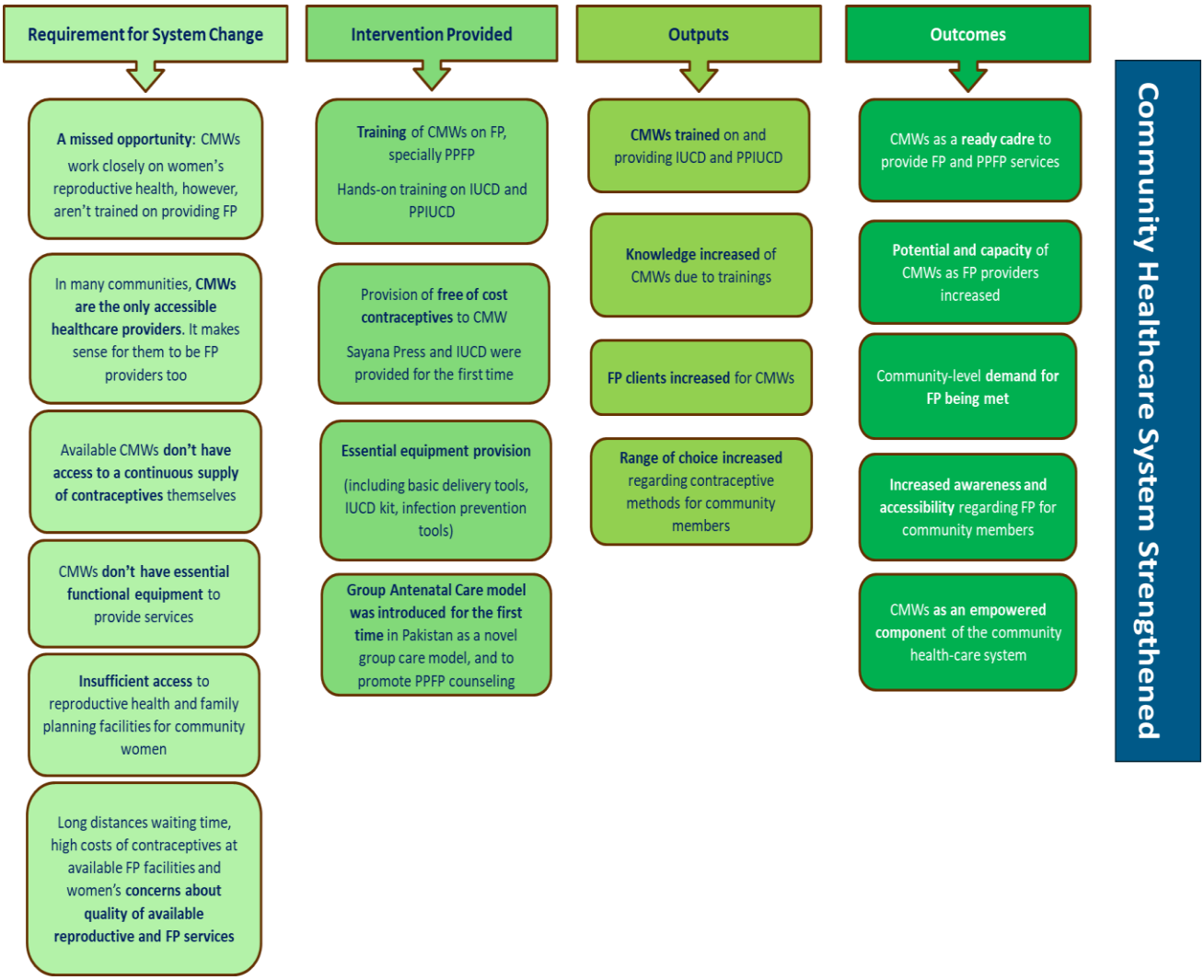
Objectives of the Project

The main objective was to assess the feasibility of strengthening the community healthcare system by engaging CMWs to provide FP, postpartum family planning (PPFP), and maternal health services through supportive measures.

Theory of Change

The project aimed to enhance the capacities of CMWs, developing them into an empowered and prepared cadre to provide FP and PPFP services at the community level. This strategy was designed to strengthen the community healthcare system. Interventions were based on the theory of change illustrated below.

Figure 1.1: Theory of Change

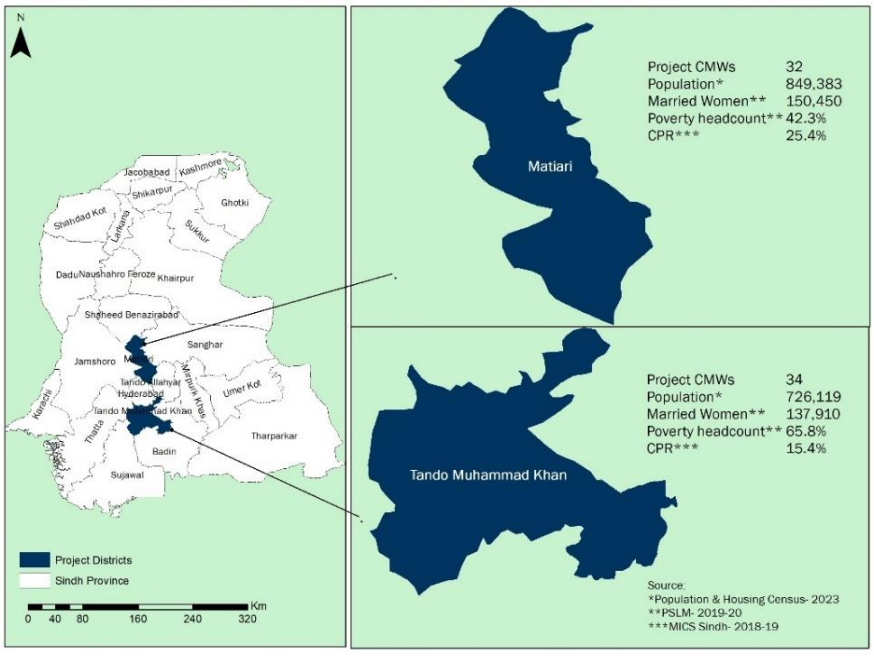


Location

The project was implemented in the districts of Matiari and Tando Muhammad Khan after consultation with provincial stakeholders.

According to the National Human Development Report 2024 (United Nations Development Program, 2024), Matiari ranks 11th (HDI: 0.563) and Tando Muhammad Khan ranks 20th (HDI: 0.4) among the 30 districts of Sindh.

Figure 1.2: Geographic location of the project



Project Collaborators

The project was launched and implemented in two districts of Sindh in collaboration with three organizations: the Reproductive, Maternal, Newborn, and Child Health (RMNCH) Program Sindh, the Population Welfare Department (PWD) Sindh, and the Population Council.

- **RMNCH Program, Department of Health, Sindh:** Provided a list of registered CMWs, collaborated in implementing all project activities at the district level, and also facilitated evaluation activities.
- **Population Welfare Department, Sindh:** Provided contraceptive supplies, and supported the project by providing infrastructure for FP trainings, including modules on PPFP and IUCD. They also ensured an uninterrupted supply of contraceptives, which was an important component of the project.
- **Population Council:** Designed the model, implemented intervention activities, coordinated with stakeholders, conducted project evaluations, analyzed data, and disseminated findings.

Interventions

Comprehensive Training

Extensive training sessions were conducted at the Regional Training Institute in Hyderabad. These sessions covered family planning, disaster preparedness, client-centred care, group antenatal care (GANC), and digital management information system (MIS) tools. The goal was to review existing knowledge and introduce new concepts such as emergency preparedness and the GANC approach.

Family Planning Training

The FP training focused on contraceptive methods, including Sayana Press and IUCD. It also included education on organizing and conducting GANC sessions—a new intervention introduced in Pakistan. The Population Council ensured the maintenance of quality standards. Training sessions were conducted in batches from March to May 2023.

Postpartum Family Planning (PPFP) and Postpartum Intrauterine Contraceptive Device (PPIUCD) Training

The next level of training, lasting four days, was dedicated to PPFP and PPIUCD. This included clinical attachment with supervision, emphasizing the insertion and removal of IUCDs. Out of 66 CMWs, 44 completed IUCD training, performing three observations and four insertions each. Some CMWs completed more than the required observations and insertions to practice and improve their skills. For PPIUCD, 32 CMWs completed training, each performing five observations and insertions. These observations and insertions were carried out in government hospitals. The knowledge of CMWs was evaluated before and after the training sessions.

Uninterrupted Contraceptive Supply

Throughout the intervention period, PWD ensured a regular and free supply of contraceptives to the CMWs. This included an increased variety of methods, such as Sayana Press DMPA-SC, along with condoms, oral pills, IUCDs, and injectables. Initially, each CMW received a three-month stock, with additional supplies provided as needed.

Essential Equipment Provision

In addition to contraceptives, CMWs were supplied with essential equipment for providing FP services. This included weighing scales, blood pressure apparatus, hemoglobin meters, delivery beds, infection prevention tools, and IUCD kits.

While the RMNCH program supports CMWs with some supplies and delivery-related equipment, financial constraints have limited their coverage.

Supportive Supervision

Senior female medical doctors supported the CMWs by visiting their birth stations to offer on-the-job guidance and ensure service quality. CMWs could easily communicate with the supervisors for any issues or assistance needed.

Group Antenatal Care (GANC) Model

GANC model was introduced for the first time in Pakistan under this project, with a particular focus on PPFP counseling. Originally developed in the United States in the late 1990s and adopted by several low- and middle-income countries (LMICs), the GANC model increases clinic attendance and patient satisfaction compared to individual antenatal care. This model centers on women, providing support and empowerment through their peers. CMWs were trained to conduct GANC sessions within their communities. Overall, 55 CMWs registered 70 cohorts, serving a total of 650 pregnant women, with a maximum of eight sessions conducted. Women "graduate"* from their registered groups upon delivery, miscarriage, or abortion.

GANC at the community level launched for the first time in Pakistan through the CMW project

Total CMWs conducting GANC sessions = 55
Total cohorts registered = 70
Total pregnant women registered and served = 650

Digital Monitoring Tools

Two mobile applications were developed for CMWs to record information on each FP client visit, follow-up visits, and updates for record-keeping. Digital monitoring was ensured, with CMWs receiving a monthly top-up of 1500 Rs. Printed copies of client record registers, client cards, and referral slips were also provided to keep detailed records of new and follow-up clients.

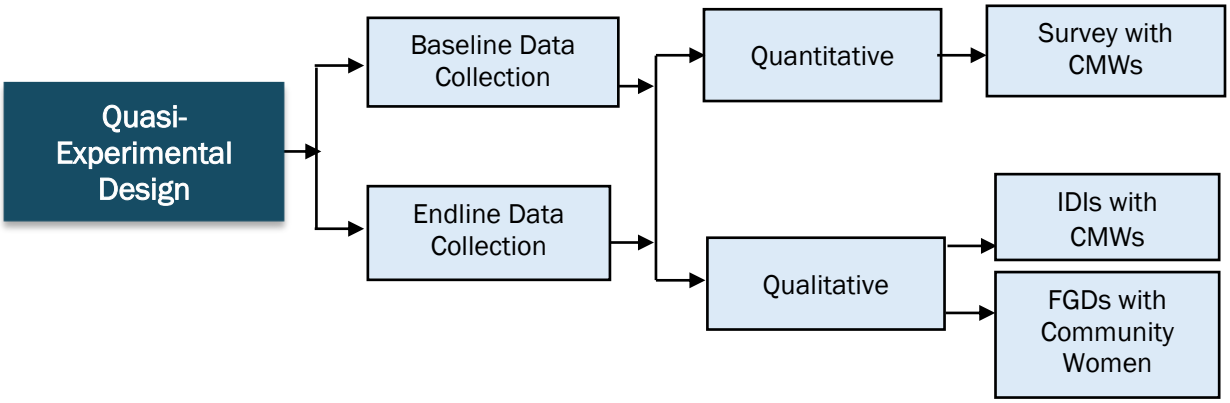
* "Graduation" from ANC groups refers to deliveries, miscarriages or abortions i.e. a woman is no longer pregnant.

Evaluation Design and Methodology

The evaluation used a quasi-experimental design, following a mixed-methods approach, incorporating intervention and comparison groups. This framework aimed to assess the perspectives and attitudes of CMWs before and after interventions, as well as the views of community women regarding CMWs and their clientele.

Matiari and Tando Muhammad Khan were the intervention districts, while Jamshoro, with similar development indicators and geography, served as the comparison district.

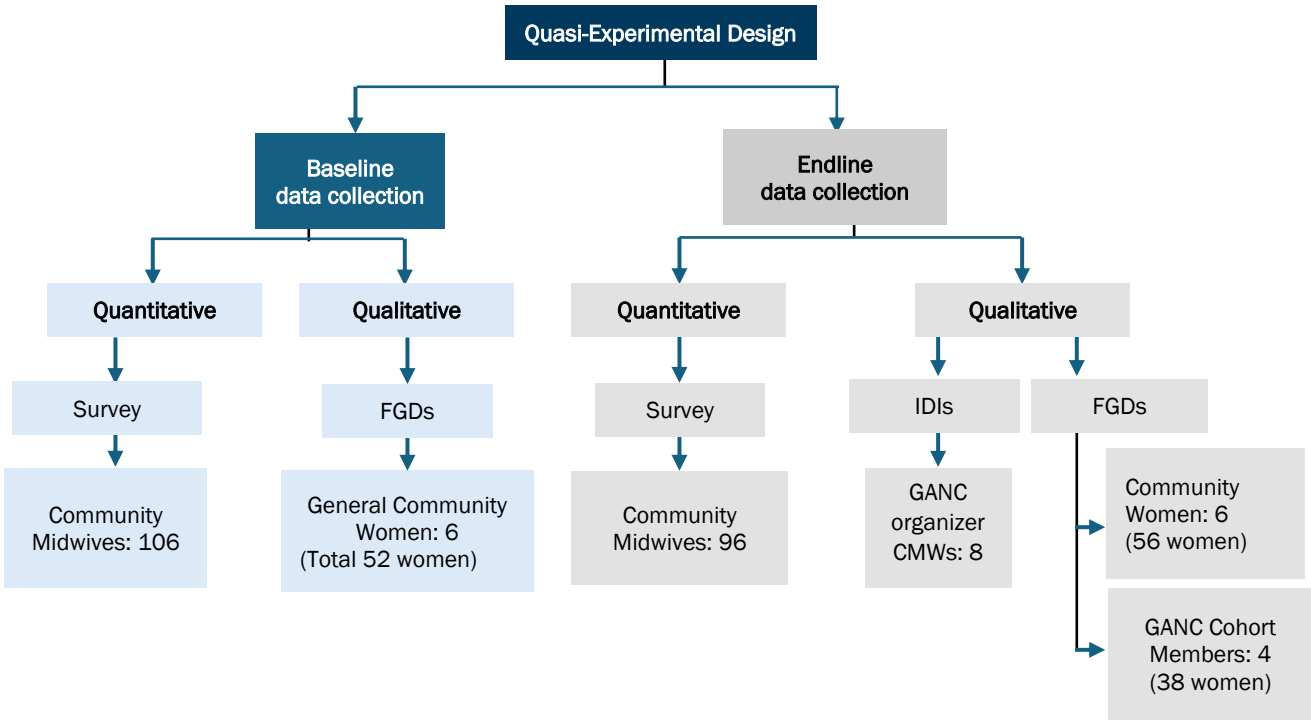
Figure 1.3: Evaluation design



Mixed-Methods Approach

A mixed-methods approach was adopted, combining quantitative and qualitative research techniques to thoroughly understand the research problem. This approach allowed for the exploration of both numerical data and nuanced qualitative insights. By using a quasi-experimental design and a mixed-methods approach, a robust framework was established for evaluating the interventions' impact in both the intervention and comparison districts.

Figure 1.4: Methodology for baseline and endline evaluation



Quantitative Research

The evaluation utilized structured survey questionnaires to gather quantitative data, aiming to comprehensively capture CMWs' perspectives and practices.

Baseline and Endline Surveys

Surveys were carried out at the baseline and endline stages to monitor changes over time and assess the effectiveness of interventions. Both surveys had comparable structures, covering various topics such as knowledge, availability of contraceptives, training, deployment, facility infrastructure, regular procedures, family planning services, and record-keeping. The endline survey included additional questions relevant to the interventions implemented, providing a comprehensive understanding of the outcomes.

All CMWs interviewed at baseline were re-interviewed at endline as part of this panel study. A total of 96 CMWs participated in the survey, distributed across intervention and comparison districts: 32 from Matiari, 34 from Tando Muhammad Khan, and 30 from Jamshoro (the comparison district). The panel represented a diverse range of experiences and perspectives, ensuring robust data.

By utilizing the same survey questionnaire at both baseline and endline, the study aimed to capture changes over time in the CMWs' perspectives and practices. The inclusion of additional questions in the endline survey allowed for the evaluation of intervention effects, while the distribution of CMWs across districts ensured the representation of different contexts and experiences. Overall, the quantitative data collection process was designed to provide valuable insights into the effectiveness of interventions and inform future programmatic decisions.

Qualitative Research

To capture qualitative insights, the study consisted of focus-group discussions and in-depth interviews. These approaches were instrumental in understanding the nuanced perspectives of stakeholders involved in the interventions.

Focus-Group Discussions (FGDs)

FGDs were conducted to understand community women's opinions of CMWs before and after the interventions. Six FGDs were conducted with 52 community women at baseline, and six FGDs with 56 different women at endline. Four FGDs at the endline included 38 women from the GANC cohorts to understand their perception and acceptance of the novel approach. These discussions provided insights into how the interventions might have influenced their views and experiences. Additionally, FGDs with members of the GANC cohorts assessed the acceptability and satisfaction with the intervention from those directly impacted by it.

In-Depth Interviews (IDIs)

At the endline, IDIs were conducted with eight CMWs who conducted GANC sessions to gather comprehensive feedback on the intervention. These interviews provided valuable insights into the CMWs' experiences, challenges faced, and suggestions for improvement.

By combining FGDs and IDIs, the study ensured that all stakeholders' viewpoints were thoroughly explored. These methods allowed for the exchange of different perspectives, enabling a comprehensive understanding of the intervention's effects.

Implementation and Monitoring

Interventions were implemented after baseline data collection, with impact assessment conducted at the endline. CMWs began reporting on the MIS, following the provision of contraceptives, equipment, and training.

Ethical Considerations

Before initiating the study, ethical clearance was obtained from the Population Council's headquarters in New York. This crucial step ensured adherence to established ethical guidelines and safeguarded participants' rights and well-being.

The study's ethical protocol included rigorous informed consent procedures, respecting participants' autonomy and safeguarding their rights. Participants were informed about the study's objectives, procedures, and data usage, with opportunities to ask questions. They were assured of voluntary participation, the right to refuse uncomfortable questions, and the option to end interviews at any time without consequences. A transparent risk assessment was conducted before obtaining consent, informing participants about the interview duration and any potential risks. Anonymity and confidentiality measures were implemented to protect participant privacy. Overall, the study prioritized ethical standards, ensuring participant welfare and data integrity.

Organization of the Report

Chapter 1 introduces the project in detail, covering its background, objectives, theory of change, roles of different collaborators, interventions implemented, and project location. It also elaborates on the evaluation design and methodology used to assess the project's impact.

Chapter 2 details the readiness, capacities, and service provision of CMWs. It profiles the participating CMWs and compares the baseline and endline situations regarding their birth stations, equipment, contraceptives, and types of services provided.

Chapter 3 focuses on postpartum family planning through the GANC model, which was introduced at the community level for the first time in Pakistan to promote PPFP.

Chapter 4 discusses the project outcomes and provides recommendations for future actions.

2 Readiness, Capacities, and Service Provision of CMWs

Key Findings

At baseline, only 38% of CMWs in the intervention area had functional birth stations. By the endline, 94% had established birth stations equipped with sufficient medical equipment.

CMWs were trained in family planning and post-partum family planning, with 74% providing five or more family planning methods.

Out of 66 CMWs, 44 were certified to provide services for intrauterine contraceptive devices and postpartum intrauterine contraceptive devices, following comprehensive theoretical and hands-on training.

CMWs began offering Sayana Press, intrauterine contraceptive devices, and post-partum intrauterine contraceptive device services at the community level.

The number of family planning clients served by CMWs increased significantly. Over 10 months, 66 CMWs served more than 25,000 family clients with family planning counseling and services

Profile of the CMWs

A total of 96 CMWs participated in the evaluation. This included 32 CMWs from Matiari district and 34 from Tando Muhammad Khan (TMK), the intervention districts. The remaining 30 were from Jamshoro, the comparison district. The RMNCH program helped to identify CMWs who were either running their birth stations or willing to run them, ensuring that all participants were functional CMWs, required by the project's inclusion criteria. Table 2.1 provides the demographic details of the CMWs based on the endline survey.

Over half of the CMWs were from urban areas (55%), while the rest were from rural areas. From Matiari, most of the CMWs were in the young age group (20–24 years), while in TMK, CMWs were relatively older (34+ years). In Jamshoro, the age distribution of CMWs was more balanced across different age ranges.

The majority of CMWs had completed 12 grades of education, followed by those who had graduated. In Matiari, over half of the CMWs were never married, likely because many were in the younger age range (20–24 years). In TMK (74%) and Jamshoro (57%), a large portion of CMWs were currently married.

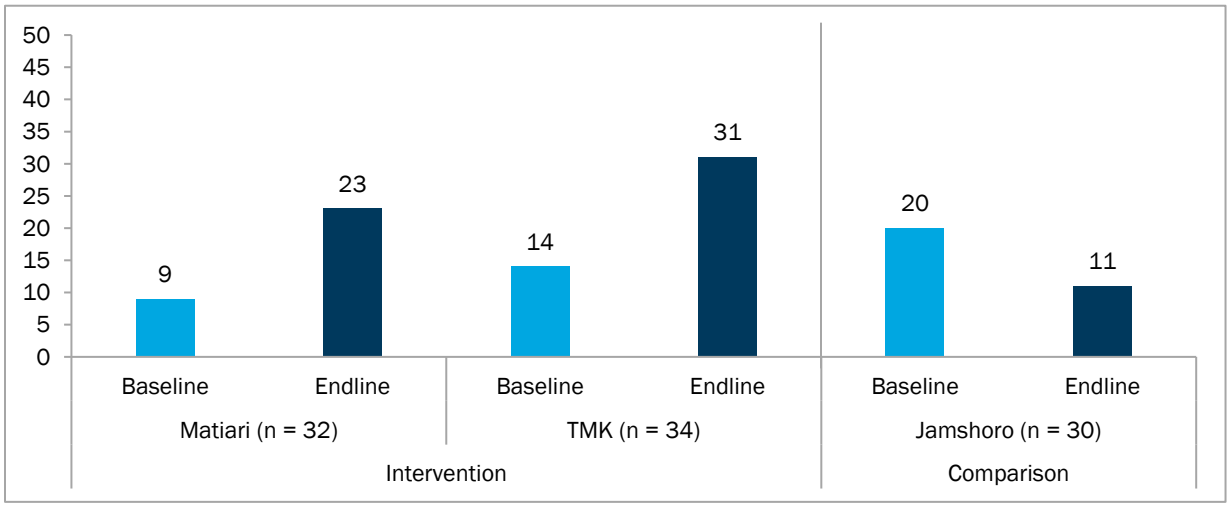
Table 2.1: Profile of CMWs who participated in the project, by intervention and comparison districts (n=96)

		Intervention		Comparison
		Matiari (n = 32) %	TMK (n = 34) %	Jamshoro (n = 30) %
Location	Urban	50	56	60
	Rural	50	44	40
Age in years	20–24	41	3	10
	25–29	31	26	37
	30–34	16	26	27
	34+	13	44	27
Education	Matriculation	13	15	0
	Intermediate	44	50	57
	Graduation	44	35	43
Marital status	Never married	53	24	40
	Currently married	38	74	57
	Widow/divorced	9	3	3
Overall N		**32**	**34**	**30**

Average Work Experience and Working Hours

In the intervention districts, the average working hours per week for CMWs increased at the endline compared to the baseline, as shown in Figure 2.1. Initially, most CMWs lacked medical equipment and contraceptives, which limited their working hours. However, once provided with equipment and contraceptive supplies, they were able to dedicate more time to serving their communities, particularly in FP. In contrast, the mean working hours per week of CMWs in the comparison district decreased at the endline compared to the baseline.

Figure 2.1: Mean working hours per week (n=96)

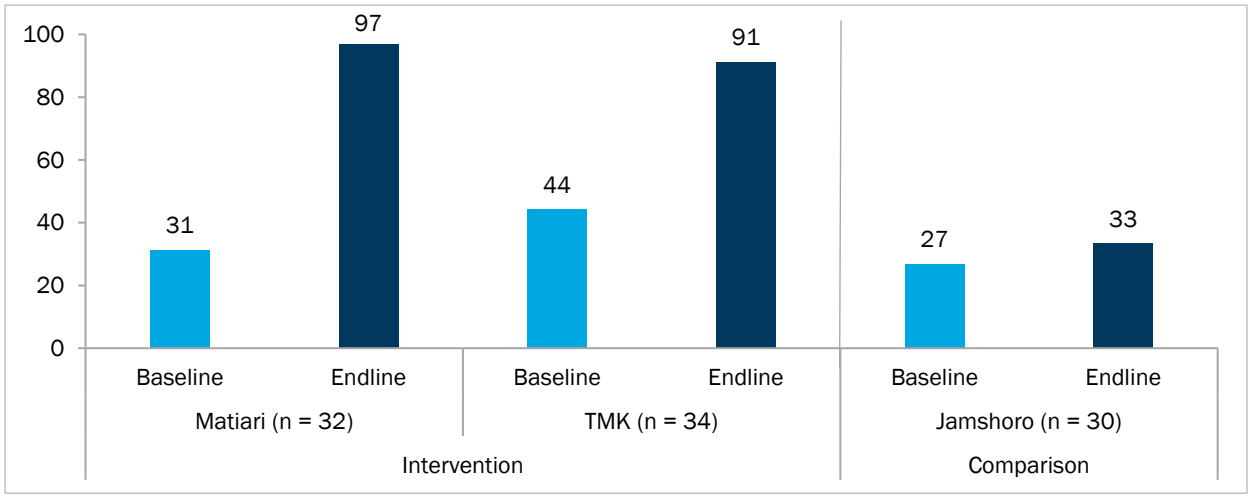


Improved Readiness of CMWs to Provide FP and PPFP Services

Establishing Birth Stations and Availability of Equipment

Birth stations, offering a private space for client examinations, are essential for CMWs. Overall at baseline, less than half (40%) of the CMWs in the intervention districts had birth stations. By the endline, more than 90% of CMWs in these areas had established birth stations. This was due to the project's support in providing necessary supplies. In the comparison district, the increase was modest, from 27% at baseline to 33% at the endline.

Figure 2.2: Percent of CMWs having their birth station (n=96)



The availability of required equipment is essential for running a health facility and delivering quality services. Initially, some CMWs were not functional due to a lack of basic equipment. One respondent from the CMW community shared:

> *"We have observed changes like previously the CMW didn't have a birth station (now she does). Now she checks women's weight, blood pressure, sugar, does a pregnancy test."*
> (Married Woman–Baseline FGD–Rural–TMK)

Table 2.2 outlines the equipment needed to run a birth station effectively, especially for providing FP services and conducting GANC sessions. At baseline, most birth stations lacked the necessary equipment across all three districts. By the endline, all CMWs in the intervention districts had received the required equipment provided as part of the intervention.

Table 2.2: Essential equipment available at birth stations in intervention districts (n=66)

	Matiari (n = 32)		TMK (n = 34)	
	Baseline	Endline	Baseline	Endline
Hb meter*	0	78	0	88
B.P. set: Mercury Desk Model	31	100	38	100
Stethoscope	31	100	38	100
Adult weighing machine	31	100	21	100
Emergency light	28	100	18	100
Boiler sterilizer medium size	31	100	29	100

*Provided to only those CMWs who conducted GANC sessions

In addition to general medical equipment, CMWS must have specific tools for IUCD insertion, though many of these tools can also be used for other purposes. Table 2.3 shows the availability of IUCD insertion kits and other instruments. At baseline, most instruments were unavailable to the CMWs. By the endline, all CMWs had received IUCD kits, except for the delivery tables with lithotomy positions, which were provided only to those who had completed hands-on IUCD training.

Table 2.3: Percent of CMWs in intervention areas with essential IUCD kits (n=66)

	Matiari (n = 32)		TMK (n = 34)	
	Baseline	Endline	Baseline	Endline
Delivery table with lithotomy position*	34	50	29	85
Sponge forceps 9	22	100	21	100
Bivalve speculum	0	100	0	100
Plain scissor 6	41	100	41	100
Small artery forceps	38	100	35	100
Allis forceps	38	100	32	100
Kidney tray 8	44	100	56	100
Uterine sound	0	100	0	100
Emergency light	28	100	18	100
0.5% chlorine solution (Robin bleach)	0	100	0	100
Boiler sterilizer medium size	31	100	29	100

*Provided to those who attained certification to insert IUCDs after completing the mandatory hands-on training with at least three observations and four self-insertions under supervision.

During IDIs, the CMWs expressed appreciation for the provision of medical equipment, which enabled them to establish birth stations and offer services to their clients. They believed that having access to equipment significantly improved their ability to provide care.

> *"Before this project, I didn't have any equipment for the birth station, nor could I buy any. Population Council provided me with delivery bed, BP machine, weighing machine, Hb meter, etc. They also taught us how to make chlorine, because I had forgotten the 0.5 formula."* (CMW–Endline IDI–Rural–TMK).

Availability of Contraceptive Stocks

Ensuring a regular supply of contraceptives is essential for both the adoption of and to avoid interruptions in FP use. One project intervention was a regular supply of contraceptives. Initially, the availability of contraceptives was limited among CMWs in both intervention and comparison districts.

Figure 2.3 shows that, by endline, more than 90% of CMWs in the intervention districts had sufficient stock, on the day of visit. In contrast, the comparison district saw no improvement, and the situation further deteriorated due to the lack of a regular supply mechanism.

Figure 2.3: Availability of contraceptive stocks on the day of visit at baseline and endline (n=96)

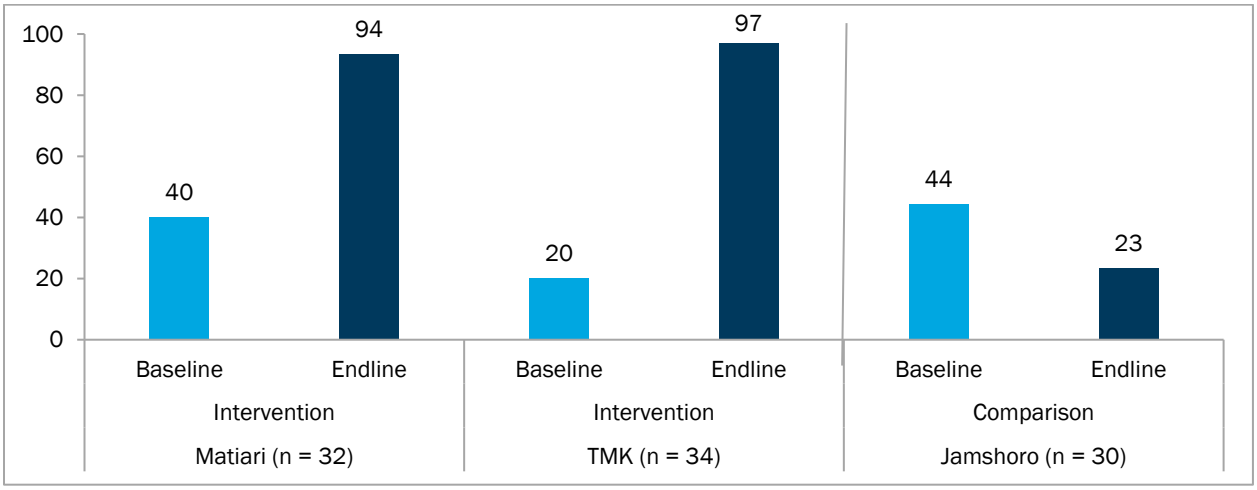
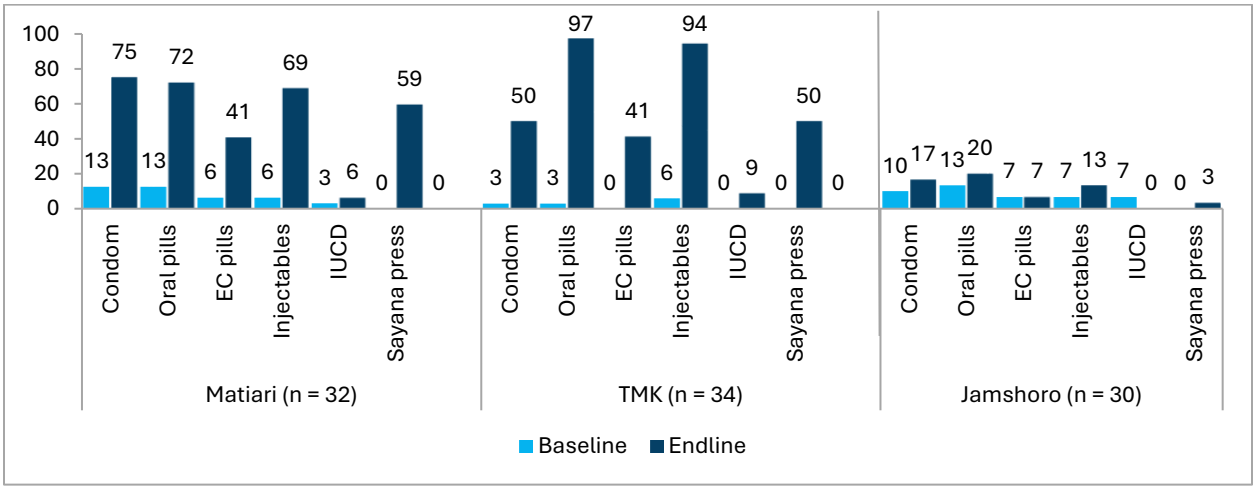


Figure 2.4 shows the method-wise availability of contraceptives. At baseline, no method was available with even half of the CMWs, and Sayana Press and IUCDs were not available at all. By endline, most CMWs in the intervention districts had all methods available on the day of visit, due to regular supply support by the project. In the comparison district, the availability of contraceptive methods remained low between baseline and endline surveys.

Figure 2.4: Proportion of CMWs with contraceptive stocks by method on the day of visit at baseline and endline (n=96)



At baseline, community women expressed concerns over the limited availability of contraceptives with CMWs—as there was no established mechanism for CMWs to receive contraceptives from the RMNCH program. Out of the 27 women who participated in the baseline FGDs, 22 reported difficulties due to the

lack of contraceptives, leading to affordability issues when purchasing from external sources. Women also noted that CMWs lost clients when they did not have the necessary contraceptives.

> *"CMWs do not have an adequate supply of contraceptives. If they stock out and we need condoms, we have to depend on our husbands to buy them from a shop which involves spending money. Similarly, if women need to insert an IUCD, they have to go to a public hospital. Unfortunately, the hospital is located far away from our community, and we have no money for transportation."* (Married Woman–Baseline FGD–Rural–TMK).

During FGDs at the endline, community women reported improved availability of contraceptive methods, including condoms, oral pills, injections, Sayana Press, and occasionally IUCDs with their local CMWs.

> *"Pills, injections, and IUCDs are now available with the CMW. She encourages us to use different methods and obtain them from her."* (Married Woman–Endline FGD–Rural–TMK)

> *"There has never been an instance when we went to the CMW and she didn't have a method available, nor have we heard such a thing from any other woman."* (Married Woman–Endline FGD–Rural–TMK)

Enhanced Capacities of CMWs to Provide FP and PPFP Services

Training and Knowledge on Family Planning and Postpartum

Although CMWs' midwifery education includes an orientation on FP, comprehensive training is still needed. The project conducted extensive training on FP and PPFP counseling and services, focusing on FP methods, IUCD insertion and removal, client-centeredness, disaster preparedness, and group antenatal care. This also included hands-on training on IUCD and PPIUCD. Almost all the CMWs (98%) found the training beneficial for their career (data not shown).

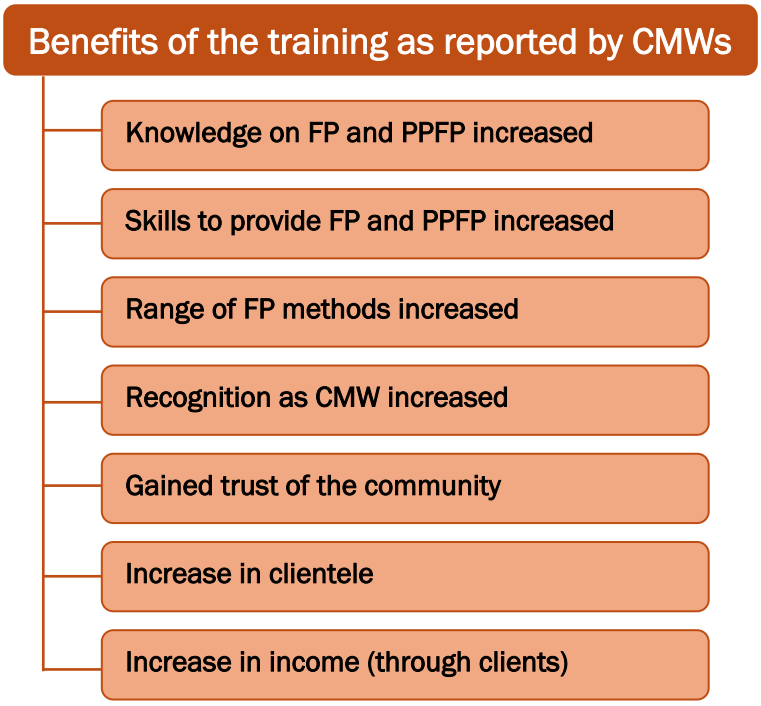
Table 2.4 details the overall training experience, with all CMWs reporting that the training topics were relevant and useful to their work.

Table 2.4: CMWs' views and overall experience on training provided (n=66)

	Name of district		Total
	Matiari	TMK	
Topics covered were relevant	100	100	100
Content of the training was easy to follow	97	97	97
Training experience was useful in the work	100	100	100
Time allocated for theoretical training was sufficient	97	85	91
Time allocated for practical was sufficient	97	82	89
Meeting room and facilities were adequate and comfortable	97	100	98
Total N	**30**	**34**	**64**

Note: Multiple responses were allowed.

During qualitative interviews at endline, CMWs expressed that the training proved to be supportive for their work, along with having countless other benefits. In their viewpoint, the trainings enhanced their knowledge and skill level, and, with the support of essential equipment and tools, enabled them to offer more comprehensive services to their clients. The social status of the CMWs also increased due to the training they have undergone and the services they provided after that.



> *"The trainings were quite beneficial as they increased my knowledge about FP, with the help of theory and practical both. After the training, more people recognize me as the CMW due to word of mouth."* (CMW–Endline IDI–Urban–Matiari)

CMWs also mentioned that they felt FP training was insufficient during their basic training as CMWs and that the training provided as part of the project fulfilled that gap.

> *"The training was beneficial as it increased my knowledge about different types of FP methods and how to handle them. I had only done the CMW course, and there was not much focus on FP in it. During the training, there was a focus on everything."* (CMW–Endline IDI–Semi-Urban–Matiari)

This training was beneficial as it not only provided new knowledge, but also refreshed the CMWs' previous knowledge. There were some CMWs who had completed their studies a while ago, and such trainings were considered crucial and important to refresh their knowledge.

> *"The trainings refreshed my knowledge, as it had been eight years since I had done the CMW course. It also provided fresh knowledge regarding PPFP. I got to know about hormonal and non-hormonal methods in the trainings—and after that, my clients increased."* (CMW–Endline IDI–Rural–TMK)

> *"The trainings increased the CMWs' knowledge and skill level, and also the equipment or tools which they got after the trainings helped them in providing more services to their clients as compared to before."* (CMW–Endline IDI–Rural–Matiari)

During IDIs, CMWs further mentioned that community people are accepting the CMWs. Before CMWs, there were no female service providers in the community who could help them medically. People had to travel long distances and pay transport costs to reach hospitals.

Given that CMWs are the primary service providers for FP in this model, it is crucial that their FP knowledge is unparalleled. They received training on FP and PPFP to enhance their knowledge and skills. Figures 2.5 and 2.6 demonstrate a noticeable increase in CMWs' knowledge, particularly regarding pills and injectables, following the training. These figures indicate that the intervention had a positive impact on enhancing knowledge and practices related to injections and syringe safety.

Figure 2.5: Percent of CMWs who gave correct answers about progestin-only and emergency contraception pills

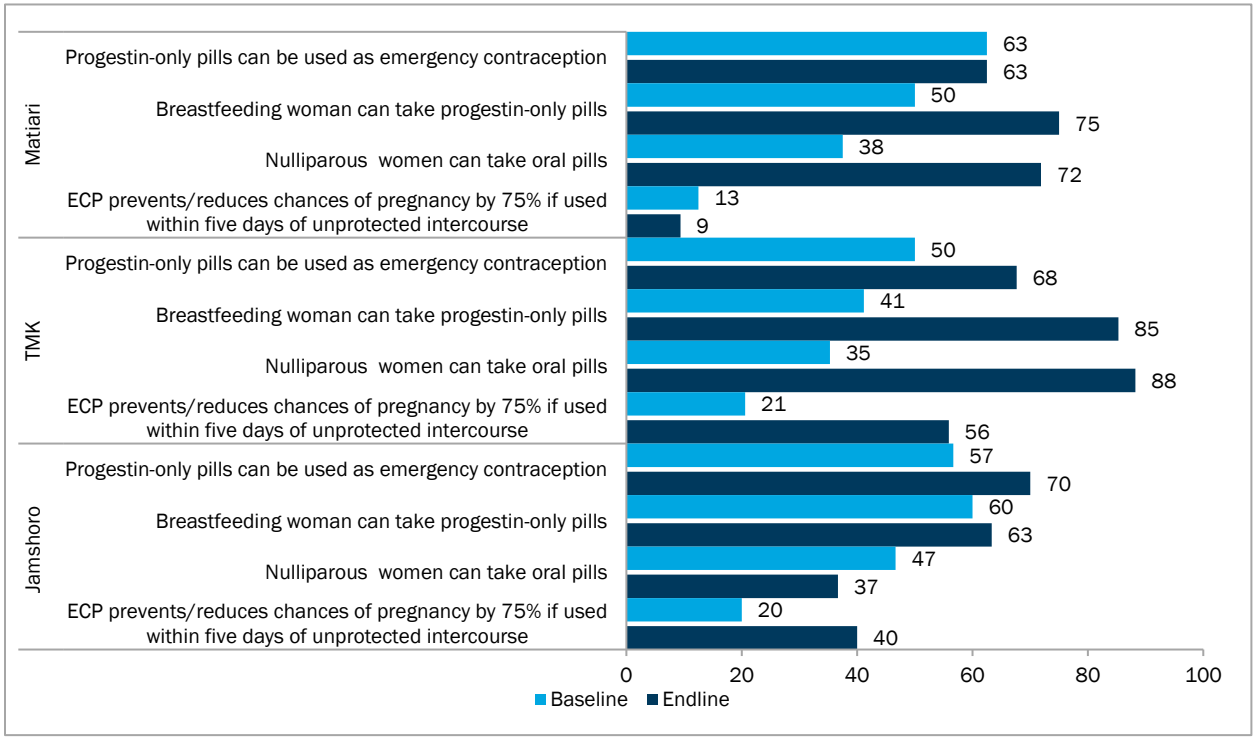
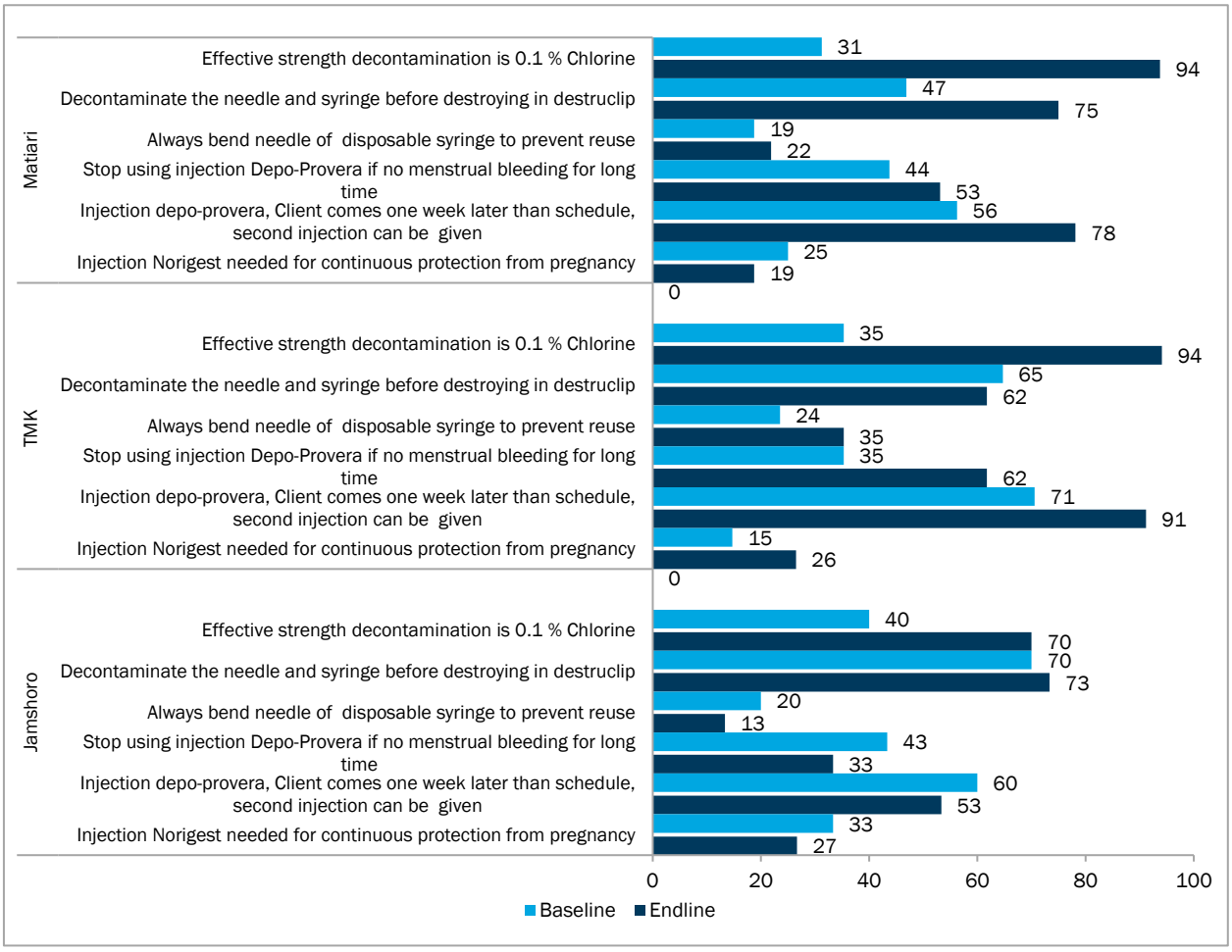


Figure 2.6: Percent of CMWs who gave correct answers about injectables



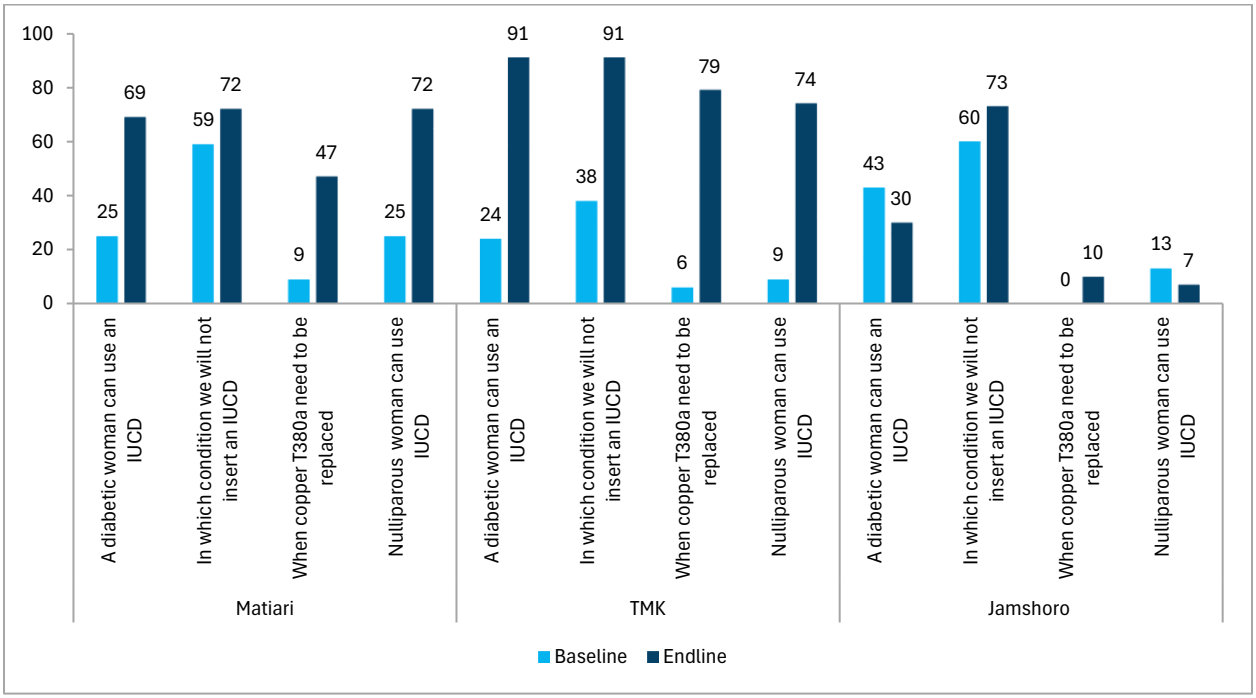
Many CMWs highlighted during IDIs that, due to the trainings, they gained skills regarding pills, injectables, IUCD, PPIUCD, and Sayana Press.

> *"The trainings were quite beneficial as they increased the CMWs' knowledge about family planning."* (CMW–Endline IDI–Urban–Matiari).

As the training provided CMWs with some new information, like IUCDs, specific questions were asked to evaluate their learning. Figure 2.7 describes that, at baseline, CMWs of all the districts were not aware of technicalities regarding IUCDs. Comparatively, at endline, most CMWs of Matiari and TMK gave correct answers regarding this method. They demonstrated knowledge of contraindications for use of IUCDs and the appropriate timing for replacement.

In the comparison district, there were slight variations in the percentage of CMWs who gave correct answers at baseline and endline, and both numbers were low.

Figure 2.7: Percent of CMWs who gave correct answers about IUCDs



The CMWs noted that their knowledge increased from the training, and they observed a corresponding increase in their clients through positive word-of-mouth from these women. The training proved beneficial as it not only enhanced the CMWs' knowledge but also led to an increase in clients seeking family planning services.

> *"After the training, clients of the CMW increased. She got equipment for her birth station from the training. She also got to know about PPIUCD and how to insert it. CMWs' knowledge also got refreshed, and they got new information about FP methods through the training."* (CMW–Endline IDI–Rural–Matiari)

> *"Before the training, I didn't have knowledge about PPIUCD. Due to the training, my knowledge and confidence increased. Now I have inserted three to four PPIUCDs myself."* (CMW–Endline IDI–Rural–TMK)

Expanded Scope of Service Provision

After CMWs were trained on FP and PPFP and equipped with relevant equipment and contraceptives, they were ready for service provision. It was important to evaluate whether the interventions provided led to improvement in the provision of FP services.

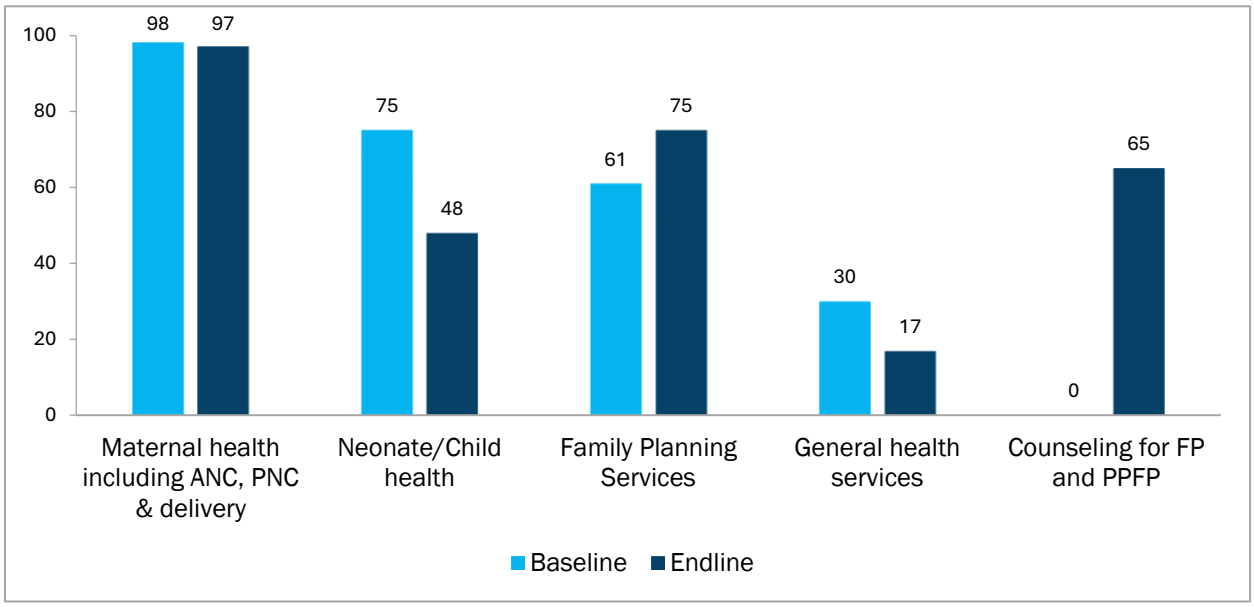
CMWs providing FP services

Baseline survey: **23**
Endline survey: **66**

Range of Services Offered by CMWs

At baseline, CMWs perceived and reported their primary responsibilities as limited to maternal health services, including ANC, delivery, and postnatal care. However, by endline, they recognized that FP and PPFP counseling and service provision were also included in their primary responsibilities. This indicates an expansion in their perceived responsibilities (Figure 2.8).

Figure 2.8: Percent of CMWs reporting about their primary responsibilities



Family Planning Service Provision

Out of 66, 43 CMWs from intervention districts were not providing even a single contraceptive method at baseline. Only 23 CMWs were providing some methods. However, at endline, all CMWs in the intervention districts were offering a full range of methods to their clients.

The availability of a range of contraceptive methods indicates the readiness of a service provider to cater to the needs of different users. Regarding the range of contraceptive methods provided by the CMWs, Figure 2.9 shows that at baseline, less than half of the CMWs were providing FP methods, and the range of methods in all three districts was limited to condoms, pills, emergency contraception (EC) pills, and injectables. Sayana Press and IUCD were newly added methods in intervention areas, enabling them to provide a range of methods.

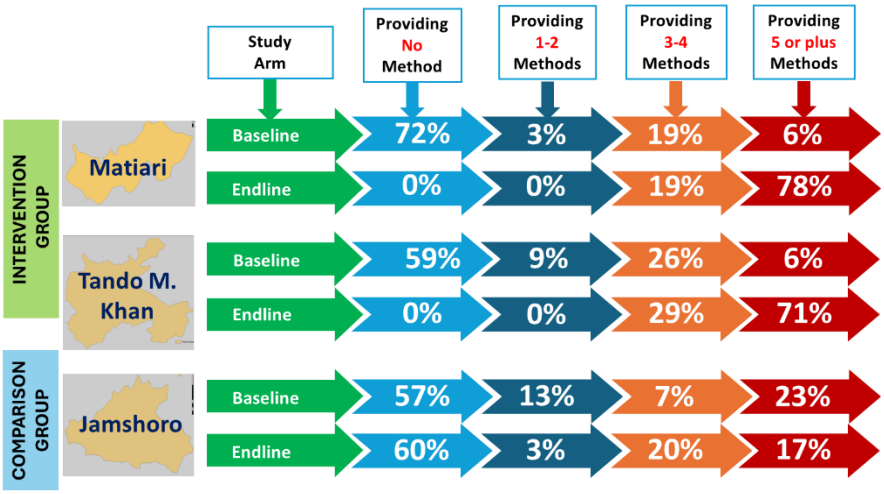
Figure 2.9: Percent of CMWs providing FP services by type of method

On the contrary, at the endline, 97% of the CMWs in Matiari were providing condoms, oral pills, and injectables, while all CMWs in TMK were doing so. Additionally, more than half of the CMWs in both districts were providing EC pills and Sayana Press. Compared to the baseline, a greater number of CMWs were equipped to provide IUCDs, including both insertion and removal.

However, in the comparison district, there was minimal fluctuation in the percentage of CMWs providing methods when compared to baseline. Less than 50% of CMWs were providing contraceptives.

Figure 2.10 shows the number of methods CMWs were providing, by districts at both baseline and endline surveys. At baseline, the majority of CMWs across the districts were not providing any FP method. Of those who were providing contraceptives, less than one-third were offering up to three to four methods, and only 6% of CMWs were providing five or more methods. However, at the endline, 78% of CMWs in Matiari and 71% in TMK were offering five or more methods to clients, indicating that the majority had started providing a full range of methods.

Figure 2.10: Percent of CMWs providing number of methods by districts and by baseline and endline



Family Planning Clientele

Client numbers serve as a key metric for gauging a CMW's progress in service provision. Baseline data indicated very few clients, particularly for those seeking FP methods.

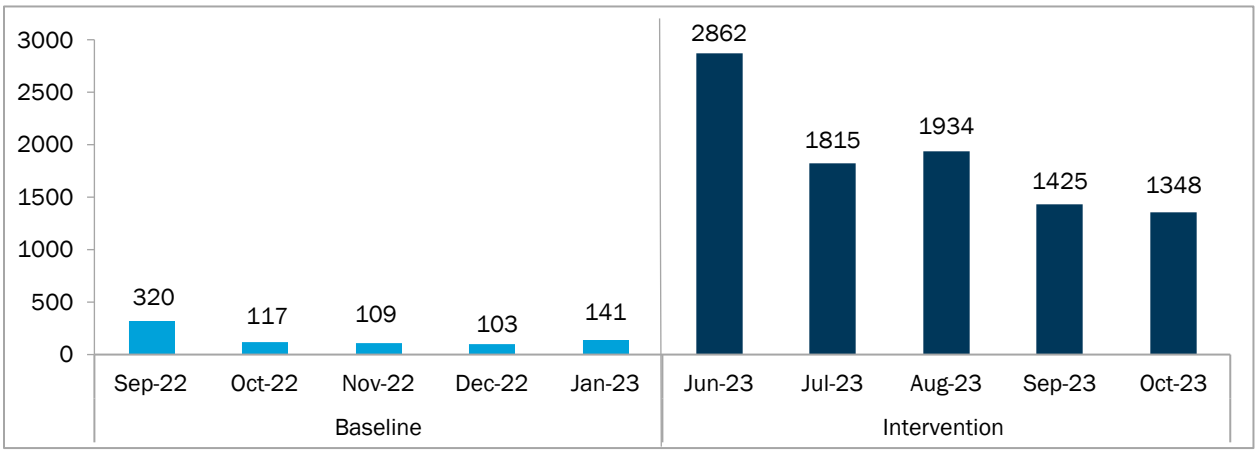
The number of clients served by a CMW is an indicator of client acceptance, trust among the clients, and quality of services. For this project, the number of FP clients was recorded for the five months preceding the baseline survey and again at the endline survey.

Figure 2.11 shows the monthly number of FP clients served by the CMWs. A comparison reveals that the maximum number of clients served in the five months before baseline was 320. Following the intervention and support provided, the number of clients served increased significantly. This suggests both the potential of the CMWs to provide FP services and the critical role of support in empowering them to act as proactive FP providers at the community level.

66 CMWs served 25,000+ FP clients with FP services in 10 months

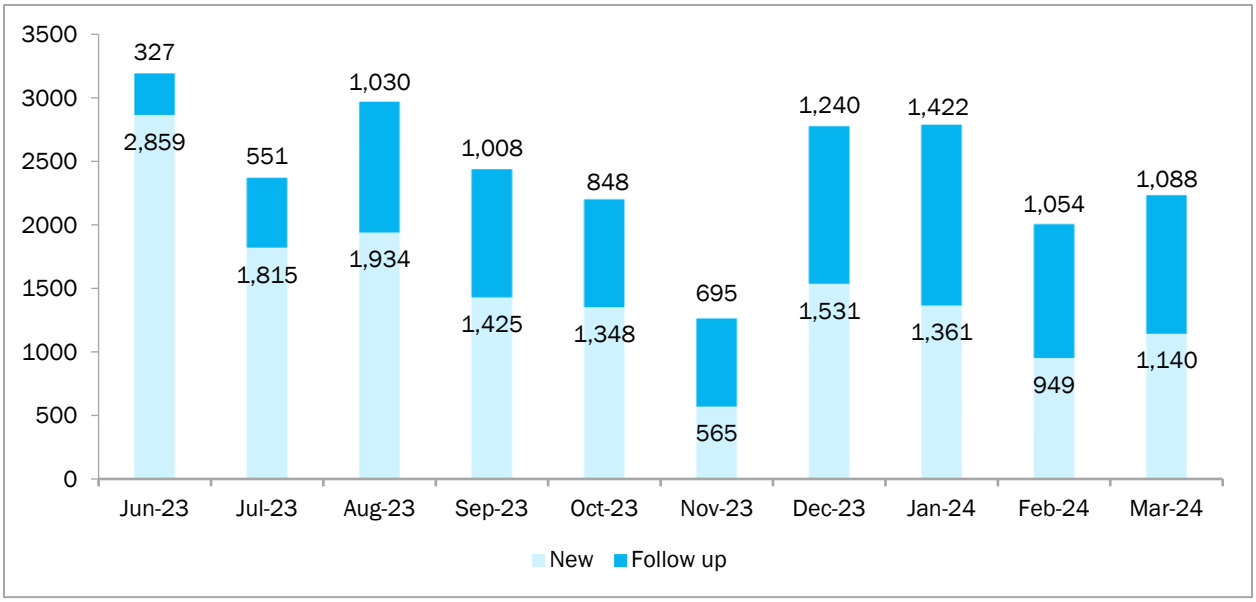
388 clients per CMW
38 clients per CMW per month

Figure 2.11: Number of family planning clients during the last six months (n=66)



Based on endline results, Figure 2.12 details the number of clients since June 2023, i.e., when CMWs started providing services in their communities after receiving training, equipment, and commodities. June 2023 had the highest number of new FP clients and the lowest number of follow-up clients. In subsequent months, the number of new clients started decreasing as the number of follow-up clients started to increase. This data shows a pattern; new clients started to visit the CMWs for services when CMWs' capacities increased from June and then followed up as required.

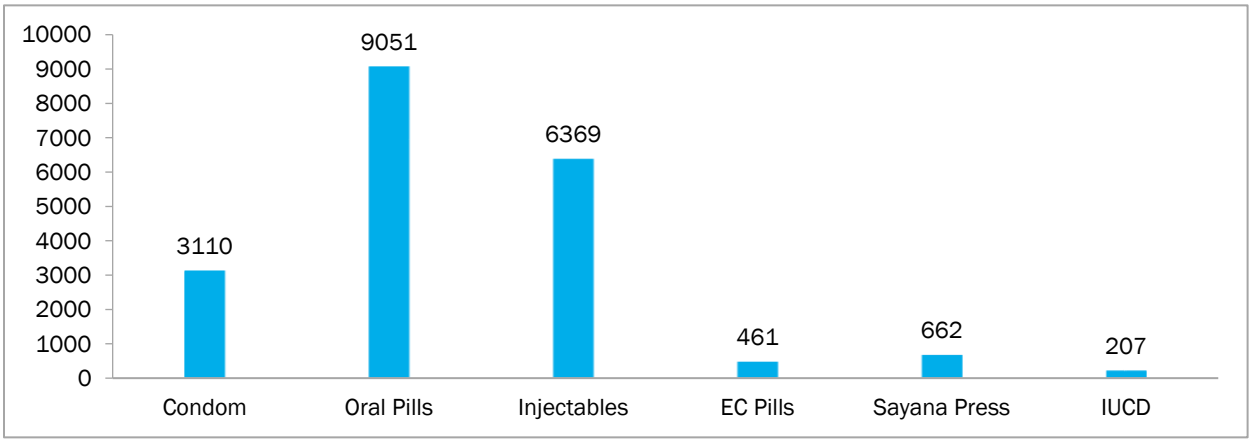
Figure 2.12: Number of new and follow-up clients visiting CMWs for FP services by month (n=66)



Method Mix

It is vital to understand which contraceptive methods are most frequently used when a range of options are available. Figure 2.13 shows that oral pills were the most popular method, with 9,051 clients served. This is followed by injectables (6,369) and condoms (3,110). Sayana press and IUCDs, which were introduced to CMWs during the interventions, are showing promising adoption rates.

Figure 2.13: Method mix among FP users in the intervention area (n=66)



During FGDs with community women at the endline in Matiari, women discussed that most people prefer to use pills, condoms, and injections because these methods are easy to use. Injectable contraceptives only need to be injected quarterly, making them convenient. Condoms are also easy to use if the male partner is willing.

"People do use family planning methods like pills, injections, condoms, and implants. They prefer to use injections or pills as they are easy to use." (Married Woman–Endline FGD–Rural-Matiari)

"The CMW told women about condoms, injection (3 months), and pills and how to use them." (GANC Cohort member–Endline FGD–Rural–TMK)

"It was beneficial as the women were told about condoms, pills, injections—and that they were available with the CMW whenever required." (GANC Cohort member–Endline FGD–Rural–TMK)

Socio-demographic Characteristics of FP Clients

The majority of women (33%) who chose FP methods from the CMWs were between the ages of 25–29 and 30–34. 65% were not educated, and 73% had 2–4 children. Even females who had no children (n=573) visited the CMWs for FP methods.

Table 2.5: Profile of family planning clients (n=16,532)*

		%	n
Age	15–19 Yrs.	2	263
	20–24 Yrs.	15	2521
	25–29 Yrs.	33	5439
	30–34 Yrs.	33	5409
	35–39 Yrs.	13	2172
	40+ Yrs.	4	728
Education	None	65	10808
	Primary	24	4023
	Secondary and above	11	1701
Total living children	No children	4	573
	2– 4 children	73	10553
	5–7 children	21	3071
	8 and above	2	300
Total		**100**	**16532**

* Of total 25,000 served FP clients, 16,365 are individual clients and rest are follow-up visits.

Tapping Opportunities to Provide FP Counseling and Services

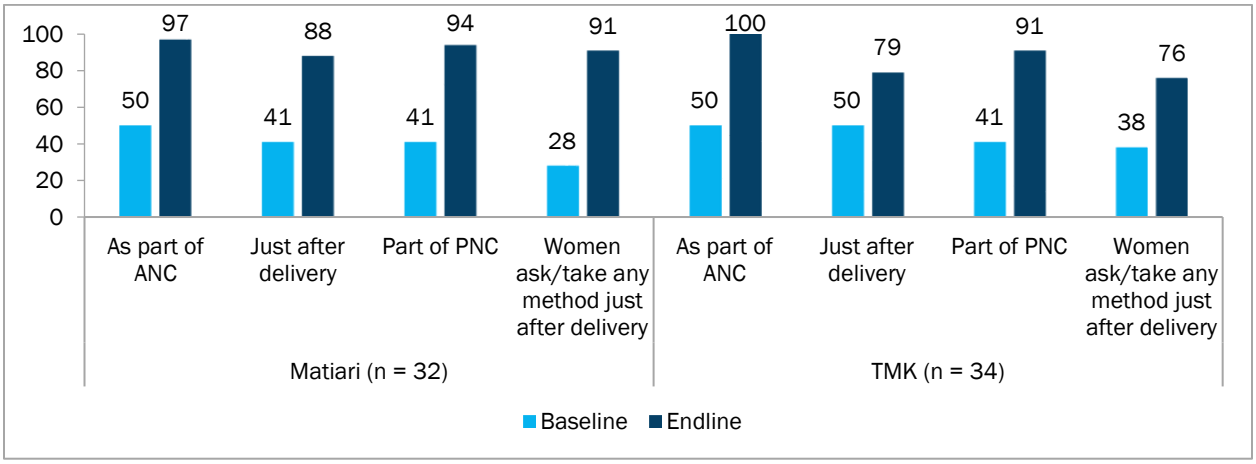
FP service providers play an important role in assessing reproductive health needs and offering appropriate services to women visiting health facilities, even if their initial purpose is unrelated to FP. To assess this practice, CMWs were asked when they provide counseling to women who come in for reasons other than FP services.

Figure 2.14 shows that at baseline in both Matiari and TMK districts, a maximum of only half of the CMWs reported providing FP counseling during pregnancy and postpartum care.

At the endline, however, nearly all CMWs in both districts (97% in Matiari and 100% in TMK) reported integrating FP counseling into their antenatal care services offered during pregnancy. Additionally, a substantial number of CMWs now provide FP counseling both immediately after delivery and as part of postnatal care service.

As a consequence of CMWs offering counseling more comprehensively throughout various stages of women's reproductive health needs, 91% of CMWs in Matiari and 76% in TMK reported that women in their communities have begun to seek them out for contraceptive methods.

Figure 2.14: FP counseling integration by CMWs during pregnancy and postpartum care



Qualitative findings reveal that CMWs view counseling as crucial for educating clients about the importance of FP. Many women, due to a lack of awareness and misconceptions, forgo FP options despite facing many challenges. CMWs' counseling empowers women by equipping them with the knowledge necessary to make informed decisions about their families' well-being.

> *"I explain to them that as they are poor if they don't give space between children, they won't be able to feed or educate them. If they give space between pregnancies, they will be able to save money for the future too."* (CMW–Endline–IDI–Rural–TMK)

CMWs further reported that their counseling has led to a gradual increase in women adopting FP methods and proactively seeking contraceptives from them.

> *"About 50% of women easily accept my counseling while, for those who don't, I must explain again in more detail how it is beneficial for them and then they accept it too."* (CMW–Endline–IDI–Rural–Matiari)

3 Post-partum Family Planning Through the Group Antenatal Care Model

Key Findings

650 pregnant females were registered into 70 cohorts and served by 55 CMWs.

Access issues for rural pregnant women for deliveries and postpartum family planning were resolved.

79.3% of group antenatal care cohort members opted for a method after their deliveries.

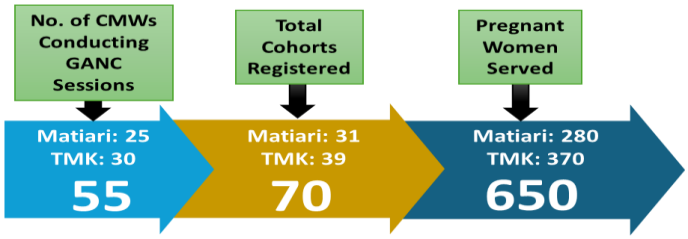
Delivery and postpartum family planning clients of CMWs increased.

27% of the CMWs identified high-risk pregnancy cases during GANC sessions.

As mentioned in Chapter 1, this project introduced group antenatal care (GANC) at the community level for the first time in Pakistan—with a particular focus on empowering CMWs to deliver postpartum family planning (PPFP) services. To achieve this, pregnant women in their communities were registered, and group antenatal care sessions, integrating counseling on PPFP, were implemented.

GANC Sessions Conducted by CMWs at the Community Level

Of the total, 55 CMWs (89%) were able to register pregnant women from their respective communities. During the course of the project, CMWs registered a total of 70 cohorts: 31 from Matiari and 39 from TMK. They served 650 pregnant women through monthly GANC sessions.



Profile of the Women Registered for GANC Sessions

Table 3.1 describes the socio-demographic characteristics of pregnant women who attended the GANC sessions. Overall, there were 650 women, with 370 from TMK and 280 from Matiari. Pregnant women in both districts shared similar characteristics. Their average age was 27.4 years, and most were on their second pregnancy (mean 2.1). Notably, nearly a quarter were experiencing their first pregnancy and did not have any children. These factors suggest that counseling received during GANC sessions could make women more likely to adopt PPFP and delay pregnancies.

Furthermore, most women (39.3%) were between 20–29 weeks of gestation. 43.1% of women had their youngest child aged between 1–2 years. Regarding educational attainment, 80% of pregnant women had not received any schooling.

Table 3.1: Socio-demographic characteristics of women who attended GANC sessions

		Matiari	TMK	Overall
Age of women	Mean	27.8	27.1	27.4
Total living children	Mean	2.0	2.2	2.1
Age of youngest child	Less than year	25	21	22
	1-2	44	42	43
	3-4	21	23	22
	5+	11	14	13
Current pregnancy number	1 - 4	75	69	72
	5 - 7	21	23	22
	8 +	4	8	6
Gestational age in weeks	1-9	8	11	9
	10-19	23	26	24
	20-29	38	40	39
	30-38	32	24	27
Respondent education status	No schooling	79	80	79
	Primary level	12	7	9
	Middle and above	9	13	11
Overall N		**280**	**370**	**650**

Progression of GANC Sessions

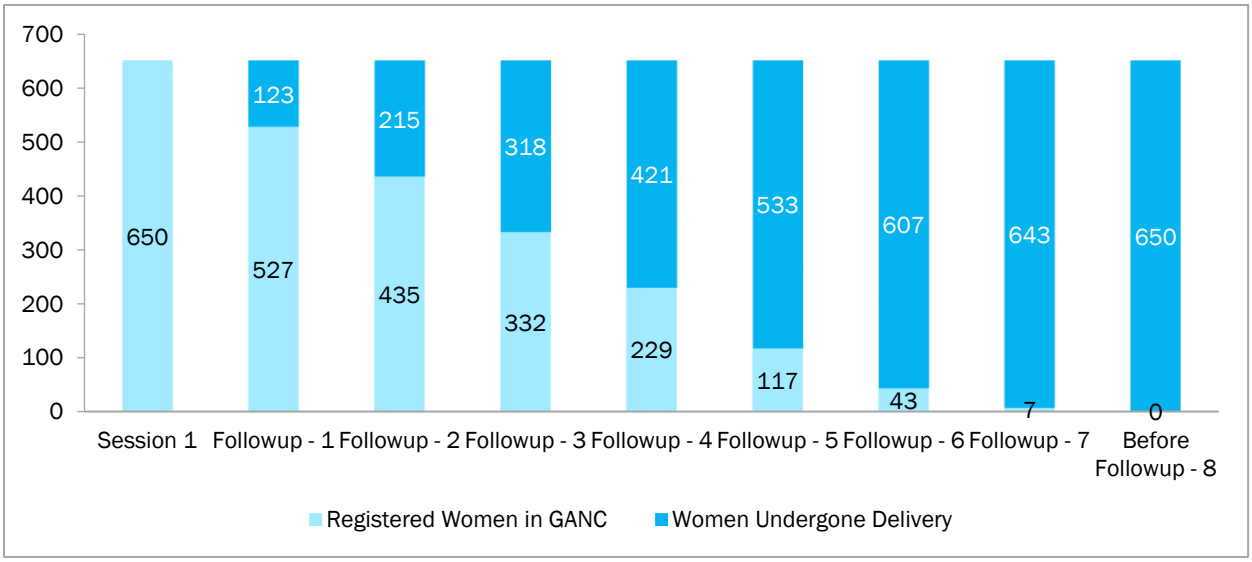
At the first GANC session, CMWs registered 650 pregnant women from their communities and conducted GANC sessions accordingly. After the initial GANC sessions held in August 2023, women began to graduate, reaching the outcome stage, which could include deliveries, miscarriages, or abortions. Of the

650 women who joined GANC cohorts, 123 women graduated at the first follow-up session, 215 at the second, and so on.

Due to the implementation of the GANC model at the community level, achieving homogeneity in terms of gestational age was not possible. A maximum of 8 sessions were held with pregnant women, after which all 650 women graduated, reaching the outcome stage of their pregnancies. Figure 3.1 illustrates a systematic progression, with the number of registered women declining as follow-up sessions advanced and the number of graduated cases increased. Before the 8th session, all registered women had graduated.

According to available data, of those who had graduated, 452 had normal deliveries, 122 had caesarean sections, and 45 had miscarriages, abortions or still births.

Figure 3.1: Status of first and follow-up GANC sessions (n=650)



Protocols, Services, and Health Education During GANC Sessions

GANC is a service delivery model that requires careful organization, adhering to established protocols, and offering essential services. While health service provision is a core component, GANC also places significant emphasis on disseminating health education. The table below outlines the protocols, services, and health education topics followed by CMWs.

Protocols Followed	Services Provided	Health Education
1. Gathering women at CMWs birth station/a neutral place	1. Measure weight	1. About antenatal care
2. Registering 7–12 pregnant women	2. Check blood pressure	2. General health
3. Sitting in a circle	3. Perform abdominal examination	3. Family planning
4. Explaining the purpose of the session	4. Check Hb	**4. Postpartum family planning**
5. Explaining the process of the session	5. Check anemia	5. Danger signs during delivery
6. Give a chance to ask questions	6. Check edema	6. Delivery preparedness
7. Encourage women to share their experiences with each other	7. Provide TT shots	7. Breastfeeding
8. Ensure privacy during examination	8. Identification of high-risk pregnancy	8. Post-natal care for self
9. Inform about follow-up sessions	9. Refer to a health facility when required	9. Nutrition
		10. Self-care and hygiene
		11. Newborn baby care
		12. Danger signs in newborn
		13. Child immunization

During IDIs, CMWs discussed the protocols they followed while arranging GANC sessions.

> *"Women are invited and are told to sit on the carpet on the floor. Greetings are exchanged and introductions are carried out. They are grouped according to their pregnancy month to the extent possible. Then their checkup is done, and they are counseled about relevant topics."* (CMW–Endline IDI–Rural–TMK)

During FGDs, women expressed satisfaction with the range of services provided by CMWs during GANC sessions. These sessions are particularly attractive to pregnant women due to the variety of services offered.

> *"The CMW checks our weight, BP, sugar and tells us about vaccinations. She gives information about family planning. She also tells us about different side effects of FP methods, about diet, hygiene, and the benefit of giving space between children."* (GANC Cohort member–Endline FGD–Rural–Matiari)

> *"CMW takes along her tools (like weighing machine, BP apparatus, etc.) to the site. She prepares an area which is covered and maintains privacy. She checks each woman's weight, BP, Hb, and physically examines them. She counsels them regarding delivery and family planning methods."* (GANC Cohort member–Endline IDI–Semi-Urban–Matiari).

GANC attendees felt that their knowledge about their health and self-care had increased manifold. Along with health-related information, CMWs also provided helpful information to the women that would help them prepare for labor.

> *"The CMW told us to arrange money beforehand so that we don't experience any issue at the time of delivery. We also get information on how to take care of ourselves, healthy diet, hygiene, birth preparation, vaccinations, baby's care after delivery, giving space between pregnancies, what activities to avoid, and what do to more."* (GANC Cohort member–Endline FGD–Rural–TMK).

During IDIs, CMWs also described what information they provide their clients.

> *"I counsel women about family planning, healthy diet and nutrition, rest, birth preparation, among other things."* (CMW–Endline IDI–Rural–TMK).

Collaboration with Lady Health Workers

As CMWs were organizing sessions for the first time, they were encouraged to take facilitation from lady health workers (LHWs). LHWs are well-known and trusted in the communities they cover, as they conduct household visits regarding health services, like family planning, registration of pregnant women and for polio vaccines. So, they could easily introduce the CMWs and the GANC model to the community members.

Figure 3.2 describes that, overall, most CMWs (69%) reported that the LHWs of their areas collaborated with them.

Figure 3.2: Percent of CMWs who reported that LHWs collaborated with them (n=38)

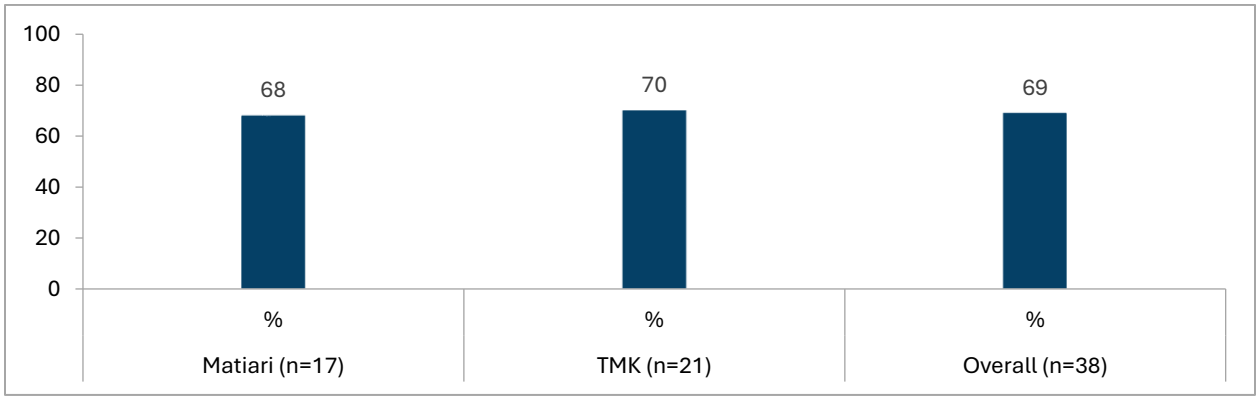
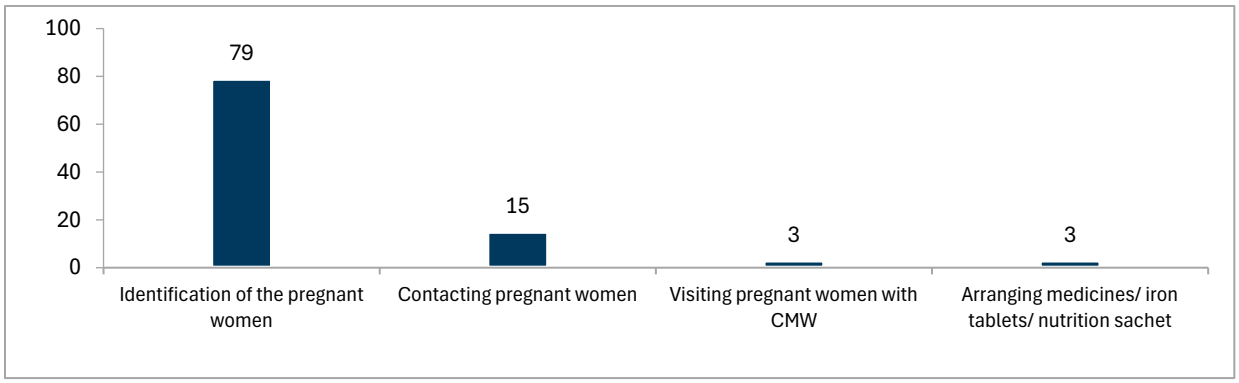


Figure 3.3 shows that the primary contribution of LHWs to GANC implementation is identifying pregnant women within the community (79%). This is facilitated by their routine health calls for primary healthcare, which enable LHWs to maintain a strong awareness of the community's residents, including pregnant women.

Figure 3.3: Type of facilitation received from LHWs (n=38)



During most of the IDIs, CMWs mentioned and acknowledged the role of LHWs in providing support during the organization of GANC sessions. Their extensive knowledge, gained from fieldwork, was essential for CMWs' work.

> *"The LHW helped the CMWs as she has a record of all the pregnant women, so she supports the CMW in gathering the women for the session."* (CMW–Endline IDI–Rural–TMK)

As they are already trusted in the communities they serve, LHWs accompanied CMWs during initial visits to pregnant women. Their role was to explain the GANC sessions and address any concerns from family members regarding attendance. Beyond promoting GANC and the role of CMWs, LHWs also played a crucial role in distributing essential materials, including medicines and supplements.

> *"LHW helped spread the word about what I do in GANC sessions. She also provides folic acid tablets to me. She helps in gathering pregnant women and also convinces their husbands to let them attend the sessions."* (CMW–Endline IDI–Rural–TMK)

Challenges for CMWs in Conducting GANC Sessions

As all the CMWs were organizing GANC sessions for the first time, it was expected that they would face challenges in doing so.

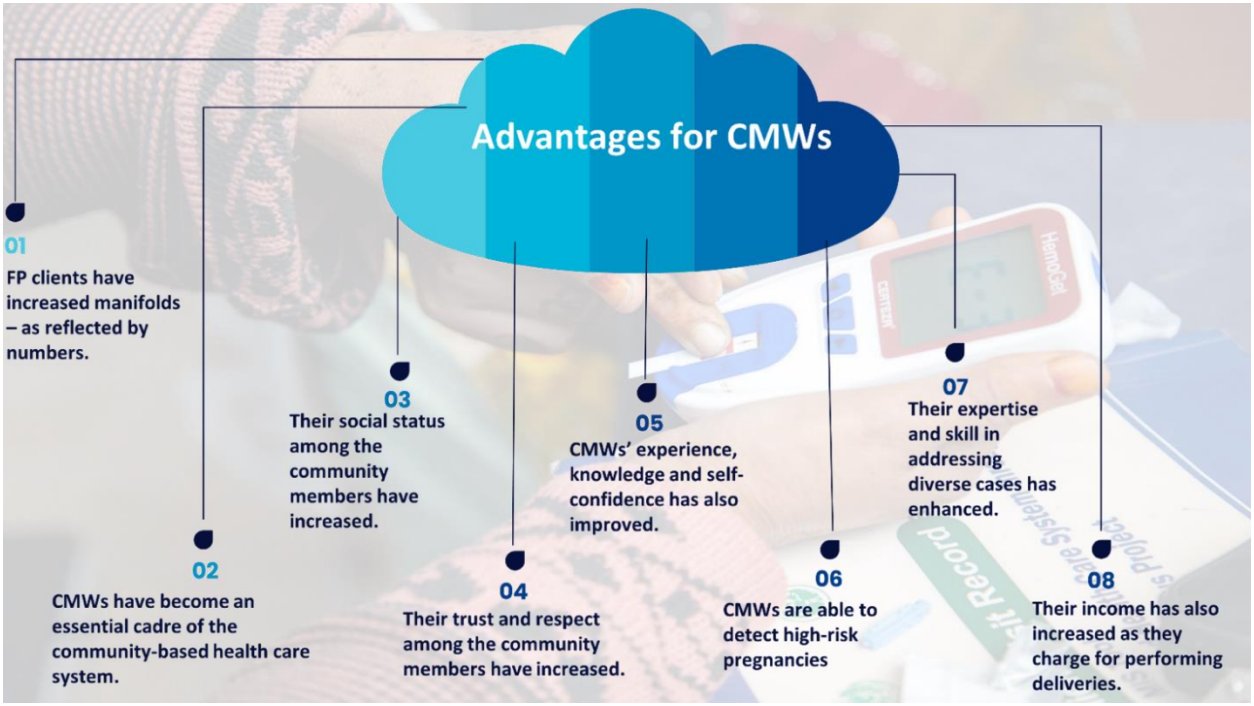
During IDIs, CMWs discussed the challenges they initially faced. CMWs expressed that they had to work hard in their communities, despite hindrances, to prove themselves and establish their and this model's usefulness. It was difficult to convince the pregnant women and their family members to let them attend the sessions. CMWs explained in detail about the countless benefits of the GANC sessions.

> *"Initially it was difficult to convince the women to spare some time from their chores and routines to attend the session. To avoid me for the time being, some women used to say that they will attend but wouldn't. I would have to explain in detail how this session would be beneficial for the women. Now that I have done their counseling, they easily come for the session."* (CMW–Endline IDI–Urban–Matiari)

> *"Initially the community women didn't think it was important for them to attend GANC sessions. I had to explain that they would be getting their full ANC checkup done which would be beneficial for them."* (CMW–Endline IDI–Rural–TMK)

Benefits of GANC Sessions

According to both the CMWs and GANC cohort members, there were numerous benefits to attending the sessions.

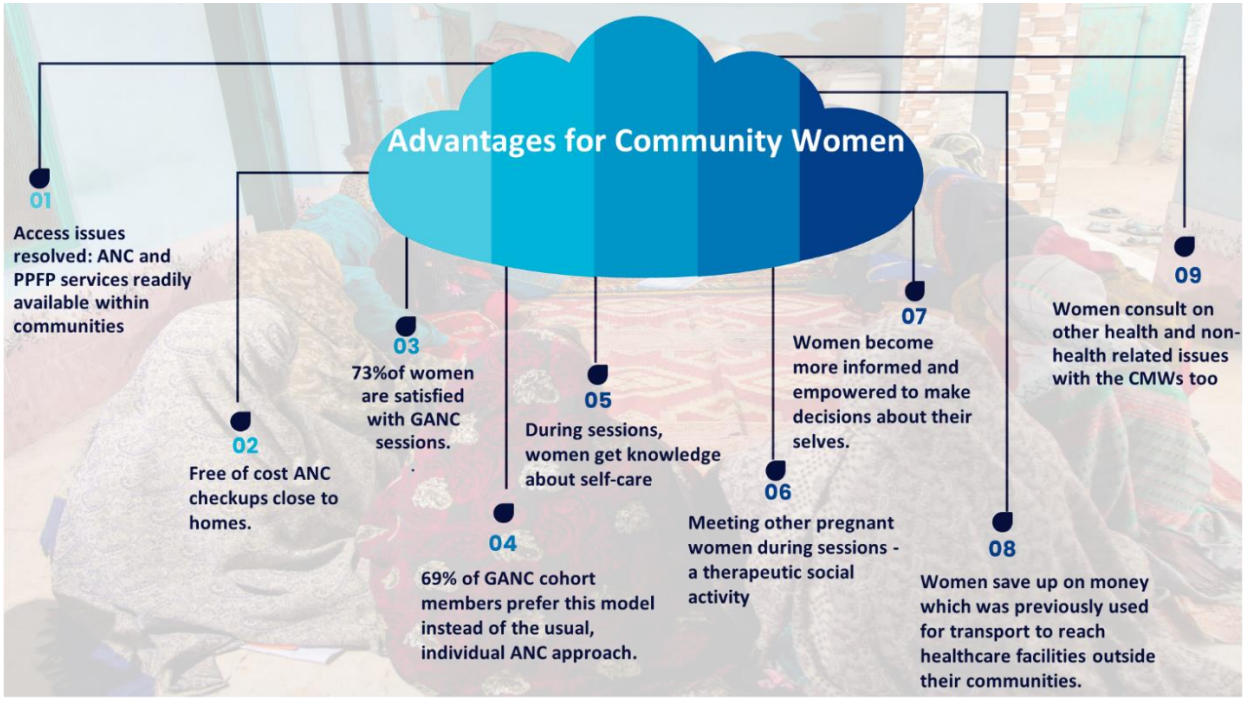


> *"Due to these sessions, my clientele increased. As women are satisfied with my behavior and skills during the session, they also tell other women about me and through word of mouth, my clients and income increased."* (CMW–Endline IDI–Rural–TMK)

> *"Due to these sessions, the level of respect for me has increased in the community. My relationship with the community people and trust level has also increased."* (CMW–Endline IDI–Urban–Matiari)

"The women have confidence in me. They share many things with me, including domestic problems. They are sure that our conversations will be kept confidential. They consider me as a friend." (CMW–Endline IDI–Rural–Matiari)

"A relationship of trust has developed between me and the women who attend the sessions. Now even if they get a headache, they come to me. I check their BP and treat them accordingly. If I refer them to hospital, I'm also ready to accompany them." (CMW-IDI–Rural–TMK)



"These sessions are beneficial as we get our checkups done and also get medicines if required, closer to our homes. Before this, we had to travel to a hospital which is far and there used to be transport issues too." (GANC Cohort member–Endline FGD–Rural–TMK)

"It's a lot of fun as we meet, talk, share our problems with each other and so our mood gets better." (GANC Cohort member–Endline FGD–Rural–Matiari)

Outcomes of GANC Model

Promoting PPFP

This GANC model successfully promoted PPFP by integrating counseling on PPFP during sessions. Notably, 508 out of 640 GANC participants (79%) opted for a contraceptive method following childbirth.[2] This is a result of consistent PPFP counseling provided during GANC sessions.

During IDIs, CMWs expressed that a lack of knowledge and awareness are the primary reasons why women often forgo FP methods. This underscores the critical importance of prioritizing PPFP counseling within GANC sessions. CMWs further emphasized that this counseling empowers women by educating them about the numerous economic, social, and logistical benefits of FP.

"It is necessary to provide FP counseling. I explain to them that, as they are poor, if they don't give space between children, they won't be able to feed or educate them. If they

[2] One CMW was not available to provide PPFP information regarding her 10 clients. This information is of 640 clients.

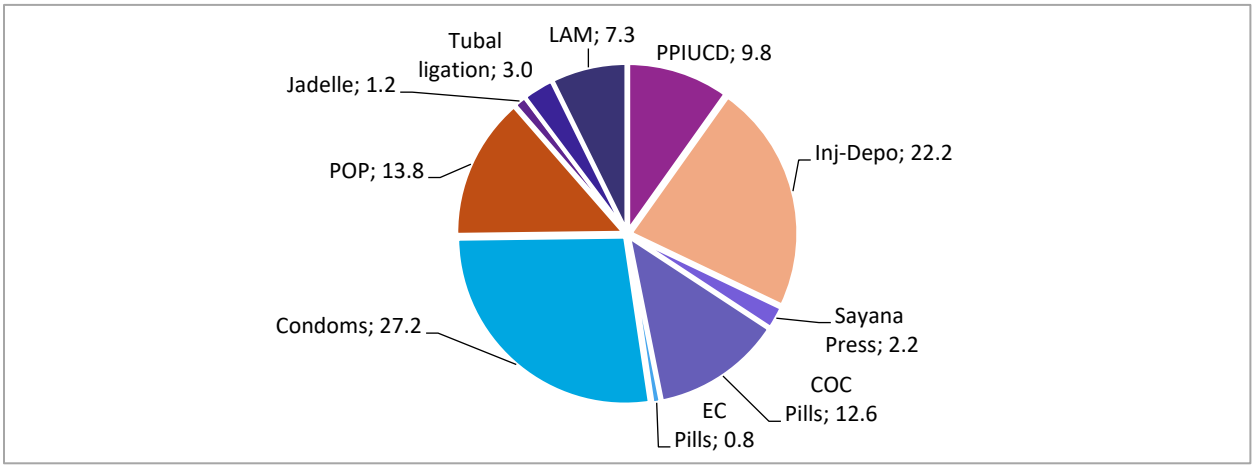
give space between pregnancies, they will be able to save money for the future too." (CMW–Endline IDI–Rural–TMK).

The CMWs also discussed that as there are pregnant women attending GANC sessions, it was beneficial to provide them with PPFP counseling to encourage them to opt for contraceptive methods after delivery, especially PPIUCD.

> *"If a woman undergoes normal delivery or c-section, in both cases, just after the procedure is the perfect time for inserting PPIUCD, as the woman will already be experiencing some pain and will not experience any side effects. PPFP is important for the health of the mother and newborn. If a woman opts for FP, she can breastfeed her child for 2 years which is good for the child's health."* (CMW–Endline IDI–Rural–TMK)

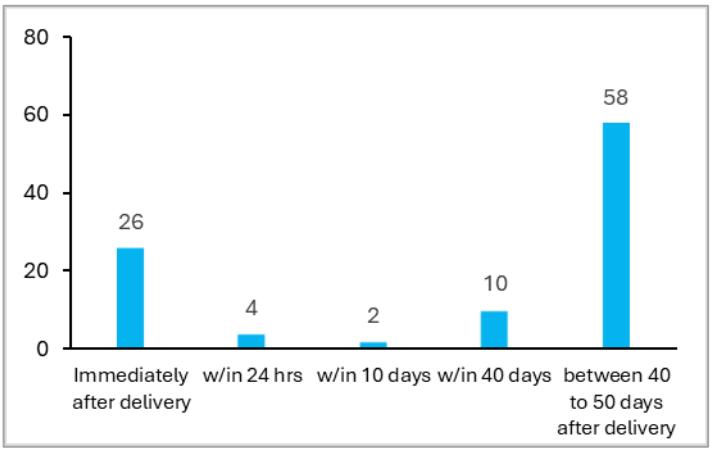
Figure 3.4 presents the methods most preferred by clients: condoms (27%), injection Depo-Provera (22%), and progesterone-only pills (13%). An encouraging 9.8% of women opted for PPIUCD.

Figure 3.4: Types of FP methods adopted by clients after pregnancy outcome (n=508)



PPIUCD was offered for the first time to community women as a PPFP method, so it is important to assess when they opted for it during the post-partum period. Figure 3.5 indicates that the majority of women (58%) opted for PPIUCD just after the completion of 40 days of the postpartum period (between 40 to 50 days after delivery (n=29)). 26% of women (n=13) elected for PPIUCD immediately after delivery, i.e., within 10 minutes. 82% of PPIUCD insertions were conducted by CMWs themselves. The remaining were performed by the CMWs with the help of doctors.

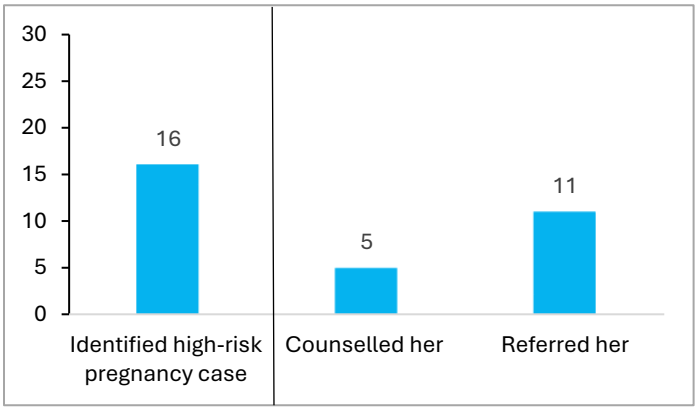
Figure 3.5: Timing for PPIUCD insertions (n=50)



Detecting High-Risk Pregnancies

During GANC sessions, 27% of the CMWs (16 out of 55) identified a woman in their cohort whose pregnancy was high-risk. High-risk pregnancies are those in which there is a higher than usual chance for the mother and fetus to experience health complications. For the CMWs, these consisted of cases with severe hypertension or heavy bleeding (hemorrhage) during pregnancy. Of the high-risk pregnancies, most cases were referred to healthcare facilities for proper management of health concerns (Figure 3.6).

Figure 3.6: Number of CMWs who identified high-risk pregnancies during GANC sessions and how they dealt with them (n=16)



During IDIs, CMWs discussed that they refer high-risk cases to health facilities.

> *"If I think a case is too complicated for me, e.g., severe hypertension, I refer it to the THQ hospital. I even go along with the woman whom I refer, for help and support. However, if I cannot go due to any reason, I call the hospital beforehand to tell them about the incoming patient and her history and present condition. I usually refer in case of severe infection or heavy bleeding."* (CMW–Endline IDI–Urban–Matiari)

> *"CMW gets to know about any complications early on, and so she can timely refer the woman to a relevant health facility. This helps the pregnant woman avoid many issues. Women are also taken care of in a better way as compared to when they go to civil hospital for their checkups."* (CMW–Endline IDI–Rural–TMK)

Conducting GANC Sessions in Rural vs. Urban areas

People in rural areas often face difficulties accessing healthcare facilities compared to their urban counterparts. This disparity is further highlighted by the experiences of CMWs delivering GANC services.

Qualitative findings also reveal that CMWs observed a strong positive response to GANC, particularly among pregnant women in rural communities. These women face challenges accessing healthcare facilities and welcomed the idea of receiving antenatal care within their community. GANC sessions eliminated transportation, travel, and time costs, which would otherwise be a barrier to receiving antenatal care. However, women in urban areas were not as accepting of the idea of GANC.

> *"It is easier in rural areas even though I belong to an urban area. In urban areas, women prefer to get their ANC checkups done from a doctor. In urban areas, women need to be counseled and explained more that the CMW's work will be beneficial for them. Usually, people in rural communities have to travel long distances to reach any healthcare facility, so they were ready to attend the sessions and were thankful to be provided with pregnancy and FP related services close to their homes."* (CMW–Endline IDI–Urban–Matiari)

CMWs also stated that, due to easy access to facilities in urban areas, people living there are more knowledgeable and aware of healthcare issues compared to people in rural areas.

> "It is difficult in urban areas as compared to rural areas, as in rural areas the community is a close-knit one, it is easy to convince them to attend the sessions. In urban areas, as the people already have a lot of knowledge, it is difficult to convince them to attend such sessions." (CMW–Endline–IDI–Semi-urban–Matiari)

> “It is easier in rural areas, as there is a close-knit community there. Most people are of the same "baradari." So, people give time to the CMW. However, in urban areas, people make a variety of excuses and don't take out time to listen to what the CMW has to say.” (CMW–Endline–IDI–Rural–TMK)

> “It is beneficial for rural areas as people do not have much knowledge regarding FP or maternal health, so it is easier to convince them to attend. When we visit the rural women, they become excited about what the CMW has bought for them. They say that she'll check us for free and we won't have to go to the city, so money will be saved. In urban areas, women have a lot of information already, and they prefer to go to big hospitals.” (CMW–Endline–IDI–Rural–TMK)

> “It is easier in rural areas as people don't have much awareness, so when they are given information that will be beneficial for them, they accept it readily. People in urban areas think of themselves as knowledgeable and prefer big hospitals, so it is not easy to convince them to attend sessions. Sometimes they rudely dismiss the CMWs.” (CMW–Endline–IDI–Rural–Matiari)

However, some CMWs were also of the opinion that women in rural areas are occupied with household and agricultural chores and find it difficult to spare time for the sessions, even if they understand the benefits.

> *“They say, ‘we have to work on our lands, with our animals, we are not free.’"* (CMW–Endline–IDI–Rural–TMK)

4 Discussion and Recommendations

Community midwives (CMWs) represent a critical cadre of healthcare providers at the community level, with a specific focus on reproductive health. Their crucial role lies in extending services to difficult-to-reach areas that lack basic infrastructure, such as hospitals (Gay et al., 2020). The government of Pakistan established the CMW model to deliver maternal health services within communities. However, the program has yet to fully explore and leverage the full potential of CMWs' capabilities and community presence.

In Sindh, the CMW model flourishes, notably through initiatives like the 1000 Days Project, where CMWs deployed at government dispensaries play a central role in delivering reproductive health services to underserved populations. However, by capitalizing on the existing community healthcare system, properly trained CMWs equipped with a consistent supply of free contraceptives and well-designed family planning (FP) interventions can significantly address the gap in FP and postpartum FP (PPFP) services, ultimately leading to a more robust community-level healthcare system overall.

Strengthening the Community-based Healthcare System through the Community Midwives Plus Project aimed to utilize CMW services to promote FP and PPFP services, particularly in areas with access issues. As CMWs were empowered through training and provision of medical equipment and contraceptives, their capabilities grew. A regular contraceptive supply is an important factor in preventing CMWs from losing potential FP clients. Empowering CMWs through training and equipment to provide FP and PPFP services did not prove to be a conflict of interest for their regular maternal health and delivery service provision. CMWs readily adapted to the role of FP service providers. Working with pregnant women, CMWs encouraged women to adopt PPFP.

Training and educating CMWs can improve service uptake among community members, especially for maternal health related services (Ali et al., 2015). Through this project, the number of FP clients increased, along with other general health-related clients. The social status of CMWs among community members also grew, making them an essential part of the community.

Community members appreciated having active CMWs in their communities as access issues were resolved. So, this model contributed to strengthening the community-based healthcare system overall.

The community-based GANC approach, introduced for the first time in Pakistan, proved to be a successful model, especially for rural communities. This easily adaptable model, facilitated by CMWs, promoted

PPFP through consistent counseling during GANC sessions. Notably, a majority of participants opted for short- or long-term contraceptive methods after graduating from their cohorts, i.e., following childbirth. The introduction of Sayana Press and PPIUCDs further expanded the range of contraceptive options available. As research shows, offering a wider variety of methods increases the likelihood of method adoption, including long-acting reversible contraception (LARCs) (Gay et al., 2020). In the current study, a promising number of women opted for PPIUCDs.

This GANC model addresses several access barriers by providing women with convenient access to CMWs who offer a comprehensive range of FP, PPFP counseling and services, all within the familiar community setting. Furthermore, by expanding the scope of services offered, the program empowers CMWs both socially and economically.

Reporting and monitoring are important aspects of any such project. CMWs were trained to use a mobile application for reporting work details, including the type of clients, and for monitoring purposes. This integration of technology fostered a sense of empowerment among CMWs. Investing in the digital literacy of CMWs is essential for their ongoing development and ensures their reproductive health services remain up-to-date, especially during unforeseen circumstances like floods or pandemics (Vivilaki et al., 2021).

Recommendations

- **Replicate this model across Pakistan to leverage the existing network of CMWs for national FP efforts.** The study's results demonstrate that empowering CMWs through the program equips them to serve as a key pillar of the FP/PPFP agenda, ultimately contributing to tangible improvements in population health outcomes.
- **Engage CMWs to provide multifaceted reproductive health services.** CMWs' potential has been clearly demonstrated in this project and previous initiatives. CMWs should be strategically integrated into the wider healthcare system. Equipping them with training on new models and service delivery avenues will enable them to shine and offer a more holistic range of reproductive health services. CMWs can help in:
    a) Detecting pre-eclampsia and providing pregnant women with medical help.
    b) Becoming post-natal care providers, offering specialized healthcare services to women after deliveries.
    c) Spreading mental health awareness and becoming mental health counselors for community women.
    d) Raising substance-use awareness, often important for community members to understand the woes of such habits or addictions.
    e) Advancing the significance and provision of immunization for mothers and children as a life-saving and disease-averting activity.
- **Expand CMWs' mandate to include training on and provision of methods like implants to increase contraceptive choices for clients.** Since CMWs have been provided and given training on IUCD, the uptake of this method by clients has gradually increased. Clients should have multiple method choices to select the optimal method according to their requirements. If trained on LARCs, CMWs can educate clients regarding increased choices and help them make the best FP choice for them. This can encourage clients to opt for LARCs, which are easy to use and hassle-free.

- **Maintain a regular supply of FP methods to ensure this model's success.** The Population Welfare Department and the Department of Health should collaborate to routinely provide CMWs with a free supply of contraceptives according to their requirements. In this manner, there will be no fluctuation in service quality due to stockouts.
- **Organize regular refresher trainings for CMWs.** This will help keep CMWs relevant and informed about novel information on FP. Along with refreshers, trainings on new subjects should also be considered and developed. CMWs should be experts on non-surgical FP methods, especially LARCs. These trainings should also include hands-on practical education.
- **Regularly supervise CMWs for quality assurance.** This can be carried out with the help of the already existing mechanism that oversees the LHWs' work. Supervision is essential for quality assurance as it ensures the maintenance of standards. So, for optimal CMW service provision, supervision is necessary.
- **Set up a digital management information system (MIS) for CMWs.** CMWs should be trained on digital technology. As technology is rapidly developing, service providers need to stay up-to-date with the latest technology to provide optimal services. Using digital MIS, CMWs can keep track of their clients concerning services. CMWs can also be monitored in real time through this technology.
- **Establish a mechanism between CMWs and the RMNCH program** to monitor CMW performance and provide contraceptive supplies as needed.
- **Train CMWs on disaster preparedness and to be at the forefront in their communities during emergency situations like floods.** Depending on the emergency condition, if infrastructure is compromised, CMWs can be the main health providers as they reside within their communities.
- **Conduct randomized control trials to test the feasibility of the GANC model, as it is a novel approach for the country.** GANC should be scientifically tested to measure how it can be used optimally in Pakistan's context. The feasibility of facility-based GANC sessions should also be tested.

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