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Healthy women, healthy families: Summary of findings from baseline assessment

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HEALTHY WOMEN, HEALTHY FAMILIES

সুস্থ মা, সুস্থ পরিবার

Summary of Findings from Baseline Assessment

Introduction

The "Healthy Women, Healthy Families (HWHF): Shustha Ma, Shustha Poribar" operations research project, led by Management Sciences for Health (MSH) is designed to improve the quality and use of maternal, newborn, and child health (MNCH) and family planning (FP) services and information among young women and their husbands in the urban municipality of Tongi, Gazipur, Bangladesh, through a group antenatal care (ANC)-postnatal care (PNC) approach. The study sites are located approximately 20-25 kilometers north of Dhaka in an industrial, densely populated, concentrated urban area with mostly migrants and garment workers and large informal settlements (GCC 2021). HWHF project covers 215,037 populations in Tongi (October 2021).

Research indicates that group ANC is associated with improved ANC attendance, client satisfaction, and health outcomes for pregnant women and newborns (Sharma et al. 2018). This brief presents the baseline values of select result indicators, particularly knowledge and practice of healthy behaviors, use of health services, couple communication, social support, and quality of care.

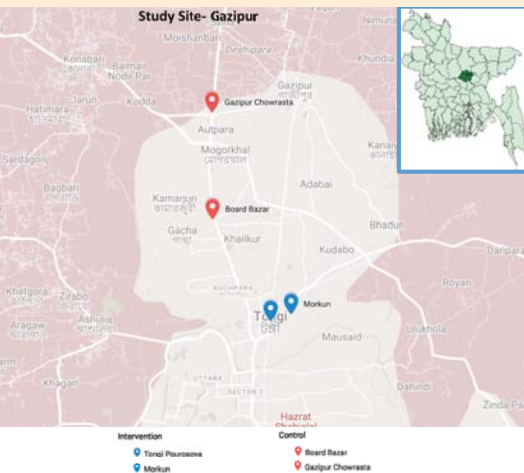
Data and methods

This is a quasi-experimental pre-post control group design study. The data for the baseline assessment was collected from two intervention (Tongi and Morkun) and two control (Board Bazar and Chourasta) sites served by BRAC Maternity Centers (BMCs). Quantitative and qualitative data were collected from January to March 2022. The research team collected information from 2,200 first-time mothers (FTMs) aged 15-24 years who gave birth between November 1, 2020, and October 31, 2021; and conducted 18 in-depth interviews with FTMs, mothers-to-be, first-time fathers, fathers-to-be, and BMC service providers (Medical Officers and midwives); and conducted 12 focus group discussions (FGDs) with FTMs, mothers-to-be, first-time fathers, fathers-to-be, and in-laws/relatives. FTMs, aged 15-24 years residing in the study sites, were selected for the survey through simple random sampling from the lists of FTMs provided by BRAC. Participants for FGDs and in-depth interviews were selected purposively through referrals from the FTMs. Quantitative analyses include both descriptive and analytics using frequency distributions, bivariate and multivariate analyses. Chi-squared test was use for determining the p-value in most cases. Composite scores of some selected indicators were prepared to present results of complex indicators (e.g., quality of care for ANC, delivery and PNC). Qualitative data have been analyzed thematically in exploring similarities and differences in the access and use of MNCH and understanding nuanced interactions among these variables as well as perspectives from healthcare providers and other stakeholders.

Objectives

The objectives of the baseline assessment of HWHF project are to understand the research questions by gathering information on the status quo of selected variables and establishing reference points for tracking the project's progress; that is, to measure the degree and quality of change occurred due to the implementation of GANC-PNC in two BRAC facilities (Tongi and Morkun) compared with similar two BRAC facilities (Board Bazar and Chourasta) over 21 months intervention period.

This baseline survey and qualitative interviews are designed to gather information on socio-demographic profiles, knowledge, and practices on MNCH and FP, PPFP, birth planning, breastfeeding practices, essential newborn care (ENC), quality and respectful maternity care, couple communication and decision making, and social supports (SSs) received during continuum of care of FTMs from their husbands and other caregivers.



Research Questions

- What is the effect of the group model interventions (using a person—centered model) on the quality of ANC and PNC services in the intervention sites compared to control sites?
- What is the effect of the group model interventions on adoption of healthy behaviors in the intervention sites compared to control sites?
- What is the effect of the group model interventions on the project outcomes such as ANC retention, birth spacing and FP, etc. in intervention sites compared to control sites?

Key summary findings

FTMs' demographics are relatively uniform across control and intervention groups

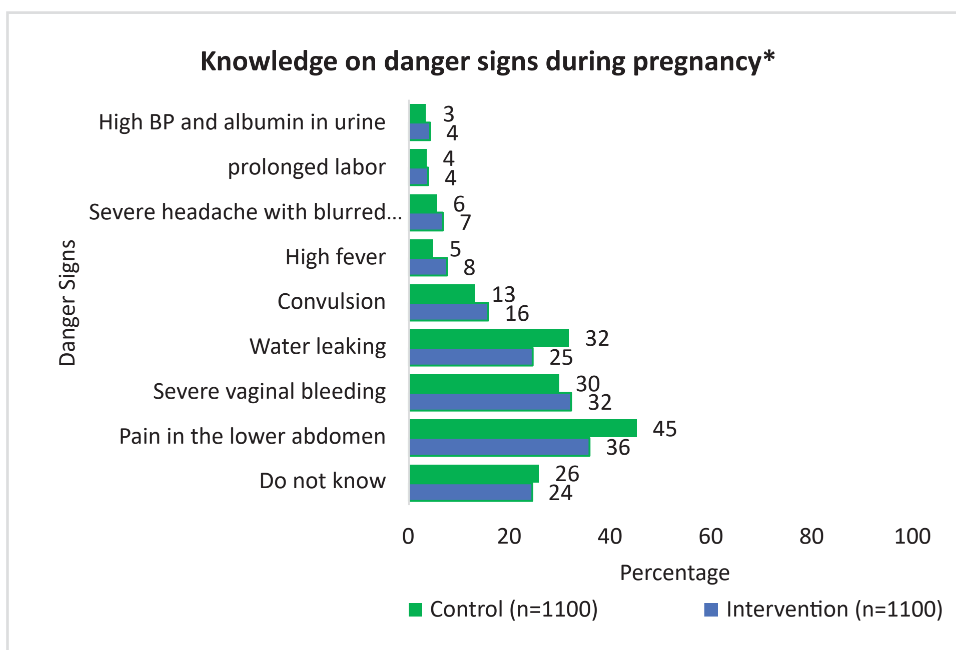
There are no statistically significant differences between intervention and control sites in the sociodemographic characteristics of FTMs except wealth index.

- 90% and 92% of FTMs in intervention and control sites, respectively, are between 18-24 years
- 98% of FTMs in both intervention and control sites attended school; 65% of FTMs attended secondary school and above
- 60% and 65% of FTMs in intervention and control sites, respectively, married before 18 years
- 89% and 88% of FTMs in intervention and control sites, respectively, are housewives
- 23% and 27% of FTMs in intervention and control sites, respectively, fall in the lowest wealth quintile, and FTMs in intervention site are significantly more likely to be wealthier compared to the control site ($p<0.001$)

FTMs' knowledge of danger signs is limited

For all three stages of the pregnancy continuum (during pregnancy, childbirth and postpartum period), knowledge of at least three danger signs is low among FTMs.

- 4% and 3% of FTMs in intervention and control sites, respectively, could mention at least three of the danger signs during pregnancy (e.g., severe vaginal bleeding, convulsion and severe headache with blurred vision)
- 18% and 17% of FTMs in intervention and control sites, respectively, could mention at least three of the danger signs during labor and childbirth (e.g., prolonged labor, baby in wrong position and convulsion)
- 5% of FTMs in both intervention and control sites could mention at least three of the danger signs during the postnatal period (e.g., severe vaginal bleeding, convulsion and high fever)
- 16% and 21% of FTMs in intervention and control sites, respectively, could mention at least two of the danger signs of newborns with significantly more FTMs likely to know two danger signs in control site ($p<0.01$) (e.g., breathing difficulty, convulsion and poor feeding)



**Multiple responses possible*

FTMs are knowledgeable about FP methods

All FTMs, irrespective of intervention or control sites, could name at least one FP method.

- 98% and 100% of FTMs in intervention and control sites, respectively, mentioned oral contraceptive pills
- 85% and 87% of FTMs in intervention and control sites, respectively, mentioned injectables
- 70% and 69% of FTMs in intervention and control sites, respectively, mentioned condoms
- 43% and 44% of FTMs in intervention and control sites, respectively, mentioned implants
- 20% and 24% of FTMs in intervention and control sites, respectively, mentioned female sterilization
- 11% and 10% of FTMs in intervention and control sites, respectively, could name at least three modern FP methods (e.g., Pill, condom and injectables)

FTMs practice postpartum contraception and rely on temporary methods

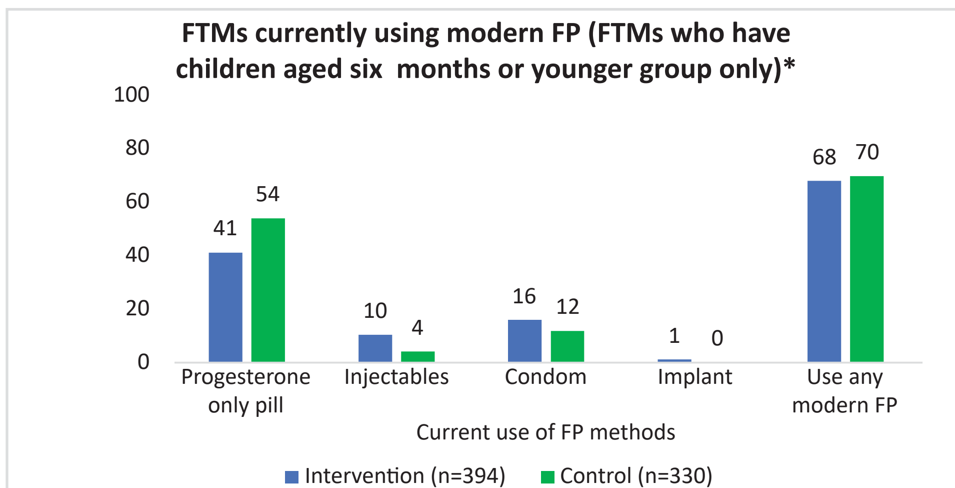
Among FTMs who have children aged six months or younger (n=394 and n=330, respectively), 68% and 70% of FTMs in intervention and control sites, respectively, reported using a modern FP method to avoid or delay pregnancy during the first six months of the postpartum period. Significantly more FTMs in the control site used progesterone-only pills compared to the intervention site ($p<0.001$). On the other hand, significantly more FTMs in the intervention site used injectables ($p<0.002$) and condoms ($p<0.01$) compared to the control site. None of the FTMs in either site used IUD.

Concerns around which FP method(s) to use and side effects of certain methods, such as injectables, were common among new parents. One FTM mentioned:

> *"I don't know this clearly (what I can use immediately after birth, or after six months). I never used injection earlier. This is the first time I took an injection. I didn't know that before. I can't take medicine (oral pill). So, my mother-in-law told me to take an injection. … for getting breast milk. I think it is better for men to use something. I lost weight after taking the injection, and now I have faced a problem. I bleed a lot."*

Qualitative findings found a common perception among new parents of not requiring any contraceptive method until menstruation returns after childbirth, which might have influenced their decisions to not use contraception. One FTM mentioned:

> *"Previously I used to take Femi pill (combine oral pill) but now I don't take it anymore. I mean after childbirth I did not take any measure. I did not have my menstruation back yet and that's why I am not taking any contraceptives now."*



*Multiple responses possible

Among all FTMs

- 4% & 3% of FTMs in intervention and control sites, respectively, can identify at least three danger signs of pregnancy (n=1100 & n=1100; $p<0.07$)
- 16% & 21% of FTMs in intervention and control sites, respectively, can identify at least two danger signs of newborn (n=1100 & n=1100; $p<0.01$)
- 55% & 50% of FTMs in intervention and control sites, respectively, exclusively breastfeed their infants (n=1100 & n=1100; $p<0.03$)
- 51% & 44% of FTMs' newborns in intervention and control sites, respectively, received 7.1% chlorhexidine applied to cord and initiated breastfeeding within one hour of birth (n=1100 & n=1100; $p<0.001$)
- 64% & 66% of FTMs in intervention and control sites, respectively, received at least one PNC checkup within 2 days of delivery from medically trained providers (n=1100 & n=1100; $p<0.42$)
- 61% & 64% of newborns in intervention and control sites, respectively, received at least one PNC checkup within 2 days of delivery from any facility and medically trained providers (n=1100 & n=1100; $p<0.21$)
- 28% & 25% of FTMs in intervention and control sites, respectively, received at least 3 PNC checkups within 42 days of delivery from any facility (n=1100 & n=1100; $p<0.08$)

Among all FTMs

- 24% & 19% of newborns in intervention and control sites, respectively, received at least 3 PNC within 42 days of delivery from any facility (n=1100 & n=1100; p<0.001)
- 42% & 47% of FTMs in intervention and control sites, respectively, can mentioned one of the modern FP methods (n=1100 & n=1100; p<0.11)
- 22% & 22% of FTMs/parents in intervention and control sites, respectively, completed all four birth-plan components (n=1100 & n=1100; p<0.75)
- 68% & 70% of FTMs/parents in intervention and control sites, respectively, currently using any modern FP methods (6-month post-partum) (n=880 & n=911; p<0.63)
- 60% & 57% of FTMs in intervention and control sites, respectively, reported couple communication reproductive and child health (n=1100 & n=1100; p<0.08)
- 53% & 49% of FTMs in intervention and control sites, respectively, reported joint decision making on reproductive and child health (n=1100 & n=1100; p<0.25)
- 51% & 56% of FTMs in intervention and control sites, respectively, received adequate/high social support from social networks during pregnancy period (n=1100 & n=1100; p<0.03)

Type of services received from BMCs

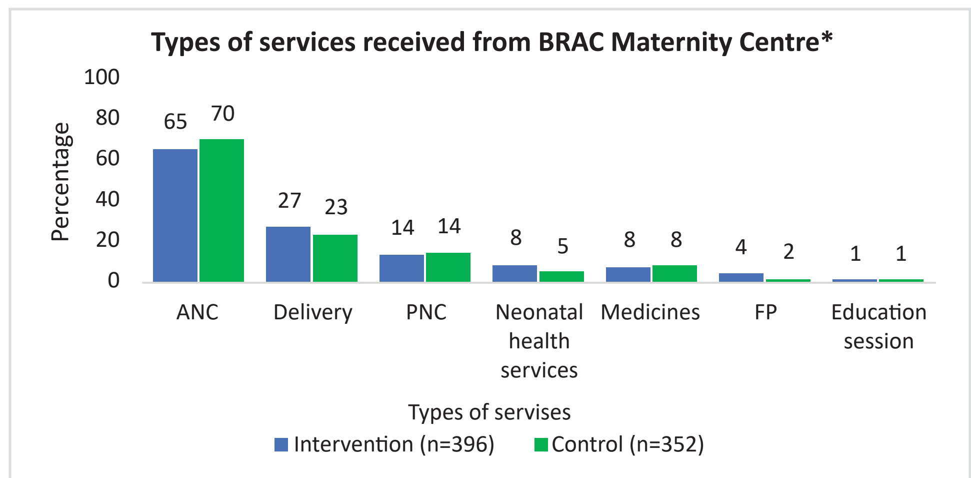
Among the FTMs who had heard about BMCs (n=845 and n=912, respectively), 47% and 39% reported receiving any health services from intervention and control sites, respectively, and significantly more FTMs in intervention site are likely to receive any health services from BMCs (p<0.001).

Qualitative interviews revealed the complex and diverse factors that come into play regarding decision and choice of place for delivery services: distance, cost of services, concern for safety, respectful behaviors, lab test facilities, pressure for having C-sections, accessibility to health workers at any time, door-to-door services. One FTM mentioned:

> *"I went there (BMC) since it was closer, and we also had to consider the cost because we are poor. Normal delivery is less expensive and better for women than C-Section, which is why I went there."*

One first-time father mentioned,

> *"There was a lady service provider from BRAC who used to come at home and check the blood pressure, provide medicine like iron, calcium tablets etc. She would check the blood pressure, provide medicine and take information on pregnancy. She would communicate through the phone also."*



**Multiple responses possible*

ANC rate of FTMs in the study area follows national trends (BDHS 2017-18)

Among FTMs in the study area, the rate of those who received ANC from medically trained providers without tracer elements is comparable with Bangladesh's national level (BDHS 2017-18). Tracer elements include certain procedures performed during ANC such as blood pressure and weight checked, urine and blood tests done, and women counseled on danger signs.

- 82% of FTMs in both intervention and control sites reported receiving at least one ANC visit from medically trained providers without tracer elements (nationally 82%, urban 90%; BDHS 2017-18)
- 59% and 54% of FTMs in the intervention and control sites, respectively, received four or more ANC visits with significantly more in intervention site (p<0.04) from any service providers without tracer elements (nationally 47%, urban 59%; BDHS 2017-18)

The percentage of FTMs who received at least one ANC from BMCs (medically trained providers) with all tracer elements is low However, the coverage rate for four or more ANC visits with all tracer elements is consistent with the national figure.

- 20% and 23% of FTMs in intervention and control sites, respectively, received at least one ANC visit (no significant difference between intervention and control) from medically trained providers with all tracer elements (national data not available)
- 18% and 20% of FTMs in intervention and control sites, respectively, completed four or more ANC visits (no significant difference between intervention and control) from medically trained providers with all tracer elements (nationally 18%, urban 27%; BDHS 2017-18)

PNC rate is also comparable with national level

Among FTMs in the study area, the proportion of those who received PNC from medically trained providers within two days is comparable with Bangladesh's national level data.

- 64% and 66% of FTMs in intervention and control sites, respectively, received at least one PNC checkup within two days of delivery from any facility and medically trained providers (nationally 52%, urban 66%; BDHS 2017-18)
- 74% and 88% of FTMs in intervention and control sites, respectively, received at least one PNC visit within two days of delivery from BMCs (medically trained providers) (no significant difference between intervention and control)

Qualitative interviews with first-time parents indicated that visiting a facility for PNC is not commonly practiced unless the woman gave birth by C-section and needs stitches removed or the woman is experiencing complications. After the birth of the baby, mothers' needs are not often given priority. One FTM and a mother-to-be mentioned:

> *"They don't go after delivery. If anything happens to the child, the child is taken to the health center. What happened to her own body no longer seems important ... They go if they think that the baby is having a problem, such as if baby has cold or get hurt. Mothers do not go for themselves..."*
>
> *"Mothers have other problems. Mothers stay busy with the child. They don't take care of themselves. Many persons neglect this. Persons who do work are busy with their job. They can't make time. They also have to take care of the baby. That's why they don't get time."*

Quality of care during pregnancy continuum at BMCs needs attention

Quality of care during last ANC, delivery and last PNC was assessed using composite score of various quality care components. The quality of services on ANC, delivery and PNC provided by BMC was scored high in 50% cases of ANC and PNC and 75% cases of delivery in both intervention and control sites. Qualitative findings indicated that BMCs provided a positive environment for health services; Respondents highlighted BRAC's widespread practice of home visits and services, professional positive environment of the facility and their community connection. One first-time father mentioned:

> *"The advantage is that the facility is open 24 hours a day. Health workers also remain alert. They give their numbers. You can receive services 24 hours a day. Whenever you want, whenever there is a problem, you can call the health workers of BRAC. And you are getting the service too. That's why everyone chooses BRAC. The BRAC facility in ward no. 48 is trusted by all."*

While mostly positive experiences with services and health care workers' behavior were reported, a few FTMs shared concerns about crowdedness and lack of privacy. One FTM mentioned:

> *"There is a room at the immediate front of examination room, so when a patient lay there, her clothes move here and there. Women and men*

Among all FTMs

- 55% & 51% of FTMs in intervention and control sites, respectively, received adequate/high social support from social networks during delivery (n=1100 & n=1100; p<0.06)
- 57% & 58% of FTMs in intervention and control sites, respectively, received adequate/high social support from social networks during postnatal period (n=1100 & n=1100; p<0.67)

Among FTMs in BMC

- 43% & 47% of FTMs in intervention and control sites, respectively, reported satisfaction on ANC services (n=260 & n=245; p<0.34)
- 40% & 37% of FTMs in intervention and control sites, respectively, reported satisfaction on PNC services (n=55 & n=51; p<0.77)
- 53% & 50% of FTMs in intervention and control sites, respectively, reported satisfaction on FP services (n=15 & n=6; p<0.89)
- 20% & 23% of FTMs in intervention and control sites, respectively, reported receive at least one ANC from medically trained providers of BMC with all tracer elements (n=260 & n=245; p<0.37)
- 18% & 20% of FTMs in intervention and control sites, respectively, reported receive four or more PNC from medically trained providers of BMC with all tracer elements (n=260 & n=245; p<0.66)

Interview with FTM, Population Council

enter and sit on those benches, and everything becomes visible to them. You'll see that if you pay attention.

That would have been better if that room was placed inside. I gave birth to my baby in the room beside this, but my sister gave birth in that room. …There is a curtain, but when a person enters that room, the curtain is displaced, right? Respect for women should be maintained, right? When I delivered my baby there, those benches were behind that room. Nothing was visible. But now those benches are in front of that room, which makes everything visible."

Most new couples prepared a plan for their upcoming births

Among all FTMs surveyed, 84% and 89% in intervention and control sites, respectively, prepared a birth preparedness plan during their first pregnancies with significantly more FTMs in control site (p<0.003). Among the selected four elements of birth preparedness (Save money for delivery, select a delivery place, identify mode of transport and arrange blood donor), 22% of FTMs in both intervention and control sites completed all four birth preparedness elements.

FGD with FTMs, Population Council

Findings from the FGDs and IDIs showed that place of delivery, discussion around normal delivery, financial resources and c-section are the most common preparations among the parents-to-be and close relatives. One FTM mentioned:

"If I am to talk about preparation, we have already decided that if I feel anything wrong, we'll go to BRAC straight. We started saving money at the bank. Every day my husband came home after his driving duty, and he put some money in the bank, and we even managed some promises (verbal agreement to lend money) to help us during emergencies, in case needed. Not everyone delivers babies normally, right? My boss promised to lend me 5-10 thousand, if needed."

Apart from parents-to-be, family members and community health workers also play a vital role in choosing delivery place. One FTM mentioned:

"That is not a decision made by one person. Because it is a family matter, a matter of concern. If it is a normal delivery, it is often delivered at home, but if someone wants to avoid any problems during the delivery, then they go to BRAC (BMC)."

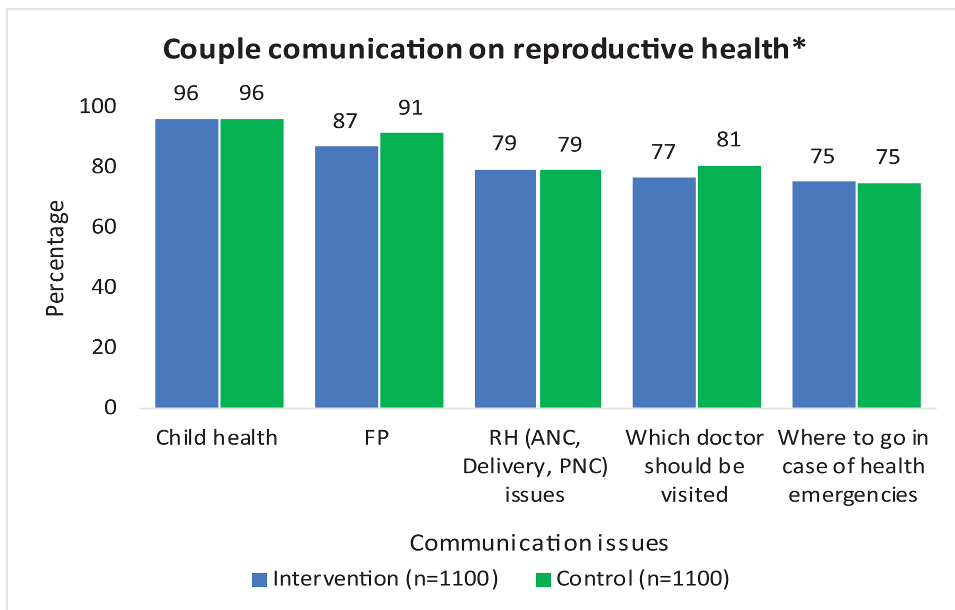
Couples communicate with each other on reproductive health and make decisions jointly

Couple communications about reproductive health are high and similar between the intervention and control sites, except for FP method and which doctor should be visited. FP and which doctor should be visited are significantly more likely to be discussed among couples in the control site compared to the intervention site (p<0.001 and p<0.01, respectively).

Interview with service provider, Population Council

FGDs and IDIs findings exhibit husbands' involvement throughout the pregnancy continuum and in contraceptive use. A first-time father mentioned:

"There are so many things like this, such as taking her to the BRAC for healthcare and bringing her back on a regular basis. …It has been discussed with her that we will deliver the baby at home. And if any problem, there is a hospital also where we will go for emergency. I accompanied her (wife) during checkup. Most of the time my mother and aunt have gone, I may have gone twice... Both of us take the decision. But our family rule is to talk to adults. Everything must be decided with understanding. I have a mother and father. Whatever decision we make we consult with them. We came home and discussed how was ultrasound report. Alhamdulillah the report is good. These are the things we talked about generally after returning from facility."



*Multiple responses possible

Interview with FTM, Population Council

Decisions on which doctor should be visited in the case of health emergencies are made jointly by husband and wife in both intervention and control sites. In some cases, husbands and parents/in-laws also played significant decision-making roles in both intervention and control sites, with husbands and parents significantly more likely to be the decision-makers in the control site compared to the intervention site ($p<0.001$).

Social support is available to FTMs

FTMs in the control site are significantly more likely to receive social support during ANC ($p<0.03$) and slightly higher in the postnatal period ($p<0.06$), while FTMs in the intervention site are more likely to receive social support during delivery ($p<0.67$). FTMs in the control site are more likely to receive higher levels of social support in all three components of social supports (household chores, healthcare and psychological supports) during pregnancy ($p<0.01$; $p<0.03$ and $p<0.01$, respectively), and healthcare and psychological supports during postnatal period ($p<0.05$ and $p<0.01$, respectively) compared to the intervention site. On the other hand, FTMs in intervention site are more likely to receive higher levels of social support in household activities during delivery compared to control site ($p<0.01$).

FGD with first time fathers, Population Council

Mothers and mothers-in-law play major roles in providing support during the post-delivery period, providing guidance and taking care of the newborn. One FTM mentioned:

> *"He (husband) asked me to take rest if I felt not okay. He did clean for me; dried clothes and he did everything. You understand that, right? Everything I needed from going to the doctor or buying medicine, he took me to the doctors, and when he couldn't go, he gave money to me or my sister-in-law and said- "You two go, I have some works, call me if anything is needed." How will he work if he keeps running for me! He has done his best."*

FTMs reported that mothers-in-law provide their support in the new-born care as it is their heir, however support for them (new mothers) is not the priority. One FTM mentioned:

> *"Yes, mother-in-law wants to take good care of the offspring of their son…but you know, the people of the in-law's house do not care for the new mother in many cases...We can't sit at rest at the in-laws' house. I mean, even if a task is heavy, we must do it. However, no one says anything even if we don't do anything at our parent's house."*

Interview with service provider, Population Council

Limitations

The number of women of those who received ANC, PNC and delivery services from BMC were small and the analyses and findings for this group should be interpreted with caution. With the skip logic in use, some of the composite scores are calculated using a smaller sample size, which may limit the power of probability of making a correct decision of a particular variable. In the endline, the probability of the occurrence of the type I error (false positive) will be minimized by decreasing the significance level and the probability of the occurrence of the type II error (false negative) will be minimized by increasing the power of the test. The study was conducted with women who recently delivered (within the previous 12 months), and there is potential for recall bias for some questions, particularly quality of care on ANC, delivery, and PNC. Social desirability and custom bias may also affect how some mothers report the service experiences.

Conclusions and next steps

- Knowledge of danger signs during pregnancy, delivery, postnatal period, and newborns among FTMs is limited and sustained efforts are needed to improve FTMs' knowledge of danger signs.
- Quality of care at BMCs during ANC, delivery and PNC can be improved through training and supportive supervision of service providers. Implementing a checklist with quality and respectful maternity care components may help service providers track essential elements of the pregnancy continuum.
- Health facilities and all other stakeholders should work to improve knowledge and skills of service providers on the standards, protocols, and components of respectful maternity care.
- Essential care of FTMs during post-partum should be prioritized along with the newborns. Husbands should play roles in creating enabling environment among in-law's family members for emotional support as well as PNC checkups.

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For more information

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