



# Maternal Health Initiative & Norsaac

Final Report – Contraceptive Counselling Project

*July 2023 - January 2024*



## Executive Summary

- In this project, the Maternal Health Initiative (MHI) and Norsaac worked together to implement a programme aiming to increase contraceptive knowledge and uptake. This program focused on training nurses and midwives on delivering an adjusted model of contraceptive counselling integrated into routine postpartum appointments.
- This was a pilot project in which we aimed to compare the value of one-to-one family planning counselling during routine postnatal care sessions (PNC) against the value of short messaging and family planning referral integrated into child welfare clinic sessions (CWC)
- Endline data suggests that the PNC program produced an increase in contraceptive uptake, with no clear change observed in the CWC program. Due to inconsistencies between data sources and overall data quality concerns, we have low confidence in the extent of the positive impact of either program.
- Research prompted by our pilot results suggests that contraceptive uptake in the early postpartum period may be significantly less valuable than expected. This is due to the high level of pregnancy prevention many women are likely gaining from unexpectedly high rates of breastfeeding and sexual abstinence.
- Based on the results presented in this report alongside further research and engagement with experts, we conclude that neither project is worth further implementation or scaling at this time.

## Overview

### Background

Ghana has low contraceptive uptake with a national average of 33.8% ([ARHR, 2022](#)), much lower than the world average of 48.5% ([United Nations 2019](#)). Furthermore, Ghana has an unmet contraceptive need of 30%, meaning that many women would like to control the frequency and number of pregnancies but are not using contraception ([Asah-Opoku et al. 2023](#)).

Over recent years in the Northern Region, there has been a declining family planning acceptor rate (2018: 31.4%; 2020: 28.2%; 2022: 25.5%). This falls short of the national target of 40%, and behind other nearby regions (e.g. North East was 35% in 2022). One potential barrier to higher rates of family planning is insufficiently good quality

counselling, with women not being adequately informed about potential side effects ([Rominski et al, 2017](#)), and low levels of shared decision-making ([Advani et al, 2023](#)).

Postpartum family planning (PPFP) – that is, integrating family planning guidance into postnatal care and/or child immunisation appointments– has been found to be an effective way of increasing contraceptive uptake and reducing unmet need in other contexts (see: [Wayessa et al. \(2020\)](#) in Ethiopia; [Saeed et al. \(2008\)](#) in Pakistan; [Tran et al. \(2020\)](#) in the Democratic Republic of Congo; [Tran et al. \(2019\)](#) in Burkina Faso; [Pearson et al. \(2020\)](#) in Tanzania; [Dulli et al. \(2016\)](#) in Rwanda). It is the official Ghana Health Service policy that family planning should be included in postnatal care (Ghana Health Service, 2014). However, research indicates that consistency and quality of family planning services in the postpartum period varies in practice ([Morhe et al. 2017](#)).

## Timeline

|                                     |  |
|-------------------------------------|--|
| <p>August - September 2023</p>      | <p><b>Phase 1 - Formative Research</b></p> <p>Refined program design through engagement with facility stakeholders and baseline data collection. Completed baseline data collection through structured questionnaires conducted with postpartum women at facilities, following up with clients 14 days after the initial questionnaires via mobile phone to assess contraceptive uptake.</p>   |
| <p>October-November 2023</p>        | <p><b>Phase 2 - Intervention</b></p> <p>Ran the training sessions in October 2023, beginning a process of implementing the intervention packages. This included an assessment of providers' knowledge and attitudes towards family planning, and ongoing monitoring work to ascertain the quality of implementation.</p>   |
| <p>November 2023 - January 2024</p> | <p><b>Phase 3 - Evaluation</b></p> <p>Conducted endline data collection through structured questionnaires conducted with postpartum women, both at the facilities and by mobile phone two weeks after the initial questionnaires. Questions used for data analysis were held the same as in the baseline surveying. This follow-up data was collected 6 weeks after the training sessions concluded, with subsequent collection of facility record data.</p> |

## MHI: Aims and Approach

MHI is aiming to increase the use of family planning by providing high-quality training to frontline staff involved in providing Post-Natal Care (PNC) and delivering Child Welfare Clinics (CWCs). Our training focused on testing two targeted intervention packages aimed at maximising the quality of information women receive around family planning. As part of the training, providers were given materials and guidance on a system that they could take back to their facilities and use when they engage with clients.

# Program Design

## Introduction

This project aimed to test the value of individual PNC family planning counselling with the value of incorporating family planning counselling into CWC immunisation. As such, two separate training sessions were run, one focused on PNC and the other on CWC.

For the PNC session, staff attended from Yendi, Gushegu and Bimbilla hospitals in the Northern Region. For the CWC session, staff attended from Zabzugu, Kpandai and Karaga hospitals in the Northern Region. Both training sessions were held in Yendi, with providers invited overnight from their respective facilities.

Ethical approval was sought and obtained for the project in July 2023. This coincided with discussions with the Northern Regional Health Directorate to confirm the value and scope of the project, resulting in the project receiving the necessary approvals. Programming materials were designed by MHI's team in collaboration with their network of international advisors, with consistent input and collaboration from the Norsaac team.



*Members of the Norsaac surveying team conducting client interviews at some of the facilities where staff were trained.*

## Objectives

The primary objective of this study was to ascertain the effectiveness of two intervention packages in improving the uptake of modern contraception among postpartum women. One package targeted improving family planning care at postpartum care sessions and the other targeted child immunisation appointments.

Secondary objectives included:

- Increasing knowledge of family planning among providers
- Increasing knowledge of family planning among women who attend child immunisation and postnatal care sessions
- Increasing the consistency of family planning information provision at child welfare clinic and postnatal care sessions
- Ensuring that women have the option to take up family planning at the same facility and on the same day as they attend appointments if they wish

## Evidence

The two programming strategies outlined below were selected based on an extensive review of the evidence supporting different approaches to increasing contraceptive knowledge and uptake. Both approaches are supported by numerous randomised control trials (RCTs).

A study by [Asah-Opoku et al \(2023\)](#) in Accra concluded that one-to-one counselling as part of routine postnatal care sessions (PNC) was associated with a significantly greater

uptake of contraception during the postpartum period compared to counselling between one provider and a group of clients. Further evidence for the effectiveness of integrating family planning into early postpartum care is presented in this [High Impact Practices report](#).

Meanwhile, [Dulli et al \(2016\)](#) found that incorporating family planning services into routine child welfare clinic sessions as part of immunisation provision resulted in significantly increased postpartum contraceptive use. Positive outcomes have also been reported in Egypt ([Ahmed et al, 2013](#)), Malawi ([Cooper et al, 2020](#)), and Liberia ([Cooper et al 2015](#)).

## Intervention Arm 1: Postnatal Care (PNC)

Providers at the PNC session were given a counselling guide, method cards, and a method information booklet. The focus of this intervention was to increase the frequency and quality with which family planning counselling is included in 1:1 counselling sessions.

To guide healthcare workers through a streamlined process of counselling, we provided them with a counselling guide specifically targeted at the postnatal period. This includes guidance on the safety of different methods at different stages after birth. Method cards were also provided to healthcare workers to ensure that counselling was interactive and client-centred.

Finally, each training attendee was given a method information booklet with an extensive explanation of family planning methods as reference material for continued learning and knowledge reinforcement.

Based on feedback from our earlier projects, we extended the depth of guidance in the method information booklet on side effect management and mitigation. We also updated the design of the counselling guide to make it as convenient to use as possible.

**Birth Spacing Conversation Guide**  
For use with every woman who receives postnatal care

- 1. Explain the benefits of birth spacing methods**
  - Spacing of more than 2 years gives her body time to recover
- 2. Ask about her experiences with birth spacing methods**
  - Has she used a method before?
  - Which did she like or dislike and why?
- 3. Ask her what is most important to her in a method**
  - Select the methods recommended for her preference using the back of the card
- 4. Talk to her about the methods that fit her preferences**
  - Read her the information on the back of the remaining cards on the table
  - Ask if she has questions and answer them
- 5. Help her select a method or encourage her to return**
  - Assess her medical eligibility using the wheel
  - Explain how to use the method, its side effects and how to manage them
  - Provide the method or a referral
  - If she does not want to take up a method today, encourage her to return at any time

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**Method Preference**

What is most important to the client in a family planning method?

|                                   |              |
|-----------------------------------|--------------|
| Limited or no changes to bleeding | Long-lasting |
| Quick return to fertility         | Discreet     |

Select method cards with the colour matching the client's preference

**Injectable**  
Lasts 2-3 months

Long-lasting; Discreet

*Samples of the conversation guide and methods cards*

## Intervention Arm 2: Child Welfare Clinics (CWC)

At the CWC session, providers were given a group talk flipchart, 1:1 counselling card, and referral cards for directing people to the Family Planning Unit. The intervention was designed to consist of two key components:

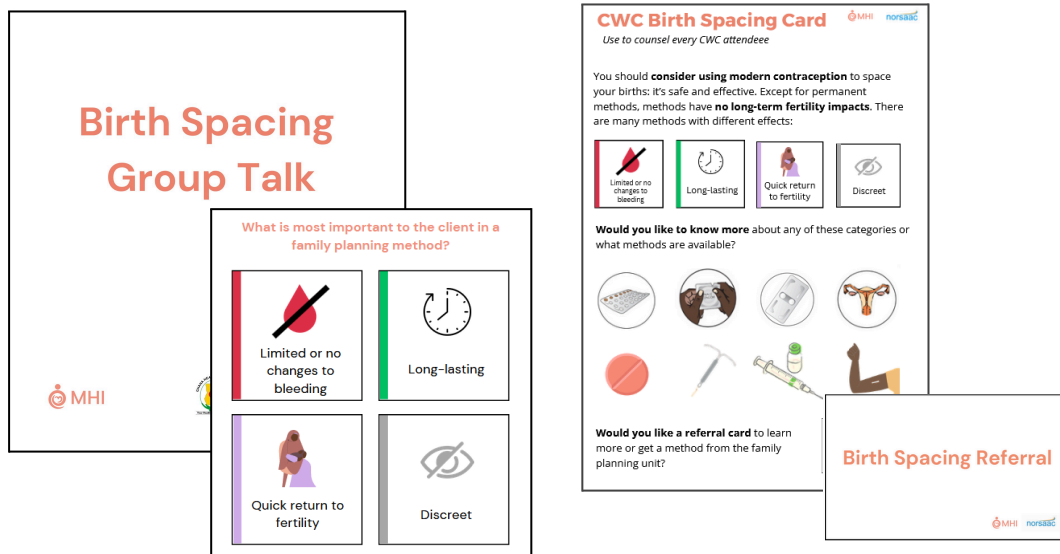
### Group talk

Providers offer a group talk on family planning to women waiting for their child to be immunised following the flipchart. This group talk emphasises the range of methods available to clients, how to safely take methods and manage their side effects, and the benefits of receiving family planning counselling while at the facility.

### 1:1 interaction

While healthcare workers are providing any immunisations to the client's child, they are encouraged to engage clients in very short 1:1 family planning counselling using the 'birth spacing card'.

For clients interested in taking up a family planning method, the provider offers them a referral card to encourage them to visit the Family Planning Unit and highlight to the health workers at the unit that the client has already received some family planning counselling.



Samples of the counselling flipchart, birth spacing card, and referral cards

## Implementation

### Data Collection

### Sampling

The sample size for clients was selected to exceed the baseline number of participants needed to do a regression analysis in the principles set forth by [\(Green 1991\)](#). There are 15 hospitals across nine districts in the Northern Region of Ghana. The sample of six facilities selected across six districts - with a mix of urban, peri-urban and more rural hospitals - aimed to provide a representative sample of care at hospitals across the Northern Region.

A facility-driven convenience model was used to identify clients to participate in the study. Clients were sampled while exiting appointments from the six facilities. Research staff approached clients, explained the study, and asked if they met the selection criteria. If clients met the criteria, they were offered a stipend of 20 cedis to participate.

Table: Planned Sample Sizes

| Allocation | Clients | Facilities |
|------------|---------|------------|
|------------|---------|------------|



|  |            |          |
|--|------------|----------|
| Intervention 1: Postpartum care package      | <b>102</b> | 3        |
| Intervention 2: Child welfare clinic package | <b>102</b> | 3        |
| <b>Total</b>                                 | <b>204</b> | <b>6</b> |

### Baseline Surveying

In-person surveying at the facilities took place in August and September 2023. Staff from Norsaac led the surveying, visiting each facility to interview clients in line with the sampling process outlined above. Multiple trips to some of the facilities were necessary due to unexpectedly low client flow. In-person surveying was completed using the SurveyCTO data collection and management system.

Where client flow was lowest, such as at Gushegu, in-person surveying was supplemented by phone surveying. Providers at the facility recorded the phone numbers of eligible clients across multiple days and passed these on to the Norsaac team, who then delivered the same survey over the phone as was delivered in person.

All clients then received a 14-day follow-up call to assess contraceptive uptake. This additional surveying was included to allow for uptake after an appointment that did not occur immediately but was prompted by the counselling received.

### Midline Phone Surveying

During the implementation of the intervention, the Norsaac team conducted bi-weekly phone surveys of a small sample of clients to assess the quality of implementation in advance of the endline surveying. This surveying focused on assessing the frequency with which the materials provided during the training were being used by healthcare staff at the facilities during the appropriate appointments. Phone numbers for clients were provided by each facility's Program Champion.

### 6-Week Surveying

Endline surveying took place six weeks after the training sessions to assess provisional changes in client knowledge, attitudes and uptake rate. While a longer assessment period may have been beneficial, we believe that six weeks was more than sufficient

time for quality implementation to occur that would allow for a robust assessment of each program’s value.

Sample size and data collection questions were kept the same at the endline as for the baseline, with the addition of a few other questions to improve the contextual understanding of implementation quality and program value.



*Rahman, a member of the Norsaac surveying team, engaging providers on the program implementation during the six-week follow-up surveying facility visits.*

### **Facility Data Collection**

With permission from the Regional Health Directorate and each facility, the project team was provided with DHIMS data capturing the monthly facility records for key metrics. However, records of key metrics were not kept over the study period at some facilities and there were general issues with the consistency of data received. As such, this data has been given low importance in our assessment of program results.

## Training

### Delivery of Training Sessions

Training sessions ran in October 2023 and were facilitated by Sulemana Hikimatu (Senior Health Tutor and Public Health Nurse at Community Health Nurses Training School (CHNTC) -Tamale).

Sessions were delivered via lectures and interactive components, including role-play in pairs. For both sessions, the goal of this training was to improve the quality of information shared by providers of family planning counselling, so women can make informed decisions and go on to have happier and healthier futures.

Training included information on the benefits of family planning, how to respond to common concerns and misconceptions, principles of effective counselling, and management of side effects. Each training then focused on explaining the counselling materials provided to attendees, tailored either to PNC or CWC care. An explanation of the materials for each intervention arm, and their intended use at the facility, is provided below.

## Monitoring

### Program Champions

At each facility, one frontline provider (nurse or midwife) was selected to be a 'Program Champion'. These were selected by the facility director, with their name and contact details passed onto the project team. Program Champions were responsible for ensuring the program was consistently implemented at their facility, and highlighting any barriers to implementation promptly so that the project team could coordinate with the facility to address these.

Upon selection, each Program Champion was given a separate information booklet on the intervention and had to pass a knowledge test to be accepted into the role. This information booklet explained the expectations we had for them, the weekly activities they needed to complete, the systems they would use for these, and the compensation they would receive.

We provided a small stipend each week to the Program Champions upon successful completion and submission of the following activities:

- Observation survey (surveyCTO)
- Client feedback survey (surveyCTO)

- Facility notes survey (surveyCTO)
- Weekly check-in (Whatsapp)

MHI created a Whatsapp group for the Program Champions from across the facilities to assist with coordination and to encourage peer support.

### **Whatsapp Provider Engagement**

MHI built a Whatsapp API that allowed the project team to send an automated programme of interactive content to every healthcare provider who participated in the training.

This system was used to offer refresher training to every provider while engaging these providers in direct monitoring to maximise their adherence to the program. The system also allowed us to reach additional staff at the facilities who did not attend the in-person training, with the Program Champions collecting the phone numbers of any additional staff.

For the postnatal care program, we sent a weekly survey of around five questions. For the child immunisation program, we sent a fortnightly survey of around 10-15 questions with the provision of a small airtime incentive as compensation for the time this takes. Completion of the questionnaires was solid, particularly for those receiving the airtime incentive, suggesting that this is a viable strategy for direct provider engagement.

## **Results**

### **Intervention Arm 1: Postnatal Care (PNC)**

#### **Summary**

Across the facilities, the quality of implementation varied significantly. At Yendi, implementation was strong but the consistency of implementation appeared significantly worse at Bimbilla and Gushegu.

Based on a comparison of baseline and endline surveying, the overall incidence of 1:1 family planning guidance increased by 22% across the course of the project. There was no overall change in knowledge. Reported intention to use a contraceptive method did

not shift during the project, with a 3% increase in reported contraceptive use based on in-person surveying..

A comparison of follow-up phone surveys (conducted 2 weeks after facility visits), suggests a 22% increase in contraceptive uptake. However, these results should be treated with significant caution due to possible sampling bias. Very high rates of reported abstinence suggest that change in contraceptive uptake at this point post-birth may be less useful in reducing unintended pregnancies than anticipated.

### **Quality of Implementation**

Overall, the incidence of 1:1 family planning guidance increased by 22%, from 18% at baseline to 40% at the endline. The level of implementation varied significantly across the three facilities. Combining the survey data with insights from MHI/Norsaac staff visiting the facilities, counselling was occurring at the time of surveying to a significant extent at Yendi but very little at Bimbilla or Gushegu. Some evidence suggests that implementation at Bimbilla improved due to a change in program champion after the endline surveying, but this remains unclear.

In-person surveying was supplemented with phone surveying due to issues with insufficient client volume on visits to the facilities. Phone surveying consistently suggested a higher rate of 1:1 counselling, undermining the data quality. Phone numbers were provided by program champions who consistently only provided contact information for clients they specifically counselled, despite significant efforts to discourage this. Throughout this report, combined data (in-person + phone) is reported.

We have strong confidence that 1:1 counselling is occurring at Yendi on the day of surveying, and moderate confidence that it is happening on a regular basis. Yendi performed best out of the facilities, with 81% of clients reporting 1:1 FP counselling. Survey data and staff impressions both suggest that 1:1 FP prevalence was high at Yendi.

We have strong confidence that 1:1 counselling is rarely occurring at Gushegu on surveying days, and believe it is likely not occurring at other times. Due to issues with the accuracy of phone surveying at Gushegu, we have restricted the data to in-person surveying. Through this, only 9% of clients reported 1:1 counselling. MHI and Norsaac staff reported low enthusiasm among Gushegu providers, and believe that the intervention is likely not occurring on non-visit days. Communication with Gushegu providers has been an issue since baseline surveying, and the initial Gushegu program champion was consistently unresponsive and replaced following endline surveying.

We have moderate confidence that 1:1 counselling is only rarely occurring at Bimbilla. According to the surveys (all survey types), 29% of clients reported 1:1 FP; restricting to in-person surveys, 9% of clients reported 1:1 FP.

Why did implementation challenges occur? We engaged in a variety of activities to encourage implementation, but they were all remote, rather than in-person activities. This decision was made in the interest of designing a scalable, cost-effective program. In-person activities were consistently expensive to carry out relative to other options and were judged to make the project too expensive to be worth replicating if it was successful. In-person activities likely would have made a difference, though the size of the difference is unclear.

### **Knowledge Change**

Averaged across all of the facilities, there was no net knowledge change reported. There was a 14% increase in knowledge on exclusive breastfeeding and a 15% decrease in knowledge on contraceptive side effects, as well as minor (<5%) shifts to knowledge on the risk of pregnancy and birth spacing.

Overall, the results on knowledge change suggest that providers may have been providing incorrect information on certain topics. Taking Yendi - the facility with the highest rates of implementation - as an example, we found:

- A 37% increase in knowledge regarding exclusive breastfeeding
- Mixed results on side effects (14% decrease in wrong answers and 10% decrease in correct answers, with respondents increasingly answering “don’t know”)
- A 21% decrease in correct answers on risk of pregnancy. It appears that providers may be providing incorrect information regarding the risk of pregnancy.

### **Contraceptive Use**

Significantly differing results for changes in intention to use a method of contraceptive were found from In-person surveying compared to the two-week phone follow-up surveying. According to in-person surveying, there was no change in intended uptake. According to phone follow-up surveying, there was a 25% increase in intended uptake. This is likely affected by sampling bias but is a strong difference nonetheless. Looking only at Yendi, where program implementation was strong, there was a 16% increase in intended uptake from the in-person surveying that rose to 44% in the phone follow-up.

In-person surveying and two-week phone follow-up also differed regarding uptake. According to in-person surveying, there was a 3% increase in contraceptive uptake, from 2% to 5%. According to the 2-week phone follow-up, there was a 22% increase in uptake, from 0% to 22%. Looking only at Yendi, where program implementation was strong, there was a 10% increase in uptake from the in-person surveying that rose to 32% in the 2-week follow-up. These results are likely due to both delays in uptake timing – women speaking with their partner and reflecting before choosing to take up a method – and sampling bias.

Again, note the strong differences across facilities. At Yendi, where program implementation was strong, there was a 10% increase in uptake, while intended uptake decreased by 10% at Gushegu and increased by 2% at Bimbilla.

|                 | <b>1:1 FP Prevalence</b><br>(in-person surveys only) | <b>Intention to use</b> | <b>Contraceptive uptake</b> |
|-----------------|--|-------------------------|-----------------------------|
| Yendi (n=42)    | 81%  | +16%                    | +10%                        |
| Gushegu (n=11)  | 9%   | -10%                    | -10%                        |
| Bimbilla (n=33) | 9%   | -17%                    | +2%                         |

There is a rough, though imperfect, correlation between the extent the intervention was implemented and changes to intention to use and uptake. This suggests that the intervention did lead to changes in intended use and uptake. As the sample size is much smaller when divided by facility, conclusions based on facility-by-facility breakdown should be made with greater caution.

It appears likely that the program, when implemented consistently, did have a real impact on intention to use and uptake.

Levels of abstinence were extremely high at both baseline (96%) and endline (98%). Abstinent individuals are far less likely to use contraception. Indeed, abstinence and lack of menses were frequently cited by women in our surveys as reasons for contraceptive non-use. This suggests that increases in intention to use reported from the project may result in delayed contraceptive uptake once abstinence has concluded.

Additionally, the short follow-up timelines likely result in some missed changes to uptake. Clients were surveyed as they departed PNC immediately following receiving the

intervention.<sup>1</sup> Some uptake is likely delayed due to a desire to consider the decision, consult one's partner, or obtain the method elsewhere. The 2-week follow-up data helps serve as a check; however, this is still a relatively short timeline.

## Intervention Arm 2: Child Welfare Clinics (CWC)

### Summary

Across the facilities where the child welfare clinic model was tested (Zabzugu; Kpandai; Karaga), there was generally a good level of group talk implementation (73% on the day of surveying) with lower incidence of 1:1 engagement during vaccination (56% on the day of surveying, with significant concern it is not happening consistently on other days).

We found moderate increases in client knowledge in two of the four key areas tested (risk of pregnancy and exclusive breastfeeding). Intention to use a method of contraception increased by 7-12%, but this did not translate into contraceptive uptake which showed a 0 to -2% change. Higher abstinence rates in the endline samples may have reduced the likelihood of significant contraceptive uptake change.

### Quality of Implementation

There was a strong level of implementation of the group talk on the survey days, with the incidence rising from 15% at baseline to 73% at the endline. These findings were supported by client surveys, Norsaac observations, and MHI staff observations. The use of MHI's flipchart - designed to improve the quality of counselling given in group talks - was mixed, with flipchart use reported by half of the clients.

Individual family planning messaging at vaccination rose from 9% at baseline to 56% at the endline.<sup>2</sup> Most of those who reported receiving messaging indicated that they were offered a referral to receive in-depth counselling. Material use was mixed, with 31% of clients reporting seeing the birth spacing card and 52% a referral card. Norsaac observed individual counselling on family planning around vaccination on 3/4 in-person

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<sup>1</sup> Note that clients were instructed that "If you started using the method today, that counts as currently using."

<sup>2</sup> This result was robust to multiple ways of framing the question



surveying days; MHI staff did not observe individual counselling around vaccination on the 1 surveying visit attended.

Information from providers and Norsaac suggests strong barriers to implementation of the 1:1 counselling. While providers and clients gave universally positive feedback about the program when formally surveyed, in informal conversations with the Norsaac team providers and clients expressed significant frustration with the program. These primarily focused on time pressures, with providers citing a lack of time to spend on family planning at busy CWC sessions and clients expressing annoyance from clients about the additional time spent on family planning.

This was likely exacerbated by the fact counselling was implemented differently than designed. While providers were trained to provide guidance during immunisation, at 2/3 facilities a designated provider instead individually took women aside to discuss family planning either before or after immunisation. This increases the resource burden on providers and increases client time at the facility when it is done after immunisation.

Furthermore, there are significant concerns with the quality of data around the prevalence of 1:1 family planning counselling. Client-reported incidence of 1:1 family planning guidance at vaccination was similar on the two surveying visits to Zabzugu, despite the fact that MHI and Norsaac staff reported observing no 1:1 guidance on the first visit. We think the likeliest reason is that clients overreported FP guidance, perhaps reporting the group talk as 1:1 guidance.

These figures are only snapshots of implementation at the facility, and it's likely that providers behave differently on days when surveyors are present at the facilities. Weak evidence from multiple sources suggests that 1:1 implementation is low on days without surveyors visiting.

Our best guess is that the program has moderately increased the incidence of family planning group talks, but that 1:1 counselling at vaccination is occurring more rarely.

## **Knowledge Change**

The data suggests that the intervention led to moderate increases in client knowledge of the risk of pregnancy (14%) and exclusive breastfeeding (23%); minor increases in knowledge of side effects (3%); and ambiguous results from a question on birth spacing.

The results on exclusive breastfeeding are particularly clear and compelling: the share of respondents believing it was an effective form of birth control for 2 years (the most

incorrect answer) shifted from 17% to 2%, while the share of respondents correctly identifying 6 months as the effective period went from 66% to 88%. This likely indicates a clear shift in knowledge.

## Contraceptive Use

Intention to use contraception increased moderately: by 12% (from 62% at baseline to 74% at endline) according to the day-of surveying, and by 7% according to the 2-week phone follow-up. Note that day-of surveys asked about intention to use, and then asked for the timeframe, while the phone surveying only asked one binary question of intended use in the next month.<sup>3</sup>

Contraceptive uptake decreased by 1% (n=225) as reported on the date of surveying; taking into account uncertainty intervals, the program likely had no effect on contraceptive uptake. This aligns with the 2-week phone follow-up (n=32), which indicates no change in contraceptive uptake.

Three factors have potentially minor to moderate effects on reported uptake, all of which would lead our data to underestimate current or future uptake resulting from the intervention:

- 1) Levels of abstinence were high at both baseline and endline, with a substantial relative increase: 68% of clients reported abstinence at baseline and 82% at endline. Abstinent individuals are far less likely to use contraception.<sup>4</sup>
- 2) Across 3 out of 4 key demographic metrics, there is a small but consistent skew (roughly 15%) in the direction of clients at the endline being less likely to use contraceptives (including duration post-birth, past family planning use, and current sexual activity). It's likely that reduced reported contraceptive use at the endline is due in part to differences inherent to the women sampled rather than the effects of the intervention.
- 3) The short follow-up timelines likely result in some missed changes to uptake. Clients were surveyed as they left CWC immediately following receiving the intervention.<sup>5</sup> Some uptake is likely delayed due to a desire to consider the

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<sup>3</sup> Note that less than a third of intended users in the day-of surveying reported planning to begin contraceptive use in the next month, with 72% stating they planned to begin more than 30 days in the future.

<sup>4</sup> Among women in the intervention, the contraceptive prevalence for sexually active women (n=56) was 39.28% and the mCPR for abstinent women (n=169) was 6.51%.

<sup>5</sup> Note that clients were instructed that "If you started using the method today, that counts as currently using."

decision, consult one’s partner, or obtain the method elsewhere. The 2-week follow-up data helps serve as a check; however, this is still a relatively short timeline. During the phone follow-up, a number of clients stated that they planned to take up a method at their next CWC session. This uptake is not captured by our data.

It is uncertain how much each of these factors affected contraceptive use. Cumulative effects ranging from -5 to 15% appear plausible. As a check, we can use intention to use: contraceptive uptake is likely to be less than reported intention to use and is certainly unlikely to be higher. Given that intention to use increased by 7-12%, our best guess would be that the intervention led to a 3-5% increase in future uptake (roughly half of the increase in intention to use).

### Analysis of Facility Data

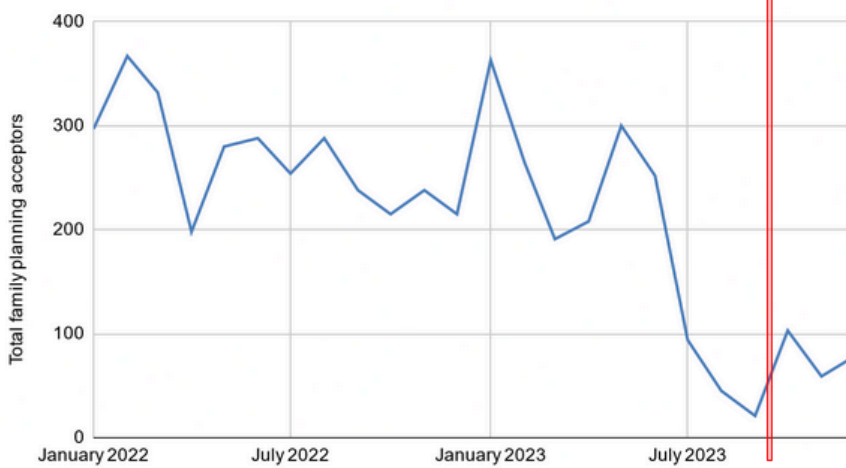
| Facility          | Total family planning acceptors |     |     |     |     |     | Average total family planning acceptors |                   | Change         |
|-------------------|---------------------------------|-----|-----|-----|-----|-----|---|-------------------|----------------|
|                   | July                            | Aug | Sep | Oct | Nov | Dec | Baseline (July-Sep)                     | Endline (Oct-Dec) |                |
| Yendi             | 58                              | 45  | 21  | 103 | 59  | 78  | 41                                      | 80                | 93.55%         |
| Gushegu           | 23                              | 33  | 23  | 28  | 25  | 33  | 26                                      | 29                | 8.86%          |
| Bimbilla          | 115                             | 88  | 0   | 108 | 0   | 58  | 68                                      | 55                | -18.23%        |
| <i>Pooled PNC</i> | 65                              | 55  | 15  | 80  | 28  | 56  | 45                                      | 55                | <b>21.18%</b>  |
| Karaga            | 17                              | 12  | 22  | 17  | 13  | 13  | 17                                      | 14                | -15.69%        |
| Zabzugu           | 0                               | 7   | 7   | 0   | 0   | 0   | 5                                       | 0                 | -100.00%       |
| Kpandai           | 13                              | 18  | 19  | 18  | 18  | 0   | 17                                      | 12                | -28.00%        |
| <i>Pooled CWC</i> | 10                              | 12  | 16  | 12  | 10  | 4   | 13                                      | 9                 | <b>-31.30%</b> |

High levels of fluctuation month-to-month, as well as several instances of missing data, preclude robust takeaways. With this in mind, it appears reasonable to conclude from this data that only Yendi experienced a substantial change in total family planning acceptors associated with the program. At Yendi, there was a 93.6% increase from baseline to endline.

However, the broader context makes this increase less promising. A review of longer-running facility data suggests strong fluctuation from month to month, as well as a strong drop in acceptors in summer 2023 for unknown reasons. From Jan 2022 to May 2023, total acceptors at Yendi ranged from 200-350 per month. However, a precipitous drop started in July 2023, reaching its nadir in September 2023 (immediately prior to intervention implementation).

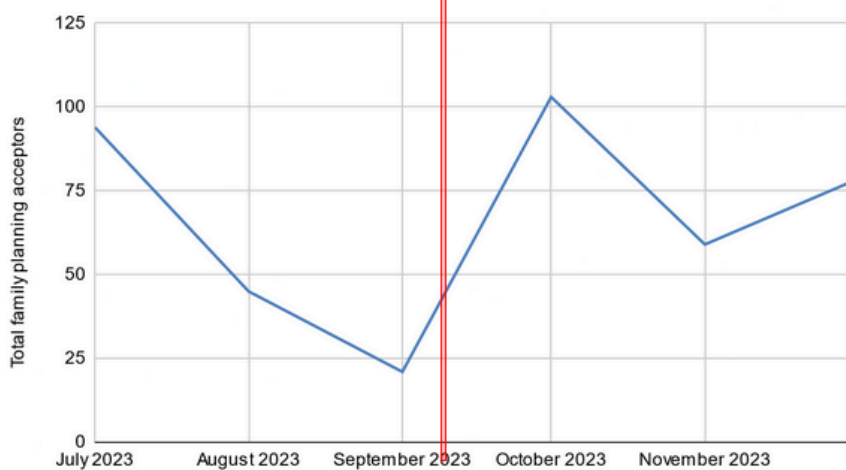
It is unclear whether the increase in uptake during the program is caused by program activities, or merely correlated; given that the lowest value over 2 years was reported immediately prior to the program, the likelihood of the increase being unrelated to the program appears comparatively more likely than it would be otherwise.

Total family planning acceptors at Yendi Hospital, 2022-2023



*Red bar indicates date implementation began*

Total family planning acceptors at Yendi Hospital, July-Dec 2023



## Conclusions

### Summary

Overall, the projects had a fairly mixed level of success, both in implementation and impact. Between the two, the postnatal care (PNC) intervention shows more promise given the higher reported rates of contraceptive uptake.

In particular, the 2-week follow-up results suggest a large shift in contraceptive behaviour (22% increase). How to treat these results is very unclear, given inconsistencies in the reported outcomes and possible surveying biases. As one example, this reported uptake greatly exceeds the reported intention to use - a trend that goes against established literature on the relationship between these two outcomes.

Additionally, we have significant concerns about the value of contraceptive uptake based on research conducted through the data analysis process. Very high rates of both breastfeeding and abstinence were reported across our surveying samples, with 75% of clients at CWC reporting prolonged abstinence. The combination of these two behaviours is likely to provide only a small reduction in protection from pregnancy compared to using a modern method of contraception. As such, it seems likely that contraceptive uptake at or shortly after a PNC session is providing little benefit to clients, greatly undermining the value of this project.

Concerns around high breastfeeding and abstinence rates would suggest that the CWC intervention arm is likely to be of greater value given it is reaching women who are further along in the postpartum period. However, this program performed poorly with no clear evidence of its value in driving knowledge change or shifts in contraceptive behaviour.

Overall, we believe these results do not suggest that the project should be scaled up given there is insufficient evidence of a strong positive benefit from the work and significant data quality issues. We are mindful of the time pressures on the Ghana Health Service and its staff. Given this, we do not feel that further implementation of changes to care that may increase the workload of frontline staff is justified without clear evidence of their value.

We will continue to investigate why this project did not work as well as anticipated, or as successfully as in randomised controlled trials from other places.

We welcome any further engagement with these results, this project, or the Maternal Health Initiative's mission in general. Please do not hesitate to reach out through the contact details below.

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## Further Reading

For more information about the project, we refer you to the Maternal Health Initiative website: <https://maternalhealthinitiative.org/>. We plan to publish the results of this study in an academic journal later in 2024. For questions about the project, please reach out through the contact details listed below.

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