

PASSAGES PROJECT

# Transforming Masculinities/ *Masculinité, Famille, et Foi* Intervention

Endline Quantitative Research Report



SEPTEMBER 2020



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# ACKNOWLEDGEMENTS

This report presents the results of an endline quantitative study conducted from November 2018 - February 2019. This study is the result of a partnership between Tearfund, Église de Christ au Congo (ECC) and the Institute for Reproductive Health (IRH), established with the aim of evaluating the effect of an adapted Transforming Masculinities (TM) approach in Kinshasa, Democratic Republic of Congo (DRC), known locally as *Masculinité, Famille, et Foi* (MFF). The intervention focuses on social norms and centers on religious leaders and faith communities in order to increase voluntary family planning (FP) use and reduce intimate partner violence (IPV) among newly married couples (NMC) and first-time parents (FTP). We are grateful to research partners Health Focus and FHI 360 for conducting the data collection and analysis, respectively. We are also grateful to the participants of this study who donated their time and responses. Finally, we are grateful to Tearfund and ECC in particular for their support in reviewing the research tools, helping with access to the communities where they work, and their support throughout this research and partnership. This study report was developed by Bryan Shaw (IRH), Courtney McLarnon-Silk (IRH), and Elizabeth Costenbader (FHI 360), with technical review and input from Anjalee Kohli (IRH), Rebecka Lundgren (University of California, San Diego), Prabu Deepan (Tearfund), and Luke Martin (Tearfund).

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# LIST OF ACRONYMS

aOR	Adjusted odds ratio
ASF	<i>Association de Santé Familiale</i>
CAPI	Computer-assisted personal interviewing
CFA	Confirmatory factor analysis
cRCT	Cluster randomized control trial
DHS	Demographic and health survey
DRC	Democratic Republic of the Congo
ECC	<i>Église de Christ au Congo</i>
EFA	Exploratory factor analysis
FAM	Fertility awareness-based method
FBO	Faith-based organization
FP	Family planning
FTP	First-time parent
GBV	Gender-based violence
HIV	Human immunodeficiency virus
HTSP	Healthy timing and spacing of pregnancy
IPV	Intimate partner violence
IRH	Institute for Reproductive Health at Georgetown University
IUD	Intra-uterine device
LAM	Lactational amenorrhea method
LARC	Long-acting reversible contraception
MC	Modern contraception
MFF	<i>Masculinité, Famille, et Foi</i>
NMC	Newly married couple
OR	Odds ratio
RH	Reproductive health
SD	Standard deviation
SEM	Structural equation model
SGBV	Sexual and gender-based violence
TM	Transforming Masculinities
USAID	United States Agency for International Development
VYA	Very young adolescents

# EXECUTIVE SUMMARY

**Background & intervention.** The Democratic Republic of the Congo (DRC) suffers from high rates of intimate partner violence (IPV) and low voluntary use of modern contraception. Although many factors contribute to the DRC's poor reproductive health (RH) outcomes, including long-term conflict and poor access to costly health care, socially constructed and enforced gender norms also play a significant role. To date, little progress has been made in understanding the role of gender norms on behaviors such as IPV and voluntary use of modern contraception, particularly at important life course transitions. However, norms-shifting interventions are increasingly being considered and evaluated for their potential in shifting norms and behaviors. Faith-based initiatives are one potential mechanism for norms-shifting, given the large degree of influence of faith leaders and communities in the DRC. Adapted from the Transforming Masculinities (TM) intervention conducted in rural, eastern DRC, the *Masculinité, Famille, et Foi* (MFF) intervention was implemented as a pilot and scale-up research initiative in Kinshasa, DRC. MFF is currently the only intervention designed for congregations to reduce IPV, increase voluntary family planning (FP) use, and improve reproductive (RH) outcomes by addressing the social norms that shape inequitable gender relations and prevent the voluntary use of modern methods of FP. As an innovation, MFF addressed existing social and gender normative barriers to voluntary FP use and healthy timing and spacing of pregnancies (HTSP) through gender transformative programming.

**Study design & methods.** The study was originally designed as a cluster randomized control trial (cRCT) design with 17 congregations in Kinshasa, DRC randomly assigned to either a control or experimental group (with eight congregations in experimental groups, and nine in control groups). The target populations for the MFF intervention were 18-35 year-old women and their male partners of any age who met the criteria as a newly married couple (NMC) or first-time parent (FTP). A two-stage, stratified randomized sampling design was employed to assign congregations and to ensure demographic similarity between control and experimental congregations. Baseline research activities were conducted by Georgetown University's Institute for Reproductive Health (IRH) with Health Focus from November 2016 to January 2017. Intervention activities took place for 18 months following the baseline. The experimental group received the MFF intervention and the enabling service environment, whereas the control group only received the enabling service environment. At endline, conducted from December 2018 to February 2019, the prospective design could not be maintained due to significant loss to follow-up of longitudinal survey participants from baseline to endline. We suspect that this loss to follow-up is related to high mobility between congregations in a dense urban setting. The design reverted to analyzing the sample as a two-group, pre-test/post-test design, comparing cross-sectional samples between baseline and endline and comparing intervention and comparison samples at endline.

Two populations were surveyed: 1. NMC and FTP were eligible for a couple survey; and 2. 18-49 year-old congregation members were eligible for a diffusion survey focusing on diffusion of messaging within the wider congregation. Eligible participants were randomly surveyed for both couple and diffusion survey samples. Only one male or one female (alternating selection) member from a couple participated in the survey. For the couple survey, at baseline, 901 respondents were surveyed for the baseline sample and at endline, 791 respondents were surveyed for the endline sample. For the diffusion survey, at baseline, 1,257 respondents were surveyed and at endline,

another 1,257 respondents were surveyed. The study team developed measures for attitudes and social norms related to IPV, FP, and gender equity and roles (“positive masculinities”). Differences in these measures were assessed comparing groups in intervention and comparison congregations.

**Intervention effects.** At endline, 53.4% of all non-pregnant respondents from intervention congregations reported that they were currently using a modern method of contraception voluntarily within their relationship. This was a large improvement from 40.1% of respondents in intervention congregations reporting voluntary use of modern contraception at baseline. It was also a statistically significant ( $p < 0.05$ ) difference compared to 45.3% of respondents in comparison congregations reporting voluntary use of modern contraception at endline. These shifts in behavior were supported by shifts in attitudes, self-efficacy, and perceptions of modern contraceptive use among NMC and FTP as typical and appropriate behavior among their reference groups.

For IPV, at endline, 61.7% of men from intervention congregations reported that they perpetrated at least one form (emotional, physical, sexual) of IPV on their partners in the previous one year, which was a statistically significantly ( $p < 0.05$ ) lower proportion compared to men in comparison congregations (71.9%). This was also a marginally statistically significant ( $p < 0.10$ ) reduction from baseline to endline among men in intervention congregations (70.5% to 61.7%). For women on the other hand, we did not see significant differences for reports of experiencing IPV comparing women in intervention and comparison congregations. For normative items, we did not see evidence for shifts toward IPV being less typical and acceptable behavior in intervention congregations compared to comparison congregations. In fact, we unexpectedly saw respondents in intervention congregations generally reporting that IPV was more typical and acceptable in their congregations compared to respondents in comparison congregations.

We saw some increases in diffusion of intervention messaging around FP, IPV, and gender from baseline to endline in intervention congregations. However, diffusion of similar messaging was also occurring in comparison congregations, and there was little difference in diffusion outcomes at endline comparing intervention and comparison congregations. We did see evidence from both the couple and diffusion surveys that the influence of faith leaders and networks was weakening from baseline to endline. In addition, we encountered several challenges related to assessing exposure to the MFF intervention, potential contamination (or diffusion) between intervention and comparison congregations. We also conducted the endline data collection during a period of increased sociopolitical and economic instability. These challenges could potentially cause us to be underestimating the effects of the MFF intervention.

**Conclusion.** The results indicate that the MFF change strategies – engaging faith-based networks in critical reflection around norms related to FP – are likely leading to improvements in voluntary use of modern contraception and intermediate outcomes related to FP and modern contraceptive use among NMC and FTP. However, findings related to IPV, gender, and diffusion are more mixed. We will be following up these quantitative findings with additional qualitative research to better interpret some of the unexpected findings.

# INTRODUCTION

## CONTEXT

High levels of economic insecurity, psychological stress, and violence make parts of the Democratic Republic of the Congo (DRC) some of the most difficult places in the world to live.<sup>i</sup> The rates of intimate partner violence (IPV) perpetrated by men against their female partners in the DRC are amongst the highest in the world.<sup>ii</sup> Women report high levels of exposure to, or experience of, sexual and physical violence throughout their lifetimes.<sup>iii</sup> In a country of almost 80 million, over 1.7 million women report being raped in their lifetime and over 3 million report having experienced IPV.<sup>iv</sup> Other indicators of gender inequality include a high child marriage rate (37% of girls married under the age

of 18), high maternal mortality (473 deaths per 100,000 live births), and low contraceptive prevalence rate (20% of married women).<sup>v</sup> Multiple negative health and well-being outcomes are associated with gender-based violence (GBV), including declines in overall reproductive health,<sup>vi,vii</sup> increased risk of HIV,<sup>viii</sup> stress, depression, miscarriage, pre-term delivery, induced abortion, and stillbirth.<sup>ix,x,x</sup> Infants of women exposed to GBV have an increased risk for low birth weight, illness, undernutrition, and mortality.<sup>xii,xiii</sup> Further, childbearing from a young age with a high lifetime fertility rate negatively impacts women's health, education opportunities, and economic outlook.<sup>xiv</sup> Although many factors contribute to the DRC's poor reproductive health (RH) outcomes, including long-term conflict and poor access to costly health care, socially constructed and enforced gender norms also play a significant role.

Gender norms are “expectations of appropriate roles and behaviors for men and women.”<sup>xv</sup> In the DRC, physical violence is an often acceptable male behavior and manner of asserting control as head of the household.<sup>xvi</sup> A woman's role is to support her husband which includes bearing and raising many children. High fertility commands social status and the total fertility rate in the DRC is 6.0.<sup>xvii</sup> Men make key decisions, including those relating to FP use. IPV commonly results if women transgress these gender roles, including seeking FP without her husband's consent.<sup>xviii,xix</sup> In this manner, socially-ascribed gender roles endorse early marriage, high fertility, and the threat of IPV prevents women from seeking health and FP services.<sup>xx</sup> In spite of culturally engrained gender inequities, positive traits of masculinity also exist. For example, men in eastern DRC reported significant participation in child caregiving, which in turn is associated with other equitable behaviors, including lower prevalence of IPV.<sup>xxi</sup>

Individuals, the community at large, and key institutions within communities, such as religion and religious leaders, together define and often reinforce gender roles through daily interaction and behaviors in the absence of critical reflection.<sup>xxii</sup> Shifting harmful, socially sanctioned gender norms that underpin poor RH outcomes is an emerging intervention area in global health programming,<sup>xxiii</sup> including capitalizing on the abovementioned positive masculine identities. Mounting evidence suggests that to develop normative environments supportive of FP, interventions should

**Gender-based Violence** is the result of normative role expectations associated with each gender and unequal balance of power between the two genders. GBV is not specific to a husband and wife.

**Intimate Partner Violence** refers to physical or sexual violence and/or psychological aggression by a current or former intimate partner.

simultaneously target men, women, and the community structures that produce and enforce gender norms.<sup>xxiv</sup> These *gender transformative*<sup>1</sup> interventions show the greatest promise in generating positive changes in attitudes and behaviors related to RH, especially when they reach beyond the individual level to the social context.<sup>xxv</sup>

## TRANSFORMING MASCULINITIES & PASSAGES PROJECT

Transforming Masculinities (TM) is a faith-based approach to prevent sexual and gender-based violence (SGBV) and promote gender equality through addressing harmful gender norms. Developed by Tearfund, implementation of TM started in 2013. Between 2013 and 2017, Tearfund commissioned a series of research projects in Burundi, the Central African Republic, Liberia, Nigeria, Rwanda, and rural Eastern DRC as interventions were being rolled out in these countries. The research investigated existing norms around gender, particularly concepts of masculinities, as well as attitudes towards and understanding of GBV, to help Tearfund shape the TM process.

Based on the TM experience in eastern DRC, TM was implemented as a pilot and scale-up research initiative in Kinshasa, DRC, where it was known locally as *Masculinité, Famille, et Foi* (MFF). MFF was implemented by the Institute for Reproductive Health (IRH) and its partners, FHI360, Tearfund, Association de Santé Familiale (ASF), and Health Focus, in partnership with Église de Christ au Congo (ECC). MFF is part of the multi-initiative United States Agency for International Development (USAID)-funded project, the Passages Project. The overall aim of Passages is to improve FP and reproductive health among youth, in particular very young adolescents (VYA), newly married couples (NMC), and first-time parents (FTP). Specifically, Passages aims to transform the underlying social norms that impede youth from accessing FP healthcare. Furthermore, Passages is scaling up promising interventions to build a body of evidence to determine “what works, for whom, in what respects, to what extent, in what contexts, and how?”

### Passages Project

The Passages Project aims to address a broad range of social norms to achieve sustained improvements in voluntary family planning and reproductive health. This research project contributes to building the evidence base in understanding how best to strengthen normative environments that support reproductive health, among very young adolescents, newly married youth and first-time parents. Passages capitalizes on these life course transitions to test and scale up interventions that promote collective change and foster an enabling environment for healthy timing and spacing of pregnancies and voluntary family planning.

Under Passages, IRH and partners implemented MFF from 2015-2018, which aimed to transform harmful masculine identities and reduce social acceptance of IPV and other gender inequalities, which support early childbearing and high fertility rates and prevent women and men from accessing and using modern FP. The MFF intervention was developed by Tearfund and consisted of an evidence-based intervention for religious leaders and faith communities to promote positive masculinities and gender equality, and in doing so, reduce GBV. The intervention used a process of participatory scriptural reflection and dialogue with faith leaders and congregants to identify, create,

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<sup>1</sup> Gender Transformative approaches seek to build equitable social norms and structures in addition to individual gender equitable behavior.

and embrace new, positive masculine identities.

## THE INNOVATION: MASCULINITÉ, FAMILLE, ET FOI

MFF is currently the only intervention designed for congregations to reduce IPV, increase voluntary FP use, and improve RH outcomes by addressing the social norms that shape inequitable gender relations and prevent the use of modern methods of FP. Implemented by the *Eglise de Christ au Congo* (ECC), **as an innovation, MFF sought to address existing social and gender normative barriers to voluntary FP use and healthy timing and spacing of pregnancies (HTSP) through gender transformative programming.** MFF consisted of the following components, core to its approach:

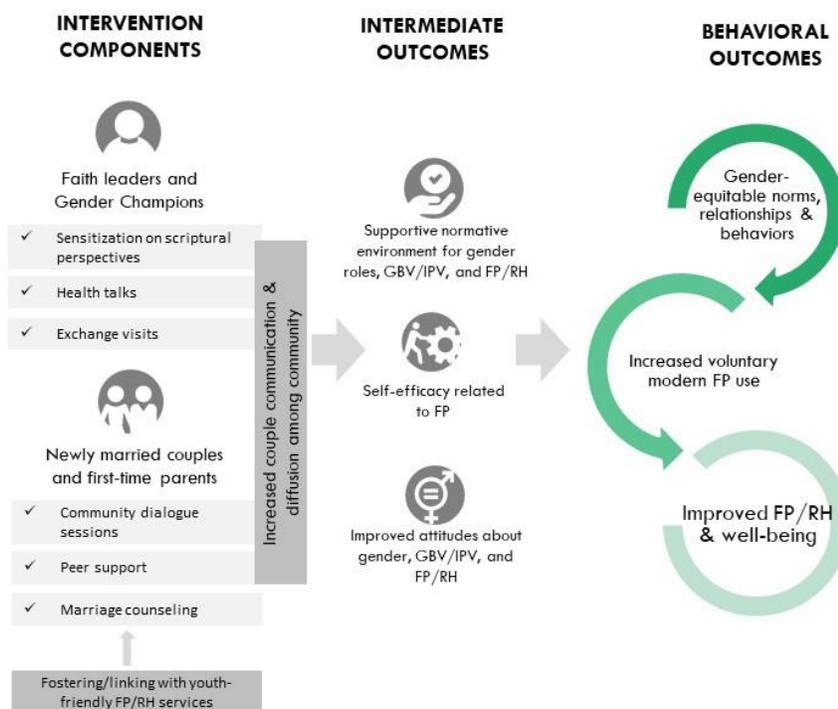
1. **Mobilizing faith leaders:** Trained leaders to create a supportive normative environment for positive change and diffusion of gender-transformative self-reflective ideals through workshops and diffusion activities. Faith leaders are positioned in existing community structures to be highly influential, shaping normative environments that in turn influence outcome behaviors and intentions. By working within existing structures with individuals of high influence, MFF's focus on self-reflection was intended to lead to the transformation of leaders that will reverberate through their communities.
2. **Transforming Masculinities with gender champions:** Trained pre-identified gender champions at the congregational level are selected and trained to be transformative members in their communities, gender champions act as peer mentors and change agents and facilitate 'community dialogues' with couple members.
3. **Community Dialogues with young couples (18-35 years of age):** Community dialogues, with groups of ten couples or less, over the course of eight weeks to discuss topics ranging from the roots of GBV to FP and male involvement. This community dialogue process was intended to lead couples to identify, create, embrace, and disseminate new, positive identities and gender-equitable attitudes and norms, and to then take action within their community. We hypothesized that being an NMC or FTP is a moment of transition for individuals, during which enculturation into new roles and social norms can occur.
4. Shifting norms with broader **congregation members:** Diffusion activities to communicate gender equality through faith leader sermons, couple testimonies, congregation-mobilizing events, mentoring by gender champions, and group discussions.
5. An **enabling service environment**, including youth-friendly health care and GBV response protocol (clinics, pharmacies, hotline), reflecting the multi-level approach within MFF.

We hypothesized that a faith-based approach targets a specific community and homogenous group within which norm change can be effective and efficient. Social connections and the influence of the scriptures in informing behaviors and the role of influencers allow for the diffusion of new gender transformative attitudes and norms. Across all of the above, the promotion of gender equality

and positive, non-violent male roles, the reduction of violence between intimate partners, and HTSP through FP/RH service delivery are the core topics explored.

As seen in the program’s theory of change (see **Figure 1**), the premise of the intervention was that these components work together to diffuse new ideas that change the underlying social norms and ultimately impact RH and well-being in Kinshasa.

**Figure 1.** Simplified MFF theory of change



## RATIONALE FOR THE STUDY

Changing harmful gender norms that underlie poor RH results is an emerging area of action in global health programming. The accumulation of evidence suggests that interventions aimed at developing supportive environments for RH should target men, women, and community structures that produce and reinforce gender norms. Those gender transformative interventions are the most promising for generating positive changes in attitudes and behaviors related to RH, especially when they extend beyond the individual level to the social level.

In the DRC, religion, especially Christianity, informs a community structure that creates and strengthens gender norms through biblical interpretations of Creation, and provides guidance on conjugal relationships. Faith leaders, men and women, and boys and girls use Scripture to justify, defend, and perpetuate “traditional” gender norms associated with poor RH performance. MFF employed the use of scripture to combat IPV and gender inequality. In collaboration with religious leaders, the TM pilot worked with the community to develop new positive definitions of masculinity that support gender equality. Preliminary data suggested that “Transforming Harmful Male

Identities” was a promising approach to reduce the acceptance of GBV and GBV-related behaviors and could lead to the promotion of equitable gender relationships and practices by capturing the results related to the evolution of harmful practices deriving from negative normative stereotypes. In addition, through the Passages Project, MFF has benefited from a more rigorous evaluation, which for the first time focused on FP/RH. The MFF intervention therefore presented a unique way to reduce IPV, increase voluntary FP use and improve HTSP, working with established faith-based organizations to change gender norms that tolerate violence and deny women access to FP.

The primary rationale for this proposed research is to assess the effectiveness of the MFF intervention in shifting norms to support behaviors of increased gender-equity in household roles (e.g., household chores and childcare) and use of FP/RH services, including modern contraception, and reduced IPV within NMC and FTP partnerships. Should this intervention be proven effective in shifting norms and behaviors, we suggest consideration for more widely scaling up the MFF intervention within faith networks in the DRC. Consequently, we tested a gender-transformative FP approach within faith communities to increase FP uptake, rather than an intervention that seeks to provide FP services without changing the normative environment. Therefore, while FP/RH was our ultimate outcome, the study was deliberately set up to understand how to shift gender norms and measure these shifts, reflecting the unique approach of the Passages Project. Accordingly, all intervention components were set to take place through a gender normative lens. For example, there was focused attention placed on the promotion of men’s engagement as supportive and active partners to their spouses especially in terms of childcare, and on non-violent masculinities.

Going further, the MFF intervention sought to address norms that are promulgated by religious communities – a context which we hypothesize have a strong effect on social norms. We hypothesized that religious leaders and faith communities talking about gender and FP would lead to voluntary FP use through collective/social norm change including a reduction in gender-based barriers such as IPV. Much of the existing faith-based approaches towards FP have not focused on the role of social and gender norms as drivers of FP behavior. As such, the intervention sought to directly address these institutional normative barriers to FP within faith communities. This research also aimed to answer whether addressing social norm and diffusion ideation within these faith communities contribute to FP uptake.

## THE EVALUATION

The overall evaluation included a series of mixed-methods studies in 17 congregations selected for the intervention and research (see **Figure 2**). This evaluation had two broad objectives:

**Objective 1:** Determine the extent to which MFF, a gender norm-transformative FP intervention with religious leaders and faith communities, increases voluntary FP use, reduces IPV and promotes positive masculinities in participating congregations in Kinshasa, DRC;

**Objective 2:** Assess the scalability and cost of the MFF intervention.

Prior to collection of data to meet these objectives, formative research was conducted in two intervention congregations using the Social Norms Exploration Tool,<sup>xxvi</sup> a participatory guide and set of tools to translate theory into practical guidance to inform a social norms exploration. Formative

research involving participatory techniques including use of vignettes and reference group mapping was conducted in advance of the baseline activities. These techniques were used primarily to guide the development and adaption of the intervention, but was also an opportunity to refine survey questions, particularly those used to assess social norms pertaining to FP, IPV, and positive masculinities and gender roles. At baseline, qualitative interviews were conducted with faith leaders, gender champions, and NMC and FTP congregation members to elicit context for social norms and target behaviors in these settings and among key populations. In addition, an ethnographic study was conducted at intervention midline, with ethnographers embedded in four intervention and two comparison congregations to observe the conduct of the intervention and communication and messaging within congregations relating to FP, IPV, and gender.

This report focuses on data from two quantitative surveys conducted among congregations allocated to either receive the MFF intervention or act as a comparison population at baseline and endline. These surveys included: a couple survey conducted amongst NMC and FTP, 18-35 years of age (for females, males partnered with 18-35 year-old woman) focusing on assessing social norms, other behavioral determinants such as individual attitudes, self-efficacy, couple communication, relationship quality, and behaviors related to intervention objectives; and a diffusion survey among the wider congregation focusing on assessing diffusion of MFF messaging through congregations. Surveys were conducted at baseline in late 2016 and again at endline, after the completion of approximately 18 months of intervention, in late 2018.

Baseline findings from the couple survey,<sup>xxvii</sup> diffusion survey,<sup>xxviii</sup> and qualitative studies<sup>xxix</sup> have been reported elsewhere. ***This report includes the findings from research activities 1 and 2 above.***

**Figure 2. Overall MFF research design**

RESEARCH ACTIVITY	TARGET GROUP	BASELINE	INTERVENTION PERIOD ACTIVITIES	ENDLINE
<b>1</b> COUPLE SURVEY (n = 900)	NMC, FTP	INTERVENTION GROUP n = 476 COMPARISON GROUP n = 424	MFF + ENABLING SERVICE ENVIRONMENT ENABLING SERVICE ENVIRONMENT	INTERVENTION GROUP n = 407 COMPARISON GROUP n = 384
<b>2</b> DIFFUSION SURVEY (n = 1,252)	CONGREGATION MEMBERS	INTERVENTION GROUP n = 622 COMPARISON GROUP n = 630	MFF + ENABLING SERVICE ENVIRONMENT ENABLING SERVICE ENVIRONMENT	INTERVENTION GROUP n = 590 COMPARISON GROUP n = 667
<b>3</b> IN-DEPTH INTERVIEWS (n=64)	FAITH LEADERS, GENDER CHAMPIONS, NMC, FTP	INTERVENTION GROUP (IN-DEPTH INTERVIEWS) n = 64		INTERVENTION GROUP (IN-DEPTH INTERVIEWS) n = X
<b>4</b> PARTICIPANT OBSERVATION (n = 6 congregations)	FAITH LEADERS, GENDER CHAMPIONS, NMC, FTP		PARTICIPANT OBSERVATION n = 6 congregations	
<b>5</b> COSTING STUDY	IMPLEMENTING ORGANIZATIONS	INTERVENTION GROUP	ACTIVITY-BASED COSTING	

### Figure 3. Selected MFF congregations



The study was originally designed as a cluster randomized control trial (cRCT) design with 17 congregations in Kinshasa, DRC randomly assigned to either a control or experimental group (with eight congregations in experimental groups, and nine in control groups). A two-stage stratified sampling design was used to assign congregations and to ensure demographic similarity between control and experimental congregations. In the second stage, we originally planned on randomly selecting participants from a larger sample of eligible participants, but owing to smaller than expected numbers of eligible participants, we surveyed one couple member among all couples taking part in the intervention. Baseline research activities, including quantitative surveys, were conducted from November 2016 to January 2017. Intervention activities took place for 18 months following the baseline. The experimental group received the MFF intervention and the enabling service environment, whereas the control group only received the enabling service environment. At endline, conducted from December 2018 to February 2019, the prospective design could not be maintained (see *Limitations Section*), and the design reverted to a two-group, pre-test/post-test design.

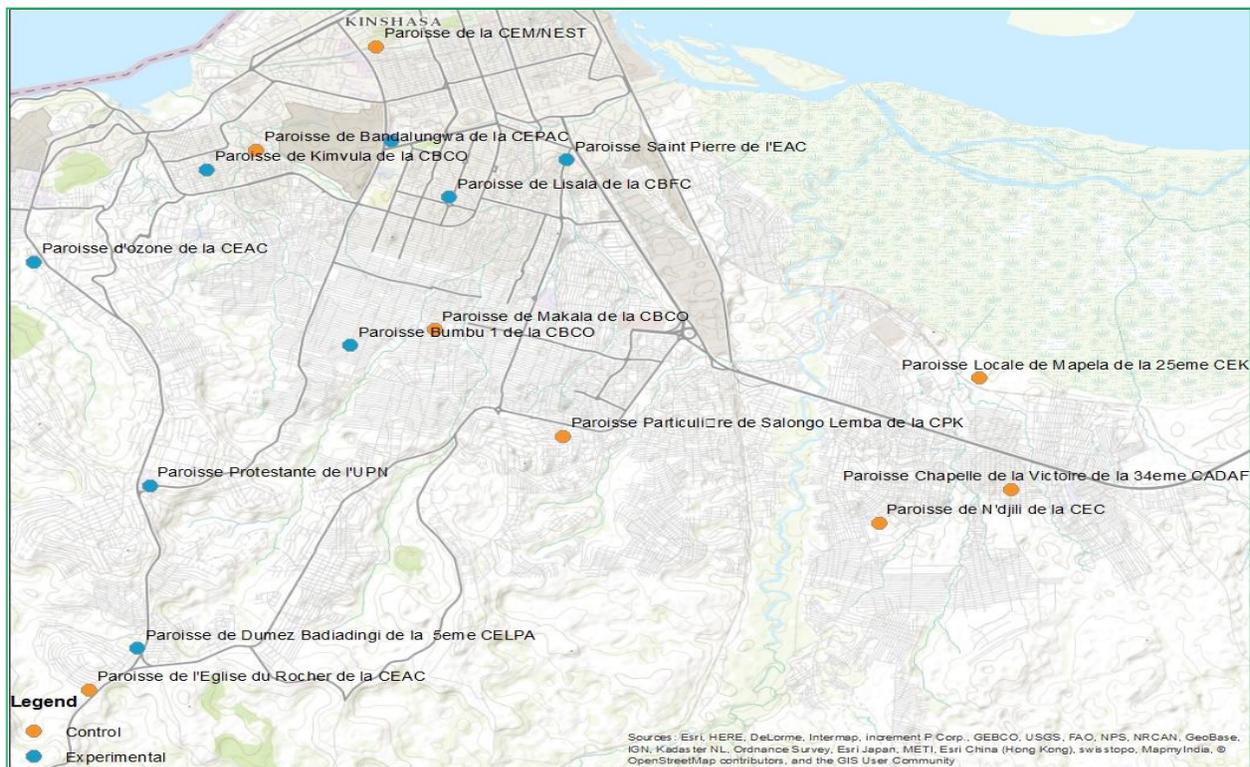
Quantitative data collection consisted of the following two research activities, described below.

- *Research activity 1* consisted of a couple survey administered to 18-35 year-old women and their partners in eight comparison and nine experimental congregations. The survey assessed prevalence of individual and community-level norms, attitudes, and behaviors (in the baseline) and changes from pre-test to post-test (comparing baseline to endline) in: FP acceptance and use, IPV acceptance and perpetration, positive masculinities and gender equality, shared decision-making, and couple communication.
- *Research activity 2* consisted of a diffusion survey administered to 18-49 year-olds in eight comparison and nine experimental congregations to measure the diffusion of intervention messages throughout the broader congregation. Individuals eligible for the couple survey were excluded from the diffusion survey to focus on diffusion of messaging from couples undergoing dialogues to the wider congregation.

Tools were developed by IRH staff in consultation with MFF partners including FHI360, Tearfund, and ASF. Data collection was conducted by Health Focus using electronic data collection methods and supervised by IRH. Analysis and reporting were conducted by IRH and FHI360 staff. The study was approved by the Committee for Ethics of Georgetown University, United States and the Ethical Committee of the School of Public Health, Kinshasa University, DRC.

## STUDY SITES

Kinshasa has 24 districts, with 17 of those districts represented in this study. The 17 congregations are located within the following districts in the Kinshasa area: Gombe, Kinshasa, Lingwala, Kintambo, Ngaliema I, Ngaliema II, Mont Ngafula, Makala, Matete, Bumbu, Kinsenso, Bandalungwa, Kalamu I, Kasavubu, Limete I, Limete II, and Ndjiki I. In examining the spread of these congregations over the city, one can see that there is no specific clustering of sites (see **Figure 3**).



## STUDY POPULATION & SELECTION CRITERIA

Newly married couples (NMC) were heterosexual couples that had been married or in a committed monogamous relationship for three years or less. These couples did not have children and were not expecting a child. These couples could self-identify as newly married and did not need to be legally married or cohabitating. The definition included those in pre-marriage counselling or engaged to be married.

First-time parents (FTP) were heterosexual partnerships who had had their first child within the last three years (their child(ren) were 3 years old or younger). They could be married or unmarried and could have more than one child as long as their oldest child together was less than three years of age. The definition included couples expecting a child for the first time.

*Inclusion criteria for couple survey:* Female congregational member that is married, or in-union, in a monogamous relationship, between the ages 18-35 years or male partner of any age married to an eligible woman. All participants were considered either newly married (married within the last three years or cohabitating since within the last three years) or first-time parents (had first child within the last 3 years), and registered as members of the selected congregation. The rationale for this target group was to expose NMC and FTP to critical reflection of existing social and gender norms early in their reproductive lives. This is a point in their lives where they are still establishing their roles, and for some, before they start their families given the high pregnancy rates among young adults in the DRC. For the couple survey, only one member of each eligible couple was selected for inclusion. At

endline, only individuals who had participated in the intervention were considered for the intervention sample.

*Exclusion criteria for couple survey:* Any couple not meeting this inclusion criteria and any individual whose partner already participated in the survey. At endline, individuals who did not participate in the intervention were not considered for the intervention sample.

*Inclusion criteria for diffusion survey:* Individuals, male or female, 18-49 years and registered as members of the selected congregation. The rationale for this group is to assess diffusion by and through NMC and FTP and their social reference groups.

*Exclusion criteria for diffusion survey:* All individuals participating in the couple survey. In addition, individuals who were attending the congregation for the first time were also excluded from the data collection process.

## **SAMPLE SIZE & SAMPLING PROCEDURES**

The couple survey was originally designed to randomly recruit 30 men and 30 women from each of the 17 congregations for a total of 1,020 couple members at baseline. This was based on calculating a minimum detectable effect size (i.e., difference across treatment arms) in a self-reported incidence of IPV over a 6-month recall period, assuming a 0.5 probability of IPV, intraclass cluster coefficient of 0.3, power of 80%, and  $\alpha=0.10$ . Although a random sampling methodology for individuals was planned, congregational assessments done during the start-up phase indicated an insufficient number of NMC and/or FTP present in the congregations. As such, the research methodology was adjusted to select one couple member from each couple meeting eligibility criteria for the intervention and research. Congregational leaders assisted in the process of identifying eligible couples and inviting eligible congregants/couples to specific Sermons in which the intervention and research was explained to the congregation. After the service, data collectors approached couples, confirmed their eligibility, and recruited the couples into the intervention and research. Data collectors adopted an alternating strategy of selection, first the female member of an eligible couple followed by the male member of the next eligible couple. Fewer than 2% of participants eligible and present at the congregation during data collection activities refused to participate in the survey. Over the course of the intervention, new couples were enrolled in the couple dialogues on a rolling basis—but these new inclusions were not surveyed at baseline. As well, many participants that had completed baseline surveys dropped out of the intervention. At endline, we made a concerted effort to identify and contact all participants that had undergone the intervention and completed a baseline (approximately 60% of our sample) and supplemented the sample size with participants that participated in the intervention, but did not complete a baseline survey. At baseline, 901 respondents were surveyed and at endline, 791 respondents were surveyed. Fewer than 2% of participants eligible and present at the congregation during data collection activities refused to participate in the survey.

The diffusion survey was originally designed to randomly recruit 50 men and 50 women from each of the 17 congregations for a total of 1,700 respondents. However, fewer congregation members than anticipated were encountered in several of the congregations, resulting in a lower sample size than planned. Only congregants 18-49 years of age and not eligible for the couple survey/community dialogue activity of MFF were eligible for the diffusion survey. Random sampling of participants for

the diffusion survey was conducted among a sampling frame of participants meeting inclusion/exclusion criteria and volunteering for participation after faith services during the recruitment period. At baseline, a cross-sectional sample of 1,257 respondents were surveyed and at endline, another cross-sectional sample of 1,257 respondents were surveyed.

Data collectors were matched to the participant’s sex and administered the surveys on tablets in private locations within the faith congregation setting using a computer-assisted personal interviewing (CAPI) platform. Participants were offered refreshments but no monetary incentives.

## DATA ANALYSIS

The couple survey included questions to assess demographics, attitudes, behaviors, and social norms. The diffusion survey included a more limited set of items relating to attitudes and social norms as well as items relating to communication about topics relevant for MFF messaging. The surveys were informed by a formative phase of social norms exploration conducted in early 2016. The formative phase utilized participatory qualitative techniques to explore and confirm a range of social norms and reference groups influential for target behaviors. Findings were used to develop and refine the quantitative surveys. See **Table 1** for how these concepts were treated and analyzed.

**Table 1: Concepts addressed & data collected in quantitative surveys**

Concepts addressed	Information collected	Outcome/ Response type	Analytic notes
Personal/couple behaviors	<ol style="list-style-type: none"> <li>1. Current voluntary use of any method of modern contraception</li> <li>2. Experience (women) or perpetration (men) of IPV in the previous one year</li> </ol>	<p>1 survey item with multiple modern contraception types: Binary, yes/no if reported current use of any one type of modern contraception</p> <p>7 survey items: Ordinal, 3-point Likert Scale relating to frequency of IPV; recoded as binary variable, yes/no</p>	<ul style="list-style-type: none"> <li>• Pregnant couples excluded from consideration for current voluntary use of modern contraception</li> <li>• Modern method of contraception includes reported current voluntary usage of any one of the following: condoms, oral contraceptives, injectables, implants, IUD, sterilization, SDM, LAM</li> <li>• IPV assessed as any reported IPV and also categorized as emotional, physical, and/or sexual IPV</li> </ul>
Behavioral intentions	Intention to voluntarily use modern contraception in the future	1 survey item: Ordinal, 4-point Likert Scale for likelihood of future use	
Individual attitudes	<ol style="list-style-type: none"> <li>1. Toward voluntary use of FP and modern contraception</li> <li>2. Toward IPV</li> <li>3. Toward gender equality and roles</li> </ol>	26 survey items: Ordinal, 4-point Likert Scale relating to agreement/ disagreement with attitudinal statements	<ul style="list-style-type: none"> <li>• 9 survey items relating to FP combined into attitudes toward FP index</li> <li>• 13 survey items relating to IPV combined into attitudes toward IPV index</li> <li>• 4 survey items relating to gender equality and roles combined into attitudes toward gender index</li> </ul>

Self-efficacy	Reported ability to access and correctly voluntarily use a method of modern contraception	3 survey items: Ordinal, 4-point Likert Scale relating to confidence in ability to access and voluntarily use modern contraception	<ul style="list-style-type: none"> <li>3 survey items relating to self-efficacy for using modern contraception combined into self-efficacy to use modern contraception index</li> </ul>
Couple communication	Reported discussion of FP topics with partner in the previous one year	3 survey items: Binary, yes/no	<ul style="list-style-type: none"> <li>3 survey items relating to couple communication combined into relationship quality index</li> </ul>
Couple decision-making	Reported final decision-maker if couple disagrees about voluntary use of modern contraception	1 survey item: Three responses – husband, wife, or both	<ul style="list-style-type: none"> <li>Wife and both responses combined to create two final responses: women involved, women not involved in final decision-making</li> </ul>
Relationship quality	Reported satisfaction with relationship in the previous one year	4 survey items: Ordinal, 4-point Likert Scale relating to frequency of actions	<ul style="list-style-type: none"> <li>4 survey items relating to relationship quality combined into relationship quality index</li> </ul>
Social norms	<ol style="list-style-type: none"> <li>Toward voluntary use of FP and modern contraception</li> <li>Toward IPV</li> <li>Toward gender equality and roles</li> </ol>	28 survey items: Ordinal, 4-point Likert Scale relating to perceptions of respondents of typical and approved behavior (none, some, many, most) among reference groups	<ul style="list-style-type: none"> <li>9 survey items relating to FP</li> <li>9 survey items relating to IPV</li> <li>10 survey items relating to gender equality and roles</li> <li>Factor analysis performed on all items resulting in: 2 FP social norm measures for men and women, 3 IPV social norms measures for women and 2 IPV social norms measures for men, and 2 gender equality and roles social norms measures for men and women</li> </ul>
Reference groups	<ol style="list-style-type: none"> <li>Toward voluntary use of FP and modern contraception</li> <li>Toward IPV</li> </ol>	1 survey items with multiple-response options (among 12 potential groups based on formative findings)	
Diffusion	<ol style="list-style-type: none"> <li>Toward voluntary use of FP and modern contraception</li> <li>Toward IPV</li> <li>Toward gender equality and roles</li> </ol>	1 survey item each with Ordinal, 3-point Likert Scale relating to frequency of discussing FP, IPV, and/or gender topics in the previous 3 months	

The couple survey included questions about the specific individual- and couple-level factors described in the MFF theory of change model; these included individual-level demographic characteristics (e.g., age, number of children, and sex), self-efficacy to obtain and voluntarily use FP, access to FP and couple-level characteristics such as relationship quality and communication. Relationship quality was assessed with a set of four items related to relationship satisfaction. Couple communication was assessed with a set of three items related to the couple's recent discussions related to voluntary FP use and fertility. All items on relationship quality and couple communication were asked with binary (yes/no) response options. Age and number of children were continuous variables, while all other individual- and couple-level factors were asked with binary (yes/no) response options.

Based on findings from the formative phase of research and with an eye toward developing the evidence base for normative change, the survey included an array of questions to elicit several types of individual attitudes and social norms related to behaviors of interest. Questions included personal opinions and both perceptions of social approval (i.e., injunctive norms) and community prevalence (i.e., descriptive norms) relating to voluntary FP use, IPV experience/perpetration, and positive masculinities. Across the social norms variables, the influence of a number of reference groups (i.e., different types of people thought to influence the social norm), including faith leaders, partners, and other NMC and FTP in the congregation was assessed. All attitude and social norms items were asked on four-point ordinal response scale. Factor analysis (see **Appendix 2**) was used to identify the latent social norm constructs from social norms items included in the survey.<sup>xxx</sup> Factor analysis resulted in two constructs for social norms around FP, two relating to social norms around gender and positive masculinities, two relating to IPV for men and three relating to IPV for women.

Outcome measures for the couple survey include reported current voluntary use of modern contraception (yes/no) by the respondent or the respondent's partner. Modern contraception methods included current sterilization or current use of any of male/female condoms, oral pills, injectables, implants, intra-uterine devices (IUD), Standard Days Method/CycleBeads, and/or lactational amenorrhea method (LAM). For IPV, seven items were assessed on a three-point ordinal response scale. Items were grouped into emotional IPV (i.e., shouting, threatening), physical IPV (i.e., slapping, punching), sexual IPV (i.e., forced sex), and IPV due to use of FP (i.e., any violence to discourage use of FP). Male respondents were asked about perpetration of IPV in their relationships and female respondents about their experience of IPV in their relationship. Men were considered to have perpetrated IPV and women considered to have experienced IPV if they reported they had "often" or "sometimes" experienced any of the forms of IPV in the previous one year assessed by the seven items. For the diffusion survey, outcome measures included reported communication about FP, IPV, and/or positive masculinities with fellow congregants.

The study was originally designed to be longitudinal (following the same individuals from baseline to endline) and provide difference-in-difference estimates comparing intervention and comparison populations at baseline and endline. However, as mentioned previously, the longitudinal study could not be maintained and difference-in-difference estimation was not an appropriate statistical analysis to use (see Limitations Section). Instead, descriptive analyses of the survey data were performed to understand the distributions and missingness of key variables by study arm. Key variables of interest and social norms scales were compared by study arm (intervention and comparison congregations) as well as comparing key populations (men vs. women and NMC vs. FTP) using chi-square tests of independence for categorical variables and t-tests for continuous (or quasi-continuous) outcomes at baseline and at endline. All analyses were completed in Stata 16 (College Station, Texas).

## STUDY LIMITATIONS

It is important to interpret these results with caution given the challenges of carrying out the study as designed and biases inherent in collecting self-reported information on sensitive topics. Although the intervention and study were designed at baseline as a cRCT, several recruitment and sampling challenges altered this design. First, given that there were insufficient numbers of eligible couples across congregations, we pursued a convenience sample. Such self-selection into the study may yield notable group differences; however, in this case, there were few statistically significant differences in group demographics at baseline and endline. Another notable challenge was that participants at

baseline provided phone numbers as a unique identifier and means for follow up at endline. Unfortunately, phone numbers frequently changed in this setting, which was unanticipated, and a large proportion of the sample was unreachable through collected phone numbers at endline. Moreover, there was far more mobility than anticipated between congregations over the course of the intervention, and contamination between intervention and comparison congregations is believed to be high. Large proportions of the original baseline sample were attending different congregations at endline. Unfortunately, the endline enrollment period coincided with the run up of the 2018/2019 national elections in the DRC as well as with a prolonged period of economic instability. This affected the frequency of congregation attendance and mobility of congregants, resulting in challenges in retaining and follow up the baseline respondents at endline. The study team attempted more active case finding for individuals who had taken the baseline, but the resulting sample size was not adequate to make robust estimates and assess change. We attempted, in analysis, a post-hoc reconstruction of the baseline sample using algorithms, but there were too few unique identifiers to construct a convincing sample.

For these reasons, the study reverted to an intention-to-treat analysis and treated the surveys as two cross-sectional surveys at baseline and at endline. The change in study design limits the ability to establish causation – that the intervention directly caused the changes in target outcomes. This study was two points in time with differing populations, and therefore, does not provide robust estimates of change solely due to the intervention. Survey responses at endline could also have been affected by MFF messaging. The messaging could have potentially sensitized respondents in ways that could affect results (e.g., a respondent might be more likely to report high prevalence of IPV in their community than before because they are now more aware of what constitutes IPV). As well, the intervention aims to promote wide diffusion of messaging, which makes it challenging to assess exposure to the intervention in a meaningful manner.

In addition, the potential for social desirability biases around sensitive topics such as FP and IPV could be high, especially in intervention populations aware of MFF messaging. However, the study included techniques to reduce social desirability. For example, IPV questions were asked in such a way that the responses could be written down and remained unknown to the data collector until after the interview. In addition, respondents were matched with data collectors of a similar sex and age range. French literacy and understandings of the populations could be low, especially among young adults and translation (into local forms of French) was a challenging issue. For this reason, the surveys were translated into French and Lingala. The majority of interviews were conducted in French, but a data collector often included local Lingala terms for complex concepts and could revert to Lingala if the respondent has difficulty understanding French. The French and Lingala surveys were piloted and pre-tested in Kinshasa prior to the baseline.

Despite changes in the study design, the study still includes two representative samples at baseline and endline with sufficient statistical power to compare intervention and comparison congregation samples at baseline and at endline and to provide some evidence for change from baseline to endline. As well, the diffusion survey and couple survey conducted among separate samples and with different measures, appear to broadly align in trends, particularly when comparing social norms measures between the samples. Additional triangulation is being investigated with other MFF studies and monitoring data.

# RESULTS

## SAMPLE & DEMOGRAPHICS FROM COUPLE SURVEY

The sample at baseline included 425 individuals in the comparison population and 476 individuals in the intervention population (see **Table 2**). At endline, there were 384 individuals in the comparison and 407 individuals in the intervention population. Samples for both intervention and comparison congregations were fairly evenly split among men and women. Whereas there was a higher proportion (59.7%) of individuals in an NMC at baseline, by endline, the majority (57.0%) of individuals were classified as FTP.

**Table 2: Target groups**

	Baseline, Comparison	Baseline, Intervention	p-value	Endline, Comparison	Endline, Intervention	p-value
<b>Total (n)</b>	<b>425</b>	<b>476</b>		<b>384</b>	<b>407</b>	
Sex			0.105			0.735
Men	180 (42.4%)	228 (47.9%)		189 (49.1%)	206 (50.6%)	
Women	245 (57.6%)	248 (52.1%)		195 (50.9%)	201 (49.4%)	
Target group			0.477			0.560
NMC	259 (60.9%)	279 (58.6%)		161 (41.9%)	179 (44.0%)	
FTP	166 (39.1%)	197 (41.4%)		223 (58.1%)	228 (56.0%)	

**Table 3** presents household and couple-level demographic characteristics at baseline and endline and comparing samples from intervention and comparison congregations. There was a statistically significant difference comparing the urbanicity of the populations in comparison and intervention congregations. Individuals in intervention congregations were statistically significantly ( $p < 0.01$ ) more likely to reside in urban areas (70.8%) compared to individuals in comparison congregations (62.0%). at endline, over 60% of participants reported that they had never experienced a period of food insecurity over the previous year. There was a statistically significant difference ( $p < 0.01$ ) comparing reported food insecurity in comparison and intervention congregations with individuals in comparison congregations more likely to report more frequent food insecurity. As well, there does seem to be some improvement from baseline to endline, with fewer individuals reporting food insecurity compared to the population at baseline.

At endline, similar proportions were seen comparing relationship status (slightly less than one-third reportedly in a relationship, approximately one-third currently engaged, and over one-third reportedly married) between intervention and comparison congregations. Most individuals in a relationship did not live with their partner (nearly 60%) in both intervention and comparison congregations. Similarly, there were no significant differences observed in comparison and intervention congregations for the number of living children the couple shares together. While more than half shared children together, slightly over 40% of individuals reported that they shared no children together. There was a significantly higher proportion ( $p < 0.01$ ) of couples in the comparison congregations reporting that they were pregnant and a significantly higher proportion of couples in intervention congregations that they were uncertain of their pregnancy status.

**Table 3: Household & couple characteristics**

	Baseline, Comparison	Baseline, Intervention	p- value	Endline, Comparison	Endline, Intervention	p- value
<b>Total (n)</b>	<b>425</b>	<b>476</b>		<b>384</b>	<b>407</b>	
Urbanicity			<b>&lt;0.001</b>			<b>0.009</b>
Peri-urban	208 (48.9%)	168 (35.3%)		146 (38.0%)	119 (29.2%)	
Urban	217 (51.1%)	308 (64.7%)		238 (62.0%)	288 (70.8%)	
Food insecurity			0.353			<b>0.003</b>
Never	213 (50.1%)	231 (48.5%)		233 (60.7%)	267 (65.6%)	
Once or more yearly	57 (13.4%)	66 (13.9%)		64 (16.7%)	86 (21.1%)	
Once monthly	42 (9.9%)	58 (12.2%)		47 (12.2%)	29 (7.1%)	
Once weekly	29 (6.8%)	43 (9.0%)		17 (4.4%)	5 (1.2%)	
Daily	80 (18.8%)	72 (15.1%)		22 (5.7%)	20 (4.9%)	
Relationship status			0.165			0.447
In a relationship	161 (37.9%)	152 (31.9%)		93 (24.2%)	114 (28.0%)	
Engaged	152 (35.8%)	187 (39.3%)		122 (31.8%)	126 (31.0%)	
Married	111 (26.1%)	137 (28.8%)		169 (44.0%)	166 (40.8%)	
Live with partner			0.344			0.482
No	285 (67.1%)	306 (64.3%)		216 (56.3%)	239 (58.7%)	
Yes	119 (28.0%)	147 (30.9%)		168 (43.8%)	168 (41.3%)	
Living children			<b>0.019</b>			0.889
None	288 (67.8%)	302 (63.4%)		169 (44.0%)	181 (44.5%)	
1 Child	69 (16.2%)	89 (18.7%)		90 (23.4%)	97 (23.8%)	
2+ Children	58 (13.6%)	84 (17.7%)		123 (32.0%)	126 (31.0%)	
Couple is currently pregnant			0.311			<b>0.006</b>
Yes	53 (12.5%)	64 (13.6%)		66 (17.2%)	68 (16.7%)	
No	366 (86.5%)	407 (86.2%)		307 (80.0%)	306 (75.2%)	
Don't know	4 (0.95%)	1 (0.2%)		11 (2.9%)	33 (8.1%)	

**Table 4** presents individual-level demographic characteristics at baseline and endline and comparing samples from intervention and comparison congregations. The mean age for intervention participants at endline was 30.96 years of age, which was not statistically significantly different compared to the mean age of participants in comparison congregations (30.41 years of age). There were no significant differences in education comparing intervention and comparison congregations, with large majorities of participants reporting having finished secondary school. Nearly all participants in both populations were Protestant and, while there were a number of ethnicities represented by selected individuals, nearly 60% reported that they were of Bakongo ethnicity with the rest divided among a range of ethnicities. Over 80% reported that religion was very important to them and that they went to weekly services in both intervention and comparison congregations.

**Table 4: Individual characteristics**

	Baseline, Comparison	Baseline, Intervention	p- value	Endline, Comparison	Endline, Intervention	p- value
<b>Total (n)</b>	<b>425</b>	<b>476</b>		<b>384</b>	<b>407</b>	
Mean age (SD)	27.73 (6.11)	28.03 (6.49)	0.472	30.41 (6.65)	30.96 (7.13)	0.263
Education level			0.470			0.453
< Secondary	38 (8.9%)	51 (10.7%)		3 (0.8%)	1 (0.2%)	
Secondary	99 (23.3%)	98 (20.6%)		25 (6.5%)	22 (5.4%)	
> Secondary	287 (67.5%)	327 (68.7%)		356 (92.7%)	384 (94.3%)	
Denomination			0.102			0.236
Protestant	422 (99.3%)	472 (99.2%)		375 (97.7%)	401 (98.5%)	
Other	0 (0.0%)	3 (0.6%)		9 (2.3%)	5 (1.2%)	
Congregation attendance			0.637			0.177
Weekly	361 (84.9%)	399 (83.8%)		317 (82.6%)	351 (86.2%)	
< weekly	63 (14.8%)	76 (16.0%)		66 (17.2%)	56 (13.8%)	
Importance of religion			0.212			0.277
Very important	367 (86.4%)	428 (89.9%)		322 (83.9%)	336 (82.6%)	
Important	52 (12.2%)	42 (8.8%)		59 (15.4%)	70 (17.2%)	
Not very important	4 (0.9%)	3 (0.6%)		2 (0.5%)	0 (0.0%)	
Ethnicity			<b>0.063</b>			0.626
Bakongo	222 (52.2%)	281 (59.0%)		217 (56.5%)	234 (57.5%)	
Other	200 (47.1%)	192 (40.4%)		167 (43.5%)	173 (42.5%)	

## FAMILY PLANNING OUTCOMES FROM COUPLE SURVEY

Respondents were asked whether they were currently doing anything to prevent pregnancy and if so, what they were doing or using. Based on their responses, respondents were categorized as using any contraception, modern contraception, short-acting method of modern contraception, long-acting reversible contraception (LARC) or permanent method, fertility awareness method (FAM), and traditional or other method. Explanations for what methods are included for each of these categories is given in the footnotes of **Table 5**, which reports self-reported voluntary use of contraception. Data from pregnant couples were excluded.

At endline, a slightly higher proportion of individuals in intervention congregations reported that they were currently and voluntarily using any method of contraception, modern or traditional, (62.5%) compared to individuals in comparison congregations (57.2%), but this was not a statistically significant difference. However, individuals in intervention congregations were statistically significantly ( $p < 0.05$ ) more likely to voluntarily use a method of modern contraception (53.4%) compared to individuals in comparison congregations (45.3%) at endline. There was no statistical difference in current voluntary use of modern contraception at baseline between comparison and intervention congregations. Among those voluntarily using contraception, the majority reported using short-acting methods (37.7% of comparison and 41.9% of intervention, non-pregnant couples) with smaller proportions reportedly using LARC methods (4.1% of comparison and 5.6% of intervention couples) and FAM (6.3% of comparison and 10.0% of intervention couples). Participants in intervention areas were marginally significantly ( $p < 0.10$ ) more likely to report using a FAM compared to individuals in comparison congregations at endline, and there was no difference at

baseline. At endline, a little over 15% of participants reported voluntarily using another non-modern form of contraception, which is approximately half the proportion of participants reporting voluntarily using non-modern contraception at baseline. There were modest increases in the use of a LARC method or FAM from baseline to endline.

All respondents, including currently pregnant couple members, were asked about the likelihood of their voluntary use of modern contraception in the future. At endline there was a statistically significantly ( $p < 0.05$ ) higher proportion of respondents reporting that they are likely to voluntarily use modern contraception in the future in intervention congregations (82.8%) compared to respondents in comparison congregations (74.7%). There did not appear to be much improvement in likelihood of use from baseline to endline in intervention congregations as the proportion intending to use modern contraception was high at baseline.

**Table 5: Use of contraception**

	Baseline, Comparison	Baseline, Intervention	p- value	Endline, Comparison	Endline, Intervention	p- value
<b>Total (n), among non-pregnant couples</b>	<b>372</b>	<b>412</b>		<b>318</b>	<b>339</b>	
Currently use any method of contraception	234 (63.0%)	247 (60.2%)	0.417	182 (57.2%)	212 (62.5%)	0.166
Currently use any MC method*	144 (38.7%)	165 (40.1%)	0.702	144 (45.3%)	181 (53.4%)	<b>0.038</b>
Currently using short-acting method†	128 (34.4%)	148 (35.9%)	0.658	120 (37.7%)	142 (41.9%)	0.277
Currently using LARC/permanent method‡	6 (1.6%)	12 (2.9%)	0.225	13 (4.1%)	19 (5.6%)	0.367
Currently using FAM method§	14 (3.8%)	14 (3.4%)	0.783	20 (6.3%)	34 (10.0%)	<b>0.081</b>
Currently using traditional/other method	124 (33.3%)	124 (30.1%)	0.331	60 (18.9%)	51 (15.0%)	0.191
<b>Total (n), among all couples</b>	<b>425</b>	<b>476</b>		<b>384</b>	<b>407</b>	
Intend to use MC in future			<b>&lt;0.001</b>			<b>0.037</b>
Extremely likely	66 (16.9%)	127 (29.4%)		113 (29.4%)	126 (31.0%)	
Likely	245 (62.8%)	235 (54.4%)		174 (45.3%)	211 (51.8%)	
Unlikely	64 (16.4%)	47 (10.9%)		76 (19.8%)	58 (14.3%)	
Extremely unlikely	15 (3.8%)	23 (5.3%)		21 (5.5%)	12 (2.9%)	
* MC (modern contraception) methods includes: condoms, oral contraceptive pills, injectables, implants, intrauterine devices (IUD), sterilization, Standard Days Method (SDM), lactational amenorrhoea method (LAM)						
† Short-acting methods includes: condoms, oral contraceptive pills, injectables						
‡ LARC (long-acting reversible contraception)/permanent methods includes: implants, IUD, sterilization						
§ FAM (fertility awareness-based methods) includes: SDM, LAM						

Respondents reportedly not using modern contraception were asked why they were not currently using a modern method of FP (see **Table 6**). Twenty-four reasons were supplied, categorized into fertility-related, opposition to use, knowledge-related, method-related, and other reasons for non-use and not all respondents not using modern contraception gave a specific reason. A participant could report multiple reasons for not using a modern method. At endline, fertility-related reasons were the most commonly reported for not using modern contraception. However, proportions of participants in intervention congregations were statistically significantly ( $p < 0.01$ ) less likely to report fertility-related reasons (e.g., “I want to have a child”) with 16.4% citing a fertility-related reason compared to 27.1% of participants in comparison congregations. Next most common was unclassified reasons, which participants in intervention congregations (27.4%) were more likely to cite compared to participants in comparison congregations. Between 5-10% of participants at endline cited method-related reasons (e.g., “I am worried about the side effects”), opposition to use reasons (e.g., “I/my partner is personally against voluntarily using modern contraception”), and information-related reasons (e.g., “I don’t know any place to voluntarily obtain modern contraception”). In intervention congregations, opposition to use and fertility-related reasons decreased as a proportion of reasons given among those not voluntarily using modern contraception from baseline to endline.

**Table 6: Reason for not using modern contraception**

Among couples not using MC, do not use MC because...	Baseline, Comparison	Baseline, Intervention	p-value	Endline, Comparison	Endline, Intervention	p-value
<b>Total (n)</b>	<b>281</b>	<b>311</b>		<b>240</b>	<b>226</b>	
Fertility-related reasons	50 (17.8%)	71 (22.8%)	0.129	65 (27.1%)	37 (16.4%)	<b>0.005</b>
Opposition to use	42 (15.0%)	42 (13.5%)	0.616	21 (8.8%)	13 (5.8%)	0.214
Lacks knowledge	6 (2.1%)	15 (4.8%)	0.077	8 (3.3%)	16 (7.1%)	0.067
Method-related reasons	16 (5.7%)	16 (5.1%)	0.768	20 (8.3%)	19 (8.4%)	0.977
Other reasons	31 (11.0%)	17 (5.5%)	<b>0.013</b>	46 (19.2%)	62 (27.4%)	<b>0.035</b>

Respondents were asked a series of questions relating to the accessibility of modern contraception in their community (see **Table 7**). In general, there were large increases in availability of means to purchase, information, and willingness of husband to purchase modern contraception from baseline to endline, but increases were seen in both intervention and comparison populations. At endline in intervention congregations, over 90% reported that they had the means to purchase modern contraception (90.9%), over 80% that modern contraception is available in their community (84.5%) and that their partner (if female respondent) or they themselves (if male respondent) would provide money to purchase modern contraception (82.8%), and nearly 80% that transportation to obtain modern contraception (79.6%) and information to voluntarily use modern contraception (79.4%) was available in their community. Respondents in intervention congregations were statistically significantly ( $p < 0.05$ ) more likely to report that they had access to information to voluntarily use modern contraception (79.4%) compared to respondents in comparison congregations and were marginally statistically significantly ( $p < 0.10$ ) more likely to report that they had the means to purchase modern contraception (90.9%) compared to respondents in comparison congregations (87.0%).

**Table 7: Access to modern contraception**

In your community...	Baseline, Comparison	Baseline, Intervention	p-value	Endline, Comparison	Endline, Intervention	p-value
<b>Total (n)</b>	<b>425</b>	<b>476</b>		<b>384</b>	<b>407</b>	
MC is available	359 (85.7%)	406 (85.8%)	0.947	332 (86.7%)	334 (84.5%)	0.387
Transportation to obtain MC is available	299 (71.0%)	371 (78.3%)	<b>0.013</b>	289 (75.3%)	323 (79.6%)	0.149
Means to purchase MC is available	340 (81.5%)	401 (84.8%)	0.196	334 (87.0%)	370 (90.9%)	0.077
Info to use MC is available	235 (56.2%)	271 (57.4%)	0.719	275 (71.6%)	323 (79.4%)	<b>0.011</b>
Husband will provide money to purchase MC	275 (65.5%)	335 (70.7%)	0.096	308 (80.2%)	337 (82.8%)	0.348

A series of attitudinal statements relating to FP were posed to respondents, who were asked whether they strongly agree, agree, disagree, or strongly disagree. Responses were combined and presented by time and intervention/comparison in **Table 8**. At endline, there were some key differences comparing respondents in comparison and intervention congregations. Respondents in intervention congregations were statistically significantly ( $p < 0.01$ ) more likely to personally believe that it is appropriate for NMC to voluntarily use modern contraception (70.5%) and for FTP to voluntarily use modern contraception (92.1%) compared to respondents in comparison congregations (60.4% and 86.2%, respectively). While participants in intervention congregations improved from baseline to endline in each of these two attitude statements, there did not appear to be much improvement in other attitudinal statements and there were no other significant differences comparing comparison and intervention populations among these statements.

**Table 8: Attitudes toward family planning**

In your personal opinion...	Baseline, Comparison	Baseline, Intervention	p-value	Endline, Comparison	Endline, Intervention	p-value
<b>Total (n)</b>	<b>425</b>	<b>476</b>		<b>384</b>	<b>407</b>	
If use MC, disagree that MC will lead to difficulties becoming pregnant in the future	359 (49.1%)	265 (56.0%)	<b>0.037</b>	209 (54.6%)	229 (56.3%)	0.632
If use MC, agree not against religion	185 (43.6%)	224 (47.1%)	0.303	162 (42.3%)	160 (39.4%)	0.409
If use condom, disagree less sexual pleasure	199 (47.2%)	238 (50.0%)	0.395	157 (41.0%)	174 (43.0%)	0.575
If use MC, disagree will get promiscuous reputation	344 (81.3%)	399 (83.8%)	0.323	333 (86.7%)	361 (88.7%)	0.396
If use MC, disagree negative side effects	224 (53.0%)	246 (51.8%)	0.727	229 (59.6%)	224 (55.0%)	0.191
If mention MC, disagree husband negative reaction	223 (52.7%)	216 (45.5%)	<b>0.030</b>	193 (50.3%)	183 (45.0%)	0.136
Partner's attitude on FP is important	340 (80.8%)	400 (84.4%)	0.152	306 (79.9%)	340 (83.7%)	0.161
Agree it is appropriate for NMC to use MC	249 (58.7%)	284 (59.9%)	0.717	232 (60.4%)	287 (70.5%)	<b>&lt;0.001</b>
Agree it is appropriate for FTP to use MC	347 (81.8%)	397 (83.4%)	0.536	331 (86.2%)	375 (92.1%)	<b>0.007</b>

Similar to attitudes, a series of Likert-response statements relating to self-efficacy to voluntarily use modern contraception were combined in **Table 9**. There was both a significant increase from baseline and a statistically significant ( $p < 0.05$ ) difference between respondents in intervention (90.7%) and comparison (85.7%) congregations when asked whether they felt confident they could voluntarily use modern contraception at endline. When asked if they could voluntarily use modern contraception even if their faith leader disagreed, this increased to 78.6% among respondents in intervention congregations compared to 62.0% at baseline. However, this was not statistically different compared to 76.3% of respondents in comparison congregations at endline. However, respondents in intervention congregations were statistically significantly ( $p < 0.01$ ) more likely to report that they felt confident that they could suggest voluntarily using modern contraception to their partner (90.7%) compared to respondents in comparison congregations (77.3%).

**Table 9: Self-efficacy in using family planning**

Confident you can...	Baseline, Comparison	Baseline, Intervention	p-value	Endline, Comparison	Endline, Intervention	p-value
<b>Total (n)</b>	<b>425</b>	<b>476</b>		<b>384</b>	<b>407</b>	
Use MC if wanted	345 (81.4%)	393 (82.7%)	0.593	329 (85.7%)	369 (90.7%)	<b>0.030</b>
Use MC even if faith leader opposed	283 (66.9%)	294 (62.0%)	0.128	293 (76.3%)	320 (78.6%)	0.401
Suggest MC to partner	345 (81.4%)	395 (83.2%)	0.483	297 (77.3%)	369 (90.7%)	<b>&lt;0.001</b>

Respondents were asked whether they had discussed a range of reproductive health topics with their partner in the previous one year (see **Table 10**). While there were not significant improvements in the discussion of the ideal number of children from baseline to endline, there were significant increases in proportions of respondents in intervention congregations reporting that they had discussed FP (51.4% at baseline vs. 60.1% at endline) and obtaining FP (46.2% vs. 56.0%). Furthermore, respondents in intervention congregations were statistically significantly ( $p < 0.01$ ) more likely to report that they had discussed FP with their partner (60.1%) and had discussed how to obtain a method of FP (56.0%) compared to respondents at endline in comparison congregations (50.3% and 46.4%, respectively).

Respondents were also surveyed about decision-making with partner related to FP. Individuals were asked if there is a disagreement in their relationship about using FP, who makes the final decision. At endline in intervention congregations, nearly half (47.7%) reported that the man would make the final decision, only 8.6% reported that the woman would make the decision, and 43.7% reported that both the man and the woman would make the decision together. There was a large increase in the proportion of respondents in both intervention and comparison areas that they would make the decision together and there was no statistical difference at endline comparing intervention and comparison populations.

**Table 10:** Communication and decision-making with partner about family planning

In previous yr., have discussed w/ partner...	Baseline, Comparison	Baseline, Intervention	p-value	Endline, Comparison	Endline, Intervention	p-value
<b>Total (n)</b>	<b>425</b>	<b>476</b>		<b>384</b>	<b>407</b>	
Ideal number of children	344 (81.3%)	388 (82.0%)	0.785	314 (81.8%)	325 (79.9%)	0.494
FP	195 (47.0%)	242 (51.4%)	0.192	192 (50.3%)	244 (60.1%)	<b>0.006</b>
Obtaining FP	183 (43.2%)	219 (46.2%)	0.360	178 (46.4%)	228 (56.0%)	<b>0.007</b>
If disagree about FP, who makes final decision			0.911			0.455
Husband	232 (54.9%)	254 (53.5%)		169 (44.0%)	194 (47.7%)	
Wife	68 (16.1%)	80 (16.8%)		41 (10.7%)	35 (8.6%)	
Both, together	123 (29.1%)	141 (29.7%)		174 (45.3%)	178 (43.7%)	

To assess important influencers or those whose opinions matter to respondents regarding FP behaviors, respondents were asked if they considered each of the groups in **Table 11** important references for their personal FP behaviors. At endline in intervention congregations, over one-half (51.6%) of respondents reported that they considered their partner to be an important reference for FP behaviors. This was followed by nearly one-quarter (24.8%) listing health workers, 14.7% listed their friends, and 10.1% their biological mother. There were few differences comparing intervention and comparison congregations at endline except that respondents in comparison congregations were statistically significantly ( $p < 0.05$ ) more likely to list their biological mother (15.1%) and/or their biological father (5.7%) compared to respondents in intervention congregations (10.1% and 2.5%, respectively). From baseline to endline, respondents appeared to be less likely to report that their biological mother and father and their faith leaders were important reference groups for their FP behaviors and more likely to report health workers as an important reference group.

**Table 11:** Important reference groups for social norms related to family planning

	Baseline, Comparison	Baseline, Intervention	p-value	Endline, Comparison	Endline, Intervention	p-value
<b>Total (n)</b>	<b>425</b>	<b>476</b>		<b>384</b>	<b>407</b>	
Partner	153 (36.1%)	179 (37.6%)	0.637	196 (51.0%)	210 (51.6%)	0.876
Friends	76 (17.9%)	94 (19.7%)	0.485	53 (13.8%)	60 (14.7%)	0.706
Mother	109 (25.7%)	132 (27.7%)	0.494	58 (15.1%)	41 (10.1%)	<b>0.033</b>
Father	69 (16.3%)	82 (17.2%)	0.702	22 (5.7%)	10 (2.5%)	<b>0.020</b>
Faith leader	126 (29.7%)	126 (26.5%)	0.279	34 (8.9%)	32 (7.9%)	0.614
Health worker	64 (15.1%)	78 (16.4%)	0.403	86 (22.4%)	101 (24.8%)	0.423
In-law	13 (3.0%)	10 (2.1%)	0.627	11 (2.9%)	7 (1.7%)	0.516
Other	35 (8.3%)	44 (9.2%)	0.601	30 (7.8%)	26 (6.4%)	0.435

Respondents were asked a series of statements on their perceptions of typical behaviors (i.e., descriptive norms) pertaining to FP and were asked to respond on a 4-point Likert-scale for the statements (see **Table 12**). Respondents were asked whether they perceived that none, some, many or most NMC and FTP in their congregations voluntarily use modern contraception. At endline, respondents in intervention congregations were marginally statistically significantly ( $p < 0.10$ ) more likely to perceive that many or most NMC (26.8%) in their congregation voluntarily used modern contraception compared to respondents in comparison areas (19.3%). There was no statistical difference in perceptions for FTP voluntarily using contraception. In general, respondents were more

likely to report that many/most NMC and FTP were voluntarily using modern contraception from baseline to endline in both intervention and comparison congregations. As well, fewer respondents perceived that no NMC (16.7%) or no FTP (7.9%) were voluntarily using modern contraception at endline compared with 22.9% and 19.5% respectively, at endline.

Factor analysis was conducted on social norms items in the survey (see Appendix 2), resulting in two social norms constructs related to FP which corresponded to descriptive norms pertaining to FP and injunctive norms pertaining to FP. Comparing mean scores, respondents in intervention areas were statistically significantly ( $p < 0.05$ ) more likely to perceive that voluntary modern contraception use was typical behavior in their communities compared to respondents in comparison congregations at baseline (2.08 vs. 1.98). Mean scores increased in both populations from baseline to endline and at endline, there was no longer a significant difference though mean scores in intervention respondents were still higher (2.24 vs. 2.17) compared to respondents in comparison congregations.

**Table 12: Descriptive social norms pertaining to family planning**

As perceived by respondent...	Baseline, Comparison	Baseline, Intervention	p-value	Endline, Comparison	Endline, Intervention	p-value
<b>Total (n)</b>	<b>425</b>	<b>476</b>		<b>384</b>	<b>407</b>	
NMC in this congregation use MC			0.245			0.082
None	119 (28.1%)	109 (22.9%)		65 (16.9%)	68 (16.7%)	
Some	234 (55.2%)	276 (58.1%)		245 (63.8%)	230 (56.5%)	
Many	53 (12.5%)	61 (12.8%)		56 (14.6%)	85 (20.9%)	
Most	18 (4.2%)	29 (6.1%)		18 (4.7%)	24 (5.9%)	
FTP in the congregation use MC			0.208			0.306
None	93 (22.0%)	93 (19.5%)		30 (7.8%)	32 (7.9%)	
Some	240 (56.9%)	260 (54.6%)		237 (61.7%)	245 (60.2%)	
Many	73 (17.3%)	92 (19.3%)		100 (26.0%)	99 (24.3%)	
Most	16 (3.8%)	31 (6.5%)		17 (4.4%)	31 (7.6%)	
FP descriptive norms: mean (SD)	1.98 (0.68)	2.08 (0.73)	<b>0.039</b>	2.17 (0.59)	2.24 (0.67)	0.132

Respondents were also asked a series of statements on their perceptions of approved behaviors (i.e., injunctive norms, by their respondent's reference groups) relating to FP and were asked to respond on a 4-point Likert-scale for the statements (see **Table 13**). Respondents in intervention congregations appeared statistically significantly ( $p < 0.01$ ) more likely to perceive that most members of their congregation would agree with NMC voluntarily using modern contraception (72.2%) compared to respondents in comparison congregations (60.5%). As well, there was a marginally statistically significant difference ( $p < 0.10$ ) between respondents in intervention (68.0%) and comparison congregations (60.7%) comparing those that agreed that faith leaders in their congregation would approve of NMC voluntarily using modern contraception. However, there were no differences comparing perceived appropriateness by members of their congregation and their faith leaders of FTP voluntarily using modern contraception between comparison and intervention congregations. When asking respondents about their perceptions of the appropriateness of themselves voluntarily using modern contraception, statistically significantly ( $p < 0.01$ ) larger proportions of respondents in intervention congregations were more likely to perceive that congregation members whose opinions are important (see Table 7) to the respondent would approve

of the respondent voluntarily using modern contraception (89.9%) as well as their faith leaders (71.9%), and their partner (90.2%). This compares to 80.7%, 67.2%, and 79.7% for respondents in comparison areas, respectively. In general, respondents were more likely to report that they agreed that their reference groups were more likely to approve of NMC and FTP or the respondents themselves to use modern methods of FP in both intervention and comparison congregations.

As mentioned previously, factor analysis was conducted on social norms items in the survey (see Appendix 2), resulting in two social norms constructs related to FP which corresponded to descriptive norms pertaining to FP and injunctive norms pertaining to FP. Comparing mean scores, respondents in intervention areas were statistically significantly ( $p < 0.05$ ) more likely to perceive that voluntary modern contraception use was accepted behavior in their reference groups compared to respondents in comparison congregations at baseline (2.91 vs. 2.84). Mean scores increased in both populations from baseline to endline and at endline, there was no longer a significant difference though mean scores in intervention respondents were still slightly higher (2.97 vs. 2.95) compared to respondents in comparison congregations.

**Table 13: Injunctive social norms pertaining to family planning**

As perceived by respondent...	Baseline, Comparison	Baseline, Intervention	p-value	Endline, Comparison	Endline, Intervention	p-value
<b>Total (n)</b>	<b>425</b>	<b>476</b>		<b>384</b>	<b>407</b>	
Congregation thinks appropriate for NMC to use MC			<b>0.027</b>			<b>&lt;0.001</b>
Strongly agree	46 (10.9%)	85 (17.9%)		71 (18.5%)	66 (16.2%)	
Agree	204 (48.2%)	208 (43.8%)		161 (42.0%)	228 (56.0%)	
Disagree	151 (35.7%)	162 (34.1%)		128 (33.4%)	98 (24.1%)	
Strongly disagree	22 (5.2%)	20 (4.2%)		23 (6.0%)	15 (3.7%)	
Congregation thinks appropriate for FTP to use MC			0.137			0.509
Strongly agree	69 (16.3%)	105 (22.1%)		96 (25.0%)	83 (20.5%)	
Agree	260 (61.3%)	276 (58.0%)		233 (60.7%)	261 (64.4%)	
Disagree	85 (20.0%)	88 (18.5%)		49 (12.8%)	55 (13.6%)	
Strongly disagree	10 (2.4%)	7 (1.5%)		6 (1.6%)	6 (1.5%)	
Faith leaders think appropriate for NMC to use MC			0.257			<b>0.067</b>
Strongly agree	47 (11.1%)	73 (15.4%)		64 (16.7%)	62 (15.2%)	
Agree	197 (46.7%)	216 (45.5%)		169 (44.0%)	215 (52.8%)	
Disagree	153 (36.3%)	155 (32.6%)		131 (34.1%)	117 (28.7%)	
Strongly disagree	25 (5.9%)	31 (6.5%)		20 (5.2%)	13 (3.2%)	
Faith leaders think appropriate for FTP to use MC			0.351			0.685
Strongly agree	69 (16.3%)	98 (20.7%)		87 (22.7%)	85 (20.9%)	
Agree	259 (61.1%)	279 (58.9%)		232 (60.4%)	256 (62.9%)	
Disagree	86 (20.3%)	89 (18.8%)		58 (15.1%)	62 (15.2%)	
Strongly disagree	10 (2.4%)	8 (1.7%)		7 (1.8%)	4 (1.0%)	
Those whose opinions important approve of MC for participant			0.320			<b>&lt;0.001</b>
Strongly agree	82 (19.8%)	117 (24.9%)		111 (28.9%)	99 (24.3%)	
Agree	249 (60.0%)	260 (55.4%)		199 (51.8%)	267 (65.6%)	
Disagree	76 (18.3%)	84 (17.9%)		70 (18.2%)	38 (9.3%)	
Strongly disagree	8 (1.9%)	8 (1.7%)		4 (1.0%)	3 (0.7%)	
Faith leader approves of MC for participant			0.186			<b>&lt;0.001</b>
Strongly agree	52 (12.3%)	82 (17.2%)		88 (22.9%)	46 (11.3%)	
Agree	254 (59.9%)	262 (55.0%)		170 (44.3%)	246 (60.6%)	
Disagree	109 (25.7%)	120 (25.2%)		113 (29.4%)	109 (26.8%)	
Strongly disagree	9 (2.1%)	12 (2.5%)		13 (3.4%)	5 (1.2%)	
Partner approves of MC for couple			0.545			<b>&lt;0.001</b>
Strongly agree	80 (18.9%)	108 (22.8%)		119 (31.0%)	81 (20.0%)	
Agree	263 (62.2%)	277 (58.6%)		187 (48.7%)	285 (70.2%)	
Disagree	72 (17.0%)	79 (16.7%)		73 (19.0%)	34 (8.4%)	
Strongly disagree	8 (1.9%)	9 (1.9%)		5 (1.3%)	6 (1.5%)	
FP injunctive norms; mean (SD)	2.84 (0.47)	2.91 (0.54)	<b>0.040</b>	2.95 (0.53)	2.97 (0.46)	0.581

Respondents were asked a series of statements designed to assess the quality of communication and their relationship—whether they had discussed a topic in the previous one year (see **Table 14**). There were few differences comparing respondents in intervention and comparison congregations for those that had told their partner that they appreciated them and/or talked with them about their concerns, frustrations and what makes them happy. Over 70% of respondents in both intervention and comparison congregations reported that they had talked with their partner about each of these topics. In addition, there did not appear to be much change from baseline to endline in both populations.

**Table 14: Relationship quality**

In the past yr., with partner...	Baseline, Comparison	Baseline, Intervention	p-value	Endline, Comparison	Endline, Intervention	p-value
<b>Total (n)</b>	<b>425</b>	<b>476</b>		<b>384</b>	<b>407</b>	
Told partner appreciated them	367 (87.2%)	411 (87.3%)	0.969	319 (83.3%)	338 (83.0%)	0.927
Talked w/ partner about concerns	366 (87.1%)	431 (90.9%)	0.069	337 (87.8%)	353 (87.2%)	0.799
Talked w/ partner about frustrations	280 (66.5%)	325 (68.7%)	0.482	292 (76.0%)	289 (71.2%)	0.122
Talked w/ partner about things that make you happy	368 (87.2%)	431 (90.5%)	0.110	329 (85.9%)	332 (81.8%)	0.116

## INTIMATE PARTNER VIOLENCE OUTCOMES FROM COUPLE SURVEY

Perpetration of IPV was assessed using a series of statements relating to emotional, physical, and sexual violence. Looking at perpetration of IPV just among males (see **Table 15**), men in intervention congregations were statistically significantly ( $p < 0.05$ ) more likely to report that they had not yelled at their partner in the previous one year (45.2%) compared to males in comparison congregations (35.2%) at endline. However, men in intervention congregations were also statistically significantly ( $p < 0.05$ ) more likely to report that they often yelled at their partners (11.1%) compared to men in comparison congregations (11.1%) at endline. There were no significant differences when asking men whether they had threatened, pushed, slapped their partner, or forced sex on their partner. However, men in intervention congregations were statistically significantly ( $p < 0.05$ ) more likely to report that they had not punched their partner in the previous one year (94.5%) compared to men in comparison congregations (88.4%), and men in intervention congregations were more likely to report that they had not used physical violence to discourage their partner from using FP in the previous one year (93.5%) compared to men in comparison congregations (89.0%). In general, the proportion of men in intervention congregations reporting perpetration of emotional violence and violence as a result of a partner’s use of FP reduced from baseline to endline.

**Table 15: Men—perpetration of intimate partner violence**

In the previous 1 yr., you have perpetrated...	Baseline, Comparison	Baseline, Intervention	p-value	Endline, Comparison	Endline, Intervention	p-value
<b>Total (n)</b>	<b>425</b>	<b>476</b>		<b>384</b>	<b>407</b>	
Yelled at partner			0.122			<b>0.018</b>
Often	25 (14.2%)	49 (22.0%)		9 (6.2%)	22 (11.1%)	
Sometimes	78 (44.3%)	95 (42.6%)		85 (58.6%)	87 (43.7%)	
Never	73 (41.5%)	79 (35.4%)		51 (35.2%)	90 (45.2%)	
Threatened partner w/ physical punishment			0.211			0.905
Often	3 (1.7%)	5 (2.2%)		1 (0.7%)	2 (1.0%)	
Sometimes	10 (5.6%)	23 (10.3%)		13 (9.0%)	16 (8.0%)	
Never	165 (92.7%)	195 (87.4%)		130 (90.3%)	182 (91.0%)	
Pushed/shook partner			0.742			0.819
Often	5 (2.8%)	5 (2.2%)		2 (1.4%)	3 (1.5%)	
Sometimes	21 (11.8%)	22 (9.8%)		19 (13.1%)	22 (10.9%)	
Never	152 (85.4%)	198 (88.0%)		124 (85.5%)	177 (87.6%)	
Slapped partner			0.132			0.692
Often	3 (1.7%)	11 (4.9%)		5 (3.4%)	4 (2.0%)	
Sometimes	39 (21.9%)	39 (17.3%)		27 (18.6%)	38 (18.7%)	
Never	136 (76.4%)	176 (77.9%)		113 (77.9%)	161 (79.3%)	
Punched partner			0.757			<b>0.040</b>
Often	3 (1.7%)	2 (0.9%)		0 (0.0%)	0 (0.0%)	
Sometimes	11 (6.3%)	13 (5.8%)		17 (11.6%)	11 (5.5%)	
Never	162 (92.0%)	208 (93.3%)		130 (88.4%)	189 (94.5%)	
Forced sex on partner when she did not want			0.553			0.441
Often	2 (1.1%)	6 (2.7%)		1 (0.7%)	1 (0.5%)	
Sometimes	18 (10.2%)	23 (10.2%)		21 (14.5%)	20 (10.1%)	
Never	156 (88.6%)	196 (87.1%)		123 (84.8%)	178 (89.4%)	
Used violence to discourage FP use			0.090			<b>0.041</b>
Often	2 (1.1%)	11 (4.9%)		0 (0.0%)	3 (1.5%)	
Sometimes	16 (9.1%)	16 (7.1%)		16 (11.0%)	10 (5.0%)	
Never	158 (89.8%)	197 (87.9%)		130 (89.0%)	188 (93.5%)	

Experience of IPV by women was assessed similarly to perpetration by men to emotional, physical, and sexual violence with breakdowns in **Table 16**. Looking at experience of IPV just among females, women in intervention congregations were statistically significantly ( $p < 0.05$ ) more likely to report that they had not been yelled at by their partner in the previous one year (45.9%) compared to women in comparison congregations (38.9%) at endline, but were more likely to report being yelled at often (16.3%) compared to women in comparison congregations (11.8%). As well, women in intervention congregations were marginally statistically significantly ( $p < 0.10$ ) more likely to report that their partner had not pushed or shook them in the previous one year (93.4%) compared to women in comparison congregations (90.0%). There were no significant differences between intervention and comparison congregations when asking women whether they had been threatened or slapped by their partner or whether they had experienced forced sex by their partner. Unlike for men, there were also no significant differences comparing women in intervention and comparison congregations who had experienced IPV to discourage FP use, despite reductions in both samples from baseline to endline. As well, except for experience of violence to discourage use of modern FP

which decreased slightly among women in intervention areas from baseline to endline, other types of IPV did not seem to change from baseline to endline.

**Table 16: Women—experience of intimate partner violence**

In the previous 1 yr., you have experienced...	Baseline, Comparison	Baseline, Intervention	p-value	Endline, Comparison	Endline, Intervention	p-value
<b>Total (n)</b>	<b>245</b>	<b>248</b>		<b>234</b>	<b>201</b>	
Yelled at by partner			0.390			<b>0.049</b>
Often	49 (20.2%)	38 (15.4%)		27 (11.8%)	32 (16.3%)	
Sometimes	92 (37.9%)	97 (39.4%)		113 (49.3%)	74 (37.8%)	
Never	102 (42.0%)	111 (45.1%)		89 (38.9%)	90 (45.9%)	
Threatened by partner w/ physical punishment			0.185			0.741
Often	4 (1.6%)	6 (2.4%)		2 (0.9%)	3 (1.5%)	
Sometimes	29 (11.9%)	18 (7.3%)		18 (7.8%)	13 (6.6%)	
Never	210 (86.4%)	224 (90.3%)		211 (91.3%)	180 (91.8%)	
Pushed/shook by partner			0.722			0.068
Often	2 (0.8%)	4 (1.6%)		6 (2.6%)	0 (0.0%)	
Sometimes	18 (7.4%)	18 (7.3%)		17 (7.4%)	13 (6.6%)	
Never	223 (91.8%)	224 (91.1%)		206 (90.0%)	183 (93.4%)	
Slapped by partner			0.603			0.816
Often	6 (2.5%)	8 (3.2%)		5 (2.2%)	4 (2.0%)	
Sometimes	34 (14.0%)	28 (11.3%)		34 (14.8%)	25 (12.8%)	
Never	202 (83.5%)	211 (85.4%)		190 (83.0%)	167 (85.2%)	
Punched by partner			0.977			0.493
Often	3 (1.2%)	3 (1.2%)		4 (1.7%)	1 (0.5%)	
Sometimes	9 (3.7%)	10 (4.1%)		15 (6.6%)	14 (7.3%)	
Never	232 (95.1%)	233 (94.7%)		210 (91.7%)	178 (92.2%)	
Forced sex by partner when did not want			0.967			0.372
Often	11 (4.5%)	10 (4.1%)		5 (2.3%)	2 (1.0%)	
Sometimes	24 (9.9%)	25 (10.3%)		21 (9.6%)	25 (12.8%)	
Never	208 (85.6%)	208 (85.6%)		193 (88.1%)	168 (86.2%)	
Violence by partner to discourage FP use			0.650			0.631
Often	9 (3.7%)	6 (2.4%)		2 (0.9%)	3 (1.5%)	
Sometimes	16 (6.6%)	19 (7.7%)		13 (5.7%)	8 (4.1%)	
Never	217 (89.7%)	221 (89.8%)		214 (93.4%)	183 (94.3%)	

Respondents were posed a series of scenarios and asked if a husband is justified in perpetrating violence against his wife for each of the scenarios (see **Table 17**). At endline, fewer than 20% of respondents thought a husband was justified for all of the scenarios. In intervention congregations, respondents were most likely to believe that a husband is justified in using violence if a wife argues with her husband (18.5%) or neglects the children (17.6%) and least likely to believe violence is justified if a wife burns food (5.7%) or refuses sex (8.1%). In general, respondents in both intervention and comparison congregations were less likely to believe that violence is justified in the scenarios from baseline to endline, and there were no significant differences in justifications for violence comparing intervention and comparison congregations at endline.

**Table 17: Justification of intimate partner violence**

Violence against wife is justified if...	Baseline, Comparison	Baseline, Intervention	p-value	Endline, Comparison	Endline, Intervention	p-value
<b>Total (n)</b>	<b>425</b>	<b>476</b>		<b>384</b>	<b>407</b>	
Wife goes out w/o telling husband	86 (20.7%)	85 (18.2%)	0.354	52 (14.0%)	45 (11.5%)	0.287
Wife neglects children	128 (31.1%)	128 (27.8%)	0.283	67 (18.2%)	68 (17.6%)	0.833
Wife argues w/ husband	100 (24.2%)	101 (21.7%)	0.382	55 (15.1%)	72 (18.5%)	0.219
Wife refuses sex	49 (12.0%)	55 (11.8%)	0.955	22 (6.1%)	31 (8.1%)	0.293
Wife burns food	30 (7.2%)	25 (5.4%)	0.254	30 (8.0%)	22 (5.7%)	0.202
Wife uses MC w/o husband knowing	91 (22.4%)	128 (28.1%)	<b>0.057</b>	64 (17.8%)	56 (14.6%)	0.236

Similar to attitudes toward FP, a series of attitudinal statements relating to IPV were posed to respondents on a 4-point Likert-scale. Likert responses were combined and presented by time and intervention/comparison in **Table 18**. At endline, there were some notable differences comparing respondents in comparison and intervention congregations. In general, respondents in intervention and comparison congregations responded similarly to these attitudinal statements with the notable exception whereby respondents in intervention congregations were statistically significantly ( $p < 0.01$ ) more likely to personally disagree that a husband beats his wife to correct her behavior (84.8%) compared to respondents in comparison congregations (78.4%). There were some significant movements toward more positive attitudes relating to disagreeing that a husband is supposed to beat his wife according to Scripture from baseline to endline, but the difference between respondents in intervention and comparison congregations was not statistically significant.

**Table 18: Attitudes toward intimate partner violence**

In your personal opinion...	Baseline, Comparison	Baseline, Intervention	p-value	Endline, Comparison	Endline, Intervention	p-value
<b>Total (n)</b>	<b>425</b>	<b>476</b>		<b>384</b>	<b>407</b>	
Disagree that a husband beats his wife to correct her behavior	314 (74.5%)	356 (75.0%)	0.853	301 (78.4%)	345 (84.8%)	<b>0.007</b>
Disagree that IPV is normal in congregation	348 (82.1%)	377 (79.2%)	0.173	336 (87.5%)	360 (88.4%)	0.704
Agree that bystanders will stop IPV in congregation	330 (77.8%)	398 (83.8%)	0.100	301 (78.4%)	294 (72.2%)	0.128
Disagree that a husband is supposed to beat wife according to Scripture	171 (40.3%)	214 (44.9%)	0.477	211 (55.0%)	242 (59.5%)	0.119
Disagree that if man does not beat wife, congregation will think he is unmanly	389 (91.7%)	436 (91.6%)	0.964	355 (92.5%)	370 (90.9%)	0.213
Personally believe it is not appropriate for a man to use violence against his wife for any reason	401 (95.0%)	453 (95.6%)	0.868	372 (96.9%)	396 (96.6%)	0.872
I would use non-violent strategies to reduce violence in relationship if knew	373 (88.2%)	429 (90.7%)	0.345	341 (88.8%)	364 (89.4%)	0.475

To assess important influencers or those whose opinions matter to respondents regarding their relationships and violence, respondents were asked if they considered each of the groups as important references for their personal IPV behaviors (see **Table 19**). At endline in intervention congregations, nearly one-half (48.2%) of respondents reported that they considered their partner to be an important reference for IPV behaviors. This was followed by nearly one-fifth (18.4%) listing faith leaders, 16.5% listed their friends, and 12.8% their biological mother. There were few differences comparing intervention and comparison congregations at endline except that respondents in comparison congregations were statistically significantly ( $p < 0.05$ ) more likely to list their biological mother (18.8%) compared to respondents in intervention congregations (12.8%). From baseline to endline, respondents from both intervention and comparison congregations appeared to be more likely to report that their partner and less likely to report their biological parents.

**Table 19: Important reference groups for social norms related to intimate partner violence**

	Baseline, Comparison	Baseline, Intervention	p- value	Endline, Comparison	Endline, Intervention	p- value
<b>Total (n)</b>	<b>425</b>	<b>476</b>		<b>384</b>	<b>407</b>	
Partner	143 (33.7%)	163 (34.3%)	0.852	194 (50.5%)	196 (48.2%)	0.506
Friends	82 (19.3%)	103 (21.7%)	0.385	51 (13.3%)	67 (16.5%)	0.210
Mother	130 (30.7%)	160 (33.7%)	0.333	72 (18.8%)	52 (12.8%)	<b>0.021</b>
Father	101 (23.8%)	109 (22.9%)	0.757	43 (11.2%)	30 (7.4%)	0.063
Faith leader	141 (33.3%)	152 (32.0%)	0.689	75 (19.5%)	75 (18.4%)	0.692
In-law	37 (8.8%)	46 (9.7%)	0.287	40 (10.4%)	40 (9.8%)	0.367
Other relative	13 (3.0%)	10 (2.1%)	0.627	11 (2.9%)	7 (1.7%)	0.516
Other	53 (12.5%)	63 (13.3%)	0.733	55 (14.3%)	60 (14.7%)	0.867

Similar to assessing social norms for FP, respondents were asked a series of statements on their perceptions of typical behaviors (i.e., descriptive norms) pertaining to IPV and were asked to respond on a 4-point Likert-scale for the statements (see **Table 20**). Respondents were asked whether they perceived that none, some, many or most women in their congregation had experienced IPV and/or sexual violence from their partner. At endline, there was a marginally statistically significant ( $p < 0.10$ ) difference comparing respondents' perceptions in comparison and intervention congregations with respondents in intervention areas more likely to report that they perceived that no women in their congregation experienced IPV (31.9%) compared to respondents in comparison congregations (27.6%). However, there was no difference comparing these populations' perceptions of IPV as typical behavior in their congregations. In addition, there appears to be a decrease in the proportion of respondents reporting that no women in their congregation experience IPV and an increase in responses that report at least some of the women in their congregation experience IPV from baseline to endline.

Similar to FP social norms items, factor analysis was conducted on social norms items relating to IPV in the survey (see **Appendix 2**). Among the resulting factors or domains, one corresponded to descriptive norms relating to IPV (i.e., how typical IPV is perceived to be in respondent's congregations). Comparing mean scores (higher mean scores for this factor equate with perceiving that IPV is more typical behavior in a community) there were only minimal differences between respondents in intervention and comparison congregations. At endline, respondents in intervention congregations were slightly less likely to report that IPV was typical behavior in their communities

(mean of 3.08) compared to respondents in comparison congregations (mean score of 3.13), and both groups were less likely to report that IPV was typical behavior in their communities from baseline to endline.

**Table 20:** Descriptive social norms pertaining to intimate partner violence

As perceived by respondent...	Baseline, Comparison	Baseline, Intervention	p-value	Endline, Comparison	Endline, Intervention	p-value
<b>Total (n)</b>	<b>425</b>	<b>476</b>		<b>384</b>	<b>407</b>	
Women in this congregation have experienced IPV			0.373			0.061
None	226 (53.3%)	236 (49.6%)		106 (27.6%)	130 (31.9%)	
Some	111 (26.2%)	120 (25.2%)		201 (52.3%)	175 (43.0%)	
Many	77 (18.2%)	109 (22.9%)		65 (16.9%)	89 (21.9%)	
Most	10 (2.4%)	11 (2.3%)		12 (3.1%)	13 (3.2%)	
Women in this congregation have experienced sexual violence from partner			0.530			0.255
None	258 (60.8%)	290 (60.9%)		159 (41.4%)	162 (39.8%)	
Some	67 (15.8%)	78 (16.4%)		161 (41.9%)	155 (38.1%)	
Many	88 (20.8%)	102 (21.4%)		51 (13.3%)	69 (17.0%)	
Most	11 (2.6%)	6 (1.3%)		13 (3.4%)	21 (5.2%)	
IPV descriptive norms: mean (SD)	3.33 (0.79)	3.30 (0.78)	0.548	3.13 (0.69)	3.08 (0.76)	0.357

Respondents were also asked a series of statements on their perceptions of approved behaviors (i.e., injunctive norms, by their respondent’s reference groups) relating to IPV and were asked to respond on a 4-point Likert-scale for the statements (see **Table 21**). Regarding perceptions of approved behavior relating to IPV, no differences were seen comparing respondents in intervention and comparison congregations for perceptions of approved IPV behaviors within their congregations at endline, with large majorities of both populations indicating that IPV is not approved behavior in their congregations. However, women in intervention congregations were statistically significantly ( $p < 0.01$ ) more likely to report that most faith leaders did not think that it was appropriate for a male partner to perpetrate IPV against his partner (99.0%) compared to women in comparison congregations (96.9%), and no significant differences were seen comparing populations’ perceptions of the acceptability of sexual violence by their faith leaders. Despite statistical significance, the difference was relatively small. Conversely, when asked whether their partner approves of IPV and sexual violence, there was no difference comparing women in intervention and comparison congregations for their perceptions of their partner’s acceptance of IPV, but women in intervention congregations were statistically significantly ( $p < 0.01$ ) more likely to perceive that their partner did not find sexual violence acceptable (95.6%) compared to women in comparison congregations (91.9%). Finally, women in intervention congregations were statistically significantly ( $p < 0.01$ ) less likely to perceive that those whose opinions matter (see Table 14) to the respondent regarding IPV did not find IPV acceptable (95.5%) compared to women in comparison congregations (91.9%). There did not appear to be any noticeable shifts in injunctive norms relating to IPV and sexual violence from baseline to endline.

Factor analysis (see **Appendix 2**) resulted in sex-specific domains corresponding to injunctive social norms relating to IPV (i.e., whether IPV is perceived to be approved behavior among a respondent's reference group). For women, the two domains corresponded to injunctive norms with their faith community as reference group and the other as their husband and close family and friends as reference group for approval/disapproval of IPV. Comparing mean scores for injunctive norms among their faith communities (higher mean scores for this factor equate with perceiving that IPV is more acceptable behavior among a respondent's reference group), there was little difference between female respondents in intervention and comparison congregations. However, at endline women in intervention congregations were statistically significantly ( $p < 0.05$ ) less likely to perceive that IPV was accepted behavior among this reference group (mean of 3.17) compared to women in comparison congregations (mean of 3.26). Similar patterns were seen when the reference group was a woman's husband and other close family and friends. At endline, women in intervention congregations were statistically significantly ( $p < 0.05$ ) less likely to perceive that IPV was accepted behavior among this reference group (mean of 3.25) compared to women in comparison congregations (mean of 3.25). For men, only one injunctive norm domain resulted from factor analysis with no differentiation by reference group. Similar to injunctive norms for women, there was no difference between men in intervention and comparison congregations at baseline. However, at endline men in intervention congregations were statistically significantly ( $p < 0.05$ ) less likely to perceive that IPV was accepted behavior among their reference groups (mean of 3.22) compared to women in comparison congregations (mean of 3.30).

**Table 21: Injunctive social norms pertaining to intimate partner violence**

As perceived by respondent...	Baseline, Comparison	Baseline, Intervention	p-value	Endline, Comparison	Endline, Intervention	p-value
<b>Total (n)</b>	<b>425</b>	<b>476</b>		<b>384</b>	<b>407</b>	
Congregation thinks appropriate for partner to use IPV			0.896			0.113
Strongly agree	3 (0.7%)	4 (0.8%)		2 (0.5%)	2 (0.5%)	
Agree	12 (2.8%)	16 (3.4%)		12 (3.1%)	9 (2.2%)	
Disagree	325 (76.7%)	366 (77.5%)		256 (66.7%)	314 (77.3%)	
Strongly disagree	84 (19.8%)	86 (18.2%)		114 (29.7%)	81 (20.0%)	
Congregation thinks appropriate for partner to use sexual violence			0.697			0.254
Strongly agree	4 (0.9%)	4 (0.8%)		7 (1.8%)	4 (1.0%)	
Agree	19 (4.5%)	19 (4.0%)		10 (2.6%)	13 (3.2%)	
Disagree	307 (72.4%)	359 (75.9%)		250 (65.1%)	297 (73.2%)	
Strongly disagree	94 (22.2%)	91 (19.2%)		117 (30.5%)	92 (22.7%)	
Faith leaders think appropriate for partner to use IPV			0.477			<0.001
Strongly agree	1 (0.2%)	5 (1.1%)		4 (1.0%)	0 (0.0%)	
Agree	11 (2.6%)	14 (3.0%)		8 (2.1%)	4 (1.0%)	
Disagree	314 (74.2%)	343 (72.4%)		198 (51.6%)	269 (66.1%)	
Strongly disagree	97 (22.9%)	112 (23.6%)		174 (45.3%)	134 (32.9%)	
Faith leaders think appropriate for partner to use sexual violence			0.950			0.137
Strongly agree	2 (0.8%)	1 (0.4%)		2 (0.5%)	1 (0.2%)	
Agree	4 (1.6%)	4 (1.6%)		11 (2.9%)	7 (1.7%)	
Disagree	181 (74.2%)	184 (74.8%)		207 (53.9%)	259 (63.8%)	
Strongly disagree	57 (23.4%)	57 (23.2%)		164 (42.7%)	139 (34.2%)	

Partner approves of IPV for couple			0.907			0.209
Strongly agree	3 (0.7%)	4 (0.9%)		10 (2.6%)	2 (0.5%)	
Agree	24 (5.8%)	32 (6.8%)		20 (5.2%)	24 (5.9%)	
Disagree	322 (77.2%)	355 (75.5%)		231 (60.2%)	295 (72.7%)	
Strongly disagree	68 (16.3%)	79 (16.8%)		123 (32.0%)	85 (20.9%)	
Partner approves of sexual violence for couple			0.939			<0.001
Strongly agree	4 (0.9%)	5 (1.1%)		8 (2.1%)	3 (0.7%)	
Agree	17 (4.0%)	17 (3.6%)		23 (6.0%)	15 (3.7%)	
Disagree	321 (76.1%)	365 (77.7%)		234 (60.9%)	303 (74.4%)	
Strongly disagree	80 (19.0%)	83 (17.7%)		119 (31.0%)	86 (21.1%)	
Those whose opinions matter approve of IPV for couple			0.939			<0.001
Strongly agree	4 (0.9%)	5 (1.1%)		8 (2.1%)	3 (0.7%)	
Agree	17 (4.0%)	17 (3.6%)		23 (6.0%)	15 (3.7%)	
Disagree	321 (76.1%)	365 (77.7%)		234 (60.9%)	303 (74.4%)	
Strongly disagree	80 (19.0%)	83 (17.7%)		119 (31.0%)	86 (21.1%)	
IPV injunctive (faith community) norms ( <i>women only</i> ): mean (SD)	3.12 (0.40)	3.12 (0.41)	0.938	3.26 (0.52)	3.17 (0.41)	0.011
IPV injunctive (husband/important others) norms ( <i>women only</i> ): mean (SD)	3.17 (0.41)	3.14 (0.38)	0.376	3.32 (0.47)	3.25 (0.41)	0.014
IPV injunctive norms ( <i>men only</i> ): mean (SD)	3.17 (0.38)	3.15 (0.38)	0.495	3.30 (0.43)	3.22 (0.37)	0.003

Respondents were also asked about their exposure to violence before the age of 15 years (see **Table 22**). In intervention areas at endline, about one-half of respondents reported never seeing IPV perpetrated on a female in their household before the age of 15 (54.7%) and slightly less than one-half reported never having been threatened with violence as a child (46.9%). Only about one-third of these respondents reported that they had never experienced violence as a child (34.6%).

**Table 22: Exposure to violence as a child**

Before the age of 15, have experienced...	Baseline, Comparison	Baseline, Intervention	p-value	Endline, Comparison	Endline, Intervention	p-value
<b>Total (n)</b>	<b>425</b>	<b>476</b>		<b>384</b>	<b>407</b>	
Saw IPV as child			0.013			0.002
Never	211 (49.9%)	282 (59.4%)		163 (42.5%)	222 (54.7%)	
Sometimes	162 (38.3%)	153 (32.2%)		196 (51.0%)	157 (38.7%)	
Often	50 (11.8%)	40 (8.4%)		25 (6.5%)	27 (6.7%)	
Threatened with violence as child			0.165			0.002
Never	192 (45.5%)	237 (49.9%)		162 (42.2%)	191 (46.9%)	
Sometimes	193 (45.7%)	188 (39.6%)		208 (54.2%)	181 (44.5%)	
Often	37 (8.8%)	50 (10.5%)		14 (3.7%)	35 (8.6%)	
Experienced violence as a child			0.168			0.938
Never	173 (0.8%)	167 (35.1%)		137 (35.8%)	141 (34.6%)	
Sometimes	211 (7.4%)	266 (55.9%)		221 (57.7%)	238 (58.5%)	
Often	40 (9.1%)	43 (9.0%)		25 (6.5%)	28 (6.9%)	

## POSITIVE MASCULINITIES & GENDER EQUALITY OUTCOMES FROM COUPLE SURVEY

Similar to attitudes toward FP and IPV, a series of attitudinal statements relating to gender equality, and in particular male involvement in household work and childcare, were posed to respondents on a 4-point Likert-scale (see **Table 23**). Likert responses were combined and presented by time and intervention/comparison in Table 23. At endline, there were a few notable differences comparing respondents in comparison and intervention congregations. In general, respondents in intervention and comparison congregations responded similarly to these attitudinal statements with the notable exception whereby respondents in intervention congregations were statistically significantly ( $p < 0.05$ ) more likely to personally agree that men and women are created equal (67.1%) compared to respondents in comparison congregations (64.5%). As well, respondents in intervention congregations were marginally statistically significantly ( $p < 0.10$ ) more likely to personally agree that a husband should contribute to childcare beyond just providing for financial means (96.1%) compared to respondents in comparison congregations (94.3%), but the difference was small. There were considerable improvements in the proportion of respondents agreeing that men and women are created equal from baseline to endline, particularly in intervention congregations.

**Table 23:** Attitudes toward gender equality & positive masculinities

In your opinion, agree that...	Baseline, Comparison	Baseline, Intervention	p-value	Endline, Comparison	Endline, Intervention	p-value
<b>Total (n)</b>	<b>425</b>	<b>476</b>		<b>384</b>	<b>407</b>	
A husband should give wife equal weight in decision-making	388 (91.5%)	448 (94.2%)	0.432	347 (90.3%)	367 (90.1%)	0.764
Men and women are created equal	236 (55.7%)	233 (49.2%)	0.222	247 (64.5%)	273 (67.1%)	<b>0.025</b>
Wife can express opinion even if husband disagrees	282 (66.5%)	316 (66.9%)	0.255	276 (71.9%)	297 (72.9%)	0.108
Husband should contribute to childcare beyond just finances	395 (93.3%)	445 (93.5%)	0.996	362 (94.3%)	391 (96.1%)	0.091

**Table 24** includes descriptive social norms pertaining to gender equality and particularly with regards to expectations of male involvement in household work and childcare. Respondents were asked a series of statements on their perceptions of typical behaviors (descriptive norms) for male involvement in household work and childcare in their congregation, and were asked to respond on a 4-point Likert-scale for statements. Respondents were asked whether they perceived that none, some, many, or most men in their congregation contributed to household work and childcare. At endline, there was little difference for the former between intervention and comparison congregations, but respondents in intervention congregations were statistically significantly ( $p < 0.01$ ) more likely to report that many/most husbands share in childcare in their congregation (50.3%) compared to respondents in comparison congregations (48.7%). There were noticeable improvements in perceptions of descriptive norms from baseline to endline, with higher proportions of respondents in both intervention and congregations perceiving that many/most husbands shared in household chores and childcare.

**Table 24:** Descriptive social norms pertaining to gender equality & positive masculinities

As perceived by respondent...	Baseline, Comparison	Baseline, Intervention	p-value	Endline, Comparison	Endline, Intervention	p-value
<b>Total (n)</b>	<b>425</b>	<b>476</b>		<b>384</b>	<b>407</b>	
In congregation, husbands share chores			0.514			0.830
None	118 (27.8%)	146 (30.7%)		49 (12.8%)	45 (11.1%)	
Some	272 (64.2%)	296 (62.2%)		264 (68.8%)	281 (69.0%)	
Many	24 (5.7%)	28 (5.9%)		54 (14.1%)	64 (15.7%)	
Most	10 (2.4%)	6 (1.3%)		17 (4.4%)	17 (4.2%)	
In congregation, husbands share childcare			0.804			<0.001
None	46 (10.9%)	54 (11.4%)		18 (4.7%)	11 (2.7%)	
Some	240 (56.7%)	255 (53.7%)		175 (46.6%)	191 (47.0%)	
Many	99 (23.4%)	123 (25.9%)		166 (42.2%)	146 (36.0%)	
Most	38 (9.0%)	43 (9.1%)		25 (6.5%)	58 (14.3%)	

**Table 25** includes injunctive social norms pertaining to gender equality and particularly with regards to expectations of male involvement in household work and childcare. Respondents were asked a series of statements on their perceptions of approved behavior (injunctive norms) for male involvement in household work and childcare, and were asked to respond on a 4-point Likert-scale for both types of statements. Respondents were asked whether they strongly agreed, agreed, disagreed, strongly disagreed that various reference groups approved of men in their congregation contributing to household work and childcare. Respondents in intervention areas were statistically significantly ( $p < 0.01$ ) more likely to perceive that their congregation thinks that it is appropriate for husbands to share in household work (74.1%) compared to respondents in comparison congregations (69.4%) and also statistically significantly ( $p < 0.05$ ) more likely to perceive that people whose opinions matter to the respondents (73.9%) and their partners (64.9%) approve of husbands sharing in household work compared to respondents in comparison congregations (70.8% and 60.5%, respectively). Finally, respondents in intervention areas were statistically significantly ( $p < 0.01$ ) more likely to perceive that their faith leaders approve of men being involved in household work (71.5%) compared to respondents in comparison congregations (63.8%). Looking at expectations of male involvement in childcare, respondents in intervention areas were statistically significantly ( $p < 0.05$ ) more likely to perceive that their congregation (88.9%) and people whose opinions matter to them (92.9%) think that it is appropriate for husbands to share in childcare compared to respondents in comparison congregations (87.5% and 88.6%, respectively). In addition, respondents in intervention areas were marginally statistically significantly ( $p < 0.10$ ) more likely to perceive that their faith leaders approve of husbands sharing in childcare (89.9%) compared to respondents in comparison congregations (87.0%). In general, it appears that the proportion of respondents finding male engagement in household work and childcare typical and accepted behavior has increased from baseline to endline, particularly in intervention congregations.

As with other social norms items, factor analysis was conducted on social norms items relating to gender equality and positive masculinities in the survey (see **Appendix 2**). Among the resulting factors or domains, one corresponded to social norms relating to household chores (i.e., how typical and approved it is for men to contribute to household chores) and another to social norms relating to childcare (i.e., how typical and approved it is for men to contribute to childcare). Comparing mean scores for each (higher mean scores for this factor equate with perceiving that male involvement in

household chores and in childcare is more typical and approved behavior in a community) there were only minimal differences between respondents in intervention and comparison congregations at both baseline and endline. It did appear that male involvement in childcare (mean of 3.15) was more typical and accepted behavior compared to male involvement in household chores (mean of 2.84).

**Table 25: Injunctive social norms pertaining to gender equality & positive masculinities**

As perceived by respondent...	Baseline, Comparison	Baseline, Intervention	p-value	Endline, Comparison	Endline, Intervention	p-value
<b>Total (n)</b>	<b>425</b>	<b>476</b>		<b>384</b>	<b>407</b>	
Congregation thinks appropriate for husbands sharing HH chores			0.364			<0.001
Strongly agree	52 (12.3%)	76 (16.0%)		66 (17.2%)	56 (13.8%)	
Agree	187 (44.2%)	190 (39.9%)		200 (52.2%)	245 (60.3%)	
Disagree	166 (39.2%)	191 (40.1%)		103 (26.9%)	104 (25.6%)	
Strongly disagree	18 (4.3%)	19 (4.0%)		14 (3.7%)	1 (0.2%)	
Congregation thinks appropriate for husbands sharing child care work			0.997			0.031
Strongly agree	95 (22.5%)	108 (22.7%)		110 (28.6%)	85 (20.9%)	
Agree	272 (64.3%)	303 (63.7%)		226 (58.9%)	276 (68.0%)	
Disagree	51 (12.1%)	59 (12.4%)		38 (9.9%)	45 (11.1%)	
Strongly disagree	5 (1.2%)	6 (1.3%)		10 (2.6%)	0 (0.0%)	
People whose opinions matter think appropriate for husbands sharing HH chores			0.611			0.011
Strongly agree	58 (13.7%)	73 (15.4%)		76 (19.8%)	62 (15.2%)	
Agree	202 (47.8%)	208 (43.8%)		196 (51.0%)	239 (58.7%)	
Disagree	146 (34.5%)	170 (35.8%)		94 (24.5%)	100 (24.6%)	
Strongly disagree	17 (4.0%)	24 (5.1%)		18 (4.7%)	6 (1.5%)	
People whose opinions matter think appropriate for husbands sharing child care work			0.347			0.031
Strongly agree	88 (20.8%)	111 (23.4%)		119 (31.0%)	107 (26.4%)	
Agree	281 (66.4%)	288 (60.8%)		221 (57.6%)	270 (66.5%)	
Disagree	46 (10.9%)	63 (13.3%)		34 (8.9%)	25 (6.2%)	
Strongly disagree	8 (1.9%)	12 (2.5%)		10 (2.6%)	4 (1.0%)	
Partner thinks appropriate for husbands sharing HH chores			0.628			0.048
Strongly agree	48 (11.3%)	58 (12.2%)		71 (18.5%)	58 (14.3%)	
Agree	183 (43.3%)	186 (39.2%)		161 (42.0%)	206 (50.6%)	
Disagree	176 (41.6%)	209 (44.0%)		134 (35.0%)	133 (32.7%)	
Strongly disagree	16 (3.8%)	22 (4.6%)		17 (4.4%)	10 (2.5%)	

Partner thinks appropriate for husbands sharing child care work			<b>0.035</b>			<b>0.762</b>
Strongly agree	86 (20.4%)	106 (22.4%)		109 (28.5%)	111 (27.3%)	
Agree	282 (66.8%)	307 (64.8%)		236 (61.6%)	255 (62.8%)	
Disagree	53 (12.6%)	50 (10.5%)		30 (7.8%)	35 (8.6%)	
Strongly disagree	1 (0.2%)	11 (2.3%)		8 (2.1%)	5 (1.2%)	
Faith leaders think appropriate for husbands sharing HH chores			<b>0.446</b>			<b>&lt;0.001</b>
Strongly agree	46 (10.8%)	64 (13.4%)		66 (17.2%)	60 (14.7%)	
Agree	181 (42.7%)	181 (38.0%)		179 (46.6%)	231 (56.8%)	
Disagree	181 (42.7%)	213 (44.7%)		121 (31.5%)	113 (27.8%)	
Strongly disagree	16 (3.8%)	18 (3.8%)		18 (4.7%)	3 (0.7%)	
Faith leaders think appropriate for husbands sharing child care work			<b>0.825</b>			<b>0.073</b>
Strongly agree	97 (22.9%)	102 (21.4%)		104 (27.2%)	107 (26.3%)	
Agree	274 (64.6%)	305 (64.1%)		229 (59.8%)	259 (63.6%)	
Disagree	48 (11.3%)	63 (13.2%)		40 (10.4%)	38 (9.3%)	
Strongly disagree	5 (1.2%)	6 (1.3%)		10 (2.6%)	3 (0.7%)	
HH work norms: mean (SD)	2.65 (0.62)	2.64 (0.65)	<b>0.964</b>	2.80 (0.66)	2.84 (0.55)	<b>0.296</b>
Childcare norms; mean (SD)	3.08 (0.47)	3.06 (0.51)	<b>0.675</b>	3.14 (0.57)	3.15 (0.47)	<b>0.868</b>

## EXPOSURE TO INTERVENTION OUTCOMES FROM COUPLE SURVEY

**Table 26** includes self-reported exposure/attendance to MFF activities (without direct reference to the MFF intervention in the question posed to the respondent). It was unexpected but likely, given data from this table, that a large degree of contamination occurred over the course of the intervention between intervention and comparison congregations. Large proportions of respondents in the endline comparison sample reported attending or utilizing activities similar to MFF (if not MFF activities themselves) and large proportions of respondents in the endline intervention sample reported that they were not exposed to activities. For example, 41.2% of respondents in intervention congregations and 30.0% of respondents in comparison congregations reported having participated in weekly community dialogues for couples in the previous two years; 50.0% of respondents in intervention congregations and 43.0% of respondents in comparison congregations reported having discussed FP, IPV, or gender roles in group discussions; and 53.6% of respondents in intervention congregations and 42.2% of respondents in comparison congregations reported having seen couple testimonials related to FP, IPV, or gender roles. Similarly, 29.6% of respondents from intervention congregations attended a FP-focused health talk in the previous three months and 15.0% reported receiving a MFF referral card compared to 27.2% from comparison congregations reporting that they had attended a FP-focused health talk in the previous three months and 12.8% received a MFF referral card. Slightly more than one-fifth (21.4%) of respondents reported that they attended a clinic to receive FP information and/or services and of these, 85.1% voluntarily received a modern method of contraception at this visit. In comparison congregations, these figures were 14.3% and 70.9%, respectively. Finally, nearly 60% or more of both intervention and comparison congregation respondents noted that they had heard a sermon with key MFF messages in the previous three

months. For more discussion of unexpected findings of high exposure in comparison congregations and lower than expected exposure in intervention congregations, see Limitations Section.

**Table 26: Self-reported exposure to intervention activities**

	Endline, Comparison	Endline, Intervention	p- value
<b>Total (n)</b>	<b>384</b>	<b>407</b>	
In previous 2 yrs., have participated in weekly community dialogues for couples	115 (30.0%)	167 (41.2%)	<b>&lt;0.001</b>
Couple violence	60 (52.2%)	94 (56.3%)	0.495
HH roles	71 (61.7%)	99 (59.3%)	0.679
FP	71 (61.7%)	114 (68.3%)	0.257
Other	9 (7.0%)	15 (9.0%)	0.541
Don't remember	1 (0.9%)	7 (4.2%)	0.099
In previous 2 yrs., have discussed FP, Jesus as positive masculine model, and/or violence in couples in a group discussion	165 (43.0%)	203 (50.0%)	<b>0.048</b>
Couple violence	95 (57.6%)	116 (57.1%)	0.933
Jesus as positive model	116 (70.3%)	134 (64.5%)	0.241
FP	96 (58.2%)	131 (64.5%)	0.213
Other	5 (3.0%)	3 (1.5%)	0.310
Don't remember	2 (1.2%)	4 (2.0%)	0.568
In previous 2 yrs., have seen couples sharing testimonials about changes in their life in your congregation	162 (42.2%)	218 (53.6%)	<b>&lt;0.001</b>
Couple violence	95 (58.6%)	120 (55.1%)	0.484
HH roles	101 (62.4%)	134 (61.5%)	0.862
FP	87 (53.7%)	124 (56.9%)	0.538
Other	8 (4.9%)	5 (2.8%)	0.263
Don't remember	7 (4.3%)	7 (3.2%)	0.570
In previous 2 yrs., have seen community celebration event in your congregation	140 (36.5%)	191 (46.9%)	<b>0.003</b>
Couple violence	76 (54.3%)	99 (51.8%)	0.659
HH roles	85 (60.7%)	102 (53.4%)	0.185
FP	93 (66.4%)	105 (55.0%)	<b>0.036</b>
Other	7 (5.0%)	11 (5.8%)	0.763
Don't remember	6 (4.3%)	16 (8.4%)	0.140
In previous 3 mos., attended health talks	104 (27.2%)	120 (29.6%)	0.441
FP info & benefits	78 (75.0%)	98 (81.7%)	0.225
Types of FP	66 (63.5%)	70 (58.3%)	0.433
Local FP clinics & services	51 (49.0%)	46 (38.3%)	0.107
Other	2 (1.9%)	1 (0.8%)	0.479
Don't remember	2 (1.9%)	7 (5.8%)	0.137
In previous 3 mos., received referral card	49 (12.8%)	61 (15.0%)	0.381
In previous 2 yrs., visited health facility to obtain FP info or services	55 (14.3%)	87 (21.4%)	<b>0.010</b>
Obtained MC on visit	39 (70.9%)	74 (85.1%)	<b>0.042</b>
In previous 3 mos., called FP hotline	8 (2.1%)	9 (2.2%)	0.897
In previous 3 mos., have heard sermon on:			
How God created men & women equal	224 (58.3%)	239 (58.7%)	0.994
That men should share in HH & childcare tasks w/ wives	243 (63.3%)	271 (66.6%)	0.097
Encouraging couples to use FP	248 (64.6%)	266 (65.4%)	0.969
Regarding men's use of violence against partner	244 (63.5%)	268 (65.9%)	0.794
Regarding Jesus as a positive role model for men	307 (80.0%)	336 (82.6%)	0.585

## DIFFUSION OF INTERVENTION MESSAGING OUTCOMES FROM DIFFUSION SURVEY

From the diffusion survey, conducted among 18-49 year-old congregation members, we see increasing numbers of respondents noting that they had spoken to someone about FP in the previous three months from baseline to endline (see **Table 27**). While 30.1% of congregation members in intervention areas reported speaking about FP at least once, this was not significantly different compared to 29.4% who reported the same in comparison congregations. There were also increases in the proportion speaking with faith leaders and fellow male and female congregants about FP from baseline to endline, but no appreciable differences comparing intervention and comparison congregations.

The diffusion survey also asked a short series of statements to assess changes in individual attitudes and perceptions of social norms related to FP. A large majority of respondents at both baseline and endline reported that they personally approved of married couples voluntarily using modern contraception (>80%), but there was little difference comparing respondents in intervention congregations (86.1%) approving of voluntary modern contraception use compared to 85.3% of respondents from comparison congregations. Unlike personal attitudes, there were a number of statistically significant differences for items assessing perceptions of typical and approved FP behaviors in their congregations at endline. Respondents in intervention congregations were statistically significantly ( $p < 0.01$ ) more likely to perceive that many or most couples voluntarily use modern contraception in their congregation (66.7%), that many or most congregation members (68.1%) and faith leaders (67.8%) approve of married couples voluntarily using modern contraception, and that most or many couples believe that Scripture supports a married couple to use FP (52.9%) compared to respondents in comparison congregations (60.3%, 63.2%, 60.3%, and 45.9%, respectively).

**Table 27: Key diffusion outcomes for family planning**

	Baseline, Comparison	Baseline, Intervention	p- value	Endline, Comparison	Endline, Intervention	p- value
<b>Total (n)</b>	<b>634</b>	<b>623</b>		<b>590</b>	<b>667</b>	
Spoke to someone about FP in last 3 mos.			0.250			0.225
Never	497 (78.4%)	516 (82.8%)		417 (70.7%)	466 (69.9%)	
Once	68 (10.7%)	51 (8.2%)		96 (16.3%)	101 (15.1%)	
> once	69 (10.9%)	56 (9.0%)		77 (13.1%)	100 (15.0%)	
Spoke to:						
Faith leader	22 (3.5%)	18 (2.9%)	0.558	45 (7.6%)	47 (7.1%)	0.693
Male congregant	40 (6.3%)	35 (5.6%)	0.605	77 (13.1%)	95 (14.2%)	0.539
Female congregant	52 (8.2%)	49 (7.9%)	0.826	58 (9.8%)	77 (11.5%)	0.327
Other	41 (6.5%)	18 (2.9%)	<b>0.003</b>	31 (5.3%)	26 (3.9%)	0.249
Personally approve of married couples using MC	536 (84.5%)	514 (82.5%)	0.330	503 (85.3%)	574 (86.1%)	0.685
Perceive that most/ many married couples in congregation use MC	300 (47.3%)	329 (52.8%)	0.229	356 (60.3%)	445 (66.7%)	<b>0.007</b>
Perceive that most/ many congregants approve of married couples using MC	319 (50.3%)	328 (52.7%)	<b>0.248</b>	373 (63.2%)	454 (68.1%)	<b>0.002</b>
Perceive that most/ many faith leaders approve of married couples using MC	322 (50.8%)	316 (50.7%)	<b>0.789</b>	356 (60.3%)	452 (67.8%)	<b>&lt;0.001</b>
Perceive that most/ many congregants believe Scripture supports married couples using MC	242 (38.2%)	238 (38.2%)	<b>0.735</b>	271 (45.9%)	353 (52.9%)	<b>0.003</b>

Assessing diffusion of messaging about IPV, there were modest improvements in the proportion of respondents noting that they had discussed IPV in the previous three months from baseline to endline (see **Table 28**). While 38.0% of congregation members in intervention areas reported speaking about the topic of IPV in their community at least once, this was not significantly different compared to 32.4% who reported the same in comparison congregations. There were also increases in the proportion speaking with faith leaders and fellow male congregants about IPV from baseline to endline, but no appreciable differences comparing intervention and comparison congregations. However, respondents in intervention congregations were statistically significantly ( $p < 0.05$ ) more likely to speak with fellow female congregants (15.9%) compared to 11.2% of respondents in comparison congregations.

The diffusion survey also asked a short series of statements to assess changes in individual attitudes and perceptions of social norms related to IPV. A large majority of respondents at both baseline and endline reported that they personally disapproved of husbands using violence to discipline their wives (>95%). Unlike social norms toward FP, there were no statistically significant differences for items assessing perceptions of typical and approved IPV behaviors in their congregations at endline. At both baseline and endline and in both intervention and comparison congregations, large majorities did not perceive that IPV was typical or approved in their congregations. Greater than

90% of respondents perceived that IPV was not common in their congregations and that their faith leaders and fellow congregants did not approve of IPV in their congregations.

**Table 28:** Key diffusion outcomes for intimate partner violence

	Baseline, Comparison	Baseline, Intervention	p- value	Endline, Comparison	Endline, Intervention	p- value
<b>Total (n)</b>	<b>634</b>	<b>623</b>		<b>590</b>	<b>667</b>	
Spoke to someone about IPV in last 3 mos.			0.581			0.142
Never	460 (72.6%)	458 (73.5%)		399 (67.6%)	413 (61.9%)	
Once	88 (13.9%)	92 (14.8%)		88 (14.9%)	107 (16.0%)	
> once	86 (13.6%)	73 (11.7%)		103 (17.5%)	147 (22.0%)	
Spoke to:						
Faith leader	27 (4.3%)	24 (3.9%)	0.715	50 (8.5%)	49 (7.4%)	0.459
Male congregant	59 (9.3%)	56 (9.0%)	0.845	96 (16.3%)	119 (17.8%)	0.461
Female congregant	65 (10.3%)	69 (11.1%)	0.636	66 (11.2%)	106 (15.9%)	<b>0.015</b>
Other	50 (7.9%)	35 (5.6%)	0.109	22 (3.7%)	43 (6.5%)	<b>0.030</b>
Personally disapprove of husbands using IPV	595 (93.9%)	598 (96.0%)	<b>0.085</b>	562 (95.3%)	637 (95.5%)	0.834
Perceive that few/no husbands in congregation do not beat their wives	589 (92.9%)	568 (91.2%)	0.112	533 (90.3%)	606 (90.9%)	0.891
Perceive that most/many congregants disapprove of IPV	582 (91.8%)	584 (93.7%)	0.319	538 (91.2%)	624 (93.6%)	0.211
Perceive that most/many faith leaders disapprove of IPV	583 (92.0%)	581 (93.3%)	0.234	532 (90.2%)	619 (92.8%)	0.275
Perceive that most/many faith leaders approve of married couples using MC	589 (92.9%)	568 (91.2%)	0.112	533 (90.3%)	606 (90.9%)	0.891

Assessing diffusion of messaging about gender roles and equality (see **Table 29**), there were both improvements from baseline to endline in the proportion of respondents noting that they had discussed gender roles and/or equality in the previous three months as well as a statistically significantly ( $p < 0.01$ ) higher proportion of respondents in intervention congregations (41.5%) reporting that they had spoken about this topic in the previous three months compared to respondents in comparison congregations (33.2%). There were also increases in the proportion speaking with faith leaders and fellow congregants about IPV from baseline to endline. While there was no statistically significant difference comparing respondents from intervention and comparison congregations for those speaking to faith leaders, there was a statistically significant ( $p < 0.05$ ) difference comparing respondents in intervention congregations who spoke to fellow congregants about gender roles and/or equality (30.3%) compared to respondents in comparison congregations (25.3%).

The diffusion survey also asked a short series of statements to assess changes in individual attitudes and perceptions of social norms related to gender roles and equality. A large majority of respondents

at both baseline and endline reported that they personally disagreed that it is manly for a husband to beat his wife (>95% at endline), and there was no significant difference in this attitudinal question comparing respondents in intervention and comparison congregations. Looking at questions relating to social norms toward gender roles and equality, there was no statistically significant difference for descriptive norms, with majorities of respondents in intervention congregations (77.1%) and respondents in comparison congregations (75.6%) perceiving that many or most husbands in their congregation give equal weight to their wife’s opinion when making important decision. At endline, there was also no difference between respondents in intervention congregations (67.8%) and comparison congregations (66.6%) that perceived that many or most of their faith leaders would approve of a husband giving equal weight to his wife’s opinion when making an important decision. There was, however, a marginally statistically significant ( $p < 0.10$ ) difference comparing respondents in intervention congregations (67.9%) and respondents in comparison congregations (62.7%) that perceived that believe that Scripture does not command a husband to beat his wife.

**Table 29: Key diffusion outcomes for gender equality**

	Baseline, Comparison	Baseline, Intervention	p- value	Endline, Comparison	Endline, Intervention	p- value
<b>Total (n)</b>	<b>634</b>	<b>623</b>		<b>590</b>	<b>667</b>	
Spoke to someone about gender roles in last 3 mos.			0.436			<b>0.002</b>
Never	449 (70.8%)	461 (74.0%)		394 (66.8%)	390 (58.5%)	
Once	94 (14.8%)	73 (11.7%)		86 (14.6%)	128 (19.2%)	
> once	91 (14.4%)	89 (14.3%)		110 (18.6%)	149 (22.3%)	
Spoke to:						
Faith leader	30 (4.7%)	28 (4.5%)	0.841	60 (10.2%)	68 (10.2%)	0.988
Fellow congregant	129 (20.4%)	119 (19.1%)	0.579	149 (25.3%)	202 (30.3%)	<b>0.047</b>
Other	36 (5.7%)	23 (3.7%)	0.096	13 (2.2%)	31 (4.7%)	<b>0.019</b>
Personally disagree that it is manly for a husband to beat his wife	581 (91.6%)	584 (93.7%)	0.153	567 (96.1%)	637 (95.5%)	0.598
Perceive that many/ most husbands in congregation give equal weight to their wife in decision-making	449 (70.8%)	460 (73.8%)	0.162	446 (75.6%)	514 (77.1%)	0.151
Perceive that many/ most faith leaders believe husbands in congregation should give equal weight to their wife in decision-making	433 (68.3%)	410 (65.8%)	0.338	393 (66.6%)	452 (67.8%)	0.760
Perceive that many/ most congregants believe Scripture does not command husband to beat his wife	379 (59.8%)	417 (66.9%)	<b>0.028</b>	370 (62.7%)	453 (67.9%)	0.066
Perceive that many/ most congregants do not believe that it is manly for a husband to beat his wife	551 (86.9%)	569 (91.3%)	<b>0.009</b>	540 (91.5%)	614 (92.1%)	0.641

## KEY OUTCOMES BY SEX & TARGET GROUP FROM COUPLE SURVEY

Key FP outcomes by sex at endline are presented in **Table 30**. There was little difference comparing male partners of non-pregnant women in intervention congregations (52.0%) to those in comparison congregations (49.6%) for reported voluntary use of modern contraception. However, among all men, those in intervention congregations were statistically significantly ( $p < 0.05$ ) more likely to report intending to voluntarily use modern contraception in the future (85.0%) compared to men in comparison congregations (76.7%). Unlike for men, non-pregnant women in intervention congregations were statistically significantly ( $p < 0.05$ ) more likely to report voluntarily using modern contraception (54.8%) compared to their counterparts in comparison congregations (42.6%). In addition, women in intervention congregations were marginally statistically significantly ( $p < 0.10$ ) more likely to report intending to voluntarily use modern contraception in the future (80.6%) compared to women in comparison congregations (73.5%).

Based on scales created for social norms relating to FP through factor analysis, men in intervention congregations were no more likely to perceive that voluntary modern contraception use was typical behavior than men in comparison congregations. Unexpectedly, men in intervention congregations were statistically significantly ( $p < 0.05$ ) less likely to perceive that voluntary modern contraception use was approved behavior among their reference groups compared to men in intervention congregations (mean score of 3.05 vs. 2.95). Among women however, those in intervention congregations were statistically significantly ( $p < 0.05$ ) more likely to perceive that voluntary modern contraception use was typical behavior in their congregation (mean score of 2.25 vs. 2.13) and that voluntary modern contraception use was more accepted behavior among their reference groups (mean score of 2.99 vs. 2.88) compared to women in comparison congregations.

**Table 30:** Key family planning outcomes by sex & study arm at endline

	Endline, Comparison Men	Endline, Intervention Men	p- value	Endline, Comparison Women	Endline, Intervention Women	p- value
<b>Total (n)</b>	<b>150</b>	<b>206</b>		<b>234</b>	<b>201</b>	
Currently use MC*	60 (49.6%)	90 (52.0%)	0.486	84 (42.6%)	91 (54.8%)	<b>0.021</b>
Intend to use MC in future	115 (76.7%)	175 (85.0%)	<b>0.047</b>	172 (73.5%)	162 (80.6%)	0.081
FP descriptive norms: mean (SD)	2.23 (0.63)	2.22 (0.67)	0.887	2.13 (0.55)	2.25 (0.67)	<b>0.036</b>
FP injunctive norms; mean (SD)	3.05 (0.53)	2.95 (0.43)	<b>0.034</b>	2.88 (0.51)	2.99 (0.49)	<b>0.025</b>
* Among non-pregnant couples only						

Key FP outcomes for NMC and FTP at endline are presented in **Table 31**. There was little difference comparing NMC in intervention and comparison congregations at endline for current and future intention to voluntarily use modern contraception. Among FTP, however, those in intervention congregations were statistically significantly ( $p < 0.05$ ) more likely to report voluntary current use of modern contraception (62.1%) compared to FTP in comparison congregations (48.8%). In addition, FTP in intervention congregations were highly statistically significantly ( $p < 0.01$ ) more likely to report intending to voluntarily use modern contraception in the future (81.0%) compared to FTP in comparison congregations (69.8%).

Based on scales created for social norms relating to FP through factor analysis, FTP and NMC from intervention congregations were slightly more likely to perceive that modern contraceptive use was typical behavior in their congregations, but these differences were not significant. There was little difference comparing respondents from intervention and comparison congregations for their perceptions of whether modern contraceptive use was acceptable behavior in their reference groups.

**Table 31: Key family planning outcomes by NMC vs. FTP & study arm at endline**

	Endline, Comparison FTP	Endline, Intervention FTP	p-value	Endline, Comparison NMC	Endline, Intervention NMC	p-value
<b>Total (n)</b>	<b>232</b>	<b>242</b>		<b>152</b>	<b>165</b>	
Currently use MC*	81 (48.8%)	108 (62.1%)	<b>0.014</b>	63 (41.5%)	73 (44.2%)	0.615
Intend to use MC in future	162 (69.8%)	196 (81.0%)	<b>0.005</b>	125 (82.2%)	141 (85.5%)	0.436
FP descriptive norms: mean (SD)	2.18 (0.60)	2.25 (0.68)	0.289	2.15 (0.56)	2.23 (0.66)	0.272
FP injunctive norms; mean (SD)	2.95 (0.55)	3.00 (0.45)	0.211	2.95 (0.49)	2.91 (0.46)	0.493

\* Among non-pregnant couples only

Key IPV outcomes by sex at endline are presented in **Table 32**. Among women, those in intervention congregations were slightly less likely to report experiencing all forms of IPV except sexual IPV. However, differences between reported experience of IPV comparing women in intervention and comparison congregations were not statistically significant. Men in intervention congregations were 10% less likely to report perpetrating any form of IPV against their partner (61.7%) compared to men in comparison congregations (71.9%), and this difference was statistically significant ( $p < 0.05$ ). Men in intervention congregations were slightly less likely to report perpetrating all forms of IPV compared to men in comparison congregations, but this was only a marginally statistically significant ( $p < 0.10$ ) difference for perpetration of emotional IPV.

Scales created through factor analysis for social norms relating to IPV were sex-specific. There was little difference comparing mean scores of men in intervention and comparison congregations for descriptive and injunctive norms related to IPV. Unexpectedly, among women, those in intervention congregations were statistically significantly ( $p < 0.01$ ) less likely to perceive that their faith community condemned perpetration of IPV (mean score of 3.18 vs. 3.29) and less likely ( $p < 0.05$ ) to perceive that their husbands and important others condemned perpetration of IPV (mean score of 3.23 vs. 3.32) compared to women in comparison congregations. However, there was little difference comparing women in intervention and comparison congregations for perceptions of whether IPV was typical behavior in their congregations. Finally, looking at social norms factors for positive masculinities, there was little difference in social norms relating to male involvement in household work and childcare comparing men or women in intervention congregations to comparison congregations at endline.

**Table 32:** Key intimate partner violence & positive masculinities outcomes by sex & study arm at endline

	Endline, Comparison Men	Endline, Intervention Men	p- value	Endline, Comparison Women	Endline, Intervention Women	p- value
<b>Total (n)</b>	<b>150</b>	<b>206</b>		<b>234</b>	<b>201</b>	
In the last 1 yr., experienced/ perpetrated						
Any IPV*	105 (71.9%)	124 (61.7%)	<b>0.047</b>	148 (66.4%)	120 (62.2%)	0.373
Emotional IPV†	95 (65.5%)	111 (55.5%)	0.061	141 (61.6%)	109 (55.9%)	0.236
Physical IPV‡	41 (28.1%)	47 (23.4%)	0.321	46 (20.4%)	35 (18.0%)	0.549
Sexual IPV§	22 (15.2%)	21 (10.6%)	0.201	26 (11.9%)	27 (13.9%)	0.548
IPV due to MC use <sup>l</sup>	16 (11.0%)	13 (6.5%)	0.136	15 (6.6%)	11 (5.7%)	0.707
IPV descriptive norms (men & women): mean (SD)	2.93 (0.80)	2.90 (0.81)	0.733	3.26 (0.58)	3.27 (0.67)	0.870
IPV injunctive (faith community) norms (women only): mean (SD) <sup>¶</sup>	--	--		3.29 (0.45)	3.18 (0.39)	<b>0.007</b>
IPV injunctive (husband/important others) norms (women only): mean (SD) <sup>¶</sup>	--	--		3.32 (0.48)	3.23 (0.38)	<b>0.027</b>
IPV injunctive norms (men only): mean (SD) <sup>¶</sup>	3.29 (0.47)	3.23 (0.40)	0.172	--	--	
HH work norms: mean (SD)	2.87 (0.65)	2.87 (0.55)	0.929	2.75 (0.66)	2.81 (0.54)	0.319
Childcare norms; mean (SD)	3.17 (0.56)	3.16 (0.51)	0.897	3.13 (0.57)	3.14 (0.43)	0.826
* Sometimes/often on any item considered for emotional, physical, sexual, or violence due to FP use						
† Yelling/threatening partner						
‡ Pushing, shaking, slapping, punching						
§ Forced sex						
<sup>l</sup> Violence to discourage FP						
¶ Scale scores were sex-specific, comparisons between sexes unable to be made for these measures						

Key IPV outcomes by NMC and FTP at endline are presented in **Table 33**. Both NMC and FTP in intervention congregations were slightly less likely to report experiencing (women) or perpetrating (men) any form of IPV compared to their counterparts in comparison congregations. However, this was only marginally statistically significant ( $p < 0.10$ ) for FTP (61.9% vs. 69.6%). FTP in intervention congregations were also statistically significantly ( $p < 0.05$ ) less likely to report experiencing or perpetrating violence to discourage FP use (5.1%) compared to FTP in comparison congregations (11.1%). For all other forms of IPV for both NMC and FTP, those in intervention congregations were less likely to report experiencing or perpetrating IPV compared to those in comparison congregations, but differences were not found to be significantly different.

Based on scales created for social norms relating to IPV and positive masculinities from factor analysis, there were no statistically significant differences comparing NMC in intervention and comparison congregations at endline. However and unexpectedly, female FTP in intervention congregations were statistically significantly ( $p < 0.05$ ) less likely to perceive that their faith community condemned perpetration of IPV (mean score of 3.17 vs. 3.25) or that their partners and important others condemned perpetration of IPV (mean score of 3.23 vs. 3.34) compared to female FTP in comparison congregations. As well, male FTP in intervention congregations were statistically significantly ( $p < 0.01$ ) less likely to perceive that their reference groups condemned perpetration of IPV (mean score of 3.21 vs. 3.31) compared to male FTP in comparison congregations. No significant differences were seen comparing mean scores between intervention and comparison congregations for positive masculinities for NMC and FTP.

**Table 33:** Key intimate partner violence & positive masculinities outcomes by NMC vs. FTP & study arm at endline

	Endline, Comparison FTP	Endline, Intervention FTP	p- value	Endline, Comparison NMC	Endline, Intervention NMC	p- value
<b>Total (n)</b>	<b>232</b>	<b>242</b>		<b>152</b>	<b>165</b>	
In the last 1 yr., experienced/ perpetrated						
Any IPV*	156 (69.6%)	146 (61.9%)	0.079	97 (66.9%)	98 (62.0%)	0.376
Emotional IPV†	139 (61.5%)	131 (55.5%)	0.191	97 (65.5%)	89 (56.0%)	0.087
Physical IPV‡	56 (24.7%)	44 (18.7%)	0.121	31 (21.4%)	38 (23.8%)	0.621
Sexual IPV§	36 (16.3%)	32 (13.7%)	0.434	12 (8.4%)	16 (10.0%)	0.629
IPV due to MC use <sup>¶</sup>	25 (11.0%)	12 (5.1%)	<b>0.020</b>	6 (4.1%)	12 (7.5%)	0.203
IPV descriptive norms (men & women): mean (SD)	3.13 (0.69)	3.10 (0.76)	0.677	3.13 (0.69)	3.06 (0.77)	0.348
IPV injunctive (faith community) norms (women only): mean (SD) <sup>¶¶</sup>	3.25 (0.45)	3.17 (0.42)	<b>0.048</b>	3.26 (0.61)	3.17 (0.40)	0.106
IPV injunctive (husband/important others) norms (women only): mean (SD) <sup>¶¶</sup>	3.34 (0.45)	3.23 (0.41)	<b>0.010</b>	3.31 (0.51)	3.27 (0.42)	0.433
IPV injunctive norms (men only): mean (SD) <sup>¶¶</sup>	3.31 (0.39)	3.21 (0.38)	<b>0.004</b>	3.29 (0.49)	3.23 (0.37)	0.212
HH work norms: mean (SD)	2.80 (0.66)	2.82 (0.58)	0.655	2.80 (0.66)	2.87 (0.49)	0.260
Childcare norms; mean (SD)	3.14 (0.56)	3.17 (0.47)	0.532	3.15 (0.58)	3.12 (0.47)	0.632
* Sometimes/often on any item considered for emotional, physical, sexual, or violence due to voluntary FP use						
† Yelling/threatening partner						
‡ Pushing, shaking, slapping, punching						
§ Forced sex						
¶ Violence to discourage FP						
¶¶ Scale scores were sex-specific, comparisons between sexes unable to be made for these measures						

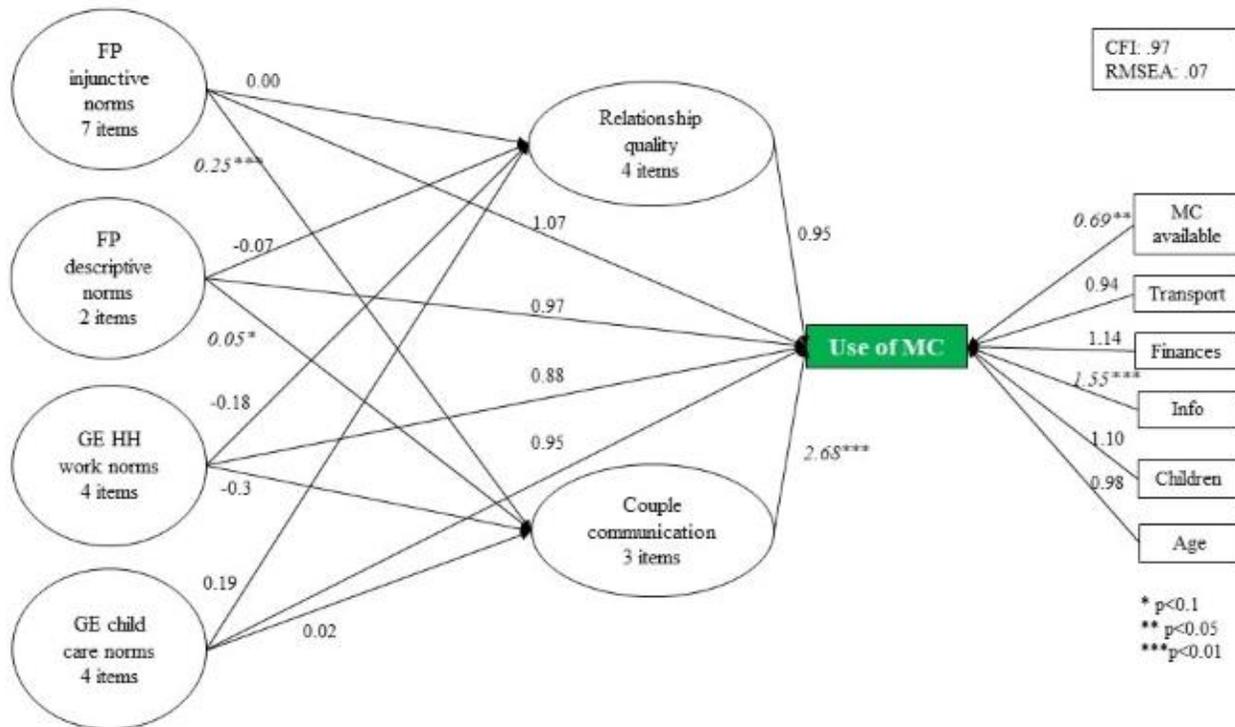
## ASSOCIATIONS BETWEEN BEHAVIORS OF INTEREST & SOCIAL NORMS FROM COUPLE SURVEY

At baseline exploratory factor analysis (EFA) and at endline, confirmatory factor analysis (CFA) was conducted for social norms items in the survey (see **Appendix 2** for specific items). Factor analysis resulted in two latent constructs for FP social norms items for men and women—corresponding to descriptive FP norms and injunctive FP norms; two latent constructs for positive masculinities and gender equality for men and women—household work role norms and childcare roles norms; three latent constructs for IPV for women—descriptive IPV norms, injunctive IPV norms with husbands and important others as reference groups, and injunctive IPV norms with faith communities as reference groups; and two latent constructs for IPV for men—descriptive IPV norms and injunctive IPV norms.

The resulting social norms constructs were included in structural equation models (SEM) based on the MFF theory of change for two outcomes: voluntary use of modern contraception and experience (women) or perpetration (men) of IPV. All social norms constructs as well as measures of couple communication and relationship quality were continuous outcomes while behavioral outcomes (voluntary use of modern contraception and experience/perpetration of IPV) were binary. The mixed model included both linear regressions (between continuous outcomes) and logistic regressions (between continuous and binary outcomes). All models displayed acceptable fit statistics (CFI and RMSEA).

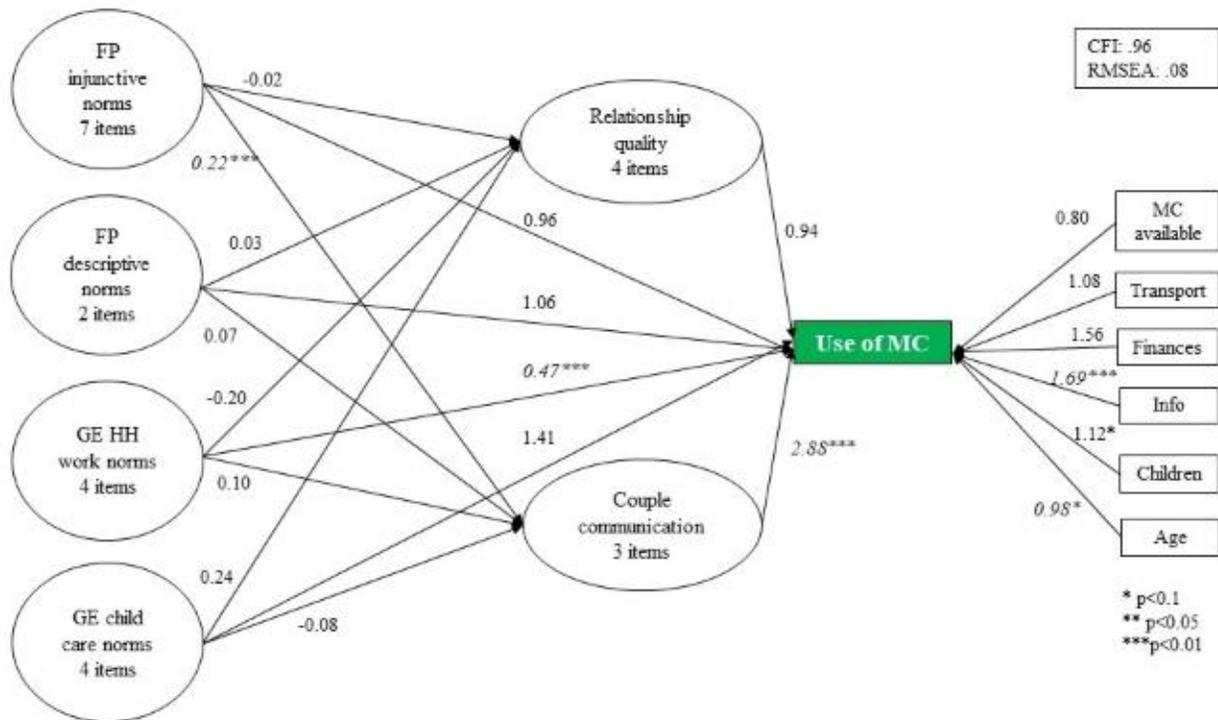
For women's voluntary use of modern contraception (see **Figure 4**), no statistically significant associations were observed for direct relationships between the four social norms constructs considered (two FP norms and two positive masculinities/gender equality norms) and voluntary use of modern contraception. However, higher mean scores for descriptive FP norm scores and for injunctive FP norm scores were significantly associated with higher couple communication scores. Furthermore, for every one-unit increase in couple communication score, there was an increase of 2.68 the odds of using modern contraception (aOR=2.68,  $p<0.01$ ). We also observed significant associations between a respondent's reported satisfaction with available information on modern contraception (aOR=1.55,  $p<0.01$ ) and voluntary use of modern contraception. Surprisingly, we observed an inverse relationship between reported availability of modern contraception in a respondent's community and use of modern contraception (aOR=0.69,  $p<0.05$ ).

**Figure 4.** SEM associations for women between social norms and voluntary use of modern contraception



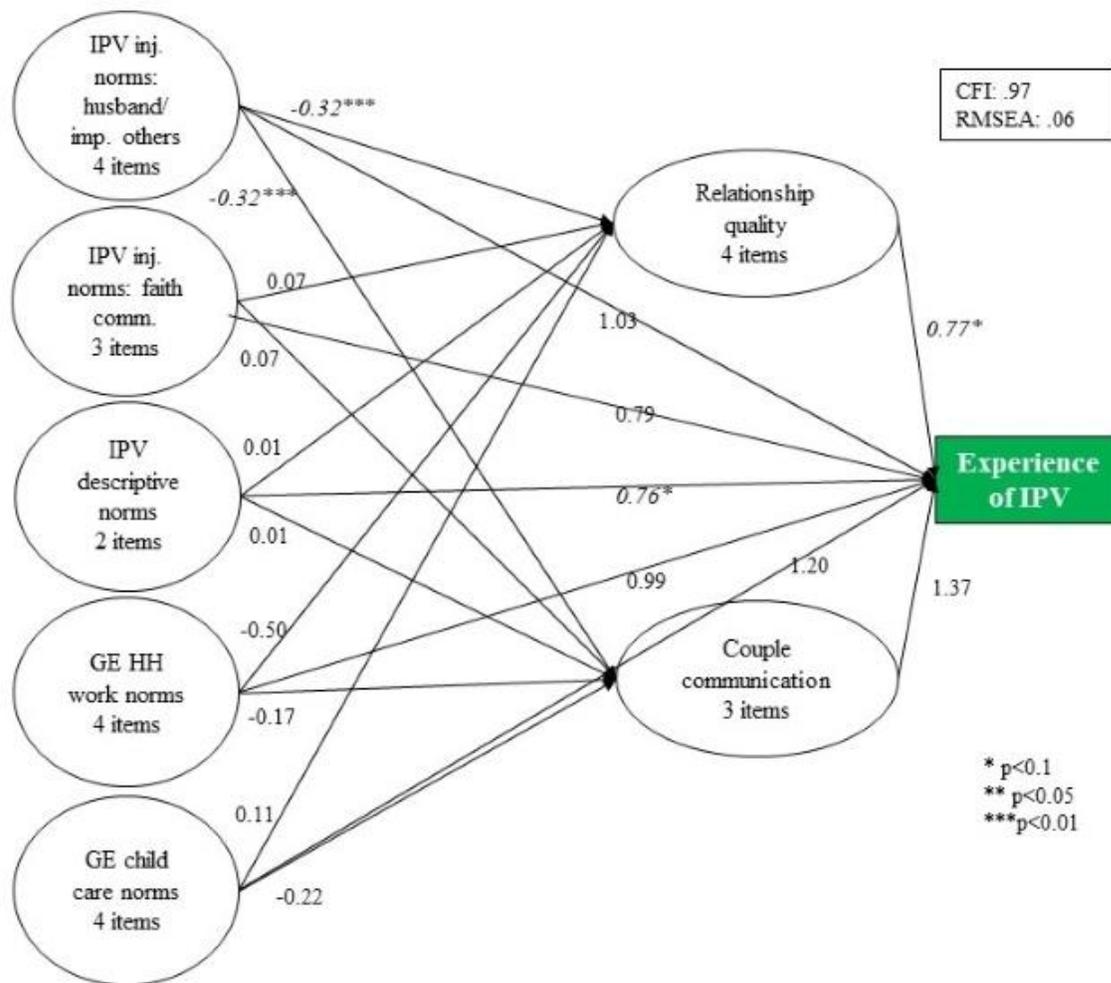
For men's voluntary use of modern contraception (see **Figure 5**), no statistically significant associations were observed for direct relationships between the two FP norms constructs (descriptive and injunctive) or childcare norms with voluntary use of modern contraception. However, and interestingly, higher scores on perceptions of men being involved in household chores were associated with a lower likelihood of voluntarily using modern contraception. For every one-unit increase in scores on this construct, individuals were 53% less likely to report voluntary use of modern contraception. We did see that higher mean scores for injunctive FP scores were significantly associated with higher couple communication scores. Furthermore, for every one-unit increase in couple communication score, there was an increase of 2.88 the odds of voluntarily using modern contraception (aOR=2.88,  $p<0.01$ ). We also observed significant associations between a respondent's reported satisfaction with available information on modern contraception (aOR=1.69,  $p<0.01$ ) and voluntary use of modern contraception. Finally, we saw marginally significant associations among men younger men and men with more children being more likely to report voluntarily using modern contraception (aOR=1.12,  $p<0.10$  and aOR=0.98,  $p<0.10$ , respectively).

**Figure 5.** SEM associations for men between social norms and voluntary use of modern contraception



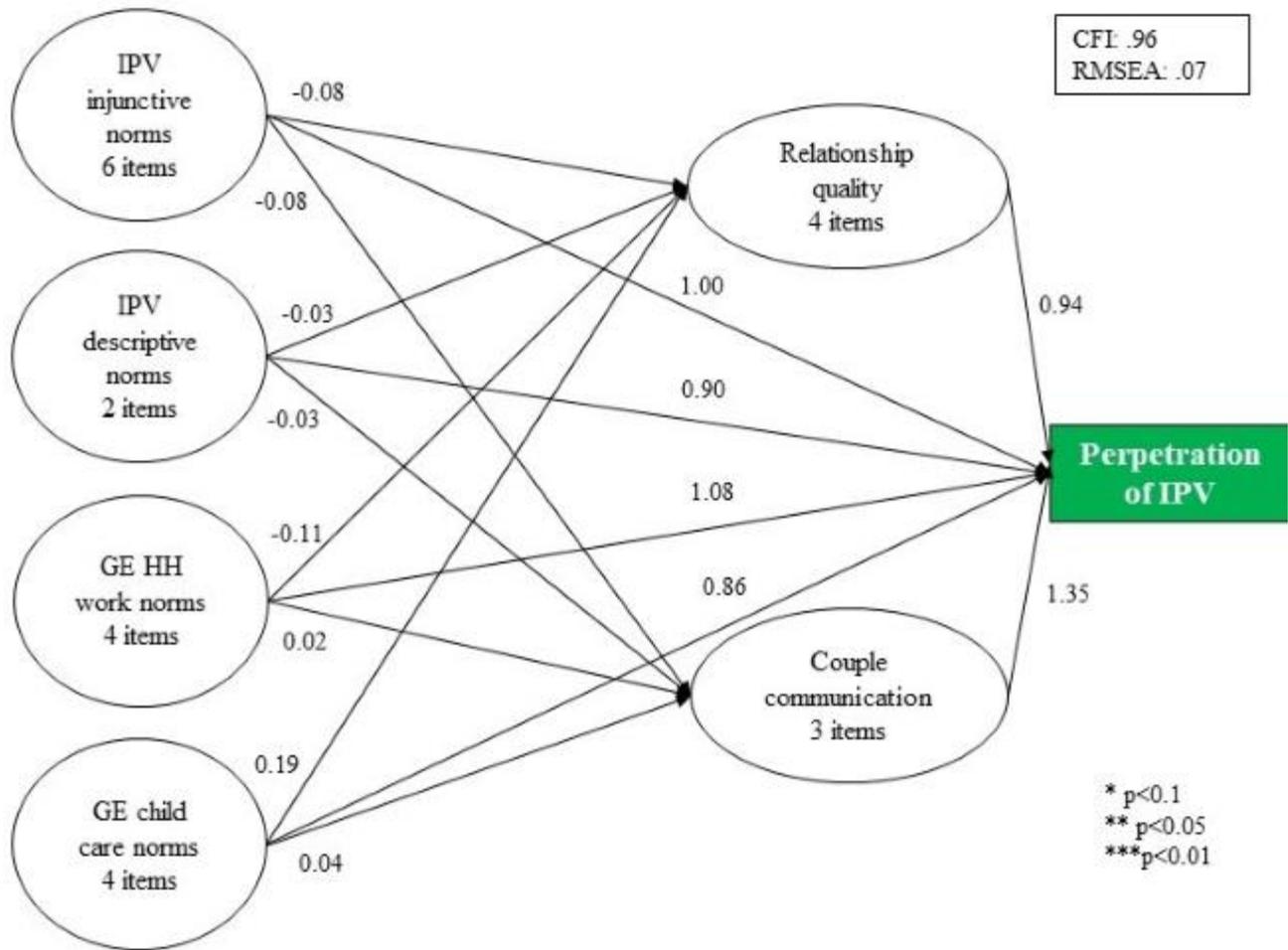
For women’s experience of IPV (see **Figure 6**), we did not see statistically significant associations between the two injunctive IPV norms constructs. However, we did see a marginally significant 24% reduction in the odds of experiencing IPV for every one-unit increase in descriptive IPV norms scores (aOR=0.76,  $p<0.10$ ), or more simply, women who perceived IPV as typical in their community were more likely to experience IPV. There were few significant associations between social norms scores and intermediate variables such as couple communication and relationship quality. However, we did see statistically significant inverse relationships between injunctive IPV norms with husbands and important others as reference groups and both couple communication and relationship quality. In other words, women that perceived that their husbands and significant others approved of IPV were less likely to report high couple communication and relationship quality. Finally, women who reported high relationship quality were less likely to report experience of IPV and for every one-unit increase in relationship quality scores, women were 23% less likely to report experiencing IPV (aOR=0.77,  $p<0.10$ ).

**Figure 6.** SEM associations for women between social norms and experience of IPV



For men's perpetration of IPV (see **Figure 7**), we did not see any statistically associations between norms constructs and reported perpetration of IPV. Neither did we see any statistically significant associations between social norms and couple communication or relationship quality nor between these intermediate variables and perpetration of IPV.

**Figure 7.** SEM associations for men between social norms and perpetration of IPV



# DISCUSSION

Below is a synthesis of the primary findings from the couple and diffusion surveys from baseline to endline. We discuss whether, and how, the MFF intervention led to improved voluntary use of modern contraception and reduced IPV as specified by the MFF theory of change (see **Figure 1**) factoring shifts in social norms and the importance of reference groups. In addition, we synthesize intermediate outcome findings – shifts in gender norms/masculinities, self-efficacy, attitudes, couple communication, relationship quality – as well as diffusion to understand program pathways of change and their contribution (or not) observed or lack of behavior change. Results will be given comparing the sample of respondents in intervention congregations to comparison congregations at endline. We present select, significant findings for sub-samples by sex and life stage (i.e., NMC and FTP) comparing intervention and comparison congregations at endline when significant changes were found. Finally, we present comparisons of respondents in intervention congregations from baseline to endline, particularly when significant shifts are observed.

## *What effect did MFF have on intermediate outcomes for family planning?*

The MFF intervention was designed as a multi-level, norms-shifting approach with a focus on improving individual, relationship, and normative influences on IPV and voluntary use of modern contraception. The theory of change suggests that prior to seeing changes in behavioral outcomes and concurrent with shifts in norms, changes in intermediate outcomes such as personal attitudes and self-efficacy, couple's communication and decision-making, may materialize.

There were large, significant differences in individual attitudes at endline with respondents in intervention congregations significantly ( $p < 0.01$ ) more likely to agree that both NMC and FTP can voluntarily use modern contraception compared to comparison congregations. There were also significant differences in self-efficacy, with respondents in intervention congregations significantly ( $p < 0.01$ ) more likely to report that they could suggest voluntarily using modern contraception to their partner and that they could voluntarily use modern contraception if they desired. As well, there were improvements in communication within a partnership around FP, with respondents in intervention congregations significantly ( $p < 0.01$ ) more likely to report speaking with their partner about reproductive health topics in the previous one year compared to respondents in comparison congregations at endline. However, there was no difference in the involvement of women in FP decision-making comparing respondents in intervention and comparison congregations at baseline.

## *Did MFF lead to changes in social norms and reference groups for voluntary use of modern contraception?*

For the entire sample, we saw slight improvements in proportions of respondents in intervention congregations reporting that they perceived voluntary use of modern contraception as typical behavior (descriptive norms) amongst their reference groups relative to respondents in intervention congregations at baseline. Similar findings were seen comparing endline intervention congregations with comparison congregations; however, this difference was not statistically significant. Similar findings were seen with respondents' perceptions of voluntary use of modern contraception as approved behavior (injunctive norms) amongst their reference groups. Slight, but not statistically significant, improvements in injunctive norms were observed in intervention congregations

comparing endline to baseline and comparing intervention and comparison congregations at endline. In general, about one in four respondents in intervention congregations perceived that voluntary modern contraceptive use was typical (a descriptive norm) amongst NMC and FTP at endline. There was little difference comparing respondents from intervention and comparison congregations at endline in perceptions of modern contraception use as typical behavior. For injunctive norms, in contrast, about three in four respondents in intervention congregations perceived that voluntary modern contraceptive use was considered acceptable behavior by their reference groups. While our summary indicator did not reflect a difference across the injunctive normative items, we did see several significant differences in disaggregated, individual items with respondents in intervention congregations more likely to perceive that modern contraceptive use was acceptable behavior to some of the reference groups assessed. In short, there are large discrepancies between perceptions of typical and acceptable behaviors in relation to voluntary use of modern contraception. As well, there are slight indications that norms around FP are more amenable to voluntary use of modern contraception in intervention congregations compared to comparison congregations.

By sex, women and men had different perceptions of descriptive and injunctive norms. At endline, women in intervention congregations were significantly ( $p < 0.05$ ) more likely to perceive that voluntary use of modern contraception was typical and acceptable behavior compared to women in comparison congregations. However, men in intervention congregations were unexpectedly less likely to perceive that voluntary modern contraception use was approved behavior by people in their reference group. No statistically significant differences were observed looking at life stage.

Between baseline and endline, the study did show an unexpected finding on reference groups, where men and women reported a shift in those individuals whose opinions matter to them for voluntary use of modern contraception. In both intervention and comparison congregations, more participants at endline considered their partner and/or a health worker as important reference groups and fewer listed their faith leaders, mothers/in-law or fathers/in-law as key reference groups.

### *Did MFF lead to improved voluntary use of modern contraception?*

At endline, 53.4% of respondents (excluding those currently pregnant) in intervention congregations reported that they were currently voluntarily using a modern method of contraception within their relationship. A significantly ( $p < 0.05$ ) higher proportion of respondents in intervention congregations reported voluntarily currently using a modern method of contraception compared to 45.3% of non-pregnant respondents in comparison congregations. This is also an increase compared to 40.1% of respondents in intervention congregations at baseline. We also assessed intention to voluntarily use modern contraception in the future among all respondents. At endline, 82.8% of respondents in intervention congregations reported that they were likely to voluntarily use modern contraception in the future which was a significantly ( $p < 0.05$ ) higher proportion compared to 74.7% of respondents in comparison congregations.

Looking at reported voluntary use of modern contraception by sex and life stage, the MFF intervention appeared to effectively improve voluntary modern contraceptive use among women and among FTP compared to their counterparts in comparison congregations, while no significant differences were observed among men and NMC comparing intervention and comparison samples. Among women at endline, 54.8% of women in intervention congregations reported voluntarily using

modern contraception compared to 42.6% of women in comparison congregations, a significant difference. Among FTP at endline, 62.1% in intervention congregations reported voluntarily using modern contraception compared to 48.8% of FTP in comparison congregations, which was statistically significant at the  $p < 0.05$  level. We did not observe significant differences comparing men or NMC in intervention and comparison congregations at endline.

### *What effect did MFF have on intermediate outcomes for intimate partner violence?*

We saw improvements in several attitudinal statements relating to the acceptability of IPV from baseline to endline in intervention congregations, most notably with fewer respondents justifying violence against a wife for any reason. However, similar shifts were observed in comparison congregations. As well, large majorities of respondents in both intervention and comparison congregations reported that they would use non-violent strategies to diffuse relationship conflict if they were aware of them. Finally, at endline, we did not see significant differences in reported relationship quality comparing respondents in intervention and comparison congregations.

### *Did MFF lead to changes in social norms and reference groups for intimate partner violence?*

Unlike social norms measures for FP, which were similar for both men and women via factor analysis, measures for IPV were sex-specific (separate measures for men and women). Findings on social norms related to IPV were unexpected. Similar to findings on reported IPV behaviors, these raise important questions about the study and possibly the intervention. Both male and female respondents in comparison congregations were slightly, though not significantly, more likely to report that IPV was not typical among their reference groups compared to men and women in intervention congregations using separate, sex-specific measures. In addition, there was also an increase in the perception that IPV was typical behavior by both male and female respondents in intervention congregations from baseline to endline.

We also saw unexpected significant differences for IPV injunctive norms measures comparing intervention and comparison congregations for both men and women. These differences were unexpected in that they demonstrated that respondents in intervention congregations were statistically significantly ( $p < 0.05$ ) more likely to perceive that their reference groups would approve of a husband's use of IPV against his wife. Similarly, by sex and life stage, women and FTP in intervention congregations at endline were significantly ( $p < 0.05$ ) more likely to perceive that IPV as acceptable behavior at endline compared to women and FTP in comparison congregations. There was not significant differences when looking at men and NMC.

Similar to FP, important shifts in reported reference groups for IPV were noted. At endline in both intervention and comparison congregations, a higher proportion of respondents considered their partner as a reference group for IPV. Further, fewer respondents listed their faith leaders and their mothers/in-law or fathers/in-law as key reference group members for IPV. This shift introduces some complexity to understanding the unexpected changes in both descriptive and injunctive norms as well as the non-significant reduction in IPV.

### *Did MFF contribute to reduced intimate partner violence?*

At endline, we assessed men's perpetration of and women's experience of emotional, physical and sexual IPV in the past year. Reports of men's perpetration and women's experience were combined to understand IPV prevalence in the congregation. We also asked about IPV related to women's voluntary use of or desire to use modern contraception. At endline, significantly fewer (55.7%) respondents in intervention congregations reported emotional IPV compared to men and women in comparison congregations (63.1%). Turning to reported physical IPV at endline, fewer, though not significantly less, respondents in intervention congregations (20.8%) reported physical IPV compared to comparison congregations (23.4%). Similarly, for sexual IPV at endline, 12.2% of respondents in intervention congregations reported sexual IPV as compared to comparison congregations (13.2%), fewer but not significantly less. Finally, 6.1% of respondents in intervention congregations at endline reported IPV related to woman's use or expressed desire to voluntarily use modern contraception. This is a lower, but not statistically significant, proportion of those reporting IPV in comparison congregations (8.3%).

The data above indicate a trend towards reduced IPV in intervention congregations, but not a statistically significant one. By sex and life stage, findings were similar to the summary statistics above with patterns pointing to non-significant reductions in IPV among women or men and among FTP and NMC. Emotional IPV was an exception with men reporting less emotional IPV in intervention congregations (55.5%) compared to comparison (65.5%) congregations ( $p < 0.10$ ). For FTP, we saw lower proportions reporting all forms of IPV in intervention congregations compared to comparison congregations, but this was only statistically significant ( $p < 0.05$ ) for IPV due to voluntary use of or desire to use modern contraception (5.1% in intervention congregations vs. 11.0% in comparison congregations). A different and worrying pattern was seen with NMC. Slightly higher proportions of NMC in intervention congregations reported experiencing all forms of IPV except emotional IPV compared to respondents in comparison congregations, but these differences were not statistically significant.

### *Did MFF contribute to changes in social norms for positive masculinities?*

Personal opinions and attitudes related to positive masculinities improved with respondents in intervention congregations from baseline to endline. In addition, respondents in intervention congregations significantly ( $p < 0.01$ ) supported equality among sexes compared to those in comparison congregations at endline. This was supported with apparent (though non-significant) improvements on all other attitudinal indicators related to positive masculinity (e.g., shared decision making, caring for children, expressing opinions). Social norms measures assessed positive masculinities related to household roles and expectations—principally, male involvement in childcare and household chores. We saw improvement in perceptions that husbands were involved in these activities and that this involvement was acceptable from baseline to endline. However, similar trends were seen in comparison congregations raising questions about what led to this shift. These differences in norms related to positive masculinity were not statistically significant when comparing intervention and comparison congregations.

### *Did MFF messaging diffuse through congregations?*

Within the MFF theory of change, diffusion is considered an intervention strategy through organized and monitored efforts. It's also hypothesized that there will be spontaneous (or organic) diffusion.

Together, with other intervention activities, as a package, diffusion will contribute to shifting norms and creating an enabling environment for norm change with more individuals supportive of changing behaviors. In intervention congregations, 30.1% of congregants reported speaking to another individual about FP in the previous three months, 38.0% about IPV, and 41.5% about gender roles. This was higher compared to baseline levels (17.2%, 26.5%, and 26.0%, respectively) in intervention congregations. However, increased communication around these topics was also seen in comparison congregations. Differences were only statistically significant comparing intervention and comparison congregations for speaking about gender roles in the previous three months (41.5% vs. 33.2%). Less than 10% of respondents noted that they spoke with faith leaders about any of these three topics.

We also asked about perceptions of social norms among diffusion survey respondents, or in other words, members of the congregation that did not directly participate in the intervention. It did not appear that perceptions of IPV as typical and/or accepted behavior differed between the wider congregations of intervention and comparison samples. However, respondents in intervention congregations were significantly ( $p < 0.01$ ) more likely to perceive that married couples voluntarily used modern contraception in their congregations (66.7% vs. 60.3%), that fellow congregants (68.1% vs. 63.2%) and faith leaders (67.8% vs. 60.3%) approved of married couples voluntarily using modern contraception, and that Scripture supports married couples voluntarily using modern contraception (52.9% vs. 45.9%) compared to respondents in comparison congregations. As noted above, interestingly, despite this increased perceived support in congregations and by faith leaders, at endline participants reported that faith leaders' opinions mattered less than the opinion of a respondent's partner or health workers.

# CONCLUSIONS

The MFF theory of change (**Figure 1**) supposed that a gender norms-shifting intervention with men, women, and faith leaders and strengthening of FP and health care linkages would lead more gender-equitable attitudes and a more supportive normative environment, yielding improvements in gender-equitable behaviors, and improvements in voluntary FP use.

Results suggest that the MFF intervention was effective at shifting attitudes and behaviors for FP. For all outcomes, shifts in norms were much more incremental, and changes in social influence – as seen with individuals considered important reference groups – varied. This finding reflects ambiguity in the literature on the sequencing and relationship between normative shifts and behavior shifts. In addition, MFF was effective in increasing intention to voluntary use and actual use of modern contraception, especially among women and FTP. Further, it was effective in shifting attitudes towards FP, self-efficacy, and partner communication. Though the theory of change indicated that changing social norms was important for behavior change, this study indicated that MFF may have contributed only marginally at this point to shifting norms related to voluntary use of FP and intention to use FP generally and, for women, perceiving voluntary FP use as typical. Nevertheless, respondents in comparison congregations received the same service linkage activities as those in intervention congregations (including health talks with FP content), but without the gender reflection component received by respondents in intervention congregations. That we see improvements in voluntary FP use in intervention congregations compared to comparison congregations perhaps reflects the added value of pairing reflections on gender with activities to promote FP use.

Changes in reference groups may indicate emergent normative shifts. Women were more likely to perceive that their reference groups approved of contraceptive use, while men were less likely to perceive approval, possibly because this was a more salient issue with women. Reference groups also shifted at endline with partners becoming more important reference groups and faith leaders less important, perhaps due to the intervention's focus on the couple's relationship. Favorable FP results suggest that this adaptation of TM, with the addition of reproductive health content and services linkages have supported this change. Yet, it also indicates that norms shifting may not be the primary or most important pathway by which this intervention achieves change. This does not mean that the normative environment is not important for voluntary FP use. It is possible that couples shift in voluntary use of FP changes norms in the congregation opening space for norms shift in the wider congregation and allowing others not directly implicated in the program to their follow their intentions related to FP. MFF appeared to increase the influence of partners and decrease the role of faith leaders. Reference groups shifting away from faith leaders, despite being a faith-centered intervention while surprising, may actually indicate an openness of trusting health workers (given linkages and strengthened health environments) or in the focus of the intervention on improved couple communication and negotiation around FP. The finding that an intervention may shift reference groups for a particular behavior is intriguing and carries important implications for norms shifting initiatives.

The theory of change along with evidence from the pilot of this program (TM in Eastern DRC) hypothesized that transforming harmful gender norms would result in reductions in perpetration

and experience of violence among young couples. Findings from this study related to IPV behaviors and norms were both complex and unexpected. The MFF intervention may have contributed to the small shifts in emotional IPV experience and perpetration. The MFF intervention had a modest effect on reduced experience and perpetration of emotional IPV in intervention congregations relative to comparison congregations, with promising declines in prevalence of physical and sexual IPV. Attitudes towards IPV appeared to be improving, with significant improvements in attitudes related to IPV in both intervention and comparison groups. However, the social norms picture was mixed. Contrary to expectation, respondents in intervention congregations were more likely to perceive that IPV was typical and accepted behavior amongst their reference groups compared to respondents in comparison congregations at endline. Increases in normative perceptions of IPV being typical and appropriate may have been due to greater awareness and communication on IPV in the congregation of as a result of MFF. This is a common result of violence prevention programs and may be a positive trend in terms of awareness. On the other hand, it may suggest that the intervention inadvertently reinforced descriptive and injunctive norms that violence is widespread and accepted.

Our findings relating to other aspects of the intervention such as gender and positive masculinities, and diffusion were mixed. Attitudes related to gender and positive masculinities were becoming more equitable in both intervention and control congregations. In addition, MFF may be improving perceptions of approval of male engagement in household chores. Findings point to some improvements along hypothesized pathways of information sharing and message diffusion but raise important questions about whether, and how, the program achieves change in this urban setting. It is important to note that the social dynamics and urban context are quite different from other settings where the pilot intervention was implemented, most notably rural eastern DRC. The dynamics of how information spreads through a congregation, who influences behavior and how materials should be adjusted may have been more significantly different than expected.

This quantitative portion of the evaluation of MFF provides significant insights into pathways of norms shifts and associations between social norms and program outcomes. As emerging research, many results require additional analysis. Follow up qualitative research, planned in 2020, will be conducted to better interpret some of the unexpected findings. This research will focus on diving deeply into the socio-environmental faith context of urban Kinshasa, unpacking congregational dynamics, social influences on couples, and diffusion with closer attention to the normative environment. Given that TM started as an intervention in a rural, small village setting and was adapted to urban Kinshasa as MFF, these additional insights may provide needed context to better understand the quantitative findings. Further, a comparative analysis will take place in 2020 to better understand how the original TM in rural eastern DRC and the adapted MFF program achieves change and how adjustments in the program may have influenced program outcomes. In addition, a mediational analysis is planned for 2020/2021 to validate the MFF theory of change.

MFF contributes to global evidence on gender transformative approaches within faith-based settings seeking not only to bring about changes in attitudes and behaviors, but also to shift the social norms identified as influencing those attitudes and behaviors. From these quantitative findings, programming recommendations suggest the importance of carefully/deeply assessing the context in the settings where the original and adapted program models were tested, including, for example, a better understanding of the influence of faith-based communities in dynamic urban environments.. The changes in reference groups over time raise important questions of how norms change, and

whether shifts in reference groups are important possibly indicating tightening or loosening of social restrictions. Careful attention to norms shifting pathways and their associations with attitudes and beliefs is important especially as contextual influences may shift even when the faith congregation is an important influence. Longer intervention time periods, with additional research touchpoints or a longitudinal design may have helped elucidate those factors.

Our findings should be interpreted with some caution. We were unable to maintain the original cRCT design, which would have enabled us to more confidently assess causation (i.e., the effect of the MFF intervention on target outcomes). There are also indications that contamination between comparison and intervention congregations occurred, which could potentially lead to underestimating the true effect of the MFF intervention on target behaviors and social norms. We will follow up these quantitative findings with qualitative research to better interpret some of the unexpected findings. As more data and learning emerge from this program, and results are disseminated and discussed, we aim to develop/consolidate recommendations for programs seeking to shift norms, in particular within faith-based settings.

# APPENDICES

## APPENDIX I: SAMPLE SIZE BY CONGREGATION

**Table 1A:** Sample size by congregations for couple survey

	<b>Baseline</b>	<b>Endline</b>
<i>Comparison sites</i>	<b>425</b>	<b>384</b>
Paroisse de la Communauté des Eglises en Mission (CEM/NEST)	28 (3.1%)	19 (2.4%)
Paroisse de l'Eglise du Rocher de la Communauté Evangélique de l'Alliance au Congo (CEAC)	66 (7.3%)	101 (12.8%)
Aumônerie Universitaire Protestante de Kinshasa (AUPK), Université de Kinshasa (Unikin), Paroisse Satellite de Matete	74 (8.2%)	59 (7.5%)
Paroisse de Lemba-Salongo, Communauté Presbytérienne de Kinshasa	18 (2.0%)	31 (3.9%)
Paroisse de Bandalungwa de la Communauté Des Eglises de Pentecôte en Afrique Centrale (CEPAC)	31 (3.4%)	28 (3.5%)
Paroisse de Masina, Communauté Evangélique du Kwango (CEK)	54 (6.0%)	21 (2.7%)
Paroisse N'Djili de la Communauté Evangélique au Congo (CEC)	76 (8.4%)	75 (9.5%)
Paroisse de la Chapelle de la Victoire de la Communauté des Assemblées de Dieu en Afrique (CADAF)	48 (5.3%)	9 (1.1%)
Paroisse de Makala 3 de la Communauté Baptiste du Congo Ouest (CBCO)	29 (3.2%)	41 (5.2%)
<i>Intervention sites</i>	<b>476</b>	<b>407</b>
Aumônerie Universitaire Protestante de Kinshasa (AUPK), Paroisse de l'Université Pédagogique de Kinshasa (UPN)	51 (5.7%)	22 (2.8%)
Paroisse Internationale Protestante de Kinshasa	95 (10.6%)	84 (10.6%)
Paroisse de Lisala de la Communauté Baptiste du Fleuve Congo (CBFC)	97 (10.8%)	129 (16.3%)
Paroisse de Kimvula de la Communauté Baptiste Congo Ouest (CBCO)	48 (5.3%)	45 (5.7%)
Paroisse Saint Pierre de l'Eglise Anglicane du Congo (EAC)	17 (1.9%)	8 (1.0%)
Paroisse Bumbu I de la Communauté Ouest (CBCO)	72 (8.0%)	88 (11.1%)
Paroisse de l'Ozone de la Communauté Evangélique de l'Alliance au Congo (CEAC)	68 (7.6%)	23 (2.9%)
Paroisse de Mont - Ngafula de la Communauté des Eglises libres des Pentecôte en Afrique (CELPA)	28 (3.1%)	8 (1.0%)

**Table 2A:** Sample size by congregations for diffusion survey

	<b>Baseline</b>	<b>Endline</b>
<i>Comparison sites</i>	<b>634</b>	<b>590</b>
Paroisse de la Communauté des Eglises en Mission (CEM/NEST)	23 (1.8%)	24 (1.9%)
Paroisse de l'Eglise du Rocher de la Communauté Evangélique de l'Alliance au Congo (CEAC)	89 (7.1%)	97 (7.7%)
Aumônerie Universitaire Protestante de Kinshasa (AUPK), Université de Kinshasa (Unikin), Paroisse Satellite de Matete	117 (9.3%)	101 (8.0%)
Paroisse de Lemba-Salongo, Communauté Presbytérienne de Kinshasa	55 (4.4%)	15 (1.2%)
Paroisse de Bandalungwa de la Communauté Des Eglises de Pentecôte en Afrique Centrale (CEPAC)	108 (8.6%)	80 (6.4%)
Paroisse de Masina, Communauté Evangélique du Kwango (CEK)	24 (1.9%)	34 (2.7%)
Paroisse N'Djili de la Communauté Evangélique au Congo (CEC)	76 (6.1%)	185 (14.7%)
Paroisse de la Chapelle de la Victoire de la Communauté des Assemblées de Dieu en Afrique (CADAF)	47 (3.7%)	25 (2.0%)
Paroisse de Makala 3 de la Communauté Baptiste du Congo Ouest (CBCO)	101 (8.0%)	29 (2.3%)
<i>Intervention sites</i>	<b>623</b>	<b>667</b>
Aumônerie Universitaire Protestante de Kinshasa (AUPK), Paroisse de l'Université Pédagogique de Kinshasa (UPN)	31 (2.5%)	50 (4.0%)
Paroisse Internationale Protestante de Kinshasa	48 (3.8%)	203 (16.2%)
Paroisse de Lisala de la Communauté Baptiste du Fleuve Congo (CBFC)	116 (9.2%)	125 (9.9%)
Paroisse de Kimvula de la Communauté Baptiste Congo Ouest (CBCO)	86 (6.8%)	65 (5.2%)
Paroisse Saint Pierre de l'Eglise Anglicane du Congo (EAC)	79 (6.3%)	14 (1.1%)
Paroisse Bumbu I de la Communauté Ouest (CBCO)	102 (8.1%)	103 (8.2%)
Paroisse de l'Ozone de la Communauté Evangélique de l'Alliance au Congo (CEAC)	55 (4.4%)	61 (4.9%)
Paroisse de Mont - Ngafula de la Communauté des Eglises libres des Pentecôte en Afrique (CELPA)	100 (8.0%)	46 (3.7%)

## APPENDIX II: FACTOR ANALYSIS RESULTS FOR SOCIAL NORMS

**Table 1B:** Scale items for social norms regarding family planning for women

	Factor loading	Standard error	Cronbach's $\alpha$
<b>“Injunctive norms”</b>			0.84
Members of this congregation think it is appropriate for NMC to use MC	1.00	0.00	
Members of this congregation think it is appropriate for FTP to use MC	1.04	0.04	
Faith leaders think it is appropriate for NMC to use MC	1.08	0.03	
Faith leaders think it is appropriate for FTP to use MC	1.01	0.04	
People whose opinions are important to me think I should use MC	0.97	0.04	
My partner thinks we, as a couple, should use MC	0.94	0.04	
Faith leaders in this congregation think my partner and I should use MC	0.89	0.04	
<b>“Descriptive norms”</b>			0.64
(How common) NMC in this congregation use MC	1.00	0.00	
(How common) FTP in this congregation use MC	0.32	0.12	

**Table 2B:** Scale items for social norms regarding gender equality/positive masculinities for women

	Factor loading	Standard error	Cronbach's $\alpha$
<b>“Gender role norms pertaining to HH chores”</b>			0.86
Most NMC and FTP that I know in this congregation approve of the husband sharing in HH chores	1.00	0.00	
People whose opinions are important to me approve of the husband sharing in HH chores	1.08	0.03	
Faith leaders in this congregation think that my partner and I should share in the HH chores	1.11	0.03	
My partner thinks we should both share in the HH chores	1.12	0.03	
<b>“Gender role norms pertaining to childcare”</b>			0.84
My partner thinks we should both share in the responsibility of childcare	1.00	0.00	
Faith leaders in this congregation think my partner and I should both share in the responsibility of childcare	1.06	0.05	
Most NMC and FTP that I know in this congregation approve of the husband sharing in the responsibilities of childcare	1.14	0.05	
People whose opinions are important to me approve of the husband sharing in the responsibilities of childcare	1.19	0.05	

**Table 3B:** Scale items for social norms regarding intimate partner violence for women

	Factor loading	Standard error	Cronbach's $\alpha$
<b>“Injunctive norms—faith community”</b>			0.85
People in this congregation expect a husband to force his wife to have sex even when she does not want to	1.00	0.00	
People in this congregation think it is ok for a husband to beat his wife at times	1.04	0.04	
Faith leaders think it is ok for a husband to beat his wife at times	1.05	0.03	
Faith leaders think it is ok for a husband to force his wife to have sex even when she does not want to	1.06	0.03	
<b>“Injunctive norms—partner and important others”</b>			0.78
My husband thinks it is ok for him to beat me at times	1.00	0.00	
My husband thinks it is ok for him to force me to have sex even when I do not want to	1.13	0.06	
Most NMC and FTP that I know in this congregation approve of the husband sharing in the responsibilities of childcare	1.19	0.05	
<b>“Descriptive norms”</b>			0.66
(How common) A husband beats his wife	1.00	0.00	
(How common) A husband forces his wife to have sex even when she does not want to	1.51	0.32	

**Table 4B:** Scale items for social norms regarding family planning for men

	Factor loading	Standard error	Cronbach's $\alpha$
<b>“Injunctive norms”</b>			0.82
Members of this congregation think it is appropriate for NMC to use MC	1.00	0.00	
Members of this congregation think it is appropriate for FTP to use MC	1.10	0.05	
Faith leaders think it is appropriate for NMC to use MC	1.01	0.06	
Faith leaders think it is appropriate for FTP to use MC	1.03	0.05	
People whose opinions are important to me think I should use MC	1.13	0.06	
My partner thinks we, as a couple, should use MC	1.08	0.06	
Faith leaders in this congregation think my partner and I should use MC	0.99	0.05	
<b>“Descriptive norms”</b>			0.77
(How common) NMC in this congregation use MC	1.00	0.00	
(How common) FTP in this congregation use MC	0.91	0.15	

**Table 5B:** Scale items for social norms regarding gender equality/positive masculinities for men

	Factor loading	Standard error	Cronbach's $\alpha$
<b>“Gender role norms pertaining to HH chores”</b>			0.84
Most NMC and FTP that I know in this congregation approve of the husband sharing in HH chores	1.00	0.00	
People whose opinions are important to me approve of the husband sharing in HH chores	1.17	0.06	
Faith leaders in this congregation think that my partner and I should share in the HH chores	1.12	0.05	
My partner thinks we should both share in the HH chores	1.27	0.06	
<b>“Gender role norms pertaining to childcare”</b>			0.83
My partner thinks we should both share in the responsibility of childcare	1.00	0.00	
Faith leaders in this congregation think my partner and I should both share in the responsibility of childcare	1.05	0.04	
Most NMC and FTP that I know in this congregation approve of the husband sharing in the responsibilities of childcare	1.04	0.04	
People whose opinions are important to me approve of the husband sharing in the responsibilities of childcare	1.06	0.04	

**Table 6B:** Scale items for social norms regarding intimate partner violence for men

	Factor loading	Standard error	Cronbach's $\alpha$
<b>“Injunctive norms”</b>			0.86
People in this congregation expect a husband to force his wife to have sex even when she does not want to	1.00	0.00	
People in this congregation think it is ok for a husband to beat his wife at times	1.08	0.06	
Faith leaders think it is ok for a husband to beat his wife at times	1.21	0.06	
My wife thinks it is ok for me to force sex on her even when she does not want to	1.14	0.05	
Faith leaders in this congregation think it is ok for me to beat my wife at times	1.29	0.06	
People whose opinion is important to me think it is ok for me to beat my wife at times	1.34	0.06	
<b>“Descriptive norms”</b>			0.80
(How common) A husband beats his wife	1.00	0.00	
(How common) A husband forces his wife to have sex even when she does not want to	0.93	0.18	

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