Final Project Report:
Father Involvement in Promoting Reproductive, Maternal, Newborn, and Child Health (RMNCH)

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Contents

Abbreviations and Acronyms

ANC	Antenatal Care
CG	Care Group
CGV	Care Group Volunteer
CI	Confidence Interval
COMREC	College of Medicine Research Ethics Committee
DHMT	District Health Management Team
DHS	Demographic and Health Survey
FFP	USAID Office of Food for Peace
FG	Father Group
FP	Family Planning
GBV	Gender-Based Violence
GEM	Gender Equity Men's Scale
GII	Gender Inequality Index
GVH	Group Village Headmen
HH	Household
HP	Health Promoter
IRB	Institutional Review Board
IYCF	Infant and Young Child Feeding
KAP	Knowledge, Attitudes, and Practices Survey
LM	Lead Mother
MCHN	Maternal, Child Health and Nutrition
MiLG	Mother-In-Law Group
MNCH	Maternal, Newborn, and Child Health
MOE	Margin of Error
NGO	nongovernmental organization
NW	Neighbor Women
PROSHAR	Program for Strengthening Household Access to Resources
PCI	Project Concern International
RMNCH	Reproductive, Maternal, Newborn, and Child Health
SUN	Scaling Up Nutrition
TA	Traditional Authority
TOPS	Technical and Operational Performance Support (as in The TOPS Program)
TRIO	Care Group Trio
UN	United Nations
UNICEF	United Nations Children's Fund
U.S.	United States
USAID	U.S. Agency for International Development
USD	United States dollar(s)
USG	United States Government
VDC	Village Development Committee
VHC	Village Health Committee
WASH	Water, Sanitation, and Hygiene

Executive Summary

The Balaka and Machinga districts of Malawi continue to suffer from extremely poor household health and nutrition practices; poor hygiene, sanitation, and water facilities; and poor access to health services. These conditions contribute to poor health and nutrition outcomes among women and children.

A growing body of evidence on the impact of gender inequality on achieving health and nutrition outcomes recognizes gender inequality as an underlying or "basic" determinant of maternal and child health and undernutrition through its impact on women's control of their time and household income, and on their mental health, confidence, and self-esteem.

Under PCI's 5-yr USAID/FFP food security project (*Njira*, 2015-2019) in the Balaka and Machinga districts of Malawi, PCI implemented Father Groups as a supportive platform for enhancing the impact of PCI Care Groups (CG), the platform for health and nutrition social and behavior change targeting pregnant and lactating women and women with children under five.

PCI was awarded a $50,000 grant from TOPS to carry out a study among a small sample of father groups: *Father Involvement in Promoting Reproductive, Maternal, Newborn, and Child Health.* The study was designed with a two-fold agenda: 1) to assess changes among Care Group Volunteers/Lead Mothers (CGV), neighbor women (NW), and Father Group (FG) members (compared to changes among CGVs and NW without corresponding FGs) across a range of health and nutrition knowledge, behavioral, attitudinal, and gender equity outcomes, and 2) to document promising mechanisms and processes for engaging men effectively for gender equity and health and nutrition behavior change.

To measure changes in outcomes, two Knowledge, Attitudes, and Practices surveys (KAP) were developed; 336 participants were sampled in total. The study team conducted focus group discussions with members of the Father Groups and their corresponding Care Groups, as well as key informant interviews with Health Promoters (HPs) and Facilitators.

There were two statistically significant findings at endline between the control and intervention groups among women:

- Decision-making over Infant and Young Child Feeding (IYCF) - More participants in the intervention group (33%), as compared to the control group (22%) answered "both" (oneself and partner) to "Who in your household is in charge of deciding what your child will eat and when"
- Decision-making over household purchases: More participants in the intervention group (33%), as compared to the control group (22%) answered "both" (oneself and partner) to "Who should make decisions about purchases for daily household needs, men, women, or both?"

There were several statistically significant findings at endline between the control and intervention groups among men:

- Danger signs during pregnancy: Participants in the intervention group were able to list more symptoms that require a pregnant woman to seek immediate care at a health facility, as compared to the control group (2.7 vs 3.5)
- Early initiation of breastfeeding: More participants in the intervention group (96%) as compared to the control group (79%) were able to correctly answer "How soon after birth should an infant be put to the breast?"

- Family planning use: More participants in the intervention group (92%) as compared to control group (68%) said "yes" to "Are you and your partner currently using any method to delay or avoid getting pregnant?"
- Support to antenatal care (ANC): More participants in the intervention group (90%) as compared to the control group (62%) said "gave money for transport" to "In what ways did you support your partner/wife/relative in seeking antenatal care?"
- Decision-making over IYCF: More participants in the intervention group (50%) as compared to the control group (21%) said "both" to "Who in your household is in charge of deciding what your child will eat and when?"
- Children's dietary diversity: Children 18-24 months in the intervention group had a more varied diet as compared to the control group (2.3 vs 2.8 food groups)
- Gender-equitable attitudes: Participants in the intervention group scored higher on the gender-equity attitudinal scale, as compared to the control group (8.2 vs. 7.4)

This study is one of the first to use a comparison group to show the effect of male engagement in Care Groups. We observed some changes in attitudes and decision-making behaviors. There was not enough time for the intervention to show significant RMNCH and nutrition-related behavior change among Care Group (CG) beneficiaries; however, the changes in attitudes and knowledge seen in these results can be precursors to further behavior change.

The significant increase (from 68% to 92%) in current use of family planning reported by men deserves further investigation since there was no corresponding increase seen among women. The positive change among the intervention group men on the Gender Equity Men's Scale (GEM) reflects the positive impact of the Father Groups on changing gender relationships and attitudes through this intervention.

This study had several limitations, the most important of which was the very short time period between the baseline and endline surveys. Nonetheless, the data support scale up of the Father Group interventions throughout the Njira project area in Malawi, and should encourage others to incorporate male engagement in a serious way in health and nutrition projects.

The men took the initiative to go beyond what was envisioned. Their reports on how these changes made a difference in the quality of their relationship with their wives and their enjoyment of life were dramatic and went far beyond just the 'behaviors' that we wanted to measure.

This study has contributed to our furthering our understanding of the importance of engaging men as full participants in health and nutrition programming. Further, this study suggests that our exclusion of men from this programming has limited our impact on the ground. Our programs should empower both men and women to work together in their households and communities to change their own lives.

1. Background

Health and Nutrition in Balaka and Machinga Districts, Malawi

The Balaka and Machinga districts of Malawi continue to suffer from extremely poor household health and nutrition practices; poor hygiene, sanitation, and water facilities; and poor access to health services. These conditions contribute to poor health and nutrition outcomes among women and children. Nearly 4 out of 10 (37%) children under age 5 are stunted (short for their age), 3% are wasted (thin for their height), and 12% are underweight (thin for their age). Women of reproductive age in these areas have among the worst levels of malnutrition in the country[1] and nearly half of pregnant women are anemic. The under-five and maternal mortality rates remain high at 77 deaths per 1,000 live births and 439 deaths per 100,000 live births respectively (Malawi DHS, 2015-6).

The widely held notion that a person has not eaten if they have not consumed maize translates to low dietary diversity with 67% of children in Machinga and 56% in Balaka consuming only cereal,[2] which contributes to the high rates of child anemia (62%) in the Southern region of Malawi.[3] Lack of knowledge of essential health and nutrition actions contributes to high levels of malnutrition, as does a lack of male engagement in supporting feeding practices.[4] The median duration of exclusive breastfeeding is 4.5 and 4.2 months in Balaka and Machinga, respectively. Only 19% of children 6-23 months in the Southern region are fed according to recommended infant and young child feeding (IYCF) practices;[5] the feeding practices of only 8% of children ages 6-23 months meet the minimum acceptable dietary standards. Less than 40% of children under five and pregnant women slept under an insecticide treated bednet the night before the survey. Open defecation and a lack of hand washing also contribute to child malnutrition as persistent fecal-oral contamination diverts nutrients from growth to fighting infections. Incidence of fever, acute respiratory infection and diarrhea among children in Balaka and Machinga are among the highest in the country.[6]

The population lacks safe sanitation facilities with the majority depending on traditional pit latrines, partly open pits, or none at all.[7] Sandy soil and heavy rains lead to frequent collapse of pit latrines. Due to financial and/or human resource constraints to rebuild latrines on an annual basis, people resort to open defecation.[8] Households in Balaka and Machinga lack washing facilities and other basic infrastructure enabling them to practice hygienic behaviors. A lack of access to safe water is also an issue with 10 to 15% of people in Balaka and Machinga accessing their water from unprotected sources.[9]

Less than half of the target population of pregnant and lactating women in the Balaka and Machinga districts have access to health services within a five-kilometer radius. A total of 55% of pregnant women in Malawi do not attend four antenatal (ANC) sessions, and in the Southern region, 46.2% of women did not receive any type of postnatal checkup. Approximately 28% of pregnant women give birth at home without a skilled attendant, and the neonatal mortality rate in the Southern region is 32 per 1,000 live births. The high fertility rate, 6.0% in Balaka and 6.9% in Machinga, coupled with the fact that the

[1] Comprehensive Food Security and Vulnerability Analysis, 2010.
[2] Emergency Food Security Assessment, July 2013.
[3] Malawi Demographic and Health Survey, 2010.
[4] CARE/CRS/PCI. Njra Participatory Gender Analysis. 2015-16
[5] Malawi Demographic and Health Survey, 2010.
[6] Comprehensive Food Security and Vulnerability Analysis, 2010.
[7] Ibid.
[8] Comprehensive Food Security and Vulnerability Analysis, 2012.
[9] Comprehensive Food Security and Vulnerability Analysis, 2010.

majority of women do not use modern contraceptives (58%), results in closely spaced pregnancies and contributes to high maternal mortality.

Gender Inequities in Malawi

A growing body of evidence on the impact of gender inequality on achieving health and nutrition outcomes recognizes gender inequality as an underlying or "basic" determinant of maternal and child health and undernutrition through its impact on women's control of their time and household income, and on their mental health, confidence, and self-esteem. Analyses have found significant associations between food security, maternal child health and nutrition, and women's decision-making capacity to decide how food and other resources should be distributed among household members (relative to men's).[10]

In Malawi, there are many manifestations of gender inequality - Malawi ranks 173 out of 188 on the UN's Gender Inequality Index (GII) and has as one of the highest rates of child marriage in the world, with 9% of girls married by 15 years of age and 46% married by 18 years of age.[11] Twenty-nine percent of adolescent women age 15-19 are already mothers or pregnant with their first child.[12] A large proportion of severely malnourished children admitted to Nutrition Rehabilitation Units in Malawi are children of adolescent mothers. In many cases, young girls, adolescents, and adult women do not have the self-efficacy, autonomy, and decision-making power to make choices around contraceptive use – opposition to use from a spouse was cited as the fourth major reason for why women in Malawi who say they want to avoid a pregnancy are not using family planning.[13] Other harmful traditional practices including youth "initiations" and gender-based violence (GBV) – with a prevalence of 29.8% in the Southern region – increase the vulnerability of women and girls to early pregnancy, infections and poor nutrition, thus perpetuating the cycle of poverty and malnutrition in the next generation.

Interventions that address women's empowerment across several domains have been found to be "powerful drivers of undernutrition reductions."[14] Findings from PCI's 2015 *Njira* participatory gender analysis provide a more nuanced understanding of the mechanisms behind how harmful gender norms, roles, relations, and practices affect health and nutritional status and developmental outcomes among women and children. The analysis found that men have very limited knowledge of and are minimally engaged in the reproductive, maternal, and child health and nutrition issues faced by women in their communities.[15] Men engage mostly in cash crop farming and income generating activities; women manage food crops, help with cash crops, and provide the bulk of unpaid labor for household production and reproduction. Women's unpaid domestic tasks are continuous and time-intensive, especially time spent in transport that is related to domestic responsibilities. Due to these many responsibilities, time burdens and lack of leisure are a major constraint on women's and children's livelihoods and wellbeing.[16]

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[10] Na M, Jennings L, Talegawkar SA, Ahmed S. Association between women's empowerment and infant and child feeding practices in sub-Saharan Africa: an analysis of Demographic and Health Surveys. Public Health Nutr. 2015 Dec; 18(17): 3155-65.

[11] UNICEF, 2016, State of the World's Children.

[12] Malawi DHS, 2015-6

[13] Population Reference Bureau, 2014. Malawi Reproductive Transitions: Unmet Need for Family Planning

[14] Smith et al. 2014. Reducing Child Undernutrition: Past Drivers and Priorities for Post-MDG era. World Development Vol. 68, pp. 180–204, 2015.

[16] Although estimates of women's time burdens vary, a World Bank study suggests that labor time is on average 50 hours per week during high season, with at least 10% of the female 15 and over population working over 70 hour per week year round. Meanwhile, men work 36 hours per week max, and few work more than 70 hours per week. See: World Bank (2006). Gender, Time Use, and Poverty. http://siteresources.worldbank.org/INTAFRREGTOPGENDER/Resources/gender_time_use_pov.pdf

Although men do not engage in household health and nutrition activities, they have greater decision-making authority over cash earnings and income allocated for food purchases and other essential maternal and childcare services, as well as which foods are prepared and consumed in the household. Because women's autonomous or joint decision-making remains unacceptable in many cases, even if women know the benefits of new behaviors and practices for improving their and their children's lives, women may not have the financial and decision-making capability, the social support, and the mental, emotional, and physical bandwidth to ensure an enabling environment for a healthy family.

Promising Results of Engaging Men in Health and Nutrition SBC

USAID and CORE Group's recent technical brief entitled *Enhancing Nutrition and Food Security during the First 1,000 Days through Gender-sensitive Social and Behavior Change* suggests that addressing a range of players during behavior change interventions, especially male caregivers, is key to project effectiveness.[17] Yet, community-based interventions seldom address and support the unique role that fathers can play in championing gender equity and behavior change for health and nutrition. The majority of interventions target the knowledge, attitudes, and practices of mothers without attention paid to the broader environment, including other influencers, that may inhibit household health and nutrition practices. Although studies are limited, the available evidence on the role and impact of fathers in caregiving, specifically nutrition, suggests that engaging men in social and behavior change activities can shift household caregiving norms and practices among both men and women, leading to improved gender equity in the household and an increase in the adoption of recommended caregiving practices among women.[18,19,20,21,22] Engaging male caregivers is a way of empowering women and challenging traditional gender norms that hinder improved household health and nutrition.[23,24]

Promising Results of Engaging Men in Care Group Activities

PCI's programmatic experience with implementing Care Groups is extensive and covers a range of USAID/Food for Peace Title II food security projects Malawi, Liberia, and Bangladesh. Between 2010-2015, PCI implemented the health, nutrition, and risk reduction components of the Program for Strengthening Household Access to Resources (PROSHAR), an ACDI/VOCA-led food security program

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[17] "Gender-sensitive social and behavior change (SBC) approaches are essential to increase optimal nutrition practices, demand for services and commodities, and ultimately, to increase utilization of services" because such approaches "identify, consider, and account for the needs, abilities, and opportunities of women, men, girls, and boys to facilitate individuals, households, groups, and communities to adopt evidence-based practices and transform the environment in which behavior change occurs." Gender-sensitive SBC activities are not separate or autonomous activities that must be "added" onto other projects; rather, they are "integrated within all interventions to enhance the project's effectiveness.

[18] Bilal SM, Dinant G, Blanco R, Crutzen R, Mulugeta A., Spigt M. The Influence of father's child feeding knowledge and practices on children's dietary diversity: a study in urban and rural districts of Northern Ethiopia, 2013. Matern Child Nutr. 2016. Jul; 12(3): 473-83. Doi:10.1111/mcn.12157. Epub 2014 Dec, 2017.

[19] Kuyper, E, Kewey, K. Literature Review: Fathers Support Infant and Young Child Feeding: Their Contributions to Better Outcomes. October, 2013. Alive and Thrive. http://aliveandthrive.org/wp-content/uploads/2014/11/Literature-Reivew-Dads.pdf

[20] Bich TH, Hoa DT, Malgvist M. Fathers as supporters for improved exclusive breastfeeding in Vietnam. Matern Child Health J. 2014 Aug;18(6):1444-53. doi: 10.1007/s10995-013-1384-9.

[21] Thttps://www.unicef.org/nutrition/files/BAI_bf_gender_brief_final.pdf

[22] Mukuria, AG, Martin SL, Egondi, T, Bingham, A, Thuita, FM. Role of Social Support in Improving Infant Feeding Practices in Western Kenya: A quasi-experimental Study. Glob Health Sci Pract. 2016 Mar 25;4(1):55-72.

[23] Na M, Jennings L, Talegawkar SA, Ahmed S. Association between women's empowerment and infant and child feeding practices in sub-Saharan Africa: an analysis of Demographic and Health Surveys. Public Health Nutr. 2015 Dec; 18(17): 3155-65.

[24] One study found that women who have a say in deciding household purchases, compared to women who do not have a say, are much more likely to achieve higher dietary diversity (OR = 1.74, 95 % CI = 1.24, 2.42). See: Amugsi DA, Lartey A, Kimani E, Mberu BU. Women's participation in household decision-making and higher dietary diversity: findings from nationally representative data from Ghana. J Health Popul Nutr. 2016 May 31; 35(1):16.

funded by USAID's Office of Food for Peace. PCI developed the *Trio* model as its key strategy and platform for mobilizing caregivers and to adopt positive health and nutrition behaviors. The model was based on the traditional mother CG model, but also included father groups (FG) and mother-in-law groups (MiLG) to provide more holistic support to household behavior change.

Findings from qualitative and quantitative assessments of the impact of the *Trio* model on behaviors and outcomes were impressive and included increases from project baseline to end line in the adoption of a range of recommended MNCH and nutrition behaviors, reductions in malnutrition, and an increase in minimum acceptable diet.[25] The prevalence of underweight young children (age 6-23 months) also dropped significantly from 22.7% to 15.4%, stunting decreased significantly and exclusive breastfeeding increased dramatically. Moreover, nearly all respondents in the qualitative assessment stated that peer-to-peer messaging fostered the adoption of new behaviors, and noted that the information and education they received through the CG Trio Model was the impetus to practice new behaviors. Some of the spillover effects of the *Trio* intervention included improved interpersonal harmony as families developed common goals around healthy pregnancies and children, and improved understanding among fathers around the health and nutrition of their children beyond providing financial resources.[26]

Other programs that have integrated and measured the benefits of male involvement in their Care Group platform found that male participation in CGs adds an air of legitimacy, and that the backing of husbands and fathers in a community increases a program's chances of success.[27, 28]

PCI's Father Group Pilot Study

Building on the promising approaches and results mentioned above, under PCI's 5-yr USAID/FFP food security project in the Balaka and Machinga districts of Malawi (*Njira*, 2015-2019), PCI implemented Father Groups as a supportive platform for enhancing the impact of PCI Care Groups (CG), the primary platform for health and nutrition social and behavior change targeting pregnant and lactating women and women with children under five.

PCI sought to test whether greater project effectiveness and impact can be achieved by acknowledging and leveraging men's unique needs, preferences, and roles and by empowering them as partners and agents of change within their own households. PCI was also driven by the desire to contribute not only to a growing body of evidence on the varied benefits of male engagement, but also on the intersection of male engagement and the Care Group methodology to explore and share potential ways of designing and implementing Care Groups for greater effectiveness and sustainability. Hence, in late 2015 and early 2016 PCI designed and submitted for TOPS funding a pilot research study to more rigorously explore and test the added value to household health and nutrition behavior change of systemically engaging men in father groups (FGs) linked to corresponding CGs.

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[25] Endline Report: PROSHAR Quantitative Final Program Evaluation 2015, Bangladesh. May 2015. TANGO International, Inc.

[26] PROSHAR Care Group Trio Assessment. Executive Summary p.vii. PCI, 2015.

[27] A Food for the Hungry program in Mozambique that utilized Care Groups, where over three-fourths of the promoters were male, found that male promoters were called upon by lead mothers to advocate on their behalf. Male promoters were respected and heard, and this was positively correlated with the positive processes and outcomes that resulted from engaging men in maternal and child health projects. Perry, Henry B. "Expanded Impact Child Survival Program, Final Evaluation Report." USAID, Food for the Hungry. https://portfolio.du.edu/portfolio/getportfoliofile?uid=177929 (accessed July 2, 2013).

[28] As part of World Relief's child survival project which was carried out between 2000 and 2004, Care Groups that utilized men as CGVs were implemented. Although the dropout rate was higher for men than for women, their presence in CGs helped to legitimize the function of the CG even though the presence of men was small. Heidkamp, Rebecca, Victor Kabaghe, Paul Mkandawire, Melanie Morrow, Kathryn Norgang, and Anbrasi Edward Raj. "Final Evaluation of Twieko Tose Child Survival Project." World Relief. http://www.caregroupinfo.org/docs/WRC_Malawi_CS_16_Final_Eval_2004.pdf (accessed July 3, 2013).

The study entitled *Father Involvement in Promoting Reproductive, Maternal, Newborn, and Child Health* was designed with a two-fold agenda: 1) to assess changes among CG lead mothers, neighbor women, and FG members (compared to changes among CG CGVs and neighbor women without corresponding FGs) across a range of health and nutrition knowledge, behavioral, attitudinal, and gender equity outcomes, and 2) to document promising mechanisms and processes for engaging men effectively for gender equity and health and nutrition behavior change.

PCI was awarded a $50,000 grant from TOPS in April 2016 to carry out the study among a small sample of father groups that were formed under the Njira Project in September and October of 2016 based on the recruitment methods that were laid out in the study protocol.

2. Project Activities

2.1 The Father Group Intervention

PCI's *Njira* project operates in 10 Traditional Authorities (TAs) in the two districts of Balaka and Machinga located in Southern Malawi. The project has 411 operational Care Groups, with a total of 71,342 women participating. Criteria for participation in a CG as a beneficiary is not specific to PCI/Njira, but is pre-determined by the Government of Malawi, and requires that participants are pregnant (P), lactating (L), or have children under the age of five. Each Care Group is composed of 10-15 women called Care Group Volunteers (CGV) who promote the key behaviors among a group of neighbor women (NW) in their communities.

One Care Group in each of the ten TAs was randomly selected to establish a Father Group. The selected Care Groups were then tasked with selecting a male partner or relative of the CGV or one of her NW to participate in a corresponding Father Group according to the following criteria:

- Must be a male household member (a father/husband or male relative) of the Care Group Volunteer whose CG was randomly selected, or of one of her ten beneficiary households
- Must agree to work voluntarily as a FG member and attend two sessions a month with a health promotor and engage with community as per Father Group action plans
- Must be able to read and write
- Must expresses interest in improving MCHN behaviors at household and community levels, be a role model and respected member in his community, willing to share messages with other men in his community, and willing to advocate with community leaders for promoting MCHN.

To encourage Father Group members to support their respective Care Groups with health and nutrition behavior change at the community and household levels, Father Groups were designed to follow the same training structure, schedule, and content as their corresponding Care Groups. On a bi-monthly basis (twice a month), each FG (composed of 10 members) was trained by a Health Promoter (HP), a PCI staff member who trains the CGVs, using the same flipcharts and participatory learning and behavior change methodology as used with the Care Groups. These modules were either developed by PCI and field tested and finalized in collaboration with the Malawi Ministry of Health, or were Malawi Ministry of Health materials developed under the Scaling Up Nutrition (SUN) initiative. The PCI modules had a strong gender component making them appropriate for use among men. Additionally, all Health Promotors went through a gender training which included sensitization to gender issues in their

communities, discussions and reflections on gender norms and roles, and how to work specifically with men to change attitudes, challenge norms, and promote more equitable practices in the HH to improve family health and nutrition.

The HPs and FG participants moved through a series of modules that included 1) Introductory Module on objectives of the Father Groups, expectations, gender roles and norms, and behavior change processes, 2) Water, Sanitation, and Hygiene Module, 3) Maternal Care Module, 4) Breastfeeding, and 5) Infant and Young Child Feeding. HPs facilitated discussions with the Father Groups on a range of health and nutrition issues and challenges faced by the participants themselves, their wives/relative, and other members of their communities. HPs also facilitated discussions between the FGs and CGs to encourage and establish a mutual sense of cooperation, appreciation, collaboration, and trust.

FGs were tasked with and enthusiastically took on the responsibility of identifying activities to directly support and/or complement the efforts of their respective CGs and developing action plans that would be openly shared with their respective CG, Village Development Committees (VDC), and Village Health Committees (VHC). Action plan activities encouraged men to be champions and role models in their homes and communities and address and resolve issues brought to them by the CGVs, including making home visits to promote behavior change among CG beneficiary families and improve awareness of and access to health and nutrition services. Action plans often included but did not require father group members to make household visits with CGVs and work one-on-one with both men and women struggling with adopting new behaviors. FGs monitored their own progress and reported monthly on their achievements to their respective CGs and HPs.

2.2. Research Goal And Objectives

Research goal

The primary research question of *Father Involvement in Promoting Reproductive, Maternal, Newborn, and Child Health* was: does engaging men in Father Groups add value and contribute to promoting positive changes in health and nutrition-related knowledge, practices, and gender-equitable attitudes among CGV, beneficiaries and FG members compared to an identical model without corresponding FGs?

Research hypothesis

PCI's hypothesis was that engaging men in Father Groups would lead to significant, positive changes in health and nutrition-related knowledge, practices, and gender equitable attitudes at the among CGV, beneficiaries and FG participants compared to an identical model without corresponding FGs.

Research Objectives:

1. Measure differences in outcomes among CGV, Father Group members, and household beneficiaries by comparing groups with and without Father Groups on measures of key health and nutrition knowledge, attitudinal, and behavioral indicators.
2. To determine the added effect of male involvement in Care Groups on key health and nutrition knowledge, attitudinal, and behavioral indicators
3. To identify the role of men within the CG structure (the mechanisms, what works) in overcoming barriers to and promoting health and nutrition at the household level

2.3 Methods

Study Design

Father Involvement used a quasi-experimental design (treatment arm and control arm) to compare measures of priority reproductive, maternal, newborn, and child health and nutrition outcomes among members of ten CGs, FGs and their beneficiary households (intervention or treatment arm), with those of beneficiary households who do not have corresponding FGs (control arm). The units of analysis included CG members, members of FGs, and members of beneficiary households.

The priority outcomes included measures of key knowledge, attitudinal, and behavioral indicators that reflect three health and nutrition areas that were covered during the FG trainings using the following PCI or Malawi Ministry of Health CG modules and flipcharts, namely: 1) Maternal Care (antenatal, intrapartum, postpartum care, family planning); 2) Breastfeeding; and 3) Infant and Young Child Feeding.

- **Knowledge indicators** included: 1) antenatal, skilled delivery, post-partum care; 2) early initiation of exclusive breastfeeding; 3) recognition of early maternal and newborn danger signs; 4) proper handwashing techniques.
- **Behavioral indicators** included: 1) antenatal care attendance during most recent pregnancy; 2) minimum diet diversity (proportion of children 6-23 months of age who receive foods from four or more food groups; 3) minimum meal frequency (proportion of breastfed and non-breastfed children 6-23 months of age, who receive solid, semi-solid or soft foods the minimum number of times or more); 4) minimum acceptable diet (proportion of children 6-23 months of age who receive a minimum acceptable diet apart from breast milk); 5) father/mother using a contraceptive method; and 5) RMNCH decision-making at household level.
- **Service demand and utilization indicators** include: 1) four ANC visits; 2) skilled attendance at delivery; 3) postpartum check-ups; 4) attendance at family planning services; 5) attendance at growth monitoring sessions; and 6) attendance at immunization sessions.
- **Attitudinal outcomes** include gender equity indicators that measure: 1) gender role expectations; 2) decision-making regarding reproductive health; 3) household decision-making; 4) intra-household communication.

Study Population

Both Balaka and Machinga districts have similar conditions and characteristics in terms of vulnerability status as defined by the Government of Malawi (criteria include food security and health status). The study randomly selected Group Village Headmen (GVH) areas, which are subunits of the Traditional Authority, for both the treatment and control arms, all of which are equal recipients of Njira programming. Participants were drawn from both the Balaka and Machinga districts to ensure that any difference in supervision provided by PCI and its partner implementing in Machinga district, Emmanuel International, would not bias study implementation or analysis. The table below lists the GVHs where Father Groups were formed and where control group participants were sampled.

Table 1: Study areas for *Father Involvement* Study

BALAKA T/A	**Father Group Area**	**Comparison Area**
Msamala	GVH Mpulula	GVH Kapalamula
Kachenga	GVH Pyoli	GVH Kachenga
Sawali	GVH Msamanyada	GVH Toleza
Kalembo	GVH Kuntiyani	GVH Mkanda
Amidu	GVH Mkwekwere	GVH Katapila
MACHINGA T/A	**Father Group Area**	**Comparison Area**

Nkoola	GVH Mlimbula	GVH Ntajachipanga
Nchinguza	GVH Missi	GVH Nchinguza
Chikweo	GVH Maluwale	GVH Adamson
Nyambi	GVH Mchimbo	GVH Matwaya
Ngokwe	GVH Mpacha	GVH Khungwa

Inclusion Criteria

Women's intervention group inclusion criteria:

- Lead Mothers: Participate as a CGV in a Njira Care Group that has a corresponding Father Group
- Neighbor Women: the beneficiaries of Njira CGVs included in the intervention group (have at least one child 0-5 years of age, are visited by a CGV at least monthly, and their CGVs are linked with Father Group members).

Women's control group inclusion criteria:

- Lead Mothers: Participate activity as CGVs in Njira Care Groups that do not have corresponding Father Groups
- Neighbor Women: the beneficiaries of Njira CGVs included in the control group (have at least one child 0-5 years of age, are visited by a CGV at least monthly, but their CGVs have no linkage to Father Group members).

Men's intervention group inclusion criteria:

- Njira male beneficiary who is a member of a Father Group

Men's control group inclusion criteria:

- Njira male beneficiary who is not a member of a Father Group but whose partner is a member of a Care Group without a corresponding Father Group.

Sampling Frame

Father Involvement used a multi-stage cluster design with simple random sample selection at each stage. The first cluster sample, comprised of Traditional Authorities, included 6 out of a total of 10 TAs in the catchment area.

In the second stage of the sampling strategy, CGV and FG member sample frames were generated from PCI's *GPath* database based on Care Group registration data. To achieve a Margin of Error of 10% and a confidence interval of 90%, the team needed to interview 7 CGVs and 7 FG members from each GVH in the treatment arm, and 7 CGVs and 7 male partners or relatives from each GVH in the control arm. This sample was increased to 8 participants per group to account for attrition that might occur between baseline and endline. For the control arm of the study, the CGV sample was used to identify participating households, and enumerators identified the appropriate male partner or relative of the CGV to participate in the survey, thus matching the selection of men in the intervention arm.

In the third stage of the sampling strategy, the sample frame was also generated from *GPath* based on the NW who received messaging from the CGVs. To achieve a Margin of Error of 10% and a confidence

interval of 90%, the team needed to interview a total of 8 NW per CG in both the control and treatment arms. This sample was increased to 12 participants per group to account for any attrition between baseline and endline.

In total, to achieve a 10% MOE and 90% CI, and to account for attrition, 336 participants had to be sampled in total.

A breakdown of the sample size for intervention and control group participants is as follows:

Treatment Arm
Care Group Volunteers:

- For 100 CGVs @10% MOE, 90% CI - sample size of 41
- To account for attrition between baseline and endline, a total of 8 CGVs per Group were sampled, for a total of 48 total respondents
- As it was anticipated that not all CGVs will be available at the time of the survey administration, one alternative CGV per group was also provided in the sample

Father Group members:

- For 100 fathers @ 10% MOE, 90% CI - sample size of 41
- To account for attrition between baseline and endline, a total of 8 FG members per Group were sampled, for a total of 48 total respondents
- As it was anticipated that not all FG members would be available at the time of the survey administration, one alternative FG member per group was provided in the sample

Beneficiaries:

- For 1200 NW @ 10% MOE, 90% CI - sample size of 64
- To account for attrition between baseline and endline, a total of 12 NW per Care Group was sampled, for a total of 72 survey respondents
- As it was anticipated that not all beneficiaries will be available at the time of the survey administration, one alternative beneficiary per group was also provided in the sample

Control Arm
CGVs:

- For 100 CGVs @10% MOE, 90% CI - sample size of 41
- To account for attrition between baseline and endline, a total of 8 CGVs per Group was sampled, for a total of 48 total respondents
- As it is anticipated that not all CGVs will be available at the time of the survey administration, one alternative CGV per group was also provided in the sample

CGV Partners/Relatives:

- For 100 men @ 10% MOE, 90% CI - sample size of 41
- To account for attrition between baseline and endline, a total of 8 Partners/Relative per Care Group was sampled, for a total of 48 total respondents
- As it was anticipated that not all Partners/Relatives will be available at the time of the survey administration, one alternative male per group was also provided in the sample

Beneficiaries:

- For 1200 beneficiaries @ 10% MOE, 90% CI - sample size of 64

- To account for attrition between baseline and endline, a total of 12 beneficiaries per Care Group was sampled, for a total of 72 survey respondents
- As it is anticipated that not all beneficiaries will be available at the time of the survey administration, one alternative beneficiary per group was also provided in the sample

Table 2: *Father Involvement* Sampling Strategy for Treatment and Control Arms

Groups to be Studied	Number in Treatment Arm	Number in Comparison Arm	TOTAL
Care Groups (CG)	6	6	12
CG Volunteers	48 (6 groups x 8 women)	48 (6 groups x8 women)	96
FGs	6		
FG Members	48 (6 groups x 8 men)	48 fathers in Control Arm Area (generated from PCI's CG *GPath* data)	96
CG Beneficiaries/ Neighbor Women	72	72	144
TOTAL	168	168	**336**

Study Timeline

Upon receiving the award from TOPS in April 2016, PCI recruited a full-time study coordinator who was responsible for coordinating and overseeing all aspects of the research study activities on the ground, including IRB submissions and follow-up, district-level and community sensitizations, enumerator trainings and data collection, and monitoring of FG progress. The study protocol was submitted to the IRBs of PCI and Malawi COMREC in June. The study coordinator worked with the PCI HQ staff in Washington, DC to develop Standard Operating Procedures, translate and pre-test data collection tools, and finalize the sampling strategy. Final IRB approval was granted by the PCI IRB in June 2016 and by the Malawi IRB (COMREC) in January 2017. Because of delays with receiving approval from Malawi's IRB (College of Medicine Research Ethics Committee), PCI moved ahead with forming and training the Father Groups to avoid withholding promising interventions and their benefits from Njira beneficiaries and to avoid delaying Njira's implementation timeline. Data related to content from modules that were rolled out prior to the start of the TOPS Father Involvement pilot study, i.e. the Introductory Module and Water, Sanitation, and Hygiene, were not analyzed as part of the study. Enumerator training and baseline data collection were carried out during the last week of January 2017 among CGVs, FG members, and CG neighbor women in the intervention arm, and among CGVs, CG neighbor women, and their male partners/relatives in the control arm.

The *Father Involvement* Coordinator conducted sensitization meetings with District Health Management Teams (DHMT) and community members in Balaka and Machinga in August of 2016 on the FG intervention, study design, objectives, methodology, and expected outcomes. The *Father Involvement* intervention period lasted three months, from February to April 2017. Endline survey enumerators were trained and endline survey was administered in April. Data analysis was carried out in May and June 2017, while documentation and dissemination of findings took place in June 2017.

Table 3: *Father Involvement* Study Timeline

Activity	Year 1 2016												Year 2 2017											
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
TOPS Award Approval																								
COMREC Submission & Approval																								
Community Sensitization																								
Formation of Father Groups																								
Enumerator Training and Baseline KAP Administered																								
Bimonthly Training and Meeting of FGs																								
Father Group Action Plan Implementation																								
Enumerator Training and Endline KAP Administered																								
Data analysis																								
Documentation of Results																								
Dissemination of Results																								

Data Collection

To measure changes in outcomes associated with the Father Group intervention, two Knowledge, Attitudes, and Practices surveys (KAP) were developed – one for men and one for women – which were then translated, back translated, pretested, and administered to study participants (see Annex 1). The questionnaires consisted of five sections that included screening questions, demographics, knowledge, behaviors/service demand and utilization, and attitudes related to WASH, reproductive, maternal, newborn, and child health, nutrition, and gender equity. The KAP was compiled from standard USAID health indicators and questionnaires, UNICEF's recommended indicators for accessing IYCF practices, the reflected the content of the Care Group modules.

Questions from C-Change's Compendium of Gender Scales were pulled and compiled to measure changes among participants in attitudes and beliefs related to gender roles and practices, reproductive health/family planning, household decision-making, and communication.

Prior to administration of the baseline survey, all study participants (CGVs, CG beneficiaries, their male partners/relatives, and FG members) were oriented to the objectives of the study and encouraged to ask questions and discuss any component of the study that remained unclear. Participants were then consented for their participation in the study. The decision to decline participation in the study did not affect Care Group or Father Group membership (note: all of those invited to participate consented). For baseline and endline data collection, nine enumerators were hired and received 2-day intensive training which included training on the study protocol and methodology, the site selection and sampling procedures, ethical considerations including informed consent, best practices for survey administration, and standard data collection procedures for administering the Knowledge, Attitudes, and Practices (KAP) questionnaires.

Questionnaires were uploaded into the CommCare application and administered on tablets by trained enumerators to the sampled CGVs, FG volunteers, and CG beneficiary households in the intervention

arm. For the comparison arm, the questionnaire was administered to the sampled CGVs, CG beneficiaries, and their male partners/relatives.

For both baseline and endline data collection, enumerators were divided into two groups comprised of 4-5 enumerators. Data collection took approximately 8 days for baseline and 8 days for endline with the first 4 days spend in Machinga and the last 4 days in Balaka. The study coordinator was responsible for overseeing all the teams and led the teams in managing field activities and ensuring that all sampled participants were identified and interviews were successfully completed. Prior to the field visits, health promoters and facilitators were informed and communicated in advance with selected participants on the study team visits and schedule.

Data Analysis
Analyses were conducted using SPSS. At pre-test and post-test, changes between the control and treatment arms were measured. T-tests were conducted for continuous data and chi-square and fisher's exact tests for categorical data. Statistically significant differences between control and intervention groups at post-test were attributed to the intervention.

2.4 Results

2.4.1 Quantitative Findings

The preliminary analysis is shown here as grouped for female and male respondents. Further analysis will be conducted on disaggregated data at a later date. The analysis was structured to look for differences in control and intervention groups at baseline and endline. When there were no differences at baseline, the differences at endline can be attributed to the Father Group intervention. Only questions relevant to this study were analyzed.

<u>Women's Survey</u>

At baseline, 116 women in the control arm and 122 women in the intervention arm were interviewed. At endline, each arm included 108 female respondents.

Demographics

Of the 9 questions asked on the demographic section, there are no statistically significant differences between intervention and control groups at baseline.

Women's Results Table 1: Demographics

Group		**Age**	**Highest level of education**	**% that are Head of Household**
Baseline	Control	28	6% none 65% some primary school 10% finished primary school	30%

			16% some secondary school 4% finished secondary	
	Intervention	30	13% none 60% some primary school 14% finished primary school 11% some secondary school 2% finished secondary	27%
Endline	Control	39	7% none 68% some primary school 10% finished primary school 13% some secondary school 3% finished secondary	20%
	Intervention	30	10% none 60% some primary school 18% finished primary school 9% some secondary school 3% finished secondary	20%

Knowledge

Of the 14 questions asked on the knowledge section, 13 were analyzed. There were no statistically significant differences between control and intervention groups at endline.

Women's Results Table 2: Knowledge Results

Question	**Correct Answer (based on Care Group materials)**	**Difference between control and intervention at baseline?**	**Change in correct answer between control and intervention at endline?**
How many antenatal visits should a pregnant woman attend during her pregnancy?	4+	No	No

Do you think that a pregnant woman should eat more than a non-pregnant woman?	Yes	No	No
How much more?	Extra snack or 1 meal or 2 meals	No	No
Who should attend the delivery of a woman in labor?	Doctor or nurse or midwife or other health staff	No	No
How many days after birth should a mother visit a health provider for a post- partum check-up?	7 or less	No	No
How soon after the birth of a child should a mother take her child for a post-partum check-up?	7 or less	No	No
What type of symptoms would cause a pregnant woman to seek immediate care at a health facility?	Total number of symptoms listed	No	No
What type of symptoms would cause you to seek immediate care for your infant at a health facility (right away)?	Total number of symptoms listed	No	No
How soon after birth should an infant be put to the breast?	Within 1 hour	No	No
When should you wash your hands?	Before eating, before breastfeeding, before cooking, after toileting, after defecation	No	No
What materials are best to use to wash your hands?	Soap	Yes	No
What should a child under six months be fed?	Breastmilk	Yes	No

Behavior and Service Demand and Utilization

Of the 29 questions asked on the knowledge section, 21 were analyzed. There was one statistically significant finding at endline between the control and intervention groups:

- More participants in the intervention group (33%), as compared to the control group (22%) answered "both" to "Who in your household is in charge of deciding what your child will eat and when?" (Chi square, p=.047).

Women's Results Table 3: Behavior and Service Demand Utilization Results

Question	Correct answer	Difference between control and intervention at baseline?	Change in correct answer between control and intervention at endline?
Are you and your partner currently using any method to delay or avoid getting pregnant?	Yes	No	No
Does your household have any mosquito nets that can be used while sleeping?	Yes	No	No
Who slept under a bed net last night?	Child	No	No
During your last pregnancy for most recently born child (or current pregnancy if this is your first), who did you see for antenatal care?	Doctor/medical assistant or nurse or midwife	No	No
How many weeks pregnant were you when you first received antenatal are for the most recently born child?	3 or less	No	No
During this pregnancy (your most recently born child), how many times did you receive antenatal care?	4 or more	No	No
Who assisted in the delivery of your youngest child?	Doctor or nurse or midwife or other health staff	No	No
After how many days or months did you take your child to the clinic for the first postnatal visit?	7 or less	No	No
During your last pregnancy, how many post-partum check-ups did you receive in the first 6 weeks?	1-2 or 2-3	No	No
Who decides when your child will be taken to the clinic?	Both	No	No
Who in your household is in charge of deciding what your child will eat and when?	Both	No	**Yes**

Can you show me where you usually wash your hands and what you use to wash hands?	Inside/near toilet facility or inside/near kitchen/cooking place	Yes	Yes
Is there soap or detergent or locally used cleansing agent?	Soap	No	No
How many times did child receive a DTP vaccination?	Yes	No	No
Did child ever receive an injection in the arm to prevent measles?	Yes	No	No
Since this time yesterday, has child received breast-milk?	Yes	No	No
Since this time yesterday, has child received milk-feeds?	Yes	No	No
Since this time yesterday, has child received solid foods such chambo fish or meat?	Yes	No	No
Since this time yesterday, has child received semi-solid foods such as chopped vegetables?	Yes	No	No
Since this time yesterday, has child received soft foods such as nsima?	Yes	No	No
Since this time yesterday, has child received - Grains, roots and tubers - Legumes and nuts - Dairy products (milk, yogurt, cheese) - Flesh foods (meat, fish, poultry and liver/organ meats) - Eggs - Vitamin-A rich fruits and vegetables - Other fruits and vegetables	Total number of food groups received	No	No

Gender Attitudes

A total of 10 questions were asked to determine the gender attitudinal score. These questions were scored as a composite; the number of gender-sensitive answers were totaled and the scores were compared. Five additional questions were asked on this section regarding male support and household decision-making. There was one statistically significant finding at endline between the control and intervention groups:

- More participants in the intervention group (33%), as compared to the control group (22%) answered "both" to "Who should make decisions about purchases for daily household needs, men, women, or both?" (Chi square, p=.004).

Women's Results Table 4: Attitudes/Gender

Question	**Answer**	**Difference between control and intervention at baseline?**	**Change in correct answer between control and intervention at endline?**
Gender Attitudes Score	Total Score	No	No
How supportive is your husband/partner on attending antenatal care?	Strong supportive or Supportive	No	No
In what ways is he supportive?	Gives me money to go to clinic or Takes me to the clinic or Encourages me to go	No	No
When a child is sick in the household, who should decide whether or not they should seek care at a clinic or health facility, men, women, or both?	Both	No	No
When a mother is sick in the household, who should decide whether or not they should seek care at a clinic or health facility, men, women, or both?	Both	No	No
Who should make decisions about purchases for daily household needs, men, women, or both?	Both	No	**Yes**

Men's Survey

At baseline, 46 men in the control arm and 49 men in the intervention arm were interviewed. At endline, 34 men in the control arm and 48 men in the intervention arm were interviewed.

Demographics

Of the 7 questions asked on the demographic section, there are no statistically significant differences between intervention and control groups at baseline.

Men's Results Table 1: Demographics

Group		**Age**	**Highest level of education**	**% that are Head of Household**
Baseline	Control	35	2% none 50% some primary school 11% finished primary school 15% some secondary school 22% finished secondary	94%
	Intervention	36	4% none 55% some primary school 11% finished primary school 17% some secondary school 13% finished secondary	100%
Endline	Control	35	15% none 38% some primary school 12% finished primary school 24% some secondary school 12% finished secondary	94%
	Intervention	36	6% none 50% some primary school 21% finished primary school 19% some secondary school	100%

			6% finished secondary	

Knowledge

Of the 14 questions asked on the knowledge section, 13 were analyzed. There were two statistically significant finding at endline between the control and intervention groups:

- Participants in the intervention group were able to list more symptoms that require a pregnant woman to seek immediate care at a health facility as compared to the control group (2.7 vs 3.5) (T-test, p=.004)
- More participants in the intervention group (96%) as compared to the control group (79%) were able to answer: "How soon after birth should an infant be put to the breast?" correctly (Fisher's Exact Test, p=.030).

Men's Results Table 2: Knowledge

Question	**Correct Answer (based on Care Group modules)**	**Difference between control and intervention at baseline?**	**Change in correct answer between control and intervention at endline?**
How many antenatal visits should a pregnant woman attend during her pregnancy?	4+	No	No
Do you think that a pregnant woman should eat more than a non-pregnant woman?	Yes	No	No
How much more?	Extra snack or 1 meal or 2 meals	No	No
Who should attend the delivery of a woman in labor?	Doctor or nurse or midwife or other health staff	No	No
How many days after birth should a mother visit a health provider for a post-partum check-up?	7 or less	No	No
How soon after the birth of a child should a mother take her child for a post-partum check-up?	7 or less	No	No
What type of symptoms would cause a pregnant woman to seek immediate care at a health facility?	Total number of symptoms listed	No	**Yes**

What type of symptoms would cause you to seek immediate care for your infant at a health facility (right away)?	Total number of symptoms listed	No	No
How soon after birth should an infant be put to the breast?	Within 1 hour	No	**Yes**
What should a child under six months be fed?	Breastmilk	No	No
Starting at 6 months, how many times should a child be fed each day?	2	No	No
When should you wash your hands?	Before eating, before breastfeeding, before cooking, after toileting, after defecation	Yes	Yes
What materials are best to use to wash your hands?	Soap	No	No

Behavior and Service Demand and Utilization

Of the 31 questions asked, 26 were analyzed. There were four statistically significant finding at endline between the control and intervention groups:

- More participants in the intervention group (92%) as compared to control group (68%) said "yes" to "Are you and your partner currently using any method to delay or avoid getting pregnant?" (Chi-square, p=.006)
- More participants in the intervention group (90%) as compared to the control group (62%) said "gave money for transport" to "In what ways did you support your partner/wife/relative in seeking antenatal care?" (Chi-square, p=.003)
- More participants in the intervention group (50%) as compared to the control group (21%) said "both" to "Who in your household is in charge of deciding what your child will eat and when?" (Chi-square, p=.011)
- Children 18-24 months in the intervention group had a more varied diet as compared to the control group (2.3 vs 2.8 food groups) (t-test; p=.043).

Men's Results Table 3: Behavior and Service Demand Utilization Results

Question	**Correct Answer (based on Care Group modules)**	**Difference between control and intervention**	**Change in correct answer between control and intervention**

		at baseline?	at endline?
Are you and your partner currently using any method to delay or avoid getting pregnant?	Yes	No	**Yes**
Does your household have any mosquito nets that can be used while sleeping?	Yes	No	No
Who slept under a bed net last night?	Child	No	No
During your wife/female partner/female relative's last pregnancy for the most recently born child (or current pregnancy if this is your/her first), who did she see for antenatal care?	Doctor/medical assistant or nurse or midwife	No	No
How many months pregnant was she when she first received antenatal care for the most recently born child?	3 or less	No	No
Did you ever attend an antenatal care visit with your wife/partner/female relative?	Yes	No	No
How many times did you attend an antenatal care visit with your wife/partner/female relative?	1 or more	Yes	No
How many times in total did your wife attend an antenatal care visit during her current or last pregnancy?	4 or more	No	No
Were you tested for HIV during your partner's pregnancy?	Yes	No	No
In what ways did you support your partner/wife/relative in seeking antenatal care?	Verbal support, Gave money for transport, Took care of household or other duties, other	No	**Yes**
Who assisted your wife/partner/female relative in the	Doctor or nurse or midwife or other health	No	No

delivery of your youngest child?	staff		
In what ways did you support your partner/wife/relative during delivery?	Developed birth plan, took her to clinic/hospital, encouraged skilled attendance, was present during delivery, provided money for transport	No	No
After how many days or months was your child taken to the clinic for the first postnatal visit?	7 or less	No	No
What role did you play in taking the child to clinic for first postnatal visit?	Took the child myself, accompanied wife/partner, provided money for transport, verbal support, other	No	No
During your wife's or partner's last pregnancy, how many post-partum check-ups did your wife receive in the first 6 weeks?	1-2 or 2-3	No	No
What role did you play in taking your wife/partner to clinic for first postnatal visit?	Took the child myself, accompanied wife/partner, provided money for transport, verbal support, other	No	No
Who decides when your child will be taken to the clinic?	Both	No	No
Who in your household is in charge of deciding what your child will eat and when?	Both	No	**Yes**
Can you show me where you usually wash your hands and what you use to wash hands?	Inside/near toilet facility or inside/near kitchen/cooking place	No	No
Is there soap or detergent or locally used cleansing agent?	Soap	No	No
Have you ever attended an immunization session with your child?	Yes	Yes	No

What other role have you played in supporting your child's immunization sessions?	Provided money for transport, verbal support, other	No	No
Did you ever attend a growth monitoring and promotion session with your most recent child?	Yes	Yes	Yes
What other role did you play in your child's attendance at growth monitoring and promotion sessions?	Provided money for transport, verbal support, other	No	No
In the past 24 hours, how often did you feed your child?	5 or more or 3-4 times or 1-2 times	No	No
In the past 24 hours, what did your child eat?	Total number of answers	No	**Yes**

Gender Attitudes

A total of 10 questions were asked to determine the gender attitudinal score. Three additional questions were asked on this section. There was one statistically significant finding at endline between the control and intervention groups;

- Participants in the intervention group scored higher on the attitudinal scale, as compared to the control group (8.2 vs. 7.4) (T-test, p=.026).

Men's Results Table 4: Attitudes/Gender

Question	**Correct Answer**	**Difference between control and intervention at baseline?**	**Change in correct answer between control and intervention at endline?**
Gender Attitudes Score	Total Score	No	**Yes**
When a child is sick in the household, who should decide whether or not they should seek care at a clinic or health facility?	Both	No	No
When a mother is sick in the household, who should decide whether or not they should seek care at a clinic or health facility?	Both	No	No

Who should make decisions about purchases for daily household needs?	Both	No	No

2.4.2 Qualitative Findings

The study team also conducted two focus group discussions with members of the Father Groups and their corresponding Care Groups in March 2017, one in Balaka district and one in Machinga district, as well as key informant interviews in June 2017 with two Balaka Health Promoters and a Balaka Facilitator, and two Machinga Health Promotors and Balaka Facilitator.

During the focus group discussions, the men expressed tremendous enthusiasm for the groups, citing their satisfaction with being able to learn about important issues that have been previously only discussed with the women. One man talked about his enthusiasm for learning about family planning so that he could discuss its importance with his wife. This statement was met with positive affirmation among the other men, who said they were concerned about the health and welfare of their families and thought family planning was important but didn't have the information that they needed to have a meaningful discussion at home.

The men described how they felt excluded from the Care Group discussions and all the things that their wives had been learning about. They also expressed how important health and nutrition issues were for their families.

One group had structured themselves with officers such as president, treasurer, etc., and was very serious about creating and implementing an action plan. While they met with the women from the Care Groups and did some household visits, they expressed greater satisfaction in doing community advocacy at public events, places where men meet and going to other villages to talk with men about what they were learning.

Men reported being more engaged in household tasks and caregiving. Several examples were proudly given by the men – in one village, it had become the norm for men to take their child for immunization, men were chopping firewood, fetching water, and even cooking. They reported how happy they were in having a spouse who was less tired and had more energy to engage with their husbands in discussing household issues and enjoying each other's company in a new way.

The men appreciated the Care Group the materials but requested additional materials that would address their issues specifically as men. They expressed pride in their roles as male leaders and also wanted to receive a bag to carry their materials or t-shirt as a way to have the community recognize them as well.

During the interviews with Health Promotors and Facilitators, the HPs and Facilitators confirmed that Father Group participants visited houses of neighbor women, assessed the behaviors being practices in the HH, provided support to the Care Group Volunteers, and held discussions with men in the household about the role that men can play in maternal health and nutrition. Fathers gave messages to both women and men in a HH and helped men realize how they will be involved in reproductive health. Besides making HH visits, Father Group members also visited places where men in their communities gather for recreational activities such as card games to provide messaging on how men can support their

partners in promoting women's and children's health and nutrition in their homes. The HPs and facilitators also noted that the Father Groups members wanted to meet more often than twice a month.

According to the HPs and Facilitators, some recommendations for how the Father Groups can be more effective moving forward include developing discussion guides and checklists to guide the groups; linking specific activities in the action plans with the behaviors that FG members want to change; support the Father Groups in meeting more often if that is their preference; scale up the groups to all GVHs in Balaka and Machinga; link men with youth clubs as they can serve as role models for adolescent boys; provide more encouragement and markers of their status as champions, e.g. t-shirts; provide capacity building and support to group leaders who want to form their own Father Groups; and link the Father Group members with other male champions in their communities so enhance reach and impact.

3. Notable Developments or Project Highlights

The behavior change literature includes several reports of positive outcomes from Care Groups and from groups involving other household influencers, such as fathers and grandmothers. This study is one of the first studies of male engagement in Care Groups to use a comparison group to show the effect of engaging men, and we were able to observe some changes in attitudes and decision-making behaviors, and a significant increase in uptake of family planning reported by men in the intervention groups. There was not enough time for the intervention to show significant RMNCH and nutrition-related behavior change among Care Group (CG) beneficiaries; however, the changes in attitudes and knowledge seen in these results can be precursors to further behavior change.

Among the women respondents, the two significant changes seen in household decision-making in the intervention group show a greater engagement of men in discussing important household issues relating to child feeding and household purchasing. This is a very promising finding that is anticipated to have great impact in the future.

The findings among the men are far more interesting and more fully reflect the impact of the Father Groups over this short period of time. The men had gone through the Care Group Hygiene and Sanitation module prior to the baseline data collection so while there was an increase in knowledge and behavior at baseline, it mirrored the changes among the control group and reflects the impact of the Care Groups on this issue. During the study period, the men went through the maternal care and nutrition modules, so the results reflect their increase in knowledge on the topics related to these modules (supporting the women in seeking antenatal care, pregnancy warning signs and initiation of breastfeeding within one hour of birth).

The significant increase (from 68% to 92%) in current use of family planning reported by men deserves further investigation since the increase is very large and there was no matching increase seen among women. Additional analysis will disaggregate the data of Care Group and Father Group participation from the beneficiary group to see whether there was a corresponding change among the women who are linked to the men in the Father Group. It is also possible that this result reflects an increased level of household discussion about family planning and that the men were able to become aware that their partner was using family planning. Whatever further investigation shows, this reported increase in family planning use should be seen as a positive outcome, especially in light of the changes in attitudes about household decision-making.

The positive change among the intervention group men on the GEM scale reflects the positive impact of the Father Groups on changing gender relationships and attitudes through this intervention. The positive changes in child feeding (more joint decision-making on what the child eats and when, and knowledge of improvement in the number of food groups eaten by the child in the last 24 hours) gives further support to the increased engagement of men in the household.

The initial design of the intervention was structured based on the desire to have men support the women in the Care Groups, but this did not fully capture the issues necessary to change attitudes and behaviors of men and women. The men took the initiative to go beyond what was envisioned. Their reports on how these changes made a difference in the quality of their relationship with their wives and their enjoyment of life were dramatic and went far beyond just the 'behaviors' that we wanted to measure. The men provided further understanding of the need to address men as more than just people who should support women's issues.

This study has contributed to furthering our understanding of the importance of engaging men as full participants in health and nutrition programming. Further, our exclusion of men from this programming has limited our ability to achieve the impact on the ground. Our programs should empower both men and women to work together in their households and communities to change their own lives.

4. Challenges and Lessons Learned

This study had several limitations, the most important of which was the very short time period between the baseline and endline surveys. This was obviously not optimal or planned, but was the result of ethical approval delays in Malawi and funding constraints that could not allow the extension of the study. Although is well known that planning well ahead of time for IRB approval in country, including planning for long delays, is critical for timely implementation of research activities, this point deserves emphasis here. Fortunately, in this case, *Father Involvement* data are strong enough to support scale up of the Father Group interventions throughout the Njira project area in Malawi, and should encourage others to incorporate male engagement in a serious way in health and nutrition projects.

This preliminary analysis shows all women interviewed and doesn't disaggregate the Care Group members from the Neighbor Women. Thus, it is likely that the effect of the Father Group intervention is underestimated for the women. Further analysis is needed to show greater household impact of the intervention.

The study used Care Group materials that were designed for women, although they included a very positive emphasis on joint decision-making and engagement of the family. The men noted that they could have done more with materials that addressed some of the specific issues and barriers that faced them as men and further work will be done to adapt materials to address this need.

Lastly, the initial design of the intervention was structured based on the desire to have men support the women in the Care Groups, but this did not fully capture the issues necessary to change attitudes and behaviors of men and women. In order to fully engage men on their own terms and in a way most effective for them, interventions should conduct formative research on a range of ways (including but not limited to Care Group activities) in which men can be engaged in supporting reproductive, maternal, newborn, and child health and nutrition within their households and communities.

5. Recommendations and Next Steps

Recommendations

For other partners who wish to more effectively engage men in health and nutrition programming, PCI recommends that implementers: 1) plan well ahead of time for IRB approval in country and preempts extended delays, 2) conduct formative research among men in targeted communities prior to finalizing design of male engagement interventions to ensure the intervention addresses the desires and needs of men and leverages their full potential, 3) develop materials specific to men based on formative research findings and pretest among a small sample, 4) build capacity of men/fathers to serve as role models and champions in their communities and to form and lead their own groups, and 5) think innovatively about synergies across program activities and link male engagement approaches with other platforms such as youth groups for greater project effectiveness.

Next Steps

PCI will build off of the findings, lessons learned, and recommendations of this study to scale up the Father Group intervention across the Balaka and Machinga districts, and measure impact on a larger scale and document best practices for bringing to scale.

Study findings as well as recommendations will be disseminated internally among Njira staff as well across other PCI projects and countries. Findings and recommendations will also be shared with Malawi District Health Management Teams as well as more broadly to key global stakeholders within health and food security communities. This will contribute to the internal and external discussions on how best to engage men in supporting health and nutrition outcomes. Most imminent will be PCI's participation in the TOPS/FSN Knowledge Sharing Meeting in mid-July 2018.

Additional analysis will also be conducted that will disaggregate the data of Care Group and Father Group participation from the beneficiary group to see whether there was a corresponding change among the women who are linked to the men in the Father Group. Funding permitting, PCI will also develop new materials that more effectively address men on their own terms, capturing their specific needs, desires, and assets, and approach men (not just their wives/partners) as clients of services.

6. Conclusion

This study has contributed to furthering our understanding of the importance of engaging men as full participants in health and nutrition programming. Further, our exclusion of men from this programming has limited our ability to achieve the impact on the ground. Our programs should empower both men and women to work together in their households and communities to change their own lives.