A Mother's Voice: Impacts of Spousal Communication Training on Child Health Investments

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February 3, 2023

Abstract

Building on prior evidence that mothers often have a stronger preference for spending on children than fathers do, we use a randomized experiment to evaluate the impacts of a communication training program for mothers on child health in Uganda. The hypothesis is that the training will enable women to better convey their knowledge and preferences to their husbands and, thereby, boost investments in children's health. We find that the program increases spousal discussion about the family's health, nutrition, and finances. However, this does not increase overall adoption of health-promoting behaviors or child anthropometrics. One exception is that the communication training increases women's and children's intake of protein-rich foods as well as household spending on these foods.

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We thank Fadhil Nadhif Muharam, Juliana Ariza Sánchez, Martin Albouy, Alejandro Favela, Lydia Kim, Suanna Oh, Alexander Persaud, and Andrea Guariso for excellent research assistance; Fabio Blasutto for helpful comments; Pia Raffler, Doug Parkerson, Daniele Ressler, Vianney Mbonigaba, Josh Bwiira, Mary Langan, Jaye Stapleton, Crossley Pinkstaff, Jemma Rowlands, Austin Land, and Leslie Marshall for supervision of field activities; Jaye Stapleton and Pricilla Marimo for project management; IPA-Uganda for program implementation support; and the USAID Uganda Mission, Dianna Darsney de Salcedo, and Carlos Rodriguez for support. Financial support from USAID and Mistra (the Swedish Foundation for Strategic Environmental Research) is gratefully acknowledged.

1 Introduction

In 2019, over 5 million children died before reaching the age of five (IGME 2020) and more than 130 million children under the age of five suffered from stunting in low- and middle-income countries (UNICEF 2020). Early-life investments in health and nutrition play a key role in lowering these numbers (Bhutta et al. 2014; Alderman and Fernald 2017). Previous research documents the existence of mother-father gaps in child health investments: additional resources in the hands of women are more likely to be steered towards improving children's health and family nutrition (Thomas 1990, 1997; Duflo 2003; Qian 2008; Armand et al. 2020; Dizon-Ross and Jayachandran 2023). This pattern is consistent with mothers having a stronger preference for spending on children and is the main cited reason for social welfare programs such as conditional cash transfers targeting payments to women in many contexts (Fiszbein et al. 2009).

In this paper, we evaluate a program designed to boost child health and nutrition investments in an environment where women might have stronger preferences for investing in children, but men have more decision-making power in the household. Targeting transfer payments to women may not always be feasible (Bourgault and O'Donnell 2020), or desirable, for example because of concerns about intra-household disputes or violence.[1] Our study takes a different tack to increase women's voice in the household regarding child health and nutrition. We evaluate the impacts of providing communication skills training to women to study whether this can strengthen their influence over child health and nutrition investments through the channel of assertive dialogue with their husbands.

We leverage an experiment that randomized access to three different interventions across villages in four rural districts of southwest Uganda. Two treatment arms consisted of offering health classes to parents, providing them with information on how to improve children's health and well-being. In one set of villages, these classes were offered to fathers exclusively, and in another, only to mothers. In the third treatment arm, women were trained in a curriculum on assertive communication *in addition* to the health curriculum.

The experiment was designed to test two distinct hypotheses. The first is that, because men hold most of the power in the household, increasing their knowledge about child health might be a more effective path to improving child health and nutrition than focusing on mothers. Björkman Nyqvist and Jayachandran (2017) find

[1] Donald et al. (2021), using surveys from 12 sub-Saharan African countries, find that sole decision-making by women is associated with the highest rates of intimate partner violence. This raises concerns that policies seeking to increase women's control over household resources may also make them more vulnerable to domestic violence.

evidence rejecting this hypothesis: they show that targeting health classes to mothers improved adoption of health-promoting behaviors by the household more than when the same training was provided to fathers.[2] The second hypothesis, which is the basis of this study, is that women need more say in the household to be able to shift household investments towards improving child health and nutrition. To test whether communication skills are one way of achieving this, we compare the impacts of the communication-plus-health-skills intervention for women to those of the women's health skills intervention alone.

Our analysis yields five main findings. First, women assigned to the communication training are more likely to report improvements in their relationship along a number of dimensions. They communicate better with their partners, have fewer arguments, and claim that their husbands are more likely to share the household's finances with them. They are also significantly more likely to make decisions about the family's health and expenses jointly with their husbands. While they report having more decision-making power in the household than the control group, we cannot statistically reject that this impact is the same as that of the women's health classes alone. Second, women offered the bundled communication and health knowledge training were more likely to discuss targeted health topics and household budgeting with their husbands. Here, a surprising finding is that this increase in spousal discussion did not affect *husbands'* knowledge about child health needs, suggesting that either women did not share their new knowledge in these discussions or that men did not retain the information passed on by their wives.

Third, we do not detect any differential impacts of the communication-plus-health-skills program on households' overall adoption of health-promoting behaviors compared to the women's health classes alone. The share of households implementing recommended health behaviors around newborn and maternal health was significantly higher in the women's health curriculum arm than in the control group, but the addition of communication training did not improve these outcomes further. Fourth, while women's and children's consumption of carbohydrates and fruit and vegetables increased by similar proportions in the two treatment arms, only households in the communication-plus-health-skills arm increased their intake of protein-rich foods. To investigate the mechanisms driving these effects, we examine household spending on different food items as well as agricultural land allocation to fruit and vegetables.

[2] Fitzsimons et al. (2016), using an experiment in rural Malawi, also show that increasing mothers' knowledge of the child health production function improves child health and nutrition. The results from comparing the impacts of mothers' and fathers' health classes in Björkman Nyqvist and Jayachandran (2017) suggest that the strategy of upskilling the typically more powerful spouse (the father) is not the most direct or effective way to help children.

Mirroring our patterns on food intake, we only observe a significant increase in expenditure on meat/fish in the communication-plus-health-skills group. This suggests that women may have applied their newly acquired communication skills to shift household spending towards these foods. Finally, we study impacts on downstream child health outcomes. We do not detect effects of either program on anthropometrics of young children (weight-for-height, height-for-age, mid-upper arm circumference, and hemoglobin levels). The number of days children were sick decreased by 12% relative to the control in both treatment arms, but this effect is statistically similar across the treatment groups.

Taken together, these findings suggest that the addition of the communication skills training, while effective at improving spousal communication and women's satisfaction with their relationships, did not shift household decision-making power towards mothers enough to produce transformative impacts on child health overall.

Our paper makes two main contributions to the literature. First, it is one of few studies exploring the role of spousal communication in how households allocate resources to children. While previous public health research investigates whether husbands' engagement and couples' communication together can improve maternal health outcomes (e.g. Sitefane et al. 2020), a unique feature of our experimental design is that it allows us to *isolate* the impact of mothers' communication skills on household investments in health and nutrition.[3]

The modest impacts of the communication skills training suggest that couples may face more than one constraint in the way they communicate and make decisions about early-life investments in children. Björkman Nyqvist and Jayachandran (2017) document asymmetric impacts of the men's and women's health skills programs on spousal knowledge of child health and nutrition needs: offering the health training to men improved their wives' knowledge while offering it to women did not change their husbands'. Other recent research investigating knowledge-sharing and learning frictions within the household yields similar conclusions. Conlon et al. (2021) and Fehr et al. (2022) document gender asymmetries in indirect learning from spouses in India and Germany, respectively. Both of these experimental studies find that men are less likely to retain information they receive from their wives than if they learn it themselves. The fact that our communication skills intervention did not improve what men retained *despite* inciting women to communicate more about targeted health topics with their

[3]By providing negotiation skills training to adolescent girls, Ashraf et al. (2020) also study communication skills training as a way to make joint family decisions more aligned with the training participant's preferences.

partners suggests that women's communication skills may not be the only bottleneck to efficient knowledge-sharing within the household.

Our second contribution is to the literature studying whether women's share of decision-making power impacts household spending and child health investments. Previous research examines plausible shifts in women's bargaining power from increased control over productive assets such as agricultural land (Menon et al. 2014) or over unearned income such as cash transfers. On the latter, recent reviews of the literature conclude that the evidence may be more mixed than the consensus assumed in policy spheres would suggest. For example, a comprehensive review by Almås et al. (2020) indicates that targeting cash transfers to mothers tends to increase food spending, which can also boost the nutritional value of family diet (e.g. Armand et al. 2020), but has largely muted effects on child health (e.g. Akresh et al. 2016). These conclusions are broadly in line with those we draw from our evaluation of a program that seeks to enhance women's assertiveness in the household decision-making process whilst leaving household income unchanged. The fact that offering mothers communication training enhanced spousal dialogue and led to changes in household spending suggests that soft skills interventions may be a viable alternative to female-targeted transfers for increasing women's voice in these types of decisions.

2 Study Design and Data

This study is set in Uganda, where poor child health outcomes are a major policy concern and women have limited decision-making power within the household. Despite significant economic growth in recent decades, Uganda's under-5 mortality rate was high at the time of this study - 62 deaths per 1,000 live births (IGME 2013) - and about a third of children under the age of five were stunted in 2011 (ICF 2011). In 2006, 35% of married women reported not having a say in household purchases for daily needs and 43% believed that their husband was justified in beating them if they argued with him (ICF 2006).

2.1 Experimental Design

The randomized trial enrolled 5516 households across 412 villages in four rural districts in the southwest of the country. After the collection of a baseline survey, in 2013, villages were randomly assigned to three treatment groups and one control group. We label the three treatment arms as follows: (1) Men's Health & Nutrition (MHN, 105 vil-

lages); (2) Women's Health & Nutrition (WHN, 105 villages); (3) Women's Communication and Health & Nutrition curriculum (WCommHN, 98 villages). All arms include village-level training sessions providing either fathers (in the MHN group) or mothers (in the WHN and WCommHN groups) with the knowledge and skills to improve children's health and well-being. The health knowledge curriculum was designed to teach couples about safe antenatal and birthing practices, recommended breastfeeding behaviors, nutrition needs for women and children, and sanitary food and water preparation. In the WCommHN villages, women also received training in assertive communication and household negotiation skills. This last treatment, which is the focus of this paper, was designed to give women more say in household decisions about child health and nutrition investments by enhancing spousal dialogue. These sessions engaged the female participants in role-playing conversations to practice discussing topics taught in the health and nutrition course and household budgeting with their husbands.[4] To test our hypothesis, we compare the relative impacts of the two interventions targeting women - WHN and WCommHN - to the control group, but we also report the effects of the men's health classes (MHN) for completeness.[5]

We sampled couples who resided together and either had a child under two years of age or were pregnant. The relevant parent (mother in the WHN and WCommHN arms) in treated villages was invited to attend biweekly meetings over the course of 11 months, from February to November 2013.[6] The original research team designed the Communication and Health & Nutrition curricula with support from local health consultants and advocacy organizations, and program facilitators from our project's implementing partner, Innovations for Poverty Action (IPA), delivered the classes.

2.2 Data

The analysis uses data from a baseline survey, run between August 2012 and January 2013, and an endline survey which was collected from March to September 2014. The endline survey collected data on a wide range of knowledge, health and nutrition outcomes with the use of husband- and wife-specific questionnaires and anthropometric measurements for mothers and children under the age of five.

To assess direct impacts of the women's communication program, we focus on in-

[4] More details about the communication curriculum are provided in Appendix B.

[5] Björkman Nyqvist and Jayachandran (2017) compare the impacts of the women's (WHN) and men's (MHN) health classes.

[6] The randomization was stratified along two village characteristics measured at baseline: above-median women's decision-making power and above-median child and maternal health. Women's decision-making power is an index of survey questions about women's say in different household decisions, and child and maternal health is an index of child and maternal anthropometric measures.

dicators of women's assertiveness in their discussions and communication with their husbands, frequency of spousal discussions about household health and nutrition matters, knowledge of child health and nutrition needs, and household health behaviors (e.g. sanitation practices, adherence to guidelines around newborn and maternal health). To investigate effects on household resource allocation, we examine changes in per capita expenditure on protein-rich foods and food consumption outcomes constructed from 24-hour food recalls for women, men and children. Anthropometric indicators (e.g. weight-for-height and height-for-age) and hemoglobin levels were measured to evaluate impacts on downstream health outcomes.

2.3 Empirical strategy

We estimate the following linear regression model:

$$y_{ijd} = \alpha + \beta_1 WCommHN + \beta_2 WHN + \beta_3 MHN + \mathbf{X}_{ijd} + \eta_j + \rho_d + \varepsilon_{ijd} \quad (1)$$

where $WCommHN$, WHN and MHN are indicator variables for assignment to the three intervention groups, $\mathbf{X}_{ijd}$ is the baseline value of the dependent variable (whenever it is available), η_j are stratum fixed effects and ρ_d are district fixed effects. We cluster standard errors at the village level since the intervention was assigned at that level.

For some outcomes, we have a group of related outcome measures. To assess the impact of the intervention on a set of K related outcomes, we follow Kling et al. (2004) to derive Average Standardized Treatment Effects (henceforth ASTE):

$$\tilde{\beta} = \frac{1}{K} \sum_{k=1}^{K} \frac{\hat{\beta}_k}{\hat{\sigma}_k},$$

where $\hat{\beta}_k$ is the point estimate on the treatment indicator in the k^{th} outcome regression and $\hat{\sigma}_k$ is the standard deviation of the control group for outcome k (see Duflo et al. 2007). For ease of interpretation, we also normalize each index by the mean and standard deviation of the control group. We report treatment effects on the outcome variables within each ASTE in the Appendix.

Our main hypothesis is that the WCommHN intervention had larger effects than the WHN training alone, so we report the p-values of the test of equal impacts across the two treatments in all our results. We also discuss effects of the WCommHN treatment with respect to the control group. Appendix Table A1 shows that baseline vari-

ables are balanced between each treatment arm and the control group as well as across the WCommHN and WHN arms. The p-value of the joint significance test is 0.94 for WCommHN compared to control, and 0.19 for WCommHN compared to WHN.

3 Results

This section presents results of the effects of the WCommHN intervention on five sets of outcomes: women's relationships; spousal communication; health-promoting behaviors; protein intake; and child and mother health outcomes.

Finding 1: Women report improvements in their relationship with their husbands.

In Table 1, we test whether the WCommHN treatment enhanced women's dialogue and communication skills within the household and to what extent this benefited their relationship with their male partner and their say in key household decisions.

Column (1) displays the ASTE of an index pooling six outcomes that capture effective spousal communication, such as listening, conflict, and whether couples share information and finances. The estimate shows that the WCommHN intervention improved marital relationships by 0.210 standard deviations of the control group. In contrast, the women's health classes alone (WHN) increased this index by only 0.045 standard deviations (henceforth SD). The p-value of 0.000 indicates that we can reject the null hypothesis of equal impacts across the WCommHN bundled treatment and the WHN training alone. Appendix Table A2a unpacks the index and shows that women in the WCommHN group report a higher degree of listening between them and their partners (in both directions) and are more likely to share information with their husbands. They are also more likely to state that they have fewer arguments with their husbands and that they share responsibilities more equally - both in terms of their husbands' involvement with the family and how likely they are to share household finances with them.

Column (2) shows the ASTE pooling variables asking whether the woman has a say in a range of different household decisions: daily household needs, major household purchases, whether to save or spend household money, buying women's clothing, children's health costs, what and how much to feed the children, children's schooling expenses, buying clothes for the children, and how to spend her earnings. Each of these variables is equal to 1 if the woman makes the decision alone or if she makes it jointly with her husband, and 0 if the husband makes the decision alone. Here, we find that women assigned to the WCommHN treatment perceive their decision-making power

to be higher than women in the control group, by 0.107 SD on average. This estimate is statistically significant at the 5% level; however, it is not statistically different from that of the WHN training alone (p-value = 0.204).

In column (3), we report the ASTE of *joint* decision-making by the couple. This index is constructed from the same set of questions as the one in column (2), but here, the components of the index are variables equal to 1 if the couple makes the decision together and 0 if *either* the wife or the husband makes the decision unilaterally. Column (3) shows that the WCommHN intervention increased the share of women who report taking decisions jointly with their husbands more than the WHN training alone (p-value = 0.013). The index is 0.143 SD higher in the WCommHN group compared to the control, while the WHN intervention had no detectable impact.

The larger effects we find on the joint decision-making index in column (3) compared to the index capturing whether women have a say in household decisions in column (2) suggest that the communication skills intervention caused some women to involve their husbands in decisions that they were previously making alone. Appendix Tables A2b and A2c, which report treatment effects on each of the components of the index in columns (2) and (3) respectively, indicate that the stronger impact of the WCommHN program on the joint decision-making index may also reflect a shift from unilateral decision-making by the husband toward involvement of the wife in certain decisions, such as whether to save or spend money. Overall, the results in columns (2) and (3) are consistent with the finding above that women in the WCommHN group report more equal involvement of spouses in the family and household finances, and less spousal conflict.

Finally, column (4) reports treatment effects on domestic violence. Here, we study whether enhancing women's dialogue skills helped prevent conflicts from arising or escalating. The index in column (4) is constructed by aggregating women's reports of being subjected to either verbal or physical abuse by their partner.[7] We find modest improvements in this index from all three training programs, which reduced the incidence of violent behavior by 0.066 to 0.070 SD compared to the control group. We cannot reject the null of equal impacts of the WCommHN and WHN treatments.

Taken together, the findings in Table 1 indicate that the communication skills component of the WCommHN program equipped women with the tools to communicate more effectively with their partners, which led to improvements in marital relationships and increased the share of couples making decisions about the family's health and expenses together.

[7] Treatment effects on the different components of the index are reported in Appendix Table A2d.

Finding 2: The communication intervention boosted spousal discussion about health and nutrition, but without resulting in knowledge spillovers to husbands.

Table 2 displays impacts on couples' discussion of targeted topics surrounding household health, nutrition, and budgeting. A key takeaway is that the communication-plus-health-skills intervention enhanced spousal dialogue to a greater degree than the health skills intervention alone. Column (5) shows that, while women in all three treatment groups report more frequent discussions of targeted topics with their husbands, the WCommHN program had the largest impact: women's overall discussion index increased by 0.200 SD in WCommHN villages relative to the control, which is statistically larger than the 0.113 SD increase we find in WHN villages (p-value = 0.024).

Columns (1)-(4) provide the breakdown of the index reported in column (5). Column (1) shows that all three treatments had comparable (positive) impacts on the frequency of spousal discussion around family planning. In contrast, columns (2) and (4) show that only the WCommHN training increased the likelihood that women report discussing their and their partner's HIV statuses (by 5.5 percentage points, an 8.7% increase from the control mean) and the household's finances with their husband (by 6.9 percentage points, an 11% boost from the control mean) respectively. We can reject the null hypothesis of equal impacts between the WHN and WCommHN treatments for the household finance discussion outcome in column (4) (p-value = 0.005), but not for the HIV status discussion outcome in column (2) (p-value = 0.178). Column (3) shows the ASTE on an index pooling together three related indicators: whether the husband very often makes suggestions about children's healthcare, whether the husband very often suggests types of foods to eat, and whether the couple very often discusses health and nutrition. Here, we cannot reject the null of equal effects between the WHN and WCommHN treatments (p-value = 0.273).

Finally, columns (6) and (7) provide a direct assessment of how much knowledge about child health and nutrition women and men gained from each intervention, as well as how much of this new information they passed on to their spouse. Column (6) shows that the health knowledge of women assigned to both the WCommHN and WHN trainings increased, in statistically similar proportions (p-value = 0.198). The health knowledge index of women in WCommHN villages increased by 0.412 SD while that of the women assigned only to the health skills training increased by 0.360 SD. The results in column (7) are more surprising. The null effects in the first two rows point to an absence of knowledge spillovers on the husbands of women in both the WHN and WCommHN arms.[8] In particular, despite the finding that both women's

[8]In contrast, the statistically significant impact of the MHN trainings on *women's* health knowledge, by 0.122 SD, suggests that men assigned to health classes pass on at least some of their newly ac-

communication skills (Table 1) and the frequency of discussion of targeted topics with their husbands are positively impacted by the communication training (Table 2, column (5)), we do not detect any differential change in men's health knowledge when their wives are assigned to the WCommHN arm. This suggests that women talk more about the family's health and nutrition with their partners but either without sharing their new knowledge or without husbands retaining it. Recent evidence from other settings supports the latter interpretation. An experiment set in India shows that men's beliefs respond less than half as much to information that was discovered by their wife compared to when they learn it themselves (Conlon et al. 2021).

Finding 3: No additional impact of the communication intervention on household health behaviors compared to that of the women's health classes alone.

Table 3 reports impacts of the different treatments on three indices of related health-promoting behaviors in columns (1)-(3) and an aggregate index pooling together all variables entering these respective indices in column (4). The outcomes in columns (1) and (3) are constructed from variables collected only in the women's surveys, regarding infant health (e.g. breastfeeding duration, number of vaccinations) and maternal health (e.g. did mother eat more of certain foods during pregnancy). The outcome in column (4) is an ASTE on household sanitary practices constructed from variables collected in both women's and men's surveys (such as whether women/men wash their hands before a meal).

Column (4) shows that, while both the WCommHN and WHN programs significantly improved the overall household health behavior index – by 0.378 SD and 0.312 SD respectively – we cannot reject the null of equal impacts of the two treatments (p-value = 0.145). We do not find evidence of a differential impact on adherence to guidelines around newborn health (column (1): p-value = 0.850), maternal health (column (2): p-value = 0.640), or household sanitary practices (column (3): p-value = 0.188). This implies that the increase in spousal discussion of targeted health topics induced by the communication skills treatment (Table 2) did not, overall, boost household adoption of health-promoting behaviors further than the women's health classes alone.[9]

One interpretation of this absence of a differential impact of the communication training is that the effects of the WHN intervention are already quite large, perhaps

quired knowledge to their wives. Björkman Nyqvist and Jayachandran (2017) discuss this asymmetry in information-sharing in their comparison of the MHN and WHN treatment effects.

[9]Note that the WCommHN and WHN programs both led to significantly larger improvements in adherence to health guidelines than the men's health classes, an effect driven by behaviors related to newborn health (column (1)) and household sanitary practices (column (3)). As discussed by Björkman Nyqvist and Jayachandran (2017), this suggests that women were more likely than men to put into practice what they have learned in the health classes.

because most of these outcomes are practices that women can plausibly implement without needing to negotiate much with their partners. This would limit the potential for additional impacts of the communication training on these outcomes.

Finding 4: The assertive communication training increased intake of protein-rich foods, by raising household spending on meat and fish.

In Table 4, we report program impacts on women's and children's consumption of the different food groups that the health curriculum flagged as essential components of a nutritious diet for young children and pregnant/breastfeeding women. Details about the curriculum, including extracts from the modules on nutrition, are provided in Appendix B.1.2. The health classes emphasized what a healthy "food plate" should contain – carbohydrates, protein, and fruit and vegetables – and in what proportions. The curriculum also included examples of recipes for nutritious meals.

Effects on women's and children's intake of each of these different nutrient groups are displayed in Panel A. Columns (1) and (3) do not show any additional impact of the communication training on households' consumption of carbohydrates or fruit and vegetables over the already positive effects of the WHN training. In contrast, column (2) shows that households from which women were assigned to the WCommHN program increased their intake of protein-rich foods by 0.134 SD compared to the control, an impact that is statistically larger than that of the women's health classes alone (p-value = 0.002).

In Panel B, we examine household spending on different food items as well as agricultural land allocation to fruit and vegetables.[10] Mirroring the patterns on food intake, we observe a significant expenditure increase on meat and fish in the WCommHN group only: the average household in WCommHN villages spent 245 Ugandan Shillings (UGX) more on meat and fish per capita at endline, a 26% increase compared to the control group. This is statistically larger than the impact of the WHN training alone (p-value = 0.005). In contrast, we find that expenditure on rice (a carbohydrate) increased by statistically similar magnitudes in both groups (p-value = 0.247), and cultivation of fruit and vegetables increased in both arms, with a larger effect of the WHN training alone (p-value = 0.057).

Taken together, the results in Table 4 suggest that women may have applied assertiveness skills to shift household spending towards protein-rich foods, in line with what they were taught in the communication training. Indeed, since meat and fish must be purchased to be consumed and men control household finances, a plausible

[10] We did not collect expenditure information on fruit and vegetables because most households in this sample owned agricultural land at baseline, which they used to grow crops for their own consumption.

mechanism underlying this result is that women in WCommHN villages discussed the household's food budget with their husbands and convinced them to spend more on these items. Appendix Section B2 provides extracts from relevant modules of the communication training. In the "General Communication Strategies" module, the curriculum uses an example where a woman's husband goes to the market, but returns without the healthy food items that his wife had asked for to illustrate the differences between a passive, aggressive and assertive response – the latter being the most effective way of convincing the husband to go back to the market and buy the healthy items while avoiding conflict.

Finding 5: No impacts on downstream child health outcomes.

Table 5 reports program impacts on anthropometric outcomes of young children (aged 7 or under at endline) in columns (1)-(4), and on the number of days they were sick (with diarrhea, malaria, or a cough) over the past two weeks, as reported by their mothers, in column (5). The results suggest that none of the interventions affected children's weight-for-age, height-for-age or MUAC-for-age. Column (4) also shows no change in children's hemoglobin levels in any of the treatment arms compared to the control group.

One interpretation of these overall null effects is that the increase in adoption of health-promoting behaviors and nutrition observed for the WHN and WCommHN arms (Tables 3 and 4) was not sufficient to impact children's physical development. It is worth emphasizing that our endline could only pick up relatively short-run effects of the trainings, since it was collected only 4-9 months after the end of the program. Downstream impacts from nutritional changes on anthropometric outcomes, in particular, might take longer to materialize.

On the other hand, column (5) shows a significant decrease in the number of days young children were sick in the two weeks preceding the endline survey, by over half a day on average, in both the WHN and WCommHN groups. This corresponds to a drop of around 12% relative to the control group. These results point to a sizeable impact of the women's health classes on this outcome, plausibly reflecting a short-run response to the intervention's positive impacts on health behaviors and nutritional investments (as shown in Table 3 and Table 4, column (4)). However, the fact that the effect of the bundled intervention is virtually identical to that of the health classes alone indicates that there was no additional impact from the communication training on this outcome.

4 Conclusion

In this paper, we study whether providing assertive communication training to women can strengthen their influence over child health and nutrition investments through the channel of more effective dialogue with their husbands. Our results from an RCT in Uganda provide modest evidence in support of this hypothesis. They suggest that the addition of the communication skills training, while effective at increasing spousal communication and women's satisfaction with their relationship, did not shift women's voice in household decisions sufficiently to generate downstream impacts on child health outcomes. Nonetheless, the significant increase we find in households' consumption of protein-rich foods in the communication-plus-health-skills intervention compared to the health classes alone suggests that boosting mothers' assertive communication skills can allow them to affect change in household spending on, and intake of, more costly food items such as meat and fish.

One interpretation of the program's limited impacts is that targeting only *women's* communication skills may not be sufficient to overcome preference misalignment between spouses in environments where men and women exert control over separate spheres of household decision-making. Recent research on the asymmetric nature of information diffusion between husbands and wives highlights that we still have much to learn about the complexities of intra-household communication and information-sharing strategies (Conlon et al. 2021; Fehr et al. 2022; Ashraf et al. 2022). In our study, the fact that men in the communication-plus-health-skills group do not report clear improvements in their relationships or marital communication suggests that our program's unilateral approach may not be the most effective way to enhance spousal dialogue. Offering parallel communication skills training for husbands, encouraging transparent and assertive spousal dialogue from both sides, and focusing as much on listening to one's spouse as speaking, might be more effective. This could also increase the number of decisions couples make jointly and, thereby, reduce spousal conflict. Exploring whether spousal communication training interventions targeting both men and women can have larger impacts on child health constitutes a promising direction for future research.

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Table 1: Program impacts on effective communication between spouses.

	(1)	(2)	(3)	(4)
	Relationship improved	Wife part of household decisions	Couple makes decisions together	Husband is less violent
WCommHN	0.210***	0.107**	0.143***	0.069*
	[0.045]	[0.043]	[0.048]	[0.037]
WHN	0.045	0.052	0.030	0.070*
	[0.041]	[0.042]	[0.043]	[0.036]
MHN	0.042	0.071*	0.086**	0.066*
	[0.039]	[0.040]	[0.043]	[0.037]
Control mean of outcome	-0.000	-0.000	0.000	-0.000
	(1.000)	(1.000)	(1.000)	(1.000)
p-value: WCommHN=WHN	0.000	0.204	0.013	0.977
p-value: WCommHN=MHN	0.000	0.375	0.212	0.929
p-value: WHN=MHN	0.939	0.649	0.158	0.903
Observations	5,177	5,283	5,283	5,183

Note: * p<0.1, ** p<0.05, *** p<0.01. Standard errors clustered at the village level in brackets. All specifications control for stratum and district fixed effects. Whenever the outcome variable was collected at baseline, we also control for the baseline value of the outcome (columns (2) and (3)). The p-values reported underneath the control mean show the results of the test of the null hypothesis of equal treatment effects between the different intervention arms. Column (1) shows the ASTE of pooling all outcomes collected at endline on whether the relationship improved along the following dimensions: husband listens more to wife; wife listens more to husband; husband and wife share more information; husband and wife have fewer arguments; husband is more involved with the family; husband is more likely to share household finances with wife. Column (2) shows the ASTE of the following binary outcomes: woman has a say in: daily household needs; major household purchases; whether to save or spend household money; buying women's clothing; children's health costs; what and how much to feed the children; expenses for children's schooling (including uniforms); buying clothes for the children; how to spend her earnings. Column (3) shows the joint decision-making ASTE, constructed from the same set of questions as column (2), but where each indicator entering the index is equal to 1 if the couple makes the decision together, and 0 otherwise. Column (4) shows the ASTE of the following measures of husband's violent behavior towards his wife in the past year: humiliated her in front of others; threatened her; insulted her; beat her; pushed her; slapped her; was violent in other ways. Appendix Tables A2a, A2b, A2c and A2d report treatment effects on each outcome entering the ASTE in columns (1), (2), (3) and (4) respectively.

Table 2: Program impacts on frequency of spousal discussion about targeted health topics and women's and men's health knowledge.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Discusses family planning with spouse	Discusses HIV with spouse	Health and nutrition discussion ASTE	Discusses HH finance with spouse	Overall discussion ASTE	Health knowledge ASTE (Woman)	Health knowledge ASTE (Man)
WCommHN	0.035***	0.055**	0.148***	0.069***	0.200***	0.412***	0.023
	[0.010]	[0.024]	[0.044]	[0.021]	[0.043]	[0.044]	[0.042]
WHN	0.026**	0.026	0.101**	0.015	0.113***	0.360***	0.055
	[0.011]	[0.022]	[0.044]	[0.020]	[0.041]	[0.041]	[0.044]
MHN	0.028***	0.016	0.079*	0.016	0.090**	0.122***	0.310***
	[0.011]	[0.023]	[0.042]	[0.020]	[0.042]	[0.044]	[0.044]
Control mean of outcome	0.906	0.635	0.000	0.626	0.000	0.000	-0.000
	(0.292)	(0.482)	(1.000)	(0.484)	(1.000)	(1.000)	(1.000)
p-value: WCommHN=WHN	0.377	0.178	0.273	0.005	0.024	0.198	0.461
p-value: WCommHN=MHN	0.506	0.091	0.104	0.005	0.005	0.000	0.000
p-value: WHN=MHN	0.831	0.637	0.603	0.941	0.527	0.000	0.000
Observations	5,163	5,191	5,191	5,184	5,190	5,287	5,058

Note: * p<0.1, ** p<0.05, *** p<0.01. Standard errors clustered at the village level in brackets. All specifications control for stratum and district fixed effects. Whenever the outcome variable was collected at baseline, we also control for the baseline value of the outcome (columns (1), (4), (5) and (6)). The p-values reported underneath the control mean show the results of the test of the null hypothesis of equal treatment effects between the different intervention arms. We restrict our attention to the set of variables for which we have both women's and men's reports. Column (3), Health and Nutrition discussion ASTE: Very often discusses health and nutrition with spouse; Husband very often suggests types of food to eat; Husband very often makes suggestions about child health care. Column (5): ASTE of all outcomes in columns (1), (2) and (4) + the 3 outcomes making up the ASTE in column (3). Column (6) and (7) show the ASTE of health knowledge outcomes (collected from female and male respondents respectively) as follows: Colostrum important for immunity/growth; Should introduce other liquid and food than breast milk at 6 months; Lack of balanced diet impacts child growth; Babies should be breastfed for 24 months; Children should be dewormed every 6 months; Worms can contribute to anemia & malaria; Give ORS if child is vomitting or has diarrhea; Boys and girls of same age should both eat as much meat; Pregnant women with no pregnancy complications should still go to a hospital rather than a primary health center; Animal protein is not less important for women; Which foods are best to eat if you have anemia; Water needs to be boiled for several minutes to make it clean; Male condoms can only be used once; Poor hygiene can impact child's intelligence; Correctly identify healthier food plate for adult.

Table 3: Program impacts on household health behaviors.

	(1)	(2)	(3)	(4)
	Newborn health ASTE	Maternal health ASTE	Sanitary practices ASTE	Overall health ASTE
WCommHN	0.176***	0.151***	0.335***	0.378***
	[0.047]	[0.052]	[0.047]	[0.046]
WHN	0.170***	0.175***	0.274***	0.312***
	[0.047]	[0.052]	[0.047]	[0.044]
MHN	0.092*	0.176***	0.116***	0.157***
	[0.051]	[0.049]	[0.044]	[0.043]
Control mean of outcome	-0.000	0.000	0.000	0.000
	(1.000)	(1.000)	(1.000)	(1.000)
p-value: WCommHN=WHN	0.850	0.640	0.188	0.145
p-value: WCommHN=MHN	0.032	0.598	0.000	0.000
p-value: WHN=MHN	0.056	0.981	0.000	0.000
Observations	3,035	3,428	5,384	5,384

Note: * p<0.1, ** p<0.05, *** p<0.01. Standard errors clustered at the village level in brackets. All specifications control for stratum and district fixed effects as well as for the baseline values of each index. The p-values reported underneath the control mean show the results of the test of the null hypothesis of equal treatment effects between the different intervention arms. Newborn health and maternal health outcomes were only collected in the women's surveys and restricted to the latest birth (3,035 observations) or pregnancy (3,428 observations). Column (1), Newborn health ASTE: Baby's first health check timing below median of control group; Baby was ever breastfed; Length of breastfeeding; Did baby receive colostrum at birth; Was baby given any other liquids than breast milk in first week; Was baby given any other liquids in first 3 months; Was baby given any solid or semi-solid food in the first 3 months after delivery; Total number of vaccinations given; Vitamin A was given to baby in the first 6 weeks; Vitamin A was given to baby in the last 6 months. Column (2), Maternal health ASTE: Received antenatal care during latest pregnancy; Ate more of certain foods during last pregnancy; Iron was administered during pregnancy. Column (3), Sanitary practices ASTE: Men wash hands after going to the toilet; Men wash hands before a meal; Women wash hands after going to the toilet; Women wash hands before a meal; How often sweep latrine each week; Made improvements to latrine over the last 12 months; Treat drinking water. In column (4), the Overall health ASTE pools together all outcomes used to construct the ASTE indices in columns (1), (2) and (3). Treatment effects on the components of the Health and Nutrition Discussion ASTE (column (3)) and the Health Knowledge ASTE (column (6)) are reported in Appendix Tables A3a and A3b, respectively.

Table 4: Impacts on women's and children's nutrition.

	(1)	(2)	(3)
	Carbohydrates ASTE	Protein-rich foods ASTE	Fruit & veg ASTE
	Panel A: Food Intake (Women and Children)		
WCommHN	0.140***	0.134***	0.168***
	[0.046]	[0.050]	[0.047]
WHN	0.117**	-0.016	0.165***
	[0.047]	[0.049]	[0.044]
MHN	-0.015	0.026	-0.029
	[0.049]	[0.049]	[0.043]
Control mean of outcome	0.000	0.000	-0.000
	(1.000)	(1.000)	(1.000)
p-value: WCommHN=WHN	0.589	0.002	0.937
p-value: WCommHN=MHN	0.001	0.027	0.000
p-value: WHN=MHN	0.004	0.370	0.000
Observations	5,286	5,286	5,286
	Rice exp pc	Meat/fish exp pc	Grows more fruit/veg
	Panel B: Food Expenditure and Crop Allocation		
WCommHN	59.594***	245.124***	0.073***
	[18.679]	[70.922]	[0.017]
WHN	37.231**	46.526	0.108***
	[17.657]	[69.765]	[0.017]
MHN	28.701	38.554	0.028*
	[19.194]	[67.169]	[0.016]
Control mean of outcome	145.844	937.160	0.136
	(380.149)	(1291.966)	(0.343)
p-value: WCommHN=WHN	0.247	0.005	0.057
p-value: WCommHN=MHN	0.136	0.002	0.010
p-value: WHN=MHN	0.668	0.904	0.000
Observations	5,010	4,988	5,227

Note: * p<0.1, ** p<0.05, *** p<0.01. Standard errors clustered at the village level in brackets. All specifications control for stratum and district fixed effects. In Panel A, specifications also control for the baseline values of each index. The p-values reported underneath the control mean show the results of the test of the null hypothesis of equal treatment effects between the different intervention arms. Panel A: all outcomes are ASTEs of binary indicators for women's and children's food intake over the past 7 days. Carbohydrates: matooke, roots, grains; Protein-rich foods: organ meats, meats, fish, eggs; Fruit and vegetables: dark leafy greens, pumpkin, other fruit and vegetables. Panel B: Columns (1) and (2) are household expenditure per capita outcomes where each child is weighted 0.5 and each adult is weighted 1 in the average. Column (3) is a binary indicator equal to 1 if women report that their household has been growing more fruit and vegetables over the past 12 months. Treatment effects on the components of the ASTEs in Panel A are reported in Appendix Table A5.

Table 5: Impacts on child health outcomes.

	(1)	(2)	(3)	(4)	(5)
	Weight-for-age Z-score	Height-for-age Z-score	MUAC-for-age Z-score	Hb level (g/dl)	Num. days sick in past 2 weeks
WCommHN	0.012	-0.026	0.012	-0.047	-0.564***
	[0.038]	[0.056]	[0.043]	[0.064]	[0.193]
WHN	-0.026	-0.021	0.055	-0.062	-0.545***
	[0.041]	[0.053]	[0.044]	[0.062]	[0.189]
MHN	-0.010	-0.049	0.016	-0.010	0.106
	[0.040]	[0.056]	[0.042]	[0.061]	[0.194]
Control mean of outcome	-0.574	-1.501	-0.412	11.727	4.613
	(1.088)	(1.334)	(0.978)	(1.291)	(5.086)
p-value: WCommHN=WHN	0.331	0.932	0.297	0.834	0.918
p-value: WCommHN=MHN	0.565	0.705	0.920	0.581	0.000
p-value: WHN=MHN	0.699	0.627	0.341	0.429	0.001
Observations	6,863	6,805	6,550	6,854	8,265

Note: * p<0.1, ** p<0.05, *** p<0.01. Standard errors clustered at the village level in brackets. All specifications control for stratum and district fixed effects and baseline values of each index. When baseline values are missing (including for babies born between baseline and endline), we impute the village mean of non-missing values and control for a dummy variable equal to 1 if the variable was imputed. The p-values show the results of the test of the null hypothesis of equal treatment effects between the different intervention arms. In columns (1)-(4), the sample is all children aged 0-28 months at baseline and 50 months or less at endline (these are the children for whom anthropometric outcomes were collected at both baseline and endline). In column (3), however, the sample excludes babies who were less than 3 months old at endline because, following the WHO guidelines for measurement of MUAC-for-age Z-scores, these are only defined for children aged 3 months and above. In column (5), the sample is children aged 5 years or younger at baseline and 7 years or younger at endline.

Appendix A: Additional Tables and Figures

Table A1: Balance Checks.

	Control		WCommHN		WHN		MHN		WCommHN - WHN	N
	Mean	SD	Coeff.	SE	Coeff.	SE	Coeff.	SE	*p*-value	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Woman's age	27.635	6.523	-0.147	(0.250)	0.193	(0.248)	0.002	(0.249)	0.144	5505
Woman's years of education	5.200	3.000	0.133	(0.160)	0.033	(0.155)	-0.007	(0.157)	0.515	5339
Number of children under 5 years old	1.640	0.692	-0.016	(0.033)	0.004	(0.032)	-0.017	(0.033)	0.540	5332
Woman earns income	0.796	0.403	-0.013	(0.023)	-0.018	(0.022)	0.010	(0.021)	0.835	5467
Wife part of household decisions ASTE (Woman)	0.025	1.002	0.041	(0.047)	0.077	(0.047)	0.039	(0.048)	0.402	5511
Couple makes decisions together ASTE (Woman)	0.013	1.007	-0.026	(0.056)	-0.042	(0.057)	0.050	(0.057)	0.753	5507
Woman's Overall Discussion ASTE	-0.010	1.016	0.003	(0.043)	0.033	(0.042)	0.033	(0.039)	0.461	5511
Woman's Health Knowledge ASTE	-0.007	0.992	-0.018	(0.050)	0.009	(0.051)	-0.049	(0.052)	0.579	5511
Man's Health Knowledge ASTE	-0.002	0.984	-0.032	(0.047)	0.054	(0.048)	-0.009	(0.050)	0.046	5373
Household Sanitary Practices ASTE	0.022	0.990	0.036	(0.058)	0.064	(0.056)	-0.006	(0.060)	0.634	5512
Newborn Health ASTE	-0.028	1.160	0.023	(0.051)	-0.073	(0.055)	-0.052	(0.061)	0.086	4968
Maternal Health ASTE	0.010	0.993	-0.048	(0.043)	0.012	(0.038)	0.041	(0.041)	0.159	4964
Carbohydrates ASTE	-0.002	0.998	0.001	(0.051)	-0.084	(0.053)	-0.081	(0.050)	0.105	5510
Protein-rich foods ASTE	0.033	1.052	0.089	(0.055)	0.053	(0.047)	0.040	(0.050)	0.517	5510
Fruit and vegetables ASTE	0.014	1.011	-0.034	(0.049)	-0.052	(0.049)	-0.145***	(0.051)	0.711	5510
Child's weight-for-age Z-score	-0.247	1.278	-0.020	(0.059)	0.026	(0.055)	-0.008	(0.057)	0.396	5482
Child's height-for-age Z-score	-1.383	1.797	-0.002	(0.102)	0.031	(0.097)	-0.088	(0.099)	0.735	5482
Child's MUAC-for-age Z-score	0.001	1.056	-0.018	(0.066)	-0.049	(0.061)	0.050	(0.061)	0.627	5482
Child's hemoglobin level (g/dl)	11.309	1.425	-0.106	(0.069)	-0.022	(0.070)	-0.081	(0.069)	0.237	5482
Number of days child was sick in past 2 weeks	5.342	5.612	-0.019	(0.211)	-0.285	(0.221)	-0.169	(0.212)	0.253	9152
P-value of joint F-test			0.937		0.265		0.225		0.191	

Note: * p<0.1, ** p<0.05, *** p<0.01. Columns (1) and (2) show the summary statistics for the control group in the baseline. Columns (3), (5) and (7) display the coefficient estimates from regressing the baseline variable on three treatment dummies (taking value 1 if the respondent was randomly assigned to the MHN, WHN, or WCommHN group, respectively). Standard errors clustered at the village level are reported in columns (4), (6) and (8). All specifications control for stratum and district fixed effects. The last row of the table reports the p-values of different joint significance tests. In columns (3), (5), and (7), the null hypothesis is that the coefficient of the treatment dummy (WCommHN, WHN, and MHN, respectively) is 0 for all outcomes. In column (9), the null hypothesis is that the coefficient of the WCommHN treatment dummy is equal to that of the WHN dummy in all regressions. Column (9) reports the p-values from the test of the null hypothesis of equal treatment effects between the WHN and WCommHN treatment arms. Column (10) displays the number of household or child-level observations at baseline, with most outcomes reflecting characteristics of the female respondent in the household, except for the following: Man's Health Knowledge ASTE, where the sample is the number of male partners present at the time of the baseline interview; Newborn Health ASTE and Maternal Health ASTE, where the sample is restricted to women who gave birth in the last two years; Child's anthropometrics and hemoglobin levels, for which the sample is all children aged 0-28 months at baseline; Number of days child was sick in past 2 weeks, for which the sample is all children aged 5 years or younger at baseline. All ASTEs are the baseline counterparts to the endline ASTEs in Tables 1-4.

Table A2a: Components of Relationship Improvements Index (cf. Table 1, column (1)).

	(1)	(2)	(3)	(4)	(5)	(6)
	Husband listens more to wife	Wife listens more to husband	Share more information	Have fewer arguments	Husband more involved w/ family	Share household finances
WCommHN	0.082***	0.081***	0.088***	0.076***	0.049**	0.067***
	[0.018]	[0.018]	[0.020]	[0.019]	[0.019]	[0.020]
WHN	0.029*	0.006	0.014	0.025	0.009	0.016
	[0.017]	[0.016]	[0.017]	[0.017]	[0.019]	[0.018]
MHN	0.014	0.016	0.015	0.028*	-0.000	0.021
	[0.017]	[0.017]	[0.018]	[0.016]	[0.019]	[0.018]
Control mean of outcome	0.226	0.212	0.254	0.217	0.218	0.252
	(0.419)	(0.409)	(0.436)	(0.412)	(0.413)	(0.434)
p-value: WCommHN=WHN	0.004	0.000	0.000	0.008	0.045	0.010
p-value: WCommHN=MHN	0.000	0.000	0.000	0.008	0.013	0.020
p-value: WHN=MHN	0.372	0.565	0.959	0.851	0.625	0.778
Observations	5,177	5,177	5,177	5,177	5,177	5,177

Note: * p<0.1, ** p<0.05, *** p<0.01. Standard errors clustered at the village level in brackets. Columns (1)-(6) display the estimates of the different groups' impacts on indicators of how marital communication and spousal relationships changed since baseline, as reported by women (in panel A) and men (in panel B) separately. All specifications control for stratum and district fixed effects.

Table A2b: Components of Woman's Decision-making Power Index (cf. Table 1, column (2)).

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Wife has a say in:								
	Daily household needs	Major household purchases	Save or spend money	Spending own earnings	Children's health costs	What to feed the children	Schooling expenses	Women's clothing	Children's clothing
WCommHN	0.034	0.038*	0.046**	0.003	0.039*	0.011	0.013	0.018	0.017
	[0.022]	[0.022]	[0.022]	[0.010]	[0.022]	[0.007]	[0.024]	[0.019]	[0.019]
WHN	-0.002	0.024	0.002	-0.001	0.012	0.008	0.013	0.027	0.000
	[0.022]	[0.022]	[0.022]	[0.009]	[0.019]	[0.008]	[0.024]	[0.018]	[0.017]
MHN	0.008	0.044**	0.008	0.002	0.023	-0.005	0.003	0.046**	0.036**
	[0.020]	[0.022]	[0.021]	[0.009]	[0.019]	[0.008]	[0.023]	[0.018]	[0.018]
Control mean of outcome	0.521	0.478	0.494	0.946	0.391	0.956	0.346	0.708	0.680
	(0.500)	(0.500)	(0.500)	(0.227)	(0.488)	(0.206)	(0.476)	(0.455)	(0.467)
p-value: WCommHN=WHN	0.102	0.488	0.044	0.693	0.177	0.681	0.984	0.632	0.396
p-value: WCommHN=MHN	0.218	0.775	0.080	0.985	0.414	0.023	0.613	0.139	0.311
p-value: WHN=MHN	0.607	0.319	0.760	0.688	0.544	0.076	0.628	0.288	0.042
Observations	5,281	5,276	5,143	5,208	5,163	5,155	3,842	5,281	5,169

Note: * p<0.1, ** p<0.05, *** p<0.01. Standard errors clustered at the village level in brackets. The outcomes are binary indicators equal to 1 if the woman reports that the following decisions are made either jointly or by the woman: (1) decisions about daily household purchases; (2) decisions related to children's health; (3) what to feed the children; (4) how to spend the woman's earnings. We focus on the set of variables for which we have both women's and men's reports. All specifications control for stratum and district fixed effects, and baseline value of the outcome.

Table A2c: Components of Joint Decision-making Index (cf. Table 1, column (3)).

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Decisions made jointly by couple:								
	Daily household needs	Major household purchases	Save or spend money	Spending own earnings	Children's health costs	What to feed the children	Schooling expenses	Women's clothing	Children's clothing
WCommHN	0.038*	0.046**	0.056**	0.043**	0.054***	-0.008	0.039*	0.020	0.048**
	[0.020]	[0.019]	[0.023]	[0.021]	[0.021]	[0.014]	[0.022]	[0.019]	[0.020]
WHN	-0.010	0.014	-0.002	-0.001	0.009	-0.013	0.018	0.035**	0.005
	[0.020]	[0.018]	[0.021]	[0.019]	[0.018]	[0.013]	[0.022]	[0.017]	[0.020]
MHN	-0.005	0.046**	0.003	0.006	0.025	0.027*	0.019	0.027	0.043**
	[0.019]	[0.019]	[0.021]	[0.019]	[0.018]	[0.014]	[0.021]	[0.018]	[0.020]
Control mean of outcome	0.334	0.315	0.394	0.252	0.277	0.136	0.258	0.224	0.361
	(0.472)	(0.465)	(0.489)	(0.434)	(0.448)	(0.343)	(0.438)	(0.417)	(0.480)
p-value: WCommHN=WHN	0.020	0.074	0.009	0.024	0.021	0.682	0.340	0.406	0.041
p-value: WCommHN=MHN	0.026	0.972	0.012	0.050	0.131	0.010	0.349	0.679	0.828
p-value: WHN=MHN	0.793	0.079	0.816	0.683	0.321	0.002	0.951	0.670	0.066
Observations	5,281	5,276	5,143	5,208	5,163	5,155	3,842	5,281	5,169

Note: * p<0.1, ** p<0.05, *** p<0.01. Standard errors clustered at the village level in brackets. The outcomes are binary indicators equal to 1 if the woman reports that the following decisions are made jointly by the couple (husband and wife together): (1) decisions about daily household purchases; (2) decisions related to children's health; (3) what to feed the children; (4) how to spend the woman's earnings. We focus on the set of variables for which we have both women's and men's reports. All specifications control for stratum and district fixed effects, and baseline value of the outcome.

Table A2d: Components of Husband's Violent Behavior Index (cf. Table 1, column (4)).

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Husband less likely to exert violent behavior:						
	Humiliate	Threaten	Insult	Beat	Push	Slap	Other
WCommHN	-0.004	0.018	0.016	0.025**	0.020*	0.041***	0.001
	[0.011]	[0.014]	[0.016]	[0.011]	[0.011]	[0.012]	[0.011]
WHN	-0.007	0.031**	0.014	0.024**	0.022**	0.031***	0.007
	[0.011]	[0.014]	[0.016]	[0.010]	[0.011]	[0.012]	[0.010]
MHN	-0.004	0.031**	0.029*	0.017	0.028***	0.027**	0.001
	[0.010]	[0.014]	[0.016]	[0.011]	[0.011]	[0.012]	[0.010]
Control mean of outcome	0.910	0.849	0.818	0.899	0.895	0.875	0.920
	(0.286)	(0.359)	(0.386)	(0.302)	(0.307)	(0.331)	(0.272)
p-value: WCommHN=WHN	0.771	0.317	0.921	0.897	0.806	0.340	0.544
p-value: WCommHN=MHN	0.999	0.305	0.383	0.431	0.422	0.230	0.998
p-value: WHN=MHN	0.762	0.982	0.352	0.460	0.554	0.734	0.524
Observations	5,179	5,167	5,170	5,171	5,164	5,169	5,168

Note: * p<0.1, ** p<0.05, *** p<0.01. Standard errors clustered at the village level in brackets. The p-values reported underneath the control mean show the results of the test of the null hypothesis of equal treatment effects between the different intervention arms. All specifications control for stratum and district fixed effects, and baseline values of the outcome.

Table A3a: Components of Health and Nutrition Discussion Index

	(1)	(2)	(3)
	Spouses discuss family's health & nutrition improvement	Husband makes suggestions about types of food to eat	Husband makes suggestions about children's health care
WCommHN	0.071***	0.058***	0.063***
	[0.020]	[0.019]	[0.020]
WHN	0.021	0.009	0.070***
	[0.019]	[0.019]	[0.021]
MHN	0.010	0.055***	0.048**
	[0.019]	[0.019]	[0.020]
Control mean of outcome	0.650	0.715	0.518
	(0.477)	(0.452)	(0.500)
p-value: WEMP=WHN	0.007	0.009	0.732
p-value: WEMP=MHN	0.001	0.888	0.456
p-value: WHN=MHN	0.540	0.013	0.283
Observations	5,191	5,191	5,191

Note: * p<0.1, ** p<0.05, *** p<0.01. Standard errors clustered at the village level in brackets. The p-values reported underneath the control mean show the results of the test of the null hypothesis of equal treatment effects between the different intervention arms. All specifications control for stratum and district fixed effects, and baseline values of the outcome.

Table A3b: Health Knowledge Index: Components (cf. Table 2, column (6))

	Panel A: Female respondents							
	Colostrum important for immunity/growth	Introduce other liquid than breast milk at 12mo.	Introduce other food at 12mo.	Lack of balanced diet impacts child growth	Babies should be breastfed for 24 months	Children should be dewormed every 6 months	Worms can contribute to anemia and malaria	Give ORS if child is vomitting or has diarrhea
WCommHN	0.093***	0.105***	0.069***	0.065***	0.030*	0.026*	-0.004	0.104***
	[0.025]	[0.020]	[0.016]	[0.011]	[0.018]	[0.014]	[0.022]	[0.022]
WHN	0.064***	0.080***	0.066***	0.055***	0.044**	0.050***	0.011	0.128***
	[0.024]	[0.020]	[0.017]	[0.012]	[0.017]	[0.015]	[0.021]	[0.022]
MHN	-0.009	0.018	-0.003	0.037***	-0.020	0.027*	0.027	0.037*
	[0.026]	[0.020]	[0.018]	[0.013]	[0.017]	[0.015]	[0.020]	[0.020]
Control mean	0.525	0.685	0.783	0.865	0.778	0.142	0.611	0.492
	(0.500)	(0.465)	(0.412)	(0.342)	(0.416)	(0.350)	(0.488)	(0.500)
p: WCommHN=WHN	0.216	0.159	0.824	0.321	0.435	0.094	0.499	0.305
p: WCommHN=WHN	0.000	0.000	0.000	0.010	0.005	0.955	0.153	0.002
p: WCommHN=WHN	0.002	0.000	0.000	0.120	0.000	0.140	0.453	0.000
Observations	5,288	5,278	5,269	5,283	5,148	5,281	5,288	5,288
	Boys and girls should both eat as much meat	Low-risk pregnant women should give birth in hospital	Animal protein is not less important for women	Best foods to eat if you have anemia	Water must be boiled for several minutes to make it clean	Male condoms can only be used once	Poor hygiene can impact child's intelligence	Correctly identify healthy food plate for adult
WCommHN	0.024	0.068***	0.013	0.118***	0.081***	0.012**	0.035**	0.028**
	[0.018]	[0.022]	[0.013]	[0.020]	[0.019]	[0.005]	[0.016]	[0.013]
WHN	-0.008	0.025	0.020*	0.101***	0.070***	0.004	0.038**	0.025**
	[0.017]	[0.022]	[0.012]	[0.019]	[0.020]	[0.006]	[0.015]	[0.011]
MHN	-0.002	0.010	0.023*	0.023	0.041**	-0.003	0.025	0.014
	[0.016]	[0.023]	[0.013]	[0.019]	[0.021]	[0.006]	[0.015]	[0.012]
Control mean	0.742	0.571	0.879	0.607	0.622	0.975	0.829	0.890
	(0.437)	(0.495)	(0.326)	(0.489)	(0.485)	(0.157)	(0.377)	(0.313)
p: WCommHN=WHN	0.083	0.056	0.493	0.365	0.562	0.088	0.840	0.864
p: WCommHN=WHN	0.148	0.014	0.380	0.000	0.040	0.007	0.524	0.261
p: WCommHN=WHN	0.726	0.514	0.796	0.000	0.146	0.262	0.376	0.274
Observations	5,288	5,288	5,284	5,288	5,286	5,120	5,283	5,288

Note: * p<0.1, ** p<0.05, *** p<0.01. Standard errors clustered at the village level in brackets. The p-values show the results of the test of the null hypothesis of equal treatment effects between the different intervention arms. All specifications control for stratum and district fixed effects, and baseline values of the outcome whenever it is available.

Table A3b (continued): Health Knowledge Index: Components (cf. Table 2, column (6)).

	Panel B: Male respondents							
	Colostrum important for immu-nity/growth	Introduce other liquid than breast milk at 12mo.	Introduce other food at 12mo.	Lack of balanced diet impacts child growth	Babies should be breastfed for 24 months	Children should be dewormed every 6 months	Worms can contribute to anemia and malaria	Give ORS if child is vomitting or has diarrhea
WCommHN	-0.001	0.017	0.010	-0.009	0.025	-0.001	0.007	0.043**
	[0.020]	[0.021]	[0.019]	[0.017]	[0.019]	[0.014]	[0.019]	[0.020]
WHN	-0.018	0.002	-0.012	0.009	0.025	-0.004	0.049**	0.048**
	[0.021]	[0.019]	[0.020]	[0.017]	[0.019]	[0.014]	[0.020]	[0.020]
MHN	0.030	0.085***	0.072***	0.037**	0.071***	0.010	0.013	0.052**
	[0.022]	[0.020]	[0.020]	[0.017]	[0.019]	[0.015]	[0.020]	[0.020]
Control mean	0.387	0.561	0.569	0.788	0.619	0.155	0.622	0.271
	(0.487)	(0.496)	(0.495)	(0.409)	(0.486)	(0.362)	(0.485)	(0.445)
p: WCommHN=WHN	0.371	0.435	0.272	0.296	0.985	0.823	0.034	0.837
p: WCommHN=WHN	0.129	0.001	0.002	0.008	0.016	0.441	0.788	0.677
p: WCommHN=WHN	0.021	0.000	0.000	0.098	0.017	0.329	0.070	0.832
Observations	5,176	5,045	5,048	5,047	5,039	4,830	5,176	5,176
	Boys and girls should both eat as much meat	Low-risk pregnant women should give birth in hospital	Animal protein is not less important for women	Best foods to eat if you have anemia	Water must be boiled for several minutes to make it clean	Male condoms can only be used once	Poor hygiene can impact child's intelligence	Correctly identify healthy food plate for adult
WCommHN	-0.030	0.018	-0.026	-0.011	0.000	-0.007	0.022	0.015
	[0.019]	[0.022]	[0.016]	[0.022]	[0.023]	[0.005]	[0.017]	[0.012]
WHN	0.003	0.010	-0.009	0.015	0.024	-0.002	0.023	-0.000
	[0.019]	[0.021]	[0.015]	[0.021]	[0.023]	[0.005]	[0.015]	[0.012]
MHN	0.014	0.081***	0.000	0.112***	0.043*	0.002	0.040***	0.023**
	[0.018]	[0.019]	[0.016]	[0.021]	[0.022]	[0.005]	[0.015]	[0.011]
Control mean	0.782	0.604	0.849	0.560	0.583	0.985	0.851	0.894
	(0.413)	(0.489)	(0.358)	(0.497)	(0.493)	(0.121)	(0.356)	(0.308)
p: WCommHN=WHN	0.062	0.719	0.274	0.254	0.315	0.425	0.989	0.167
p: WCommHN=WHN	0.007	0.003	0.090	0.000	0.058	0.093	0.237	0.432
p: WCommHN=WHN	0.517	0.000	0.506	0.000	0.400	0.378	0.184	0.033
Observations	5,092	5,176	4,984	5,176	5,046	5,176	5,042	5,176

Note: * p<0.1, ** p<0.05, *** p<0.01. Standard errors clustered at the village level in brackets. The p-values reported underneath the control mean show the results of the test of the null hypothesis of equal treatment effects between the different intervention arms. All specifications control for stratum and district fixed effects, and baseline values of the outcome whenever it is available.

Table A4: Health Behavior Index: Components

	Newborn health						
	First health check timing < median	Ever breastfed	Breastfeeding duration (weeks)	Fed colostrum at birth	No other liquids in first week	No other liquids in first 3 months	No solid foods in first 3 months
WCommHN	0.013	0.008	0.073**	0.006	0.134***	0.115***	-0.006
	[0.033]	[0.005]	[0.030]	[0.006]	[0.028]	[0.029]	[0.008]
WHN	0.030	0.005	0.053*	0.008	0.099***	0.077***	-0.002
	[0.033]	[0.005]	[0.028]	[0.005]	[0.029]	[0.030]	[0.008]
MHN	0.023	0.003	-0.020	0.003	0.034	0.032	-0.006
	[0.034]	[0.006]	[0.029]	[0.006]	[0.029]	[0.029]	[0.008]
Control mean of outcome	0.441	0.988	0.447	0.986	0.453	0.522	0.977
	(0.497)	(0.108)	(0.498)	(0.118)	(0.498)	(0.500)	(0.150)
p-value: WEMP=WHN	0.601	0.535	0.493	0.644	0.220	0.209	0.671
p-value: WEMP=MHN	0.759	0.382	0.002	0.448	0.001	0.004	0.997
p-value: WHN=MHN	0.835	0.711	0.009	0.221	0.030	0.132	0.675
Observations	2,455	2,697	2,660	2,681	2,681	2,619	2,578

	Newborn health			Maternal health		
	Number of vaccinations	Vitamin A in first 6 weeks	Vitamin A in last 6 months	Received antenatal care	Ate more of some foods during this pregnancy	Received iron during pregnancy or in 2 months after
WCommHN	0.112	0.004	0.048*	-0.001	0.078***	0.062***
	[0.136]	[0.025]	[0.025]	[0.014]	[0.023]	[0.020]
WHN	-0.019	0.008	0.026	-0.008	0.094***	0.063***
	[0.138]	[0.021]	[0.025]	[0.014]	[0.023]	[0.021]
MHN	0.248*	0.043*	0.082***	0.015	0.061**	0.066***
	[0.137]	[0.023]	[0.025]	[0.014]	[0.024]	[0.020]
Control mean of outcome	7.396	0.760	0.638	0.908	0.587	0.817
	(2.421)	(0.427)	(0.481)	(0.289)	(0.493)	(0.387)
p-value: WEMP=WHN	0.361	0.882	0.398	0.601	0.447	0.938
p-value: WEMP=MHN	0.337	0.139	0.197	0.248	0.419	0.798
p-value: WHN=MHN	0.065	0.125	0.032	0.105	0.138	0.868
Observations	2,837	2,830	2,835	3,446	3,440	2,842

	Household sanitary practices						
	Wash hands after toilet (Man)	Wash hands before a meal (Man)	Wash hands after toilet (Woman)	Wash hands before a meal (Man)	Treat drinking water	Sweep latrine at least twice a week	Made improvements to latrine
WCommHN	0.024	0.049**	0.081***	0.080***	0.047***	0.102***	0.118***
	[0.021]	[0.022]	[0.022]	[0.022]	[0.010]	[0.021]	[0.023]
WHN	0.027	0.057***	0.066***	0.092***	0.045***	0.071***	0.090***
	[0.023]	[0.021]	[0.022]	[0.021]	[0.010]	[0.021]	[0.023]
MHN	0.032	0.066***	0.014	0.020	0.007	0.028	0.022
	[0.022]	[0.022]	[0.020]	[0.020]	[0.011]	[0.020]	[0.021]
Control mean of outcome	0.332	0.562	0.373	0.575	0.924	0.441	0.326
	(0.471)	(0.496)	(0.484)	(0.495)	(0.265)	(0.497)	(0.469)
p-value: WEMP=WHN	0.884	0.740	0.511	0.571	0.723	0.116	0.239
p-value: WEMP=MHN	0.742	0.465	0.002	0.007	0.000	0.000	0.000
p-value: WHN=MHN	0.863	0.664	0.018	0.001	0.000	0.025	0.003
Observations	4,872	5,039	5,133	5,279	5,286	5,175	5,283

Note: * p<0.1, ** p<0.05, *** p<0.01. Standard errors clustered at the village level in brackets. The p-values reported underneath the control mean show the results of the test of the null hypothesis of equal treatment effects between the different intervention arms. All specifications control for stratum and district fixed effects, and baseline values of the outcome. Newborn Health: components of the index in Table 3, column (1). Maternal Health: components of the index in Table 3, column (2). Household Sanitary Practices: components of the index in Table 3, column (3).

Table A5: Program impacts on food expenditure per capita.

	(1)	(2)	(3)	(4)	(5)	(6)
	sugar	tea	milk	salt	rice	meat and fish
WCommHN	5.530	-4.239	11.445	0.023	59.594***	245.124***
	[22.748]	[5.157]	[33.046]	[6.672]	[18.679]	[70.922]
WHN	-24.669	1.312	1.983	-3.960	37.231**	46.526
	[21.389]	[5.115]	[35.026]	[5.958]	[17.657]	[69.765]
MHN	-11.770	-3.568	-38.448	-1.832	28.701	38.554
	[22.819]	[5.206]	[34.427]	[6.278]	[19.194]	[67.169]
Control mean of outcome	384.026	65.216	390.695	183.845	145.844	937.160
	(479.490)	(105.219)	(683.633)	(148.356)	(380.149)	(1291.966)
p-value: WCommHN=WHN	0.132	0.267	0.784	0.522	0.247	0.005
p-value: WCommHN=MHN	0.422	0.895	0.143	0.776	0.136	0.002
p-value: WHN=MHN	0.520	0.333	0.263	0.714	0.668	0.904
Observations	4,987	4,998	4,996	5,001	5,010	4,988

Note: * p<0.1, ** p<0.05, *** p<0.01. Standard errors clustered at the village level in brackets. The p-values reported underneath the control mean show the results of the test of the null hypothesis of equal treatment effects between the different intervention arms. All specifications control for stratum and district fixed effects.

Appendix B: the WHN and WCommHN programs

B1. Health Curriculum

The Health Curriculum was identical in MHN and WHN villages. It included 20 sessions:

- SESSION 1 – INTRODUCTION, OVERVIEW & BASIC KNOWLEDGE
- SESSION 2 – MATERNAL HEALTH AND CHILD NUTRITION
- SESSION 3 – PRENATAL NUTRITION
- SESSION 4 – BREASTFEEDING
- SESSION 5 – COMPLEMENTARY FEEDING
- SESSION 6 – FOOD GROUPS
- SESSION 7 – MICRONUTRIENTS FOR MOTHERS & CHILDREN
- SESSION 8 – SAFE WATER & SANITATION PRACTICES
- SESSION 9 – FOOD PREPARATION & RECIPES
- SESSION 10 – REVIEW
- SESSION 11 – HIV/AIDS
- SESSION 12 – CONTRACEPTION & FAMILY PLANNING
- SESSION 13 – PRECONCEPTION
- SESSION 14 – PRE & POSTNATAL PRACTICES IN YOUR COMMUNITY
- SESSION 15 – BIRTHING
- SESSION 16 – INFANT ILLNESS & PREVENTATIVE HEALTH PRACTICES
- SESSION 17 – POST-NATAL CARE & BIRTH SPACING
- SESSION 18 – INFANT GROWTH MONITORING & PROMOTION
- SESSION 19 - REVIEW
- SESSION 20 - GRADUATION

B1.1. Learning Materials

Learning materials were developed by Mango Tree, a local NGO that specializes in developing and field-testing education materials for households in Uganda. Materials included a set of flip charts in Runyankole (the local language) with color illustrations covering a range of concepts and topics covered in the curricula as well as a set of flash cards with various local foods (e.g. see Image 1). Flip charts displayed images such as food groups, women attending antenatal checkups, and examples of assertive, passive, and aggressive body language. As an additional resource, facilitators and supervisors were also given materials published by UNICEF such as diagrams of breastfeeding positions, male and female reproductive systems, and various forms of contraception.

Mango Tree illustrations depicting (1) steps for making an oral rehydration solution (2) and a woman receiving antenatal care at a health clinic.

(1) (2)

B1.2. Extracts from the health curriculum

Session 6, part 1

SESSION 6 – FOOD GROUPS

KEY MESSAGES:

1. Foods can be placed into categories according to their nutritional value
2. It is important to get a good mix of these food groups to stay healthy and grow
3. Use the healthy food plate to see how much of each food group you should eat

Food Groups

1. Carbohydrates
   - Bread, rice, cereal (not sugary cereals), wheat, millet, maize, flour, cassava, matooke, sweet potato, yams
   -

2. Fruit and Vegetables
   - All fruits and vegetables are good for you and the most important thing is to get a good variety. One way to tell is to make sure that you eat a lot of different colored fruits and vegetables
   - Vitamin A rich foods are important for babies and young children. These include: mango, papaya, passion fruit, oranges, dark green leafy vegetables, carrots, yellow sweet potato

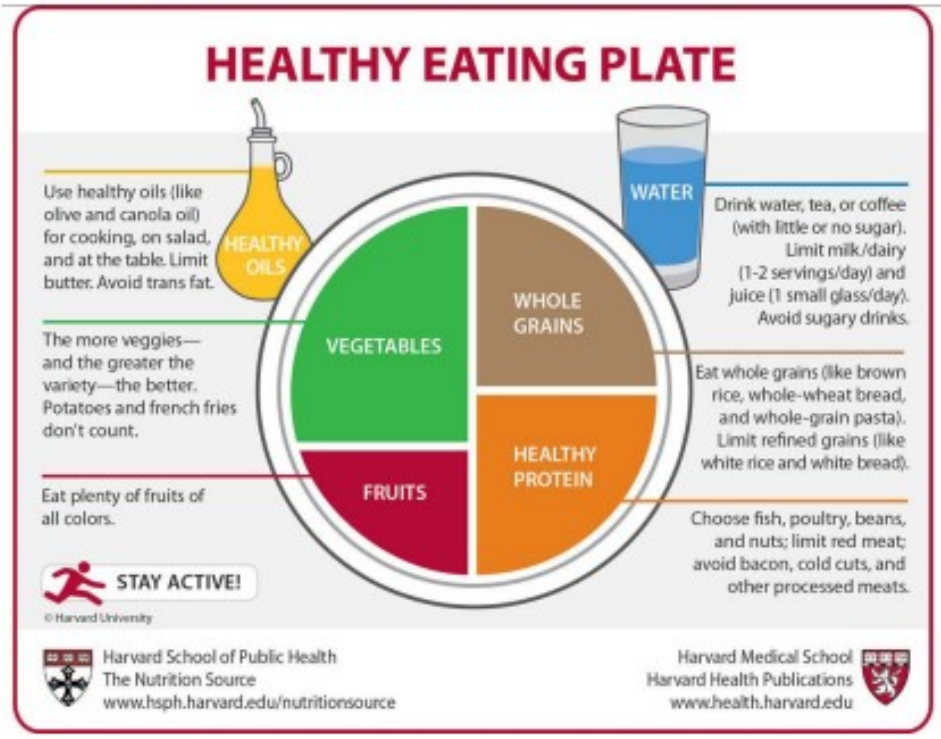
and pumpkin

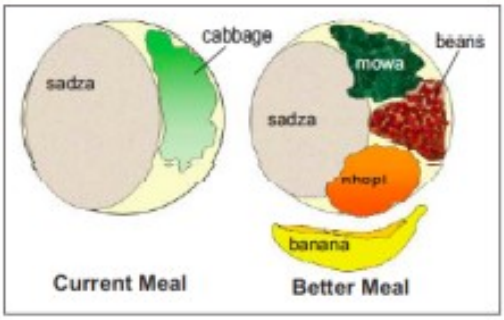
3. Proteins
   - All kinds of meat
   - Milk and foods made from milk such as cheese and yoghurt
   - Eggs
   - Beans, peas and nuts

4. Sugars and Fats
   - Sweets and candies, soda and sugary drinks, oils, margarine and butter (blue band), iodized salt, sugar, ghee

Healthy eating plate

Follow the healthy eating plate to see how much of each food group you should eat. Foods including fruits, vegetables and carbohydrates are very healthy and should be eaten at every meal. Protein from meat and eggs should be eaten often, at least two times per week. Moderate portions of dairy products such as milk and yoghurt should be eaten at least once a week. Sweet food like sugary biscuits and sodas should only be eaten occasionally, as they are not very healthy for the body and do not contain useful nutrients. **Water should be drunk very frequently and is the best thing to drink for adults and children who are no longer breastfeeding.**





B2. Communication Curriculum

In addition to the health curriculum described above, women in WCommHN villages also attended the Communication training. The list of modules covered by that curriculum was as follows:

- SESSION 1 – OVERVIEW AND INTRODUCTION
- SESSION 2 – GENERAL COMMUNICATION STRATEGIES
- SESSION 3 – DECISION-MAKING PROCESS
- SESSION 4 – COMMUNICATING INFANT NEEDS
- SESSION 5 – GENERAL NEGOTIATION STRATEGIES
- SESSION 6 – POWER AND PREVENTING CONFLICT
- SESSION 7 – HEALTHY RELATIONSHIPS / HEALTHY FAMILIES
- SESSION 8 – GENDER RELATIONS
- SESSION 9 – FINANCIAL NEGOTIATION
- SESSION 10 – SELF ESTEEM & GOAL SETTING
- SESSION 11 – HIV / AIDS PREVENTION
- SESSION 12 – NEGOTIATING FAMILY PLANNING USE
- SESSION 13 – COMMUNICATING & NEGOTIATING ANTENATAL NEEDS
- SESSION 14 – RESOURCES IN MY COMMUNITY
- SESSION 15 – HOUSEHOLD BUDGETING
- SESSION 16 – HEALTHY CHILDREN
- SESSION 17 – FATHERHOOD
- SESSION 18 – DOMESTIC VIOLENCE
- SESSION 19 – REVIEW
- SESSION 20 – WRAP UP & RECOGNITION CEREMONY

B2.1. Extracts from the Communication curriculum

Session 2: General Communication Strategies

Communication: To share or exchange information or news. Communication requires a sender, a message, and a recipient.

Modes of Communication:

- *Passive Response*: Behaving passively means not expressing your own needs and feelings, or expressing them so weakly that they will not be heard
    - *Example*: My husband went to the market today to buy food for the family. I asked him to buy carrots and pumpkin for my small children but when he returned home, he had only purchased matooke and some alcohol for himself. Instead of asking him why he didn't purchase the items, I simply take what was purchased and thank him

- *Assertive Response*: Behaving assertively means asking for what you want or saying how you feel in an honest and respectful way, so that it does not infringe on another person's rights or put the individual down
    - *Example*: My husband went to the market today to buy food for the family. I asked him to buy carrots and pumpkin for my small children but when he returned home, he had only purchased matooke and some alcohol for himself. I ask my husband why he didn't purchase the items and he said that they were too expensive and that he likes to eat motooke anyways. I calmly explain to him that carrots and pumpkins are very important for the children because they keep them healthy. Even though they are a bit more expensive, it is very important for our family to be healthy. I ask my husband to please return to the market and buy the items.

- *Aggressive Response*: Behaving aggressively is asking for what you want or saying how you feel in a threatening, sarcastic, or humiliating way that may offend the other person
    - *Example*: My husband went to the market today to buy food for the family. I asked him to buy carrots and pumpkin for my small children but when he returned home, he had only purchased matooke and some alcohol for himself. I immediately accuse my husband of caring more about himself and getting drunk than about our family. We begin arguing and yelling back and forth.

SESSION 9 – FINANCIAL NEGOTIATION

Time/Length: ~45 minutes

Tools/Materials/Readings:
Flip chart or large paper
Markers

Main Education Points:

- Importance of Spending Money on Nutrition and Healthcare
- Negotiating with my Spouse about Spending Money
- Benefits of Saving Money
- Creating a Plan for Health Expenditures

Activities/Assessments:

- Ice-Breaker: "20 Questions" – See Facilitator Notes for Instruction (**5 minutes**)

  Facilitator should then transition by introducing the topic of financial negotiation. Explain that today we will be talking about how spouses can collaborate when deciding what to spend money on. Begin by asking participants the following questions:
  - Think about the last major purchase that your household made. What was it? Did you communicate with your spouse about making this purchase?
  - Do you think it is important for a husband and wife to talk about household purchases? Why?

- Identifying Healthcare Expenses: (**20 minutes**)
  Women should work together in groups of 2 or 3 for this activity.

  Instruct participants that they should come up with a list of the 5 most important things (can be an item or a service) that they can purchase for their children in order to keep them healthy. List the items in order of importance (1 is most important) and estimate the total cost of each item.
  Example: 1.) Vaccinations (10,000 UGX) 2.) De-worming (2,000 UGX) 3.) Hospital Visit (5,000 UGX for transport) 4.) Healthy Food (1,000UGX per week) 5.) Shoes (10,000 UGX)

  After creating the list of items, participants should identify a plan and timeline for how they would be able to purchase all of these items. Specifically, participants should:
  - Identify who will pay for the items. Will one person buy everything? Will both contribute to purchasing these items?
  - When is it possible to purchase the items? Can some be purchased immediately? Will you need to save up for any of the items?
  - How can you ensure that they items are purchased? Can you agree to purchase the next big item at a certain time, like after the next harvest?

  After 10-15 minutes of preparation, have each pair present to the group.

- Group Discussion: (**10 minutes**)
  The facilitator should lead a group discussion around the benefits of saving money. Explain that saving a small amount of money each week is a way to begin collaborating with your spouse financially. Ensure that you have a purpose for saving and that you and your spouse agree on what the money will be used for.