

**Enhancing NGO-LGU Collaboration in
Family Planning:
Using Community Workers to Reach
Men in an Agrarian Setting**

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SUMMARY

This study investigated the effectiveness of a community-based intervention program that seeks to improve men's involvement in reproductive health matters. This project is a collaborative effort of the FRONTIERS Program, the Institute for Reproductive Health (IRH, Georgetown University), the Research Institute for Mindanao Culture (RIMCU at Xavier University), and the KANANIB Foundation. KANANIB is an NGO that works with small farmers and agrarian reform beneficiaries in Bukidnon Province, the Philippines.

The Reproductive Health Awareness (RHA) intervention was implemented by KANANIB through their trained volunteer couple members. Fourteen couples were trained by IRH to develop their skills in conducting community sessions on the four modules dealing with fertility and body awareness, family planning, RTI/STI and HIV/AIDS and couple communication on RH matters. One hundred seventeen KANANIB couples (64% of the sample of 184 couples) were able to fully participate in the intervention (i.e. attended all four of the educational modules). However, a total of 1,647 individuals in the intervention study sites of Bukidnon Province attended at least one of the sessions conducted by these couples, many of whom were non-KANANIB members.

In order to strengthen the institutionalization of RHA, the project initiated a series of activities to forge stronger linkages with the local government, the local health system and the community.

A pretest post-test nonequivalent group design was utilized by the study. To evaluate the program, members of KANANIB in three communities of Bukidnon and members of another set of NGOs chosen from matched communities who were elected and interviewed before the start of the community sessions were followed up twelve months later. The Research Institute for Mindanao Culture (RIMCU) conducted the research activities with technical assistance from the FRONTIERS Program staff.

Changes in selected indicators of knowledge, attitude, and behavior were used to assess the effects of the intervention. Percentage point changes between 1999 and 2000 for selected indicators were estimated and tested statistically. Changes in program and comparison groups were measured using the odds ratios, which were derived for each indicator by estimating a pooled binary logistic regression model. A summary index was calculated for each set of indicators of particular topics and linearly regressed on Time, Program and the interaction variable (Time *Program).

Significant positive changes were noted on supportive attitudes by husbands towards reproductive health. The intervention has resulted in significantly improved husband and wife communications as reported by husbands and their partners. Significant improvements in knowledge indicators on major aspects of reproductive health were observed among both program and comparison respondents. In these instances the odds ratios were statistically significant, particularly for husbands. In general, however, the intervention has resulted in significant improvement of wives' knowledge and awareness of physiology and fertility-related matters, more so than their husbands'. However, even

as we observe positive changes among program respondents on several indicators, positive changes were also noted among respondents from the comparison group. In fact, in some instances, knowledge levels of this group surpass program respondents' level of knowledge. Contamination is an unlikely explanation for these results. The more likely explanation is related to some measurement effect, as well as the presence of other interventions going on in both areas. Furthermore, the population size of the comparison group is much larger than that of the program sites (21,505 in comparison sites versus 14,676 in the program sites) indicative of the level of development in these locations.

Interestingly, the intervention has not significantly changed family planning use among husband and wives. This finding also holds true for RTI/STI knowledge, which may call for a review of the modules on this topic. In the case of family planning, it may be too early to see any change on this indicator, with an average of 6 months after exposure to the modules.

The intervention, however, has demonstrated the feasibility of using couples as RH educators in the community. As the result of the intervention KAANIB has become strongly linked with the local government health system and has expanded its activities beyond its traditional farming-related development work. Its recognition in this new area of work is demonstrated by its appointment as the NGO representative in the local health boards. The executive director has also been appointed as a member of a committee organized by the local government to draw up a five-year development plan in one of the study sites. This plan includes RHA as a major activity of the health sector, providing stronger support to sustain incentives provided for couple educators. Several health providers mentioned in the FGDs that they are using the RHA modules to conduct their own regular field visits because the modules provide clear IEC messages.

KAANIB has institutionalized RHA into its organization by integrating reproductive health concerns in their mission and vision, hiring a health technician on a permanent basis to take charge of the RHA activities, and developing a year-round operational plan for their new health resource center. KAANIB has initialized plans to replicate RHA activities to other areas under its domain. Participants and members of the community expressed appreciation for the RHA and agree that this has helped to improve the reproductive health awareness of the people in the area.

An integrated intervention package is recommended that builds on the community education sessions that sustains the motivation and capacity of volunteer couples, while also strengthening service provision in the fixed clinics. Service provision in the health system must provide for a more male friendly environment that clearly addresses and encourages male involvement on the health of their wives as well as their own. The program can begin with provisions encouraging fathers to be present in at least one prenatal visit of mothers and /or make available specific services that are likely to be sought by men (e.g. male counseling services, vasectomy, RTI/STI or prostate cancer screening services).

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ABBREVIATIONS

ANE/ORTA Project	Asia Near East/Operations Research and Technical Assistance Project
BHC	<i>Barangay</i> (village) health center
BHW	<i>Barangay</i> health worker
BTL	Bilateral tubal ligation
CA	Cooperating agency
DMPA	Depot medroxy progesterone acetate (injectable contraceptive)
DOH	Department of Health
DSWD	Department of Social Welfare and Development
IRH	Institute for Reproductive Health, Georgetown University
GO	Governmental Organization
LGU	Local government unit
LPP	LGU Performance Program
MCH	Maternal and child health
MGP	Matching Grants Program
NFP	Natural Family Planning
NGO	Nongovernment organization
NHIP	National Health Insurance Program
PHIC	Philippine Health Insurance Corporation
PHILDRAA	Philippines Partnership for Development of Human Resources in the Rural Areas
PO	Peoples organization
RHU	Rural health unit
RIMCU	Research Institute for Mindanao Culture, Xavier University
RHA	Reproductive Health Awareness
RTI	Reproductive tract infection
STI	Sexually transmitted infection
TOT	Training of Trainers
USAID	United States Agency for International Development
UTI	Urinary tract infection

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BACKGROUND

Globally there has been increasing consensus that stronger efforts should be made to involve men in reproductive health programs. Studies conducted in the Philippines have shown that men play a relatively passive and often antagonistic role in the area of reproductive health (Sealza, 1996; DHS, 1998). The unwillingness of husbands to practice family planning has been cited as a major explanation for the Philippines' high levels of unmet need (Casterline, 1998, Biddlecom, 1997). Husbands' objection is also cited for women's non-use and discontinuation of contraception in a study conducted by Palma-Sealza in 1995. Recognizing the important influence of the husband, the Department of Health and the Commission on Population in the Philippines have included male involvement as a critical component of their on-going programs and called for studies on men's participation in their own and their wives' health in a responsible manner.

Involvement of men is not synonymous to exclusively putting the responsibility of reproductive health on their shoulders. Many reproductive health activities, such as health care utilization, use of barrier or natural family planning methods, and decisions regarding the desired number and timing of children depend not only on the actions of men and women individually, but also on the interaction of men and women as couples. Taking men in isolation may limit the ability of women to protect their own health. Programs that focus exclusively on men may result in an increase of male power at the cost of isolating them from their partners or diminishing women's empowerment. Thus the approach to men's involvement adopted by this study worked within the context of couples and increasing the awareness of both men and women.

FRONTIERS Philippines proposed to undertake an intervention study to involve men in reproductive health in 1997 in collaboration with the Institute for Reproductive Health in Georgetown University beginning with a diagnostic operations research (OR) study to serve as a

baseline for the development of a culturally sensitive reproductive health awareness (RHA) intervention design to be tested in Bukidnon, a province in Mindanao.

One of the striking findings in the 1997 male involvement baseline study is that approximately 50 percent of the women respondents were not achieving their reproductive goals. Between 40 to 50 percent of women reported having had unintended pregnancies and more than 40 percent had more than four pregnancies. Seven percent reported having attempted an abortion. The study also revealed that a large percentage of husbands and wives (about 45 percent) did not regularly talk about family concerns, such as the use of family planning or the choice of family planning method. About 30 percent of the respondents relied on natural methods such as rhythm, NFP, abstinence and withdrawal, but more than half of these respondents (both husbands and wives) indicated that they did not know how to identify the woman's fertile period. Even those who claimed that they could identify the fertile period gave incorrect answers. This finding suggests that couples using natural methods are using them incorrectly.

Respondents had little knowledge of the signs, symptoms, causes and prevention of sexually transmitted diseases. Twenty percent of men interviewed were unaware of the fact that some diseases could be transmitted or acquired through sexual intercourse. Fidelity to one's partner and avoiding sex with an infected person were identified as means of avoiding disease.

Reproductive tract infections and other reproductive health problems appeared to be quite common, as inferred from symptoms reported by women. About 45 percent of the women interviewed reported having experienced burning sensation during urination, and one-third reported excessive vaginal discharge and menstrual cycle problems. More than one-third of the women reported pain during intercourse. Itchiness in and around the vaginal area was reported by almost 30 percent of the female respondents. On the issue of domestic violence, one-fifth of the women reported being hit by the husband once or twice a year, and almost one-third reported that this occurred when they were pregnant.

OBJECTIVES OF THE STUDY

On the basis of the 1997 findings, four modules were developed and tested to address some of the major gaps identified in reproductive health knowledge of farmers and their partners in communities of Bukidnon. The RHA intervention intends to improve male involvement in reproductive health through the conduct of a series of activities. The first set of activities provided KANIB the needed technical assistance to implement the RHA intervention program and establish a basic structure in its organization to help promote the institutionalization of reproductive health education. Institutionalization of reproductive health activities in the community is fostered by strengthening the partnership between KANIB and the local government on reproductive health concerns.

A second objective of the project is to assess the effectiveness of the intervention in terms of awareness, knowledge, improved health seeking behavior and improved couple communication on reproductive health matters. In this regard, the RHA intervention program is expected to result in a general increase in fertility awareness and knowledge, including family planning knowledge and use, particularly among men. Positive changes are expected in couple communication and knowledge of HIV/AIDS, STIs and reproductive health problem symptoms and their prevention.

THE RHA COMMUNITY INTERVENTION

The Setting of the Study. Bukidnon was chosen as an intervention and control site because of its strong network of NGOs working with farmers' organizations composed largely of male members. This province is in Northern Mindanao (Region10), located in southern Philippines. It is an inland agricultural province, composed of 21 municipalities and one city. The province is characterized by its mountainous terrain, as signified by its name, which means "land of mountains".

Corn and rice are the most important staple crops being produced in the province. Bukidnon Province is largely populated by migrant farmers coming from different parts of the country, particularly from the Central Visayan region, although a significant proportion of the population are indigenous Filipinos called Lumads. It is historically considered as the last frontier of Mindanao.

The RHA Model. The IRH's Reproductive Health Awareness (RHA) approach empowers and involves both men and women in reproductive health issues by providing them with the ability to make informed decisions to keep themselves and their families healthy. The methods and messages of the RHA approach are designed to increase awareness and knowledge among men and women about their bodies (i.e., human physiology and the reproductive organs). The RHA model encourages couples to actively participate in their own reproductive health care with emphasis on four thematic areas: body/self awareness, family planning and awareness of gender issues, RTI/STIs and HIV/AIDS awareness and prevention, and couple communication. The reproductive health awareness intervention program was based on the findings from the 1997 ANE OR/TA project. It was mainly developed by the Institute for Reproductive Health (IRH) of Georgetown University and KANIB, an NGO composed of a network of agricultural cooperatives based in two provinces of Northern Mindanao. By using the study's findings, the intervention could be tailored to the local context and ensure that major gaps in reproductive health of men and their spouses were addressed in the RHA modules.

Although a couple-approach was used, emphasis was placed on husbands' needs and their involvement in reproductive health, stressing the importance of the husband's presence and participation as educators. Male methods of family planning were highlighted and use of condoms was presented not only as a way to prevent STI transmission but also as a family planning method.

The four themes included the following types of information:

- 1) Body awareness: what is healthy and normal for each individual and the signs and symptoms that indicate the need to seek health care
- 2) Available types of family planning methods, their benefits and disadvantages
- 3) Gender sensitivity and reproductive health, RTI and HIV, signs symptoms and transmission
- 4) Communication skills to help participants deal effectively with partners and health providers.

The modules were structured to provide a logical sequence of information with each module building on the preceding one(s). Although participants could benefit from any single module, the expectation was incorporated into the project design was that participants would attend all four sessions and would experience a cumulative benefit from this level of exposure and participation. See Appendix 5 for a more detailed description of the content.

Implementation of the RHA Intervention. The intervention program designed by IRH with KAANIB includes: (a) the training of selected KAANIB members as couple educators, (b) the training of health providers (mainly midwives), (c) the conduct of community education sessions in the KAANIB communities, and (d) forging stronger KAANIB linkages with government units and the local health system.

Prior to training couple educators, an orientation seminar on the Reproductive Health Awareness (RHA) approach and how it could be integrated into KAANIB activities was conducted for 16 KAANIB staff on July 6-11, 1999. During the first three days of the workshop, KAANIB staff was introduced to RHA and the educational program that would be carried out in the community. KAANIB staff then spent two days reviewing their operations, and strategizing how the RHA activities could be integrated into their work to support their farmer members.

Training of Couple Educators. Couple educators were identified by the People's Organizations in each of the study communities. They were selected for their leadership and communication skills and their willingness to commit their time to conducting educational events in the

community. Some had been leaders in other KANIB programs, and all were farmers, like other residents in the communities. They had no special health training and no previous experience in health education or communication.

Couple educators were trained in three batches. The first batch of community educator training was conducted between August 5-14, 1999 for modules 1 and 2. The second batch of educators was trained on modules 1 and 2 on November 3 - 8, 1999. Modules 3 and 4 were not introduced to the couple educators until January 12 -19, 2000.

The training had two purposes: to increase the couples' knowledge of reproductive health and give them the skills to carry out the reproductive health awareness sessions in the communities. Since the couples had no previous health experience, it was necessary to give them a basic grounding in the reproductive health subjects they were to teach. In addition, they needed to learn how to impart this information to couples in their communities. The training was both didactic and experiential.

The training on the four RHA modules was undertaken in two stages, allowing the educators to gain mastery of material in a more gradual manner. During each three-day training session, the couple educators were trained in two modules. The training was experiential. Trainers modeled the instruction and couples held demonstrations in the classroom, before conducting practice sessions in the community. After one week of practice in the community, they returned for a three-day training that consisted of repeat demonstrations, feedback, and reinforcement. Couple educators used teaching scripts, which were developed in response to their request to help them more comfortably and competently conduct the sessions. The scripts included key content areas to be covered during the sessions, activities, and questions for reflection. The couple educators acquired the skills and confidence they needed to teach the sessions, as they were encouraged to practice at home. In addition to the topics included in the educational sessions, couples were trained in public speaking, facilitation, and in the elements of counseling. Fourteen couples completed the training and served as educators during the community sessions scheduled in the

program areas.

Training of Health Providers. The health providers were trained on modules 1 and 2 on August 9-10, 1999 and on modules 3 and 4 on November 5-6, 1999. Health provider training covered the topics taught to couple educators, but in greater depth. The training had several purposes: to familiarize them with the RHA modules that would be taught in the community; to sensitize them to gender issues in the provision of health services; to ensure consistency in messages provided in the community and the clinic; and to enlist their participation in conducting more in-depth sessions on RH as required by the community. They were informed that their assistance would be sought to explain clinic procedures, services available in their clinics as well as in the nearest referral facility.

Community Education Sessions. Community sessions (for module 1 and 2) were offered for the first time on August 22, 1999, and sessions on modules 3 and 4 were offered beginning in January. During the first quarter of 2000, all four modules were being offered at the same time. This was a departure from the original design, which called for conducting the modules in sequence so that an adequate foundation of knowledge could be laid down. This change was needed to increase the number of KAANIB members reached by the educational sessions.

The 14 couple educators who were trained conducted a total of 135 community education sessions within the first year in the six KAANIB project barangays. Although the program was intended for KAANIB members, it was also open to the community at large and in fact more community residents than KAANIB members attended many sessions. Since the research only focused on KAANIB members, benefits derived by community members who attended the sessions are unknown. Each module takes, on average, between one to two hours to complete depending on the enthusiasm of the group. The sessions used a lecture-discussion format supported by charts and other visuals. They were participatory and included interactive games

and exercises.¹

KAANIB promoted the sessions through its cooperatives and door to door in the community on the days the sessions were held. Sessions were held mostly on weekends when both the couple educators and couples were available. Some were also held at night although that was not the predominant pattern.

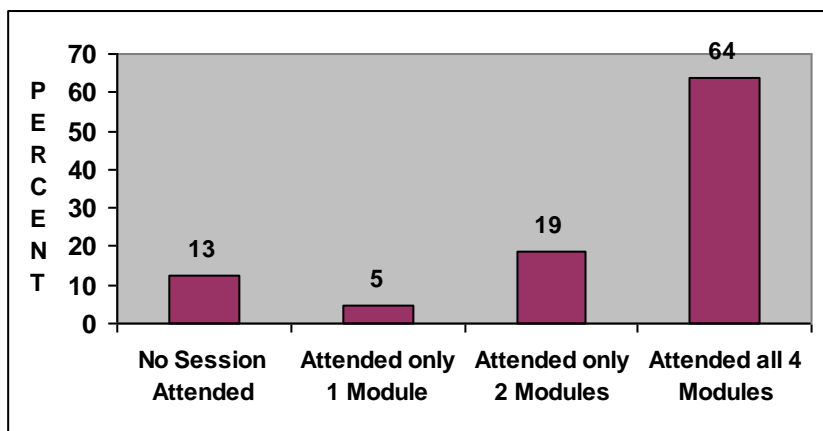
Although the original design included four RHA sessions, as the project end-date approached and the target number of couples had not yet been reached, modules 3 and 4 were combined and offered in one session. Thus, four hours of planned materials had to be consolidated into a two-hour session. As a result, not all of the material planned for Sessions 3 and 4 (which included STIs, HIV, AIDS and communication) was covered in the combined session.

IRH and Population Council staff also decided to postpone the post-intervention survey until at least 80 percent of members had been exposed to the full intervention (i.e. all four modules). With the help of couple educators, the health technician resorted to a “mop-up” operation beginning in May 2000, which consists of holding training sessions in the program respondents’ homes. These last efforts paid off, such that by the end of July 2000, 64 percent of the 183 surveyed couples completed all four modules. Aside from those who completed all four modules, 24 percent had partial exposure, having attended at least one session. While this was still short of the target by 16 percent, only 23 couples (13%) remained who had not been able to attend any of the sessions at all. Some reasons for nonattendance included death of a spouse, migration, and job transfers. Others simply could not be reached because they lived far from the center of the town, while others chose not to participate in the sessions because they felt uncomfortable or embarrassed by the topics in the modules. Figure 1 shows the level of exposure of 183 surveyed

¹ Several problems were encountered in the implementation of the community education sessions. After about 40 percent of KANIB members were able to attend the RHA sessions, it became increasingly difficult to reach the remaining 60 percent surveyed during the 1999 baseline. KANIB approached barangay captains from the intervention program communities to issue letters urging their constituencies to attend barangay meetings. By July 2000, over 60 percent of members completed all four modules.

couples in the community education sessions by July 2000, at the time when the end-line survey was conducted.

Figure 1. Percentage of Surveyed Couples who attended Community Education Sessions, August 1999 to July 2000



Forging Linkages with Local Government Units and the Health System. Another important element of this intervention was to establish linkages with the local government units and LGU service providers in the program areas. The linkage with the local government was earlier built into the project with the close involvement of the Provincial Planning and Development Officer (PPDO) in the writing of the original proposal.² Since its implementation, the office became instrumental in facilitating the RHA project and was responsible for introducing it to the local municipal officials in the program sites. These local officials were later represented in the Executive Committee of the project. The Provincial Planning and Development Officer was elected to head the Provincial Coordinating Council, which served as an advisory group to the RHA project. KANIB, through its executive director and the health technician, made regular updates to the PPDO about the progress of the project.

Since it was expected that the RHA sessions could result in an increased demand for health services, procedures were established in order to facilitate referrals and track the extent to which

² The Provincial health Officer helped to conceptualize the male involvement project during an OR workshop held at Puerto Galera sponsored by ANE OR/TA in January 1996.

they occurred. The referral system was introduced to providers during their training.

The Provincial Coordinating Council. To address the problem of sustainability, activities to enhance NGO-LGU partnerships were initiated, including the setting up of provincial and municipal management committees to meet regularly to discuss the progress of the intervention. In May 1999, the Provincial Coordinating Council was created after the project orientation seminar was held with government officials of Bukidnon and other stakeholders (e.g. church, private sector and others). The Provincial Coordinating Council was composed of two major committees: the Advisory Committee (ADCOM) and the Executive Committee (EXECOM). The ADCOM consisted of different representatives from various sectors including the municipal health officers of the study areas, representatives of the church and private sector, and the coordinators of the different institutions involved. The EXECOM was composed of the mayors in program area (two municipalities and one city), the KAANIB executive director, the Research Institute of Mindanao Culture (RIMCU) principal project investigator, and the province's program coordinator of the LGU Performance Program.

The Provincial Coordinating Council convened once every three months to discuss project development and address relevant issues and problems. From August 1999 to May 2000, there were a total of four quarterly meetings, two of which were held at the office of the Provincial Planning and Development Officer in Malaybalay City.

One significant outcome of this project is the appointment of the Executive Director of KAANIB as the NGO representative in the municipal health boards of the three municipal sites. Through this link, KAANIB was able to represent one of the study sites to avail of the Local Government Performance Project (LPP) funding to improve its rural health clinic.

The Municipal Implementation Teams. The Provincial Coordinating Council also organized a coordinating body for each municipality, the Municipal Implementation Team (MIT). Its membership consists of couple educators, health providers, the KAANIB health technician, and

local government officials. The municipal health officers led the team, which met twice a month. Problems that could be handled by the team were immediately attended to while other issues were brought to the attention of the Provincial Coordinating Council during its quarterly meetings. The MHOs were responsible for briefing the mayors concerning the progress of the project. The team met six times monthly in each of the municipalities from August 1999 to July 2000. Some of the issues tackled by the Municipal Implementation Team were: 1) the issue of very low attendance by KAANIB members towards the end of the project, 2) the complaints received from the bishop regarding the messages that he found to be “insensitive” to the culture of people in Bukidnon,³ and 3) how to sustain the motivations of couples to undertake the community sessions.

Linking with the Local Health System. Another component of the intervention is the strengthening of the linkage between the KAANIB and its community educators with the local government health services. In this regard, a three-part referral coupon was developed for the use of educators when making referrals to the clinics. One part of the coupon was to be retained by the educator for his/her record, and two parts given to the potential client. When the client sought services, the service provider collected the third part of the coupon. This way the system was able to monitor the number of referrals and determine the proportion of referrals that actually resulted in seeking services and the extent to which desired services were received. See Table 1 for a description of referrals and services provided.

³ A representative from the study team visited the bishop of Malaybalay to explain the nature of the project and clarify the process of the training. The bishop cautioned against “pressuring” couples, the “amoral” nature of the modules, and the use of “vulgar” language in referring to topics related to sexuality. Subsequent meetings with his representatives were held to continue the dialogue. The involvement of the faculty of a Catholic university in the study team proved to be an advantage since he was open to a continued dialogue.

Table 1. Health services sought from referrals and services actually given, Malaybalay, Valencia and Impasug-ong Barangays

Services Sought	Percent given services being sought		Percent not given services being sought but other services were given		Total referred
Family Planning	93	(55)	7	(4)	59
Medicines and Vitamin Supplement	99	(118)	1	(1)	119
Preventive Services (BP, Breast Exam, Prenatal Checkup)	84	(64)	16	(12)	76
Other Services	70	(16)	30	(7)	23
Total	91	(253)	9	(24)	277

These data were obtained from the records kept by the health centers, matched with the records of the couple educators collated by KANIB.

RESEARCH METHODOLOGY

A pretest-posttest non-equivalent groups design was used to measure the effects of the intervention on RH awareness, knowledge and behavior of husbands and their wives who are members of KANIB. Since no prior randomization was possible, the second group of communities (comparison areas) is merely a comparison group rather than a strict control group in the experimental sense.

Study Sample. The choice of the sites was guided by the consideration that the majority of KANIB members who are the target of the intervention should be residing there. The six program barangays are located in the municipalities of Impasug-ong (Northeastern Bukidnon) and Valencia (Central Bukidnon), and the City of Malaybalay (Provincial Capital - Central Bukidnon). A corresponding set of municipalities was chosen purposively to serve as comparison areas. Criteria used for the choice of areas were similarities in basic economic development characteristics. It was also important that the comparison area had an NGO presence, basically rural but accessible to motorized transportation. Each of the barangays under study has its own Barangay Health Centers (BHCs), which are run by at least one midwife and a

number of Barangay Health Workers (BHWs). Basic services available in the rural health centers and barangay health stations include family planning, prenatal care, delivery, postpartum care, child immunization, and general consultation.

The comparison sites are located in the municipalities of Baungon (Northwestern Bukidnon), Manolo Fortich (North Bukidnon), and Maramag (South Bukidnon). The following table shows the Program and comparison sites:

Table 2. Population Size of Program and Comparison (Comparison) Barangays, NSO 1995

Program Municipalities	Barangays	Population	Comparison Municipalities	Barangays	Population
Impasug-ong	Cawayan	750	Baungon	Poblacion	3,504
	Impalutao	2,545		Salimbalan	2,293
Malaybalay	Sinanglanan San Martin	2,861 2,232	Manolo Fortich	Liboran	2,113
				Lingating	3,062
				Lunocan	3,666
Valencia	Vintar Kahaponan	1,825 401	Maramag	Lingion	3,335
				San Miguel	3,532

While the municipal locations of some program and comparison sites appear to be geographically contiguous, the likelihood of program contamination is low. First, while the municipalities identified for both program and comparison areas appear to be located close to one another on the map, the barangays that were chosen for comparison areas are quite distant from the nearest Program barangay. Second, these areas are largely rural and difficult to access *within* both program and comparison areas, let alone *between program and comparison areas*. There were, however, ongoing programs being implemented in both program and comparison areas during the time of the project. For example, the whole of Bukidnon Province is a recipient of the Local Government Performance Program of the Department of Health as well a part of the Safe Motherhood Project funded by the World Bank. Hence, capacity-building and other health activities were also ongoing in comparison areas during the time of the study.

Data Collection Activities. A total of 210 couples (420 individuals) who are members of KAAANIB and living in the program areas were located and interviewed, and 249 couples (498

individuals) were identified and interviewed in the comparison areas in July 1999 (see Table 3). Twelve months after the start of the first training activity, 183 of the original 210 couples in the program areas were re-interviewed and 217 couples were successfully contacted in the comparison areas for the August 2000 end line survey. Some of the reasons for sample attrition are the following: spouse refused or unavailable re-interview, family moved to another municipality and, other health reasons. It must be noted at this point that community education sessions on Module 3 and 4 did not begin until January 2000, and for a few months were offered along with modules 1 and 2 because the target number of KANIB couples had not yet been reached.

Table 3. Bukidnon Study Participants: Program and Comparison and Level of Exposure to Community Sessions

Participants	Program	Comparison
Enrolled in the study	210 men 210 women	249 men 249 women
Lost to Follow up	27 couples	32 couples
Total Followed up	183 couples	217 couples
Total Number of Respondents Attending all 4 Modules	117 men 117 women	-
Total Number of Respondents Attending at Least One Module	160 men 160 women	-
Total Number of Respondents Failing to Attend even One Module	23 men 23 women	-
Total Community Attendance (August 1999 to July 2000)	719 men 928 women	-

Baseline surveys were conducted in both the program and comparison groups a month before the start of the intervention activities. While data were being processed at the Research Institute for Mindanao Culture in nearby Cagayan de Oro City, research supervisors trained by RIMCU remained in the Program areas to monitor implementation, and assist the health technicians and the couple educators during the preparation and conduct of these sessions. This way they were able to better observe the process of implementation.

Program respondents were selected from a list of the members of the KANIB made available to the study team by its participating member cooperatives. All couples who are currently married KANIB members with wives aged between 15 and 49 were interviewed. In order to obtain a

comparison group currently married couples between 15-49 were identified through a list provided by PALAMBU, a group of people's organizations in Bukidnon, similar to the KANIB-assisted organizations found in the municipalities of Manolo Fortich, Baungon and Maramag. Following the procedure among program respondents, a hundred percent of eligible couples under PALAMBU were approached and interviewed.

Two separate questionnaires, one for the husband and another for the wife, were administered to the respondents in the study. These questionnaires, originally constructed in English, were translated into the local dialect or Cebuano. Except for questions related to the household and reproductive history, questions asked of the husband were similar to those asked of the wife. Husbands were separately interviewed from the wives. Interviewers were assigned to interview respondents of the same gender. Informed consent protocols were strictly observed⁴.

After the last survey, five focus group discussions (FGDs) were held to provide additional data to supplement the information derived from the surveys, and get a general assessment about the different components of the intervention: (1) six couple educators, and two husband educators; (2) six health providers trained in RHA; (3) five couples who attended all four sessions; (4) ten men who attended all four sessions, and (5) five couples who were not surveyed but attended all four sessions were conducted after 12 months of program implementation. A total of 68 individuals participated in the FGD sessions.

Because a number of original study participants in both program and comparison areas were lost to follow up at the end of the study, an analysis was carried out to examine the characteristics of those who were not located in the second survey to ensure that there was no selectivity bias. Table 4 shows that program respondents did not demonstrate any significant difference ($p < 0.05$) from those who participated in the 1999 survey as data in terms of age of husbands and wives,

⁴ An informed consent form was developed to seek permission to proceed with the interview, was originally constructed in English and then translated into Cebuano. Some respondents, especially those from remote areas, were hesitant and suspicious to sign documents. Some agreed to be interviewed on the condition that they withhold their signature.

educational background, and household composition. Similar results were found for the analysis of the comparison areas.

Table 4. Socio-demographic characteristics of couple respondents who were followed-up and who were lost to follow up

Characteristics	Re-interviewed Respondents in 2000	Respondents Not Interviewed in 2000
Age of wife ^F	35.6	34.2
Highest grade completed of husband ^M	7.1	7.4
Highest grade completed of wife ^F	7.8	7.7
Number of household members ^F	6.1	6.0
Number of living children ^F	3.5	3.2
N	183	27

^M Male Respondents

^F Female Respondents

Characteristics of Respondents in the Study. Analysis will be limited to respondents who were successfully followed up in the end-line survey (183 couples in program areas and 217 couples in comparison areas). Table 5 shows that no significant differences were noted between respondents in the program areas and respondents from the comparison areas on the basis of selected socio-demographic characteristics. The only significant difference noted is in the educational level of the wife, where the average number of years completed in school of wives in program areas is 7.8 compared to that of wives in comparison areas which is 6.1.

Table 5. Selected socio-demographic characteristics of respondents in 1999 who were followed up in 2000, program and comparison areas

	Program	Comparison
Age of husband ^M	38.5	38.2
Age of wife ^F	35.6	34.9
Highest grade completed of husband ^M	7.1	7.0
Highest grade completed of wife ^F	7.8	6.1*
Number of household members ^F	6.1	6.3
Number of living children ^F	3.5	3.7
N	183	217

* Significant at $p < 0.05$

^M Male Respondents

^F Female Respondents

Method of Analysis. The effectiveness of the intervention program was measured in several steps. First, percentage point changes between 1999 and 2000 for selected survey questions were estimated and tested statistically. This was done systematically for each major topic covered by the RHA modules and for both program and comparison respondents to verify consistency of changes across topics and study groups. Secondly, to assess the effectiveness of the intervention, changes in program and comparison groups were compared using the odds ratio. Significant odds ratios derived from logistic regression may be interpreted as indicators of marked changes between baseline and post-intervention data in the program group versus the comparison groups. This was done for every question in the subject topic.

Thirdly, a summary index was estimated for each set of topic questions to get a general indicator that summarizes the results for each topic. The scores assigned for responses to each question in the subject topic were summed producing an index with value between zero and the number of questions in the subject topic. Equal weights were assigned for each question in the set. This summary index for questions relating to a particular topic was then linearly regressed on TIME, PROGRAM and the interaction variable TIME x PROGRAM.

The study posits that attendance of RHA intervention modules will produce greater awareness, knowledge, and improved RH behavior, particularly of husbands, as well as improved couple communications on RH matters.

FINDINGS ON BODY AWARENESS

The first module teaches participants to recognize changes in their reproductive system that might warrant seeing a health provider, the functions of different reproductive health organs and skills in testicular and breast exams. It also explains the menstrual cycle, teaches about fertile and infertile times of the cycle, and explains male and female fertility.

The sessions on Module 1 were conducted in six barangays from August to December 1999. However, there were sessions sporadically carried out from January to May 2000 to those who were quite busy and not able to join the earlier scheduled sessions. Of the 183 couple respondents, only 153 couples or 84 percent were able to attend the sessions for this module.

A. KNOWLEDGE AND AWARENESS OF ANATOMY AND PHYSIOLOGY

Results of the analysis of change between 153 program respondents who attended Module 1 and 217 comparison respondents are shown in Table 6. In general, program and comparison respondents improved their knowledge about anatomy and physiology and the functions of reproductive organs, except for the level of program husbands' knowledge of testicles, as well as the comparison husbands' knowledge of ovary and how it functions.

Table 6. Program Effectiveness Measures and Percent Distribution of Husbands and Wives who were Aware/Knowledgeable of Anatomy and Physiology

MEASURES OF KNOWLEDGE AND AWARENESS	PROGRAM			NONPROGRAM			ODDS RATIO TIME x PROG
	1999	2000	▲	1999	2000	▲	
HUSBANDS	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Knows ovary	40	65	25**	23	28	5	2.4**
Knows scrotum	73	83	10*	30	51	21**	0.7
Knows testicles	92	93	1	65	74	9*	0.9
Knows function of ovary	19	31	12*	6	6	0	1.7
Knows function of scrotum	33	68	35**	13	30	17**	1.5
Knows function of testicles	67	88	21**	40	59	19**	1.9
WIVES							
Knows ovary	57	82	25**	36	46	10*	2.6**
Knows scrotum	45	74	29**	7	31	24**	0.6
Knows testicles	72	83	11*	36	58	22**	0.7
Knows function of ovary	16	45	29**	8	18	10*	1.7
Knows function of scrotum	1	39	38**	0	7	7**	0.0
Knows function of testicles	44	75	31**	28	36	8*	2.5**
N	153	153		217	217		

Note: all percentages were rounded off.

▲ Change; * p<. 05; ** p<. 01

Because improvements in knowledge have been shown among both program and comparison respondents, it is important to identify specific topics where program respondents made greater

knowledge improvement than comparison respondents. The odds ratio (Col. 7) provides this measure. For example, Table 6 shows that the likelihood of improving knowledge about the ovary among husbands in the program is more than twice as likely (2.4) than among comparison husbands. Similarly program wives are more than twice as likely (2.6) to improve knowledge of the ovary and the function of testicles (2.5) compared to comparison wives. The other indicators, however, failed to show any significant difference in knowledge improvement between program and comparison respondents.

Summary indices were computed for these specific knowledge and awareness items and compared over time for program and comparison respondents as shown in Table 7. The data show that being in the program is highly predictive of improved knowledge in anatomy and physiology among wives, but not for husbands.

Table 7. Summary Indices of Program Effectiveness of Husbands and Wives' Awareness/Knowledgeability of Anatomy and Physiology

SUMMARY MEASURES OF KNOWLEDGE AND AWARENESS	PROGRAM			COMPARISON			ODDS RATIO
	1999	2000	▲	1999	2000	▲	TIME x PROG
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Husbands	3.27	4.29	1.02**	1.76	2.48	0.72**	0.35
Wives	2.35	3.98	1.63**	1.15	1.97	0.82**	.83**
N	153	153		217	217		

Note: all percentages were rounded off.

▲ Change; * p<. 05; ** p<. 01

B. KNOWLEDGE ABOUT FERTILITY

A set of questions was asked of study respondents to determine knowledge of fertility as emphasized in Module 1. These questions elicit knowledge of respondents on the biological changes signaling the start of a young man's and women reproductive capability, indicators of the start and end of a woman's menstrual cycle, fertile period of a man or a woman during the month, and husband's awareness of when his wife is fertile. All seven questions were asked of husbands while the last question was not asked of wives.

Table 8 shows that both program and comparison husband respondents actually experienced a significant improvement in knowledge of the fertile time of their wives, but significant improvement in knowledge is true for three out of seven indicators for husbands who were in the program compared to their comparison counterparts where significant improvement is seen in only one indicator, (knowledge about fertile time of wives). The rest of the indicators either did not change or showed significant knowledge loss. The odds ratios for husbands, therefore, showed that the intervention did not seem to have much of an effect on improving knowledge on fertility, because although these were significant for three indicators, the three other knowledge indicators did not show significant change at all—in fact in one indicator the odds showed a change in the opposite direction.

Among wives, however, a different pattern seems to emerge. For program respondents, a significant improvement is evidenced in four out of six knowledge indicators while the remaining two indicators did not show any change. For comparison wives, significant improvements are shown in three knowledge indicators, while the remaining three did not change at all. Intervention effects are significant for three indicators on their menstrual cycle, while no changes are observed for the rest of the knowledge indicators.

Table 8. Program Effectiveness Measures and Percent Distribution of Husbands and Wives who were Aware/Knowledgeable about Indicators of Fertility

MEASURES OF KNOWLEDGE AND AWARENESS OF FERTILITY	PROGRAM			COMPARISON			ODDS RATIO
	1999	2000	▲	1999	2000	▲	TIME x PROG
HUSBANDS	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Knows that first menstruation is onset of woman's fertility.	67	79	12*	54	52	-2	2.0*
Knows that first ejaculation / nocturnal emission / wet dreams is onset of man's fertility.	67	25	-42**	47	34	-13*	0.3**
Knows that the first day of menstrual bleeding is the beginning of woman's menstrual cycle	36	34	-2	24	23	-1	0.9
Knows that the day before next menstrual bleeding is the end of woman's menstrual cycle.	23	10	-13**	20	9	-11**	0.9
Knows that during the middle of cycle or middle of two menstrual bleeds a woman can get pregnant.	22	35	13**	19	17	-2	2.3*
Knows that a man has the ability to get a woman pregnant anytime during the month.	80	88	8	81	71	-10*	2.9**
Knows fertile time of wife	26	51	25**	14	27	13**	1.2
WIVES							
Knows that first menstruation is onset of woman's fertility.	65	84	19**	63	59	-4	3.4**
Knows that first ejaculation / nocturnal emission / wet dreams is onset of man's fertility.	6	12	6*	5	19	14**	0.5
Knows that the first day of menstrual bleeding is the beginning of woman's menstrual cycle	34	43	9	23	37	14*	0.7
Knows that the day before next menstrual bleeding is the end of woman's menstrual cycle.	12	18	6	4	11	7*	0.5
Knows that during the middle of cycle or middle of two menstrual bleeds a woman can get pregnant.	30	39	9*	36	29	-7	2.3**
Knows that a man has the ability to get a woman pregnant anytime during the month.	65	86	21**	65	67	2	2.8**
N	153	153		217	217		

Note: all percentages were rounded off.

▲ Change; * p<. 05; ** p<. 01

When wives' knowledge summary index was calculated and tested, significant change is observed for both program and comparison respondents. Intervention effects show that significant change in knowledge is likely to occur among wives as shown in Table 9.

While the knowledge improvements that are observed among comparison respondents is intriguing, this is not entirely unexpected given that simultaneous health programs were underway within the local health system (including health related NGOs) in both program and comparison areas during the time of the study. Perhaps the more critical reminder that this finding gives is the need to strengthen fertility education for future family planning interventions, especially for NFP, not only because a big part of the success of this method lies in the knowledge and appreciation for the timing of fertility of the wife, but also because this method is popular in Bukidnon.⁵ Since women seemed to have benefited more from the intervention, perhaps greater attention could be given to men for this part of the module for subsequent rounds of community sessions in order to bring men at par with their wives on this matter.

Table 9. Summary Indices of Program Effectiveness of Husbands and Wives' Awareness/Knowledgeability of indicators of Fertility

SUMMARY MEASURES OF KNOWLEDGE AND AWARENESS OF FERTILITY	PROGRAM			COMPARISON			ODDS RATIO
	1999	2000	▲	1999	2000	▲	TIME x PROG
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Husbands	3.22	3.22	0	2.58	2.32	-0.26	0.25
Wives	2.12	2.82	0.7**	1.95	2.22	0.27*	0.43*
N	153	153		217	217		

Note: all percentages were rounded off.

▲ Change; * p<. 05; ** p<. 01

C. EFFECTS ON SELF EXAMINATION: KNOWLEDGE AND BEHAVIOR

One of the features of the first module is teaching not only knowledge but also skills in breast examination as a way of empowering men and women such that they are able to detect abnormalities connected with their body and reproductive system.

⁵ Bukidnon is one of the first sites in the Philippines where the rhythm method, particularly the Billings ovulation method was first introduced. Up to now, a strong NFP group can be found in the province, supported by the parish church.

Table 10 shows significant knowledge and self-exam skill improvements between both program and comparison respondents. This is true for both husbands and wives. It still needs to be pointed out, though, that these improvements are highly significant and more consistent among wives than among husbands. Likewise, these improvements are also seen to be more consistent and significant for program respondents. Intervention effects are illustrated in Column 7. Among husbands, the likelihood of improvement in awareness and behavior in testicular exams is more than eleven times larger for those in the program, but their ability to detect a problem did not shown any change as a result of the intervention.

In contrast, the odds ratio among program wives are significant for all the indicators (awareness and conduct of breast self-exams, and knowing the problems to detect), despite significant increases observed among comparison wives, thus indicating the highly significant effects of the intervention in these areas.

Table. 10 Percent Distribution of Husbands and Wives Who Were Aware and Were Conducting Self Exams, and Were Knowledgeable about What Problems to Detect During Self Exam

MEASURES OF KNOWLEDGE AND BEHAVIOR ON SELF EXAMINATION	PROGRAM			NON-PROGRAM			ODDS RATIO TIME x PROG
	1999	2000	▲	1999	2000	▲	
HUSBANDS	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Have heard about testicular exams	26	90	64**	12	20	8*	11.5**
Conducts testicular exam	24	75	51**	17	13	-4	11.2**
Knows what problem to detect during exam	20	85	65**	13	70	57**	1.2
WIVES							
Have heard about self-breast exams	44	92	48**	33	55	22**	6.6**
Conducts breast exam	34	75	41**	24	34	10*	3.6**
Knows what problem to detect during exam	16	73	57**	9	38	29**	2.8*
N	153	153		217	217		

Note: all percentages were rounded off.

▲ Change; * p<. 05; ** p<. 01

FINDINGS ON FAMILY PLANNING

A. KNOWLEDGE OF FAMILY PLANNING METHODS

Module 2 introduces the participants to the different family planning methods. The module covered a description of each method, its benefits and disadvantages, contraindications, how it is used, where it can be obtained, and whether or not it is available in their clinics.

Of the 183 couple respondents in the program areas, only 144 couples or 79 percent were able to attend the sessions on this module. The sessions for this module were conducted from January to April 2000.

Examination of the family planning knowledge indicators reveals that level of knowledge of pills, IUD, condoms and rhythm were quite high for husbands and wives in both the program and comparison groups at baseline (Table 11). In spite of the already high baseline level of knowledge of FP methods, statistically significant increases of knowledge among husbands and wives occurred for all methods except abstinence among husbands. However, the comparison groups also showed significant improvements in knowledge between the baseline and end line surveys. Thus, significant changes as measured by the odds ratio that could be attributed to the intervention were observed only among wives and only in relation to the condom (9.2), ligation (15.0) and vasectomy (7.4).

Table 11. Program Effectiveness Measures and Percent Distribution of Husbands and Wives who were Knowledgeable about Family Planning Methods

KNOWLEDGE OF FAMILY PLANNING METHODS	PROGRAM			COMPARISON			ODDS RATIO
	1999	2000	▲	1999	2000	▲	TIME PROG ^x
HUSBANDS	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Pills	87	100	13**	71	97	26**	^a
IUD	56	100	44**	51	91	40**	^a
Condom	59	100	41**	55	98	43**	^a
Withdrawal	27	90	63**	17	82	65**	1.1
Abstinence	7	8	1	9	7	-2*	0.1*
DMPA	13	56	43**	13	51	38**	1.2
Rhythm	50	87	37**	41	79	38**	1.2
Modern NFP	5	48	43**	2	19	17**	1.3
Ligation	24	95	71**	8	87	79**	0.9
Vasectomy	22	97	75**	4	88	84**	0.6
WIVES							
Pills	97	100	3*	93	99	6*	^a
IUD	82	99	17**	82	96	14**	2.6
Condom	59	99	40**	45	90	45**	9.2*
Withdrawal	17	88	71**	16	80	64*	1.7
Abstinence	1	8	7*	0.5	6	5.5**	0.5
DMPA	49	91	42**	47	82	35**	2.0
Rhythm	60	90	30**	52	82	30**	1.4
Modern NFP	8	71	63**	3	34	31**	1.7
Ligation	35	99	64**	26	86	60**	15.0**
Vasectomy	13	98	85**	8	80	72**	7.4**
N	144	144		217	217		

Note: all percentages were rounded off.

▲ Change; * p<. 05; ** p<. 01

^a Odds ratio is >10 and not significant at p<. 05.

These findings are summarized in Table 12 where summary indices of FP knowledge were calculated and regressed on the variables program, comparison and TIME X PROGRAM. Column 7 shows that the intervention program has had impact only among wives but not among husbands.

Table 12. Summary Indices of Program Effectiveness of Husbands and Wives' Awareness/Knowledge of Family Planning Methods

SUMMARY MEASURES OF FP KNOWLEDGE	PROGRAM			COMPARISON			Intervention Effects
	1999	2000	▲	1999	2000	▲	TIME x PROG
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Husbands	3.49	7.78	4.29**	2.63	6.98	4.35**	0.06
Wives	4.22	8.42	4.20**	3.71	7.35	3.64**	0.58*
N	144	144		217	217		

Note: all percentages were rounded off.

▲ Change; * p<. 05; ** p<. 01

B. USE OF FAMILY PLANNING METHODS

Respondents were asked if they were currently using a family planning method and to indicate the method or methods they were using. Table 13 shows responses to these questions, and indicates discrepancies of reported use of methods by husbands and wives. In general, there is no significant difference in family planning use over time between the program and comparison groups. (Col 7). It is also clear that wives are able to mention more methods. They named 10 family planning methods compared to their husbands who mentioned only 4 methods. It is interesting to note that men mentioned four methods (condom, withdrawal, rhythm and vasectomy) that require their participation.

Table 13. Percent Distribution of Husbands and Wives who were Using a Family Planning Method

FAMILY PLANNING USE	PROGRAM			COMPARISON			ODDS RATIO
	1999	2000	▲	1999	2000	▲	TIME x PROG
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
HUSBANDS							
Condom	3.5	4.2	0.7	1.4	3.8	2.4	0.4
Withdrawal	1.4	4.9	3.5*	1.4	0.9	-0.5	5.5
Rhythm	18.8	12.5	-6.3	12.9	12.9	-	0.6
Vasectomy	0.7	0.7	0	-	-	-	-
WIVES							
Pills	20.8	19.4	-1.4	10.6	12.0	1.4	0.8
IUD	13.9	9.7	-4.2*	12.0	14.3	2.3	0.6
Condom	2.1	4.2	2.1	1.4	2.4	1.0	1.2
Withdrawal	0.7	1.4	0.7	0.9	1.4	0.5	1.3
Abstinence	0.7	0	-0.7	0.5	0	-0.5	0.7
DMPA	1.4	0.7	-0.7	4.1	1.8	-2.3	1.1
Rhythm	15.3	12.5	-2.8	12.4	15.2	2.8	0.7
Modern NFP	1.4	3.5	2.1	0.9	0.5	-0.4	5.1
Ligation	2.8	3.5	0.7	6.9	7.4	0.5	1.2
Vasectomy	0.7	0.7	0	-	-	-	-
N	144	144		217	217		

Note: all percentages were rounded off.

▲ Change; * p<. 05; ** p<. 01

FINDINGS ON STIs/HIV/AIDS

Module 3 deals with the nature of sexually transmitted diseases, their causes and symptoms, complications and mode of transmission. It also deals with recognition of abnormal body signs, and STI/STD prevention. As discussed earlier, this module was combined with Module 4 during the intervention. Whereas other modules were generally taught for 2 hours each, these combined modules were taught for a total of two hours, so that not all of the materials included in the curriculum were covered. This approach was, however, resorted to because of time constraints, since the endline survey was approaching and quite a few of the KAANIB members were not yet reached by the intervention by this time. By July 2000, only 124 or 68 percent of the 183 couples followed up were able to attend the sessions in this combined module.

A. KNOWLEDGE OF SEXUALLY TRANSMITTED DISEASES

Table 14 indicates that knowledge of sexually transmitted infections was quite high at baseline for both husbands and wives in the program group, and quite a bit higher than was found for couples in the comparison group. Knowledge of the signs and symptoms of STIs was also high for husbands in the program group, and higher than for their wives. Attendance of Module 3 sessions, however, did not increase their awareness of either transmission, or signs and symptoms of disease. In fact a decline in knowledge on this topic was observed among husbands. This finding is perhaps not too surprising given that the time devoted to this module was reduced after being merged with Module 4 on couple communication. However, it is curious to see the improvement among respondents from the non-KAANIB areas. It must be noted, however, that STIs and HIV/AIDS are topics that have been emphasized by the health system of the whole province of Bukidnon in the recent years. This awareness may have stemmed from a well-publicized AIDS fatality recently identified as having come from the Province of Bukidnon.

Table 14. Program Effectiveness Measures and Percent Distribution of Husbands and Wives who were Knowledgeable of Sexually Transmitted Infections

MEASURES OF STI KNOWLEDGE	PROGRAM			COMPARISON			ODDS RATIO
	1999	2000	▲	1999	2000	▲	TIME x PROG
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
HUSBANDS							
Knows diseases that can be transmitted through sexual intercourse	88	81	-7	80	83	3	0.4*
Have heard or read about common signs and symptoms of STDs	82	77	-5	67	75	8	0.4*
WIVES							
Knows diseases that can be transmitted through sexual intercourse	87	79	-8**	65	71	6**	1.9
Have heard or read about common signs and symptoms of STDs	46	73	27**	37	61	24	1.1
N	124	124		217	217		

Note: all percentages were rounded off.

▲ Change; * p<. 05; ** p<. 01

Results in Table 15 show the weak effect of the intervention on the knowledge of respondents, particularly of husbands. Women respondents from both program and comparison areas

experienced a significant improvement on this indicator, however, these improvements are not associated with the intervention program. Further examination of data on primary prevention did not yield significant results⁶.

Table 15. Summary Index of Program Effectiveness Measures and Percent Distribution of Husbands and Wives who are Knowledgeable of Sexually Transmitted Infections

SUMMARY MEASURE OF STI KNOWLEDGE	PROGRAM			COMPARISON			ODDS RATIO TIME x PROG
	1999 (1)	2000 (2)	▲ (3)	1999 (4)	2000 (5)	▲ (6)	
Husbands	1.7	1.57	-0.13	1.47	1.59	0.12	-0.33**
Wives	1.03	1.52	0.49**	1.02	1.32	0.30**	0.16
N	124	124		217	217		

Note: all percentages were rounded off.

▲ Change; * p<. 05; ** p<. 01

FINDINGS ON COMMUNICATION

Module 4 covers topics such as inter-spousal communication, learning verbal and nonverbal communication, practicing listening and clarifying skills, providing feedback, and the importance of good interpersonal communication for the couple.

A. SPOUSAL COMMUNICATION

The baseline survey found fairly high levels of communication reported between husbands and wives on the number of children to have. Wives reported talking to their husbands about their fertile time more than twice as much as husbands reported talking to their wives about this subject (Table 16). Husband communication increased significantly in discussions of the fertile period. Twice as many husbands reported discussing this with their wives after the program intervention than they reported in the baseline. Discussions about the use of a family planning method also increased significantly (Table 16, Col. 7).

⁶ Data on primary prevention can be found in Appendix 2 – Tables B and D.

Table 16. Program Effectiveness Measures and Percent Distribution of Husbands and Wives who were Communicating with their Spouses

MEASURES OF HUSBAND AND WIFE COMMUNICATION	PROGRAM			COMPARISON			ODDS RATIO
	1999	2000	▲	1999	2000	▲	TIME x PROG
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
HUSBANDS							
Talks with wife about her fertile period	31	62	31**	17	27	10*	2.1**
Ever discussed with wife the number of children to have	92	97	5	86	91	5*	1.1
Ever discussed with wife the use of a family planning method	76	94	18**	80	87	7*	2.2**
WIVES							
Talks with husband about her fertile period	85	96	11**	81	91	10*	2.8
Ever discussed with husband the number of children to have	85	93	8*	83	86	3	1.4
N	124	124		217	217		

Note: all percentages were rounded off.

▲ Change; * p<. 05; ** p<. 01

Wives also reported increased communication with their husbands, but the changes were not statistically significant when compared to the comparison group.

Table 17. Summary Indices of Program Effectiveness Measures and Percent Distribution of Husbands and Wives who are Communicating with their Spouses

SUMMARY MEASURE OF INTER-SPOUSAL COMMUNICATION	PROGRAM			COMPARISON			ODDS RATIO
	1999	2000	▲	1999	2000	▲	TIME x PROG
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Husbands	1.98	2.53	0.55**	1.83	2	0.17	0.96*
Wives	1.7	1.89	0.19**	1.64	1.77	0.13*	0.05
N	124	124		217	217		

Note: all percentages were rounded off.

▲ Change; * p<. 05; ** p<. 01

B. ATTITUDES TOWARD REPRODUCTIVE HEALTH ROLES OF MEN

Table 18 shows more consistent results with regard to measures that reflect the key philosophy behind male involvement in reproductive health. Data show that the odds of husbands and wives disagreeing about women's sole responsibility to decide the number of children and when to have them significantly declines over time. Data in the table also show that the program

intervention significantly improved both husband and wives' attitudes in terms of practically all the indicators that are supportive of male involvement.

Table 18. Program Effectiveness Measures and Percent Distribution of Husbands and Wives who Showed Positive Attitudes towards Supportive Roles of Men in Reproductive Health

MEASURES OF SUPPORTIVE /POSITIVE ATTITUDES IN RH	PROGRAM			COMPARISON			EFFECTS
	1999	2000	▲	1999	2000	▲	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
HUSBANDS							
Disagrees that women has the sole responsibility to decide the number of children and when to have them	59	61	2	76	61	-15**	2.7**
Strongly agrees that men should share in the responsibility of bringing children for immunization	13	42	29**	15	12	-3	6.8**
Strongly agrees that men should share responsibility in child care	22	56	34**	20	16	-4	5.9**
WIVES							
Disagrees that women has the sole responsibility to decide the number of children and when to have them	62	67	5	77	60	-17**	2.2*
Strongly agrees that men should share in the responsibility of bringing children for immunization	22	55	33**	35	21	-14**	8.7**
Strongly agrees that men should share responsibility in child care	49	65	16**	47	27	-20**	4.3**
N	124	124		217	217		

Note: all percentages were rounded off. ▲ Change; * p<. 05; ** p<. 01

Institutionalization of RHA

The study's second set of objectives involves the integration of RHA in the routine activities of KAAANIB. The study posits that KAAANIB will have institutionalized health activities at the end of 10 months and will have expanded the intervention to other areas of Bukidnon and Agusan Provinces where they are working. In-depth interviews were conducted with the executive director of KAAANIB and the health technician, and FGDs with four groups of respondents were used as sources of information for this section of this report. The following indicators were used to assess the degree to which institutionalization of the RHA has occurred.

Maintenance of RH activities in six initial member organization of KAANIB. Couple educators conduct regular community sessions and report to the health technician who serves as the technical adviser to these volunteers. KAANIB does require RHA sessions to be added to every gathering of its member organizations (e.g., seminars, trainings). These gatherings are regularly done as part of the existing programs of KAANIB for agrarian reform, transfer of farming technologies, environmental protection, and advocacy. Some non-monetary incentives were offered by the KAANIB management to their couple volunteers such as: priority access to KAANIB post-harvest facilities and priority availability of seed loans up to P3,000. The issue of sustaining the motivation of couple educators, however, became a concern towards the later part of the project, and KAANIB will have to find a way to sustain the level of commitment and enthusiasm of these couple volunteers.

Expansion of reproductive health activities to additional member organizations. Plans on how and where to expand the program to other areas where KAANIB works are underway. The Executive Director reports that dissemination of the study's report is forthcoming in the regional meeting of PHILDRRA, a national confederation of NGOs. He is planning to advocate for the integration of reproductive health awareness as a component of women's empowerment programs in these NGOs. The health technician who was hired under the project was absorbed by KAANIB and integrated into the existing organizational structure with a defined job description. The health resource center that was built at KAANIB's main office with support from IRH and the Population Council now functions as a regular health information center of KAANIB. A regular staff member has been assigned to assist the health technician in maintaining the center.

Incorporation of reproductive health activities into KAANIB programs and activities. A set of mission and vision statements was formulated for the RHA component of KAANIB's gender and development program. During the five-day organizational development workshop of KAANIB officers and staff members conducted in July 1999, they developed a general plan of action along with a set of goals and objectives. This document specifies that RHA is integral to

all of KAANIB's programs and projects, clearly signifying the organization's commitment to institutionalize the RHA framework in their development work.

The Institute has started another project for Reproductive Health on the testing of the Standard Day method. Couple educators in the RHA project are now involved in teaching the method to their other members. In this sense project results-- the feasibility of using couple volunteers-- have been utilized in further work on reproductive health in the community.

Establishment of linkages between KAANIB and health care providers and the community.

Linkages between KAANIB and the health providers of the program areas had been enhanced through the monthly Municipal Implementation Team meetings. These meetings provide updates about the progress of the project activities by couple educators to health providers, KAANIB and officials of the member organizations. Solutions to problems encountered in the field and the needed assistance from health providers are also identified in these meetings. The referral system has helped health providers to maximize the couple educators as extension workers in the field. A referral card specifies a complaint and the services needed which makes it easy for health providers to facilitate provision of such services.

During the project implementation, KAANIB became known in the community not just as a farmers' cooperative but also an organization committed to improving the health of the population. This recognition earned the appointment of KAANIB as the NGO representative in the health boards of the three program areas. The executive director was invited to assist in the drawing up of a five-year development plan of Impasug-ong where he had RHA included as a part of the health activity of the local government.

RESULTS FROM FGDS⁷

A description by participants about their experience with the RHA project reveal that KANIB has been able to link up with other agencies in the community through the project. When asked how they learned about the RHA community sessions, respondents cited a wide range of sources of information: through an assembly conducted by the cooperative or Peoples Organization (PO), the KANIB Health Technician, their Purok leader, and other KANIB staff members. They were most likely to hear of the sessions when they visited the KANIB office. The health technician was identified as the central figure in the implementation of the project as discussed by their heads of office, the Municipal and City Health Officers of the municipalities in the study areas. Health providers see their role as that of providing services to clients who are referred to the clinic.

I was told that my particular role is to assist and provide services to clients who will be referred to us. This was so because I am stationed at the main center and not in the study areas. There are cases in the barangay health station that the midwife of the barangay health station cannot handle which they refer to us. –Health Provider from Impasug-ong

Most participants felt that they were satisfied with their participation in the training. The following table presents their expectations of the project and the actual learning they feel they gained in the community education session. Their expectations seem to have matched quite closely to their reported learning.

Expectations of Participants and Partners

⁷ Only highlights of the FGDS will be described in this report. A complete analysis of FGDS can be found in the original report of Prof. Lita Sealza of RIMCU, Xavier University.

What did you expect from your participation?	Lessons mentioned
Participants	
To learn about family planning	Learned about family planning
How to tell if something is wrong with my health and other family members	RTI and other diseases which can be contracted through sexual intercourse
To learn about health care	Not all expectations were met but I'm happy with what I learned.
To learn how to have good health	I do not need all the things that were discussed but they were still important because I can share the information to others. Yes, we learned how to take care of ourselves and how to avoid getting sick.
The couple educators will explain the topics well and I will be able to understand them	I got what I expected. In fact, I learned many things from the sessions.
To learn about reproductive health and other health issues	I learned how to do breast self-examination. I learned about testicular self-examination. We learned to communicate with each other. We also learned that it is good to plan our families.
I expected to avail of some financial assistance	I was wrong. The project was about health.
Couple Educators	
Expected to attend a seminar on health	Yes, but we were surprised to be identified as couple educators.
Expected to learn about cooperatives	No, because the seminar was on health.
To learn about RHA	Yes, I was happy to learn about RHA and found out that it is actually about health. Learned about family planning and how to tell if we are sick.

All FGD participants thought that it was good that both husbands and wives were invited to attend the sessions. They thought this was the best arrangement and reported the importance of attending the sessions with their spouses. Some of these views are listed below.

It's different if I will be the only one to relay to her. She might not believe me because I was the one who attended the seminar. If she is with me she will hear it herself and will be able to understand it. Then, it is easier for us to agree. - Husband Participant

For her to learn those which pertain to her. She will know and I will also know, especially the topic on communication. It would have been difficult if I were the only one who attended. It was really interesting. - Husband Participant

It was good that both husband and wife were invited. We learned a lot from the sessions and we are very thankful - Wife Participant

Husbands and wives reported that discussions about RHA did not stop during the sessions. In fact they carried on their discussions at home. They discussed information that they understood and compared notes on what they were not too sure of. Their discussions often led to the topic of family planning and how to communicate with each other better. Some of the more remembered topics and lessons are the following:

- Methods of family planning and how to use these methods
- Interpersonal communication (e.g., how to maintain harmonious relationships with spouse and other people)
- Body awareness
- STI/RTI
- How to take care of our health particularly the testicular self-examination for men and the breast self-examination for women.
- How to share (teach) what we have learned to others and how to face people. They also gained confidence about themselves.

Respondents said that attendance in the training helped to “improve” their relationships as couples as they are now communicating more openly about important family issues. The husbands reported this notion, although wives also supported this observation. This improvement was further reported for relationships with their children.

Another interesting change that respondents reported is a more positive view of KANIB, and their “*realization that KANIB is also concerned about their health. They used to know KANIB as an organization which provides technical assistance related to cooperatives and agriculture*”.

Another realization that was expressed is the idea that one can actually prevent illness by being more conscious about one's body. They realized that there are things that they can do in order to stay healthy.

The health providers felt that the program has helped make the services in the clinics more conscious about male patients. They also noted an increase in the number of clients who visited the clinics to ask for health services. In addition, they noted problems in the clinic, which have somehow discouraged others from visiting (e.g., no doctor in the clinic, no medicines).

To the couple educators, the most important session for couples was the session on interpersonal communication. They also felt this was the session that the participants liked best. They thought that the most useful session was that on body awareness; this particular session used visual aids and showed the functions of some parts of the body.

The only reason given by the health providers for their failure to join the couple educators when they conducted the education sessions in the community was the inconvenient schedule of the sessions. Most of the sessions were conducted during weekends (usually Saturday and Sunday) and this is the only time they have for their families and church. Some sessions were held in the evening, but this was also inconvenient for them because they have to report for work the following day.

The couple educators felt that there were supplies promised by KANANIB that were never provided, such as the boots and umbrella which they badly needed because some have to walk a long way on dirt road. The couple educators felt that the support extended by KANANIB in terms of promoting the sessions in the community was not enough. The same is true with recruiting participants for the sessions, helping in the conduct of the sessions, and helping with the referrals. There are several considerations that the couple educators (CEs) would have wanted KANANIB to extend to them. They said that KANANIB was short in giving them the necessary moral support and guidance. They were expecting that KANANIB would support them in organizing the sessions; instead, they were left on their own to do everything. For example, they expected KANANIB to call a

board meeting of the participating POs to introduce the couple educators, but this did not happen; the CEs themselves asked for a meeting of the board.

On the other hand, they acknowledged the support of the KANIB Health Technician, who was of great assistance to them. The CEs recognized the fact that the program is a partnership of several groups. They did not like their work as CEs to be considered as volunteer work. They have families to support and so need some financial support. When asked what was lacking in the sessions, they noted more information on family planning and adequate IEC materials so that they would not forget what they had learned. Most participants emphasized the importance of the availability of medicines in the health clinics.

The health providers emphasized that the people have substantially benefited from the RHA project. They also suggested that the couple educators be given financial support. They added that the couple educators have helped inform the people of the services available in the clinic.

In conclusion, there was a general consensus among partners (HPs and CEs) and the participants that the program had helped improve awareness about certain reproductive health issues. There were some problems encountered by the participants and partners associated with the program, such as schedules of the sessions, recruitment of participants, and KANIB support. However, there were other aspects of the program which contributed to its perceived success. Among these were the persistence and dedication of the couple educators, the assistance of the health technician and the acceptance of the CEs by the community and the HPs. The efforts of these groups were beneficial to the program. The RHA intervention has demonstrated the feasibility of using couples to serve as community educators and having husbands and wives serve as equal partners in this work. It has also demonstrated that traditional NGOs such as KANIB can be encouraged to expand their development work towards providing assistance on health matters to their members. Efforts such as this bring to the fore the potential of people's organizations and NGOs in a rural setting to expand their work

beyond the provision of technical assistance for farm productivity to also address reproductive health needs.

CONCLUSIONS

It is clear for the most part that our hypothesis that the IRH Reproductive Health Awareness (RHA) model will result in the increase of knowledge and behavior/practices of husbands and wives both individually and within the context of the couple in the following areas: 1) fertility 2) family planning and 3) RTI/STI, has not been fully supported by the data. While some individual indicators on men may show an increase in awareness or knowledge, these indicators do not necessarily point to significant improvements overall in awareness and knowledge as demonstrated by the summary indices. The only positive change in behavior detected among men in the program areas was in conducting testicular exams, but they are unable to detect problems when they do conduct these self-exams.

There are, however, many instances where significant changes have occurred for wives. In the areas of fertility and family planning awareness and knowledge, women consistently demonstrate significant improvements in the program areas. This is also true in terms of conducting breast self-exams. This is an important finding because one critical concern of the intervention was that a program targeting men could lead to women's disempowerment, as men, who traditionally have greater power in other realms of a family's life, increase their power in this realm as well. Most of the indicators suggest, however, that the intervention did not produce these kinds of results.

The results observed for family planning behavior and RTI/STI detection, prevention and treatment are particularly noteworthy given that no significant positive results were obtained for indicators of these two important reproductive health topics for both men and women. While these findings are disappointing, family planning results might be explained by the fact that the evaluation period is too short to allow for results. It must be recalled that community sessions were being undertaken even up to the last day before the start of the survey.

There are some positive findings with regard to male involvement and couple communication. First, there are significant improvements in men's likelihood to discuss fertility with their wives. This is further confirmed in the summary index for spousal communication. Indeed, it is this index where men demonstrate a significant positive change in behavior over women (Tables 16 and 17). Secondly, men are gradually changing their thinking in terms of their traditional gender roles as they relate to reproductive health.

While the impact of the intervention in other areas is relatively weak based on the data presented, we may conclude that increasing inter-spousal communication and changing ideas about gender roles, coupled with increasing awareness and knowledge of fertility and family planning, may in fact lead to increased use of different family planning methods in the future. The changed dynamics of the couple's relationship in the long run may positively impact family planning use.

It is important to note, however, that significant changes in knowledge and some behavior of husbands have been identified in the areas of fertility, family planning and spousal communication for comparison respondents as well. This can perhaps be explained by a measurement-effect. We might be able to attribute significant changes in awareness and knowledge of fertility, family planning and spousal communication by the mere fact of comparison respondents' exposure to the 1999 survey. Indeed, based on reports from survey-takers, comparison respondents reacted negatively to the 1999 survey, expressing discomfort with what they perceived as inappropriate topics of discussion. When surveyed in 2000, respondents recalled their prior interviews and expressed similar kinds of discomfort. Similarly, health interventions by other regional programs could not be ruled out as a source of social change in comparison communities.

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APPENDIX

Appendix 1

Method of Analysis

Program Effectiveness Measures

The effectiveness of the intervention program was measured in *several* steps. First, percentage point changes between 1999 and 2000 for selected survey questions were estimated and tested statistically. This was done systematically for each major topic covered by the RHA modules and for both program and comparison respondents to verify consistency of changes across topics and study groups. To assess the effectiveness of the program, changes in program and comparison groups were compared using the odds ratio, which was derived for each question or indicator by estimating a pooled binary logistic regression model of the form:

$$\text{Logit } Y = \text{Log} [P(Y=1)/P(Y=0)] = b_0 + b_1 \text{ TIME} + b_2 \text{ PROGRAM} + b_3 (\text{TIME*PROGRAM})$$

Where:

Y = a dummy variable coded 1 for a YES answer to the question and 0 for a NO answer;

TIME = 1 for the program group (reference category is the nonprogram group);

PROGRAM = 1 for the post intervention data (reference category is the baseline data);

TIME*PROGRAM = the interaction between these two variables.

The exponent of the coefficient for the interaction term or $\text{Exp}(b_3)$ is used as a measure of the intervention's effectiveness because it provides an indication of how much being in the program is likely to change relative to being in the comparison group. A significant interaction term in the model suggests that changes in the program and comparison respondents are indeed significantly different. Significant effects of TIME and PROGRAM may be interpreted as indicators of marked changes between baseline and post-intervention data, and between program and comparison groups, respectively.

Appendix 2

Additional Tables on Logistic and Linear Regression Analyses

A. Logistic Regression Tables (HUSBANDS)

<u>Variable Code</u>	Time ^a	Prog ^a	Time x Prog ^a	-2 Log Likelihood	N
<u>Anatomy and Physiology</u>					
D20	1.3	2.1**	2.4**	891.5	1106
D22	2.4**	6.3**	0.7	888.9	1106
D24	1.5*	5.8**	0.9	693.1	1106
D21	1.1	4.0	1.7	527.5	1106
D23	2.9**	3.4**	1.5	820.7	1106
D25	2.1**	3.0**	1.9	886.8	1106
<u>Fertility Awareness</u>					
D1	0.9	1.7*	2.0*	949.1	1106
D2	0.6**	2.4**	0.3**	949.5	1106
D3	0.9	1.7*	0.9	865.9	1106
D4	0.4**	1.2	0.9	602.8	1106
D5	0.8	1.2	2.3*	764.0	1106
D6	0.6*	1.0	2.9**	743.5	1106
C12a	2.3**	2.2**	1.2	817.3	1106
<u>Self Exam</u>					
D31	1.9*	2.6**	11.5**	664.6	1106
D34	0.8	1.5	11.2**	712.7	1106
D36	15.1**	1.6	1.2	732.5	1106
<u>Knowledge of FP Method</u>					
Pills	12.6**	2.8**	c	437.4	722
IUD	9.4**	1.2	c	632.1	722
Condom	34.9**	1.2	c	541.3	722
Withdrawal	22.9**	1.8*	1.1	659.6	722
Abstinence	8.6**	8.0**	0.1*	292.2	722
DMPA	6.7**	1.0	1.2	781.6	722
Rhythm	5.5**	1.4	1.2	827.3	722
Modern NFP	12.4**	2.7	1.3	504.9	722
Ligation	71.7**	3.4**	0.9	508.2	722
Vasectomy	183.8**	7.2**	0.6	425.0	722
<u>FP Use</u>					
Condom	2.7	2.6	0.4	193.5	722
Withdrawal	0.6	1.0	5.5	131.4	722
Abstinence	-	-	-	-	722
Rhythm	1.0	1.6	0.6	581.3	722
Vasectomy	1.0	c	1.0	23.9	722
<u>STD Knowledge and Behavior</u>					
I1	1.3	1.8	0.4*	640.7	683
I2	1.5	2.3**	0.4*	781.5	683
I6a	0.2**	0.7	3.2**	881.0	683
I7	0.2**	0.7	3.5**	879.1	683
I6				592.2	683
<u>Inter-spousal Communication</u>					
C12d	1.8*	2.2**	2.1	770.5	683
F1	1.6	1.8	1.1	425.5	683

F1a	1.7	0.8	2.2	596.4	683
Positive Attitudes					
H1	0.5**	0.5**	2.7**	860.7	683
H2	0.7	0.8	6.8**	605.8	683
H4	0.8	1.1	5.9**	706.4	683

note: all figures were rounded off

* p<.05

** p<.01

^a Exp (b) of the coefficients in the Pooled Logistic Regression Model of the response to awareness/knowledge questions on PROGRAM (Reference Category=Nonprogram), TIME(Reference Category=1999) and their Interaction (i.e., Time x Program).

B. Linear Regression Tables (HUSBANDS)

Index Name	Time ^a	Prog ^a	Time x Prog ^a	R Square	N
Anatomy and Physiology Knowledge Index	0.71**	1.46**	0.35	0.251	740
Fertility Awareness / Knowledge Index	-0.28	0.62**	0.25	0.051	740
Family Planning Knowledge Index	4.36**	0.86**	0.06	0.650	722
STD Knowledge Index	0.12	0.24**	-0.33**	0.012	683
STD Primary Prevention Index	-0.71**	-0.16	0.58**	0.089	683
Spousal Communication Index	0.22**	0.15	0.96*	0.078	683

note: all figures were rounded off

* p<.05

** p<.01

^a b coefficients in the Pooled Linear Regression Model of the Summary Index on PROGRAM (Reference Category=Nonprogram), TIME (Reference Category=1999) and their Interaction (i.e., Time x Program).

C. Logistic Regression Tables (WIVES)

Variable Code	Time ^a	Prog ^a	Time x Prog ^a	-2 Log Likelihood	N
<u>Anatomy and Physiology</u>					
D20	1.5*	2.3**	2.6**	929.0	1106
D22	6.1**	11.0**	0.6	765.8	1106
D24	2.5**	4.5**	0.7	908.5	1106
D21	2.6**	2.2	1.7	667.8	1106
D23	^c	^c	0.0	345.3	1106
D25	1.5	2.1**	2.5**	923.2	1106
<u>Fertility Awareness</u>					
D1	0.8	1.1	3.4**	911.0	1106
D2	4.9**	1.3	0.5	477.7	1106
D3	2.0**	1.7*	0.7	924.2	1106
D4	3.1**	3.5**	0.5	469.0	1106
D5	0.7	0.8	2.3**	938.4	1106
D6	1.1	1.0	2.8**	880.6	1106
C12a (wives were not asked)	-	-	-	-	-
<u>Self Exam</u>					
D31	2.5**	1.6*	6.6**	860.9	1106
D34	1.6*	1.6*	3.6**	890.4	1106
D36	5.0**	1.9*	2.8*	718.4	1106

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Knowledge of FP Method					
Pills	8.6**	2.2	b	180.4	722
IUD	5.9**	1.0	2.6	433.0	722
Condom	10.8**	1.7*	9.2*	648.0	722
Withdrawal	21.2**	1.1	1.7	644.7	722
Abstinence	12.6*	3.0	0.5	204.4	722
DMPA	5.2**	1.1	2.0	791.1	722
Rhythm	4.1**	1.4	1.4	797.4	722
Modern NFP	15.5**	2.7*	1.7	596.8	722
Ligation	17.9**	1.5*	15.0**	620.1	722
Vasectomy	44.7**	1.6	7.4**	477.9	722
FP Use					
Pills	1.2	2.2**	0.8	595.1	722
IUD	1.2	1.2	0.6	545.0	722
Condom	1.7	1.5	1.2	158.3	722
Withdrawal	1.5	0.8	1.3	87.4	722
Abstinence	0.0	1.5	0.7	24.7	722
DMPA	0.4	0.3	1.1	147.8	722
Rhythm	1.4	0.6	0.7	151.6	722
Modern NFP	0.5	1.5	5.1	100.0	722
Ligation	1.1	0.4	1.2	303.3	722
Vasectomy	1.0	c	1.0	23.9	722
STD Knowledge and Behavior					
I1	1.3	0.7	1.9	846.0	683
I2	2.7**	1.4	1.1	895.7	683
I6a	0.4**	0.8	3.9**	910.2	683
I7	0.4**	0.6	5.1**	893.1	683
I6				717.6	683
Inter-spousal Communication					
C12d	2.4**	1.4	2.8	-	-
F1	1.3	1.2	1.4	470.2	683
F1a (wives were not asked)	-	-	-		
Positive Attitudes					
H1	0.5**	0.5**	2.2*	857.6	683
H2	0.5**	0.5*	8.7**	803.6	683
H4	0.4**	1.1	4.3**	889.0	683

note: all figures were rounded off

* p<.05

** p<.01

^a Exp (b) of the coefficients in the Pooled Logistic Regression Model of the response to awareness/knowledge questions on PROGRAM (Reference Category=Nonprogram), TIME (Reference Category=1999) and their Interaction (i.e., Time x Program).

^b Odds ratio is >10 and not significant at p<.05.

D. Linear Regression Tables (WIVES)

Index Name	Time ^a	Prog ^a	Time x Prog ^a	R Square	N
Anatomy and Physiology Knowledge Index	0.82**	1.20**	0.83**	0.285	740
Fertility Awareness / Knowledge Index	0.26*	0.17	0.43*	0.050	740
Family Planning Knowledge Index	3.63**	0.50**	0.58*	0.621	722
STD Knowledge Index	0.30**	0.01	0.16	0.045	683
STD Primary Prevention Index	-0.42**	-0.15	0.72**	0.049	683
Spousal Communication Index	0.14*	0.07	0.05	0.023	683

note: all figures were rounded off

* $p < .05$

** $p < .01$

^a b coefficients in the Pooled Linear Regression Model of the Summary Index on PROGRAM (Reference Category=Nonprogram), TIME (Reference Category=1999) and their Interaction (i.e., Time x Program).

Appendix 3

List of Awareness, Knowledge and Behavior Indicators

A. Module 1

Knowledge of Anatomy and Physiology

- D20** 1. Do you know what the ovary is?
- D22** 2. Do you know what the scrotum is?
- D24** 3. Do you know what the testicles are?
- D21** 4. What does the ovary do?
- D23** 5. What is the function of the scrotum?
- D25** 6. What is the function of the testicles

Fertility Awareness and Knowledge

- D1** 1. What changes in a young woman's body let her know that she is now able to get pregnant?
- D2** 2. What changes in the young man's body let him know that he is now able to get a woman pregnant?
- D3** 3. When does a woman's menstrual cycle begin?
- D4** 4. When does a woman's cycle end?
- D5** 5. Between one menstrual bleed and another, when is a woman able to become pregnant?
- D6** 6. At what time during the month does a man have the ability to get a woman pregnant?
- C12a** 7. Do you know when your wife is in her fertile time?

Self-Exam Behavior

- D31** 1. Have you ever heard of testicular exams?
- D34** 2. Do you examine your testicles?
- D36** 3. How would you know if there are problems? (for those who examine their testicles/breasts)

B. Module 2

Knowledge of Family Planning Methods

- C2** What methods do you know of / heard of?

Family Planning Use

- C9** What method are you or your spouse currently using?

C. Module 3

Knowledge of STD and its Prevention

- I1** Are there any diseases that can be transmitted through sexual intercourse?
- I2** Have you heard or read about common signs and symptoms of sexually transmitted diseases?
- I6a** 1. Do you know if any ways you can protect yourself from sexually transmitted diseases including HIV/AIDS?
- I7** 2. What are the ways of protecting yourself from STDs?
- I6** When a man or woman finds out they have an STD, what should they do?

D. Module 4

Spousal Communication Behavior

- C12d** 1. Do you and your wife talk about what days she is fertile?
- F1** 2. Have you ever discussed with your spouse the number of children you are going to have?
- F1a** 3. Have you ever discussed with your spouse whether or not to use family planning?

Appendix 4

Collaborating Partners in the Male Involvement Study

1. The *Institute for Reproductive Health* (IRH) provided support to KAAANIB in the implementation of the project. The Institute supported a male nurse/health technician (and subsequently absorbed by KAAANIB as its regular personnel), who received training in reproductive health. IRH assumed responsibility for the development and conduct of the study's experimental intervention, in association with the KAAANIB Foundation. IRH also supported the upgrading of the KAAANIB RHA resource center, which housed the collection of materials and references on reproductive health in Impasug-ong, where the main training center and office of KAAANIB is located.
2. The *KAAANIB Foundation, Inc.* was the implementing agency for the intervention. Specifically, the KAAANIB Foundation was responsible for the day-to-day implementation of the project intervention under the supervision of the executive director. It ensured that the project was supported by both the provincial and municipal governments, and linked with health centers located in the municipalities and barangays in the program areas. KAAANIB was also responsible for ensuring the institutionalization of the RHA approach within its broad mission as well as within the regular development assistance that it provides to its members.
3. The *Provincial Planning and Development Office* (PPDO) of Bukidnon provided support for the coordination of the project intervention and ensured collaboration of the LGU Performance Program with the NGO-PO community initiatives. Its head, which is also the LPP Coordinator of the province, chaired the Provincial Coordinating Council of the project.
4. The *Provincial Health Office* (PHO) acted as the support agency coordinating the activities of the different health units and participating in the planning of project activities. It sent representatives to the project's coordinating council.
5. *EngenderHealth* provided the necessary training of health providers on non-scalpel vasectomy. It also provided the necessary reference materials (curriculum and manual) and the instruments needed in the conduct of the operation.
6. The *Frontiers in Reproductive Health* Program conducted all of the research activities and provided general oversight of the entire study. The Research Institute for Mindanao Culture (RIMCU) of Xavier University conducted the data collection activities of the survey research and performed the analysis of results, in collaboration with the FRONTIERS staff.

Appendix 5

Modules for Community Education Sessions

Summary of IRH version

Module 1. Fertility and Body Awareness

1. Welcome and Introduction (15 Minutes)
Goal: To know participants and start developing a friendly and comfortable environment
Activities: Presentation of the agenda; personal/couple introduction; & gathering of individual expectations.
2. Rules (5 Minutes)
Goal: To set up a confidential and well-behaved environment where participants know what to expect from each other and the trainer.
Activities: Presentation of rules in keeping confidentiality and healthy discussions
3. Body Awareness Activity (15 Minutes)
Goal: To experience self-body awareness and learn to recognize unusual changes that needs seeing a health provider.
Activities: Couple educators lead the participants to be aware of certain parts of their bodies while eyes are closed; discussion of importance of body awareness and detection of abnormal signs
4. The Reproductive Organs and Function Activity (20 Minutes)
Goal: To learn and understand normal male and female reproductive organs and their functions
Activities: Identification and naming of reproductive parts using cloth posters, discussion of the male and female reproductive parts and its functions.
5. Menstrual Cycle (20 Minutes)
Goal: To learn the basics of women's normal menstrual cycle
Activities: Discussion about the menstrual cycle – from the occurrence of menses, ovulation and fertile periods, to the next occurrence of menses.
6. BREAK (15 Minutes)
7. Testicular Self-Exam and Breast Self –Exam Activity (20)
Goal: To apply body awareness and learn testicular/breast self-exam, how often to do it, learn how it feels when everything is normal.
Activities: Discussion about the procedures of conducting testicular/breast self-exams.
8. Closing Activity (10 Minutes)
Goal: To summarize topics discussed, answer questions, check expectations met, and distribute referral forms
Activities: Summary; open forum; invitation for the next session and of other couples; distribution of referral cards for those interested to avail a health service

Module 2: Family Planning

1. Welcome and Introduction (15 Minutes)

Goal: To know participants and start developing a friendly and comfortable environment

Activities: Presentation of the agenda; personal/couple introduction; & gathering of individual expectations.

2. Rules (5 Minutes)

Goal: To set up a confidential and well-behaved environment where participants know what to expect from each other and the trainer.

Activities: Presentation of rules in keeping confidentiality and healthy discussions

3. Did Anyone Tell You? Activity (15 Minutes)

Goal: For participants to experience and discuss how they learned about sexuality and its impact on the participants' lives.

Activities: Sharing by partners of where one first learned about sex and reproduction and how it impacted one's life; large group discussion.

4. Human Sexuality Activity (30 Minutes)

Goal: To discuss the development of sexuality throughout life and the body response during sexual intercourse

Activities: Discussion about what is sexuality; different forms of physical and/or sexual expressions in different stages of life – from infancy to adulthood; sexual intercourse and the different responses/ physical changes in the body.

5. Who decides Activity (20 Minutes)

Goal: To discuss gender issues and its effects on the individual, the couple, and the community.

Activities: Discussion about roles of men and women in the household and in the community.

6. Family Planning Methods Activity (30 Minutes)

Goal: To discuss family planning methods, how they work, how to use them effectively, and how/where to get them.

Activities: Discussion about the risky period for a woman to get pregnant and normal/healthy pregnancy; discussion about the different type of FP methods, its benefits, its use and how/where to get them.

7. Closing Activity (10 Minutes)

Goal: To summarize topics discussed, answer questions, check expectations met, and distribute referral forms

Activities: Summary; open forum; invitation for the next session and of other couples; distribution of referral cards for those interested to avail a health service; individual questions.

Module 3: RTI/STD Prevention and; Module 4: Inter-spousal Communication

1. Welcome and Introduction (15 Minutes)

Goal: To know participants and start developing a friendly and comfortable environment

Activities: Presentation of the agenda; personal/couple introduction; & gathering of individual expectations.

2. Rules (5 Minutes)

Goal: To set up a confidential and well-behaved environment where participants know what to expect from each other and the trainer.

Activities: Presentation of rules in keeping confidentiality and healthy discussions

3. Reproductive Tract Infections (1 hour)

Goal: To learn about cause, symptoms and preventions of RTI

Activities: Review of the body awareness activities and the self-exams; discussion about reproductive tract infection and its complications; transmissions of RTIs and who are at risk; abnormal body signs that could be signs of RTI; prevention of RTIs; demonstration of correct condom use;

4. Interpersonal Communication (1 Hour)

Goal: To identify verbal and non-verbal communication, to learn and practice listening and clarifying skills, to discuss factors that facilitate/obstruct communication

Activities: Discussion about the importance of good interpersonal/couple communication; partner practice on listening skills; discussion about verbal and non-verbal communication.

5. Two-way Communication (15 Minutes)

Goal: Participants will be able to practice “two-way communication, feedback-giving, and clarifying skills” in their interpersonal communication.

Activities: Couple educators describe an animal without telling what it is and participants will practice how to use clarifying questions to know what the animal is; A partner thinks of a person or a place, then the spouse asks 20 – yes/no questions to guess what the partner thinks about; group discussion and summary.

6. Gender Communication Style (30 Minutes)

Goal: To discuss gender communication styles

Activities: Observance and discussion about the difference between male and female communication styles

7. Closing Activity (10 Minutes)

Goal: To summarize topics discussed, answer questions, check expectations met, and distribute referral forms

Activities: Summary; open forum; invitation for the next session and of other couples; distribution of referral cards for those interested to avail a health service; individual questions.