FINAL EXECUTION REPORT

Project REDES: Use of social networks to improve maternal, neonatal and child outcomes in rural areas of Honduras

Novmber 2015 – March 2019

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iniciativa salud mesoamérica
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Credits

Proyecto: Project: Use of social networks to improve maternal / neonatal / child health outcomes in rural Honduras

Executed by World Vision Honduras in the framework of the Salud Mesoamerica Initiative (SMI) of the Inter-American Development Bank (IDB) with funding from the Bill and Melinda Gates Foundation

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Contents

Abbreviations

AIN-C	Atención Integral de la Niñez a nivel comunitario [Community child health program]
ARI	Acute respiratory infection
BC	Behavior change
BCA	Behavior change agent
Baseline	Baseline
CAS	Casas alertas [flagged households]
CGM	Community groupo meeting
CIS	Centro Integral de Salud [integrated health center]
CU-SMI	Coordinating unit of Salud Mesoamerica Initiative
EONC	Essential obstetric and neonatal care
FP	Family planning
IDB	Inter-American Development Bank
KAP	Knowledge, attitudes, and practices
M & E	Monitoring and evaluation
MANCORSARIC	Commonwealth of Municipalities of the Maya Route
REDES	Use of Social Networks to Improve Neonatal Outcomes in Rural Honduras
SMI	Salud Mesoamerica Initiative
ttC	Timed and targeted counseling
UAPS	Unidad de Atención Primaria en Salud [primary health care center]
WCA	Women of childbearing age
WV	World Vision
WVH	World Vision Honduras
YINS	Yale Institute for Network Science

1. EXECUTIVE SUMMARY

Use of social networks to improve maternal / newborn / child health outcomes in rural Honduras (REDES) is a project implemented in the first phase by a consortium (World Vision and ChildFund) and in the second phase by World Vision alone. Funding for the project was provided by the Bill and Melinda Gates Foundation through the IDB's Salud Mesoamerica Initiative, in the context of a study carried out by the Yale Institute for Network Science (YINS) of Yale University in the municipalities of Copán Ruinas, Santa Rita, San Jerónimo and Cabañas (in the department of Copán).

The project's purpose is to help improve maternal, newborn and child health outcomes by means of a community-based intervention aimed at bringing about changes in high-risk behavior and attitudes, through the strengthening of social networks.

The intervention strategy is based on Timed and Targeted Counselling (ttC), a methodology developed by World Vision in Africa. It consists of monthly home visits to families with each visit lasting approximately two hours. Project implementation began in November 2015 and ended in March 2019. The home visits to families took place over a 21-month period (December 2016 –August 2018).

The project's educational strategy began with 3634 families in 154 communities of the four municipalities where the intervention was implemented. The educational program covered 15 topics related to maternal / newborn / child health as well as care during pregnancy, early prenatal checkups, institutional birth, birth plan, danger signs during pregnancy, postpartum, newborn, diarrhea and acute respiratory infections (ARIs), breastfeeding, family planning, and gender violence.

Table 1. Geographical coverage of the social networks project REDES Copán, Honduras. August 2018

Municipio	# de Aldeas	# de Hogares	Población
Cabañas	25	671	3,985
Copán Ruinas	68	1,454	12,091
San Jerónimo	11	262	2,804
Santa Rita	50	1,247	9,383
TOTAL	154	3,634	28,263

Upon completion of the intervention, 160 households reportedly had a pregnant family member, 1698 had children aged 2–5 years; and 866 had an infant born in last two years.

For home visits, the project personnel were equipped with a set of educational materials designed specifically for the intervention and validated with the population, including 31 stories to encourage families to discuss and reflect on different topics; a "family commitment book" in which families could record their agreements to try out certain behaviors; a set of illustrations showing the danger signs and reinforcing the topics covered; 15 drawings to color; riddles, songs and jokes; and promotional materials related to the project (logo and slogan) printed on the project's field workers' shirts, vests, caps, and backpacks.

During home visits, the field workers used the CommCare app on their computer tablets, which contained a digital form of all materials to be used during the visit, including the sequence of steps to follow and a system for recording information from each family visit to be sent daily to the database. The family visits were carried out by 52 "behavior change agents" (BCAs) who were specifically recruited and trained for this task, and were supported by five field supervisors and the project´s technical team.

In addition to the home visits to families, the strategy included organization of two group meetings in each of the REDES-targeted communities. The idea was to discuss different topics such as pregnancy care and encourage participation by other people who did not receive counselling during family visits, especially men.

By the end of the field implementation period, 2552 families continued to participate in the project, equivalent to 70% of the families assigned by YINS, with a total of 51,786 ttC visits conducted. The full intervention (consisting of 21 programmed home visits) was completed with 1034 families (34% of the families that started the program). Approximately 83% of the 3634 YINS families received the first visit.

Of the 3022 families that received the initial visit, 2952 (98%) completed two visits; 2907 (96.2%) completed three visits; 2877 (95.2%) received four visits; 2850 (94.3%) received five visits; 93.3% (2822) completed six visits; 92.2% (2786) received seven visits; 91.5% (2767) received eight visits; 90.6% (2740) received nine visits; 89.2% (2696) received 10 visits, 88.3% (2670) received 11 visits, 86.7% (2619) received 12 visits, 84.5% (2555) received 13 visits, 82.2% (2484) received 14 visits, 80.5% (2434) received 15 visits, 76.6% (2314) received 16 visits, 72.1% (2180) received 17 visits, 65.2% (1974) received 18 visits, 56. 6% (1712) completed 19 visits, 45% (1364) completed 20 visits; and 34.2% (1034) completed the full set of 21 visits.

Analysis of how successful these visits were calls for a dynamic rather than linear approach. Each month the project set the target of scheduling a ttC visit to each active family. However, in certain cases and for different reasons, some families were not present during that particular month and so the ttC visit was postponed until the following month, when the family would again be contacted to arrange the visit pending from the previous month. If the family could not be located or the visit could not be arranged, the visit remained pending and efforts to locate the family continued until the visit was finally held. Consequently, each month there was a certain quota of delayed or postponed visits that had to be rescheduled, along with the target for the respective month.

A total of 1082 families opted out of the program, although this attrition happened gradually, as follows: during the diagnostic visit, a total of 612 families decided not to receive further ttC visits; between ttC session 1 and ttC-5, 194 families left the program; between ttC-6 and ttC-10, 135 families left; between ttC-11 and ttC-15, 145 families left; and between ttC-16 and ttC-21, no other families opted out of the intervention. The families that quit the program gave different reasons for their decision (they were not interested in participating, they had left the community, or due to violence or health problems). It is important to note that most families who reached ttC-14 remained until the end of the intervention. The largest number of losses occurred after the initial (diagnostic) visit, probably due to ignorance, mistrust or lack of interest.

The knowledge-attitude-practices (KAP) survey data shows that for all topics covered by the intervention, the percentage of families holding favorable opinions of the REDES-promoted behaviors increased (using

baseline data as reference). However, for some topics, the difference between the baseline data and the data for the final month of implementation was much greater -- for example, use of zinc (to treat diarrhea), umbilical bandages, or pacifiers.

In terms of overall compliance with the agreements negotiated during each family visit, at the close of the project, average attainment rate was 87.5%. The level of attainment of the agreements was lowest in these categories: birth plan / emergency (78%); institutional birth (69%); maternal / newborn care in first 3 days after birth (75%). All these actions involve some financial cost, which may explain the reason for low attainment.

At the end of the field intervention, the ttC home visit methodology was systematized and a qualitative evaluation of the project was conducted. The assessment concluded that structured counselling, supported with educational materials and use of computer technology, are elements that encourage development of cognitive abilities in families in a specific context – their home – facilitating their grasp and understanding of each topic.

It is evident that the BCAs consolidated a process of reflection during each counselling session, thereby prompting internal changes in each participating individual or group, which led to better decision-making. It is clear that from the first visit, the project directly involved 3022 families and that the 2552 active families that voluntarily completed 15–21 ttC sessions considered the process to be valuable, and described it as "important."

Estimating the possibility of change: How open are we?

During visit zero, the families were given information about the program's educational content and it was made clear from the outset that their participation would not imply any type of material benefit. Instead, the families were made aware of the positive consequences and benefits they would enjoy by learning more about the topics of maternity, family planning and newborn care. The families were able to envisage two aspects: first, they saw an opportunity for pregnant women and children to receive better care, recognizing that the death of a mother or infant could happen in any family; and second, they identified the program as a learning opportunity.

Benefits of ttC-promoted behavior changes

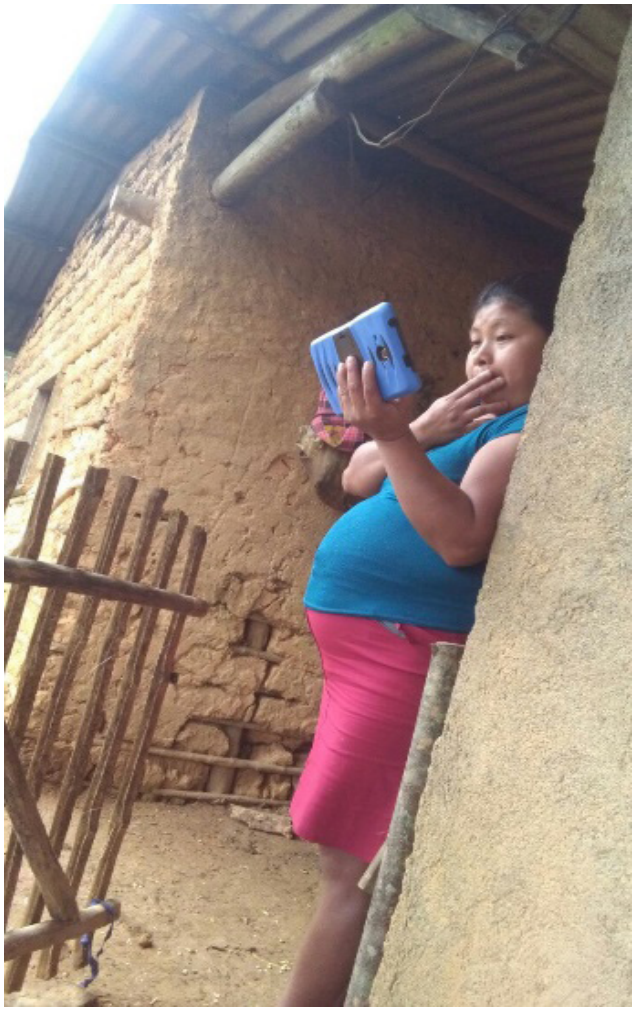
The families participating in the project did not incur any costs during the counseling process, i.e., during the ttC visits. However, in order to comply with some behavior agreements that they committed to, they had to invest resources of time and money, for example, when the behavior involved travel, such as attending prenatal checkups, institutional births, and postpartum checkups. None of the families reported that their participation in the project cost them money. Rather, participants have noted that the changes they adopted since the counselling sessions have brought them benefits, such as savings for the birth plan. Some participants have also observed that those families not participating in the project have continued with certain behaviors that they themselves have changed. They cite examples of situations in which mothers with a child suffering from diarrhea may attribute the illness to so-called "indigestion" and take their child to be massaged (home remedy), instead of seeking care at a health center or taking zinc or oral rehydration salts (ORS).

They have also witnessed, as a family, the fact that the newborn's navel did not become infected and was fine without using an umbilical bandage. This experience provided them with a new perspective, which is generally shared and passed on from one family to another.

The ttC methodology, with its key messages, 15 topics and 87 agreements, was adapted to the population's needs and supported with a communications strategy that did not involve the mass media. Instead, it was built on a direct relationship, based on growing trust, between the BCA and the family over a period of 15–21 months, plus continuous training to support the BCAs in providing a better counseling experience, reflecting the intention of planned behavior.

2. INTRODUCTION

The project Use of social networks to improve maternal / newborn / child health outcomes in rural Honduras (REDES) was implemented by a World Vision and ChildFund partnership during its initial phase, and by World Vision alone during its second phase, in a region of western Honduras (specifically in the municipalities of Copán Ruinas, Santa Rita, Cabañas and San Jerónimo in the department of Copán).



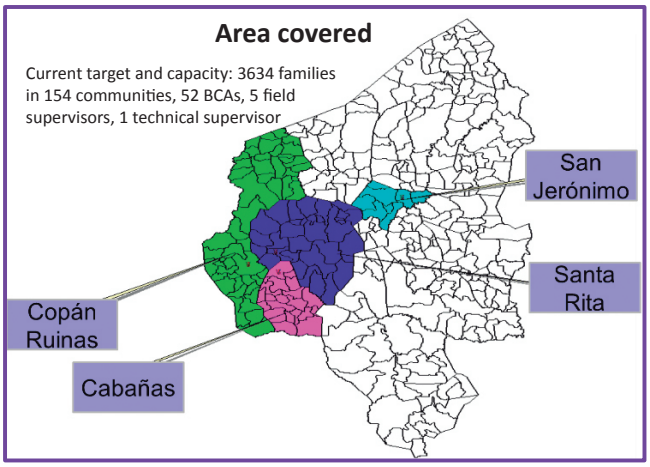
The project was carried out in the context of a study by the Yale Institute for Network Science (YINS) of Yale University, which explored the dynamics of social networks and their influence on promoting dissemination and adoption of basic behaviors and attitudes about newborn and child health in rural areas of Honduras. Funding was provided by the IDB’s Salud Mesoamerica Initiative.

The main intervention of REDES consisted of an educational strategy based on family counselling, delivered via monthly home visits. The project was executed from November 2015 to March 2019, during which time the team designed an educational strategy, materials and project operating model. Educational activities with families were implemented over a 21-month period, together with closing activities in the communities, a systematization process, and a qualitative evaluation of the project.

The intervention has had a significant impact on the participating populations, in terms of their knowledge about maternal / newborn / child health, and has generated many lessons on how to manage educational programs with families. This final report is an effort to record and share the experience gained from implementing an innovative educational program with vulnerable population groups, such as women during the stages of pregnancy, delivery, and postpartum, and newborns and children under 5, in the hope of being able to replicate the initiative in other areas of the country.

3. PROJECT DESCRIPTION

The project “Use of social networks to improve maternal / newborn / child health outcomes in rural Honduras” was implemented by a consortium comprising World Vision and ChildFund during its initial phase, and by World Vision alone during the second phase. It was implemented with funding from the Bill and Melinda Gates Foundation through the IDB´s Salud Mesoamerica Initiative, in the context of a study conducted by the Yale Institute for Network Science (YINS), in the municipalities of Copán Ruinas, Santa Rita, San Jerónimo and Cabañas, in the department of Copán.



Area covered – current target and capacity: 3634 families in 154 communities, 52 BCAs, 5 field supervisors, 1 technical supervisor.

The purpose of the intervention was to help improve maternal / newborn / child health outcomes through a community-based intervention aimed at bringing about changes in risk behaviors and attitudes, through strengthening social networks. The first phase of the project was implemented from November 2015 to April 2017, while the second phase took place from May 2017 to March 2019. Direct interventions took place between December 2016 and August 2018, when counselling was provided to families for a total of 21 months.

The objective of the consultancy during the first phase was to “design and implement an intervention based on identification of knowledge, attitudes and risky practices related to maternal and newborn health, at the family and community levels, in select population, with the aim of influencing changes in health outcomes of mothers and newborns through messages and healthy practices transmitted by key members of social networks.”

During the project’s first months, operational conditions were put in place for the start of the consultancy; next, a formative survey was conducted on the population’s knowledge, attitudes and practices (KAP) related to maternal / newborn / child health. The community intervention was designed to include family visits over a 21-month period and a series of closing activities with families during the project’s final six months, together with a systematization and evaluation process. This final report on the project’s interventions presents the results obtained during the period November 2015 to March 2019.

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3.1. PROJECT REDES TIMELINE

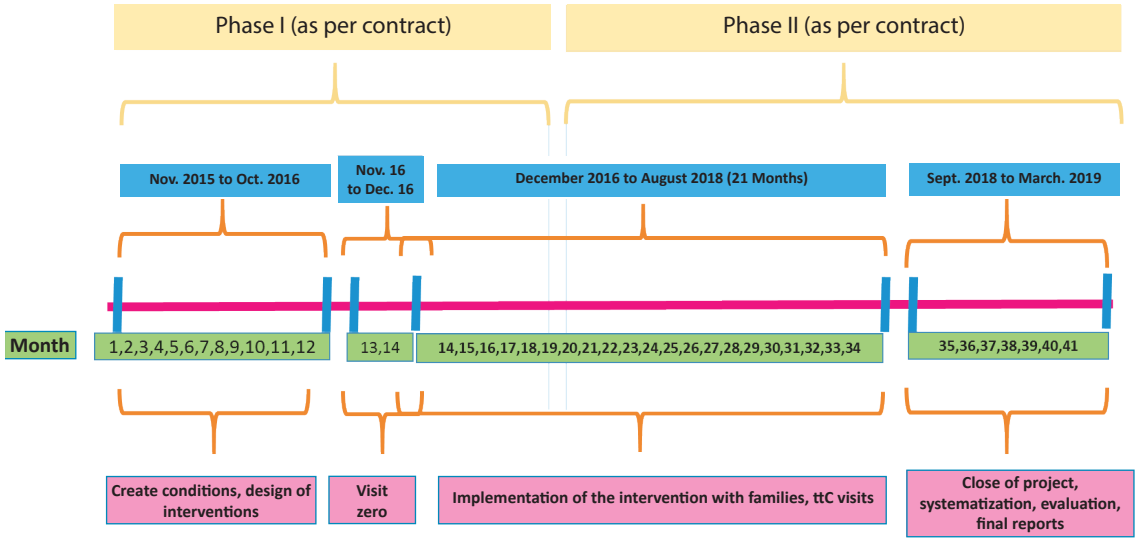


Figure 1. Timeline of REDES social networks project.

3.2. FAMILIES PARTICIPATING AND FAMILIES OPTING OUT

The above figure illustrates the entire process by month, from the so-called zero (or diagnostic) visit to the close of the intervention. It also shows the movement of active families and families that opted out of the program. As can be seen, the diagnostic visit was the point at which the largest number of families (612) opted NOT to participate in the program, for a variety of reasons, including ignorance and distrust of educational programs. However, as the families received the series of ttC visits and learned more about the process, fewer and fewer families were opting out, although there were periods when it increased due to families leaving the area to harvest coffee. Upon their return, some had lost interest, while others continued with the process.

It is important to note that the final results were achieved gradually. For example, during visit zero, 3125 families were scheduled to receive ttC-1, but during the period established for this visit only 2916 ttC-1 visits were scheduled. However, in the following months, project workers continued to seek out the families whose visits were still pending. So a number of ttC-1 visits took place during Month 8 of the project with families that were returning to the area or had changed their minds and decided to join the program due to the influence of their neighbors. By end of the program, 3022 ttC visits had been completed.

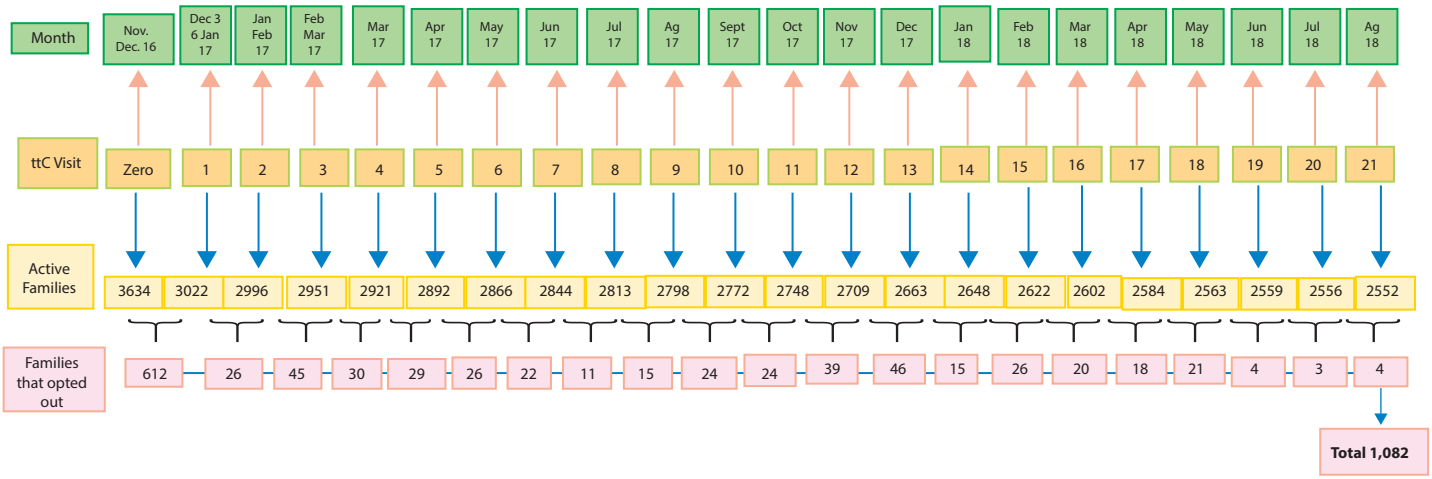


Figure 2. Dynamics of family visits over time.

4. CONTEXTUAL FRAMEWORK

The project was implemented in the Commonwealth of Municipalities of the Maya Route (MANCORSARIC), which includes the municipalities of Copán Ruinas, Santa Rita, Cabañas and San Jerónimo, in the department of Copán. It is a mountainous region with dispersed and remote rural communities with difficult access to basic services and limited transportation services. According to INE data from the 2013 population and housing census, 85.1% of the population lives in rural areas and 14.9% in urban zones.

Part of the population is of Maya and Chortí origin, with deep-rooted customs and traditions and a distrust of government and NGOs and their programs. This population has extremely low education levels and a tendency to reject projects that do not offer material assistance to families.

According to the 2013 NBI Report, 70.1% of the communities live in conditions of poverty and 63% in extreme poverty.

According to the 2011–2012 National Demographic and Health Survey (ENDESA), newborn mortality in Honduras stood at 18 per 1000 live births annually. In 2008, newborn deaths accounted for 51% of all deaths in children aged <5; of these deaths, 40% were attributed to premature birth and another 40% to asphyxia and infections. Approximately 10% of Honduran newborns have low birth weight. Although statistics show that 79% of newborns began breastfeeding within the first hour after birth, only 30% were exclusively breastfed during their first six months. About 57% of the births occurred in rural areas where perinatal care is often faulty or unsafe, given that barely half of these births were attended by qualified midwives.

Since March 2018, the decentralized management of health services has been the responsibility of the NGO Plan in Honduras, the body responsible for providing primary health care services to more than 94,000 inhabitants in the MANCORSARIC area (this population is distributed in 112 towns and 420 small villages).

Health care services are delivered through 18 health facilities, including five comprehensive health centers (CIS), 12 Primary Health Care Units (UAPS) and one Maternal / Child Health Clinic (CMI). Approximately 67% are primary care services, providing ambulatory care and focusing on health promotion and prevention; 28% are secondary services (staffed with a general practitioner) that receive patients referred from the UAPS and provide urban ambulatory care. One (1) maternal / child health clinic accounts for the remaining 5%.

During the previous administration of MANCORSARIC, certain challenges arose in the provision of health services and, since the change of management, with all its implications, these challenges persist. Factors such as staff shortages at health centers, the closure of some establishments due to the change of management and limited equipment and supplies, have had a negative impact on the population's health. Consequently, the system has been unable to provide timely services of quality to the population, or to respond effectively to medical emergencies. This has hindered efforts to improve the main health indicators.

With regard to maternal, newborn and child health indicators in the municipalities of MANCORSARIC, these continue to pose a challenge. Nevertheless, a comparison of some indicators for 2017 and 2018 reveals some improvements. According to the database of the statistical unit of El Jaral Services Network, in 2017, 74% of pregnant women enrolled for prenatal checkups, while 80% did so in 2018, attending an average of 5.5 and 6.3 prenatal checkups in 2017 and 2018 respectively. However, the indicator for enrollment of pregnant women in prenatal care before the 12th week of their pregnancy showed a decrease of three percentage points. With regard to institutional births, in 2018 there was an increase of one percentage point over 2017, while the indicator for postpartum care in the first 7 days after delivery improved by 1 percentage point. Whereas in 2017 the maternal mortality rate stood at zero, in 2018 it rose to 50 per 100,000 live births, the increase was due to one (1) maternal death in the municipality of Copán Ruinas.

With respect to child health indicators, according to the statistical database of the El Jaral services network, 44 deaths were reported in children under 5 in 2017, while in 2018 there were 37 deaths in children under 5, a reduction of seven cases. By contrast, deaths in infants <1-year-old increased from 33 cases in 2017 to 36 in 2018. Newborn mortality continues to be a challenge: of the 37 deaths children under 5 recorded in 2017, 24 were newborns aged 0–7 days old, with the three leading causes of death being newborn asphyxia, hyaline membrane disease, and prematurity. In newborns aged 8–28 days, principal causes of death were sepsis and pneumonia.

Despite the region's efforts to improve the population's health status, reducing mortality (maternal, newborn and child) remains a challenge. There is also still resistance among certain population segments to seek out health services, due to long travel distances and lack of human warmth and supplies in health centers.

5. CONCEPTUAL FRAMEWORK

The IDB's Salud Mesoamerica Initiative (SMI) aims to test innovative solutions that are not only effective but that can also be put into practice more easily, or modified and improved without too much effort, in order to overcome the barriers to implementing high-quality health interventions in the region's poorest populations. One such innovation is based on use of social network science, or "network mapping," to scale up behavior change. SMI has worked with the Yale Institute for Network Science (YINS) to test the effectiveness of network science in improving newborn health outcomes in rural areas of Honduras. In particular, the program seeks to implement a community-based intervention to explore how the dynamics of social networks can affect the collective adoption, dissemination and consolidation of basic behaviors and attitudes in a group about newborn and child health in rural areas of Honduras.

There may be "multiplier" or "cascade" effects on health, health-related behavior and on health care provision; in addition, interventions that change an individual's behavior in relation to newborn health may affect many other people. However, in the case of complex behaviors, the dissemination process may require multiple exposures to a particular behavior, through different social contacts, including social reinforcement and changes in group standards.

Although the YINS is responsible for the design and implementation of the study to evaluate the use of social networks, SMI, together with MOH, is responsible for design / implementation of the community health interventions that will be evaluated, complementing the decentralized model used by MOH in the intervention areas. The intervention aims to help reduce newborn mortality resulting from low birth weight, prematurity and sepsis, and reduce maternal and child morbidity and mortality.

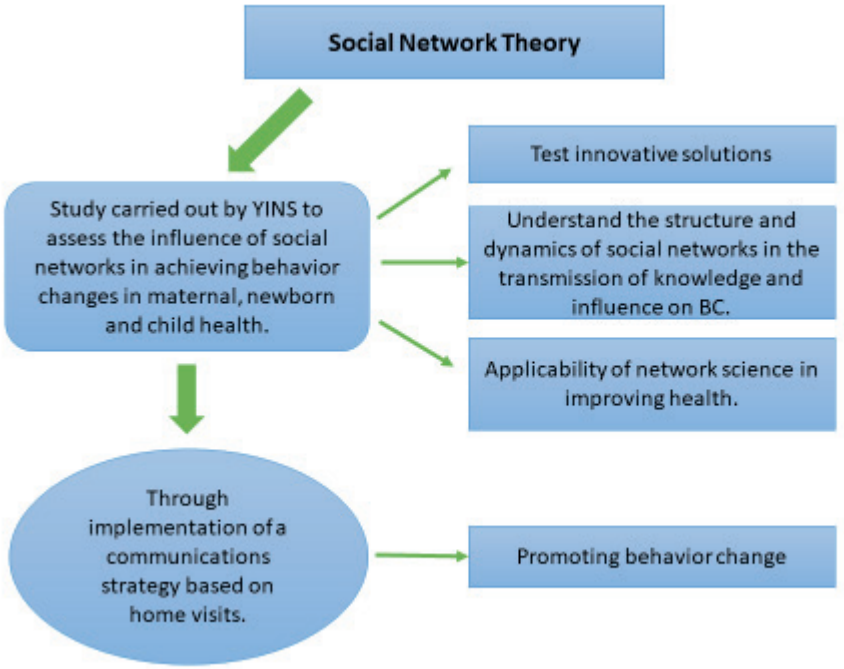


Figure 3. Conceptual framework for implementation of REDES.

In order to implement the intervention complementing the YINS study, on 6 November 2015, the World Vision Honduras Association (AVMH), as representative of the Consortium comprising AVMH and ChildFund Honduras, signed contract #SCL/SPH.15.23.00-C with the Inter-American Development Bank (IDB) to provide consulting services for implementation of Phase I of Social networks to improve maternal / neonatal / child health outcomes in rural Honduras during a 16-month period from 6 November 2015 to 28 February 2017. On 12 November 2016, the IDB approved a two-month extension without additional cost to finalize the first phase by 30 April 2017.

6. MAIN ACHIEVEMENTS AND RESULTS BY COMPONENT

6.1. Design of intervention

At the start of the project, a formative survey was conducted to investigate the beliefs, attitudes, knowledge and practices related to maternal and newborn health of the population in the project's target communities. This process provided valuable information that was used to refine the project's proposed results framework, indicators, methodology and communications and intervention strategy with the families.

The survey's findings were discussed with national MOH authorities, IDB officials and the Consortium. This information was key in designing the community intervention, particularly in the communications strategy, ttC methodology and defining the results framework and its indicators.

The process involved the participatory to design the communications strategy that resulted in the definition of the community intervention model, adapted to the project's needs and the topics covered by the intervention. During this process, assistance was provided by an IDB consultant, in particular for the design of the strategy, including all communication materials of the community intervention methodology.

The topics selected were adapted to the project's objective and to the needs identified in the formative survey. In total, 15 topics were defined and divided into stages: preconception, pregnancy, birth, postpartum, newborn, children age under 5, and general topics.

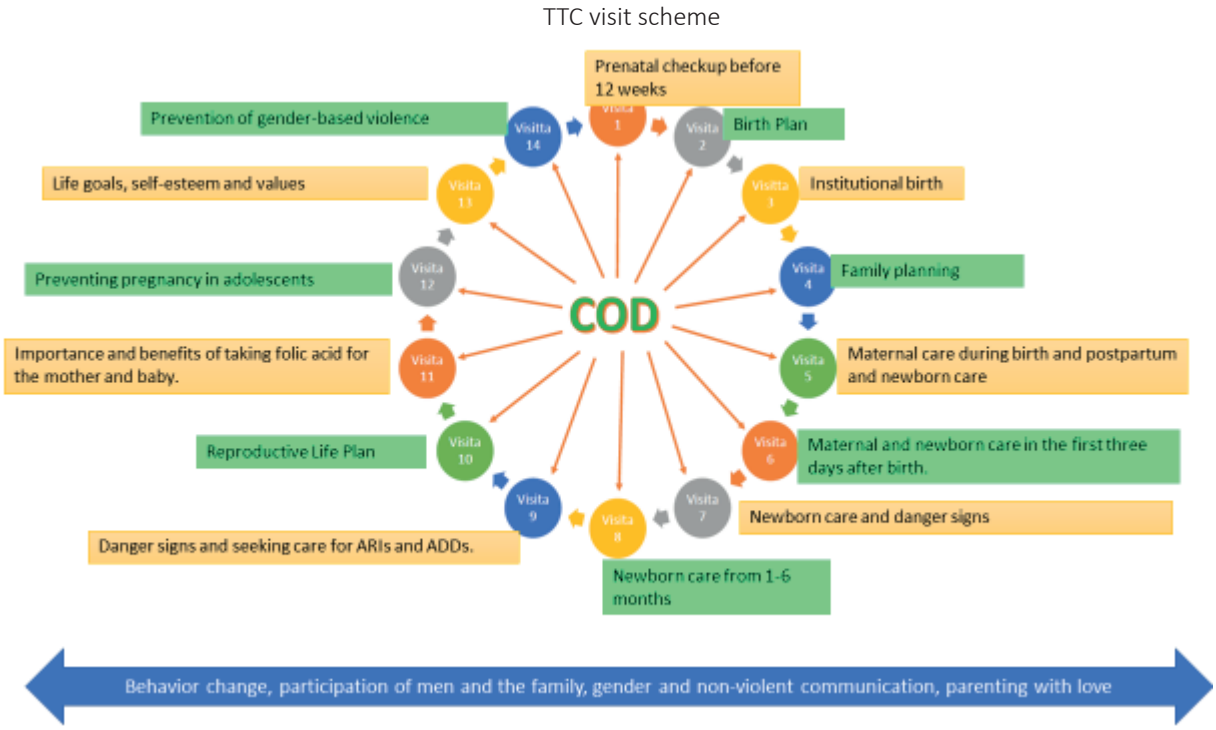


Figure 4. Timed and targeted counseling (ttC) visits and cross-cutting issues.

6.2. Community intervention model

It was agreed that the community intervention model would be implemented through home visits and group meetings. During the visits, the timed and targeted counselling (ttC) methodology was used and adapted to the project's objectives, based on the ttC implemented by World Vision in Guatemala. The home visits and group meetings were conducted by staff contracted specifically for that task and known as behavior change agents (BCAs).

Features of ttC visits

a) Timed and targeted

Timed and targeted counseling (ttC) can be defined as follows: First: counseling is a process of dialogue with women, men and the family unit as a whole, in which health issues are discussed and agreements negotiated with the aim of achieving behavior changes in maternal and newborn health. Second: timed counselling means it is designed to deliver messages at the right time – neither too early (in case they are forgotten) nor too late (for the behavior to be practiced). Third: targeted counselling means that it focuses directly on the needs of the family – the woman during pregnancy, birth, postpartum; the newborn; and the child until aged 59 months.

The methodology is also flexible because it can be adapted to the specific needs of each family. It means that the BCAs will not use the same counseling plan with every family. In other words, if a household in the community has a woman who is three months pregnant but there is also a woman of childbearing age, the BCA will set the priorities of the visit, according to the family's most urgent need.

b) Individual home visits

In the safe environment of their own home, family members can openly discuss, without reservations, the issues that worry, concern or confuse them about the practices recommended in the strategy.

Visiting the home enables all household members to participate. This is important, because the woman is often the primary care giver (pregnant woman / mother of the child) who puts the recommended behaviors into practice. Her capacity to do so, however, is sometimes limited by the opinions and decisions of other family members, especially the husband, or older women such as grandmothers and mothers-in-law. For this reason, it is extremely important to make direct home visits and ensure that the majority of family members participate in the ttC sessions.

c) Stories and dialogue

The ttC counselling process is based on principles of learning and behavior change, which recognize that 'traditional' top-down, unidirectional transmission of information leads neither to effective learning / retention nor to behavior changes.

From a learning standpoint, it is acknowledged that adults must be actively engaged in their own learning process, building on what they already know and incorporating new information and ideas into existing mental frameworks. From a behavior change standpoint, it is recognized that information and awareness in and of themselves are not sufficient to change behavior. Before fully adopting a new practice or behavior, an individual will frequently proceed through a more-lengthy process of consideration of new practices, attention to barriers and constraints, and trial practice with support and encouragement.

To implement that process of dialogue, reflection, negotiation and the practice of certain behaviors, the ttC uses storytelling with the family in order to generate discussion based on the situations presented in the stories. The stories feature situations related to health topics and present stories about "problem situations" as well as stories about "positive health situations." First the BCA will narrate a "problem" story, followed by a "positive" story, in order to analyze each situation presented and ask a number of questions. This prompts the family to reflect and facilitates the negotiation of agreements to practice an appropriate or necessary behavior.

Timed and targeted counseling in the home implies the respectful presentation of new information, discussion of new ideas, negotiation on adoption of behaviors / practices and analysis of potential barriers or obstacles to those practices. It also optimizes the conditions under which households can learn and be supported more effectively in their efforts to improve their health and nutrition.

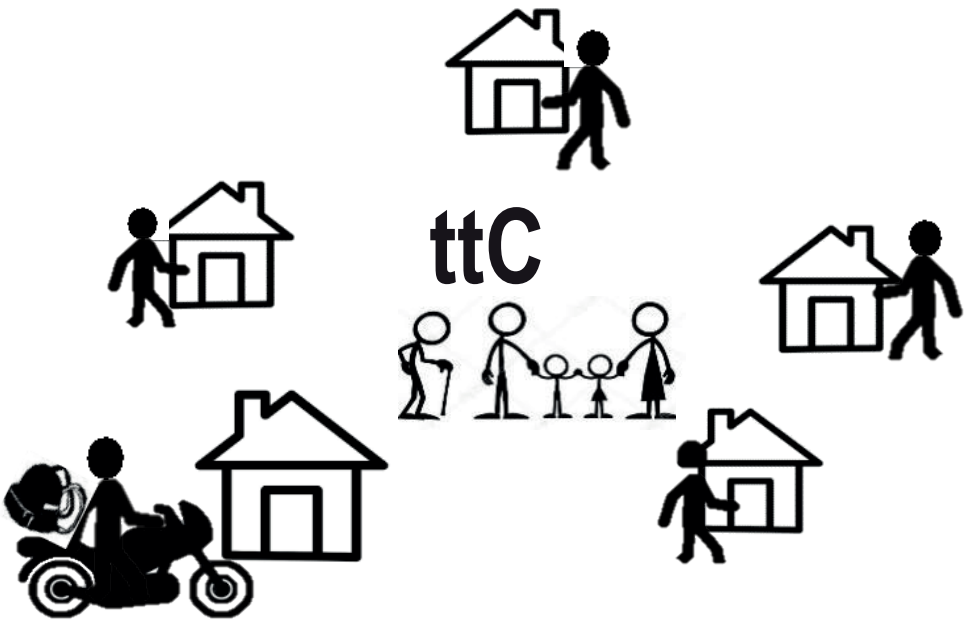


Figure 5. Home visit process for implementation of ttC.

A home visit guide and two flowcharts describe the intervention's steps. These are contained in the CommCare App, which is loaded onto a Tablet and used as a tool for family visits.

Below is a general description of the materials that comprise the communication strategy:

a. Three books for home visits containing ttC stories (conflictive and positive stories) with illustrations, covering the 15 priority topics in the intervention.

b. Family commitment book containing the 15 topics of the intervention (negotiated through agreements with the families). Key behaviors/practices are defined for each topic covered in the home visits.

c. Set of educational posters related to danger signs in pregnancy, postpartum, newborn; acute respiratory infections (ARIs) and acute diarrheal diseases (ADDs); and family planning;

d. A set of 15 illustrations for coloring (one for each ttC topic) and crayons.

e. Songs, rhymes, riddles and key messages for each topic.

f. Toolkit to support and facilitate home visits: Tablet, speaker (to amplify the audio of the songs and stories), packets of crayons.

g. Package of promotional materials for families: a box, calendar, an artistic print and family photograph.

h. Promotional kit for the project; the team´s logo, slogan, banner and identification, which contains: vest, shirt, cap, backpack and ID card.

i. The CommCare app containing all the information required for the ttC visit such as: stories in audiovisual and printed formats, illustrations to accompany each story, technical sessions on seven topics, lyrics and audio of the songs, rhymes, jokes, riddles, key messages, and agreements for each visit.

j. Methodological guide for the group meetings containing nine topics related to maternal and newborn health, based on play techniques that promote active participation by families.

6.3. Description of home visits

In this project the home visit has four key elements: interaction with the family, dialogue with family members using stories that represent different positive and negative situations, which the BCAs use to encourage discussion leading to negotiations for the adoption and practice of new behaviors. Each ttC visit is designed to last two hours and includes the following steps:

Completion of five general forms:

These five forms are completed during each ttC visit. The first is the so-called Home Verification Form, which is used to ensure that the household being visited is the correct one, according to YINS data. This form also records date and time of the ttC visit, GPS location of the home, checks the condition of the house and whether the family can receive the visit. It gathers information on who is present during the visit, and checks that the information on the family group is correct or updates it if there are any pregnant women or children under 5.

It also determines the ttC model to be imparted, according to the information selected. It includes information on the modules previously covered by the famiy, and adds any new members that have joined the household (name, date of birth).

The purpose of the form related to household members (individual), is to ask which family members live in the home, check whether there are family members who no longer live there and determine whether any member has died (if YES, the name is filed and verification is not required in future visits). The following information is checked: name, sex, pregnancy and other details to make sure all entries are correct and if not, they are amended or updated.

The form on the health status of household members checks whether there are any warning signs or emergency that would put their health at risk. If any emergency signs are identified, a written referral is issued and recorded on this form, and then reported to the health service according to protocol. This form generates a referral to the supervisor.

The form on knowledge, attitudes and practices (KAP) aims to collect information about the family's adoption of knowledge; it includes 19 questions, which vary in number according to the specific ttC module used delivered. The options for answering each question are: all agree; some agree; nobody agrees; does not know / does not answer.

The purpose of the Review Form on prior agreements is to check the family´s compliance with the agreements or commitments negotiated on the previous visit. The form asks each family about the agreements signed on the previous visit, with the following multiple-choice answers: family complied fully with the agreement; family complied partially with the agreement; family did not comply with the agreement; family did not agree to try out the agreement; the agreement does not apply to the family. This form begins to be used after the second home visit (since during the first counselling visit there are no agreements to review with the family).

After completing these general forms, the counselling session follows these steps:

- ✓ The BCA begins the counseling visit by introducing a song related to the topic to be discussed and invites the family to sing it. Then he/she leads a discussion on its content and practical application.
- ✓ The topic is introduced and the BCA shares a rhyme or joke with the family and invites them to repeat it.
- ✓ The BCA discusses the "problem" story and uses guiding questions to encourage dialogue and discussion with the family.
- ✓ The BCA shares the "positive" story and uses guiding questions to encourage dialogue and discussion with the family.
- ✓ Negotiation of agreements based on dialogue and the learning acquired with support from the Family Commitment Book of family agreements and commitments.
- ✓ Technical session aimed at strengthening knowledge and in-depth discussion of the topic.
- ✓ Sharing of key messages on the topic; using riddles to check that the topic has been understood; reinforcing the subject if necessary; coloring the illustrations that explain the message.
- ✓ Finally, agreement on date of next visit with the family, using the calendar that contains a key message discussed with the family and an illustration for each month.

6.4. Community group meetings

The community group meetings form part of the intervention and are designed to cater to the male population that does not take part in the home counselling sessions. This modality consists of meetings with playful or entertaining activities in which families are invited to participate and topics are addressed through games, storytelling and other participatory methodologies.

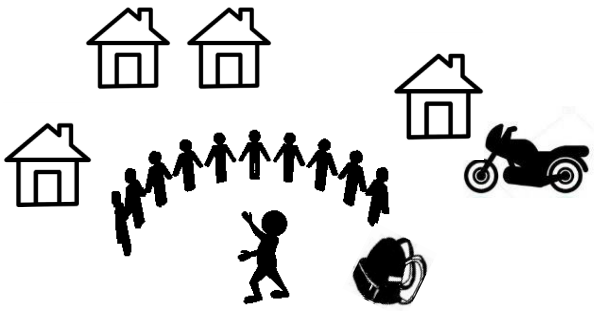


Figure 6. Community group meetings

During Phase 2 of the intervention, community group meetings were organized as a means of promoting group communication. The idea was to organize play activities in a space different from home, so that the people invited, especially men, would be encouraged to participate and take advantage of the opportunity to share and exchange key messages related to maternal and newborn health, both with the beneficiary families and, spontaneously with other people of the social network.

The purpose of this community meeting was to bring together at least one member of each beneficiary family, giving priority to men, mothers-in-law and grandmothers. The criteria for organizing the group meetings were established by YINS. At the beginning of the intervention, the meetings were scheduled to take place every two months or every six weeks and were designed to cover nine topics with each group in each community. However, after the guidelines were changed, two meetings were held in each community, in which two topics were covered in the two meetings.

6.5. Validation of materials

During the phase to design the educational materials of the communications strategy, a validation process was carried out with populations similar to those enrolled to participate in the project, but who lived outside the intervention area. These populations were identified by the Yale Institute for Network Science (YINS).

The validation exercise was carried out with the aim of confirming, with representative groups of the target population, whether the design and contents of the materials, both the texts and the illustrations, were suitable for a clear understanding of the topics and whether they liked them. This process was led by the firm contracted to prepare the materials along with members of the project's technical team.

In total, 12 validation sessions were held using focus groups in the communities of Río Amarillo, Santa Rita, El Salto and Agua Fría, in the municipality of Copán Ruinas. In addition, a meeting was held for consultation / validation purposes with a group of BCAs in the town of Copán Ruinas. Different segments of the population participated in the consultations: mothers of different ages, pregnant women, women of childbearing age, men and adolescents. Attendance at the focus groups was very good, though most of the participants were women. Very few men accepted the invitation, mainly due to the fact that they were harvesting coffee.

Most of the participants said they found the materials interesting and that the messages were relevant and applicable to their communities. They also agreed that the illustrations contributed to a better understanding of the messages, i.e., there was consistency between the images and the text. The participants also suggested some changes in relation to the colors of the drawings, the expressions on some of the faces and the clothing of one of the characters in the logo.

Based on the results of the validation exercise, the relevant adjustments were made and definitive versions of the materials were printed.

6.6. Initial and ongoing training

The training of the human resources who worked directly with the families was one of the most important tasks carried out by project's technical team at different stages of the implementation process. Two specific training sessions for BCAs and field supervisors were organized before the intervention began, and continuous training was carried out throughout the project implementation period.The first training session took place prior to the launch of the educational strategy and was aimed at the 52 BCAs tasked with conducting the family counselling sessions and five field supervisors. The training focused on technical aspects of maternal, newborn and child health, family planning, gender, prevention of Zika, self-esteem and the ttC methodology, including

communication skills, in order to be able to establish a dialogue and negotiate with the families, as well as use the materials designed for the project. Additional time was set aside to train the project staff in the use of the CommCare application and the Tablet.

The project´s technical team took charge of the technical and methodological aspects of the training, with the participation of technical staff from the central office of World Vision, ChildFund, MANCORSARIC and the Ministry of Health. The methodologies used were very varied and included interactive presentations, readings, videos, games, group work, plenary sessions, socio-dramas and activities to encourage the interest and involvement of the participants.

Throughout the training process, an evaluation was carried out at the end of each training session to obtain the participants’ impressions regarding the day’s activities and obtain some suggestions for the following sessions. Some topics were reinforced during the final days of the training course, based on the evaluations carried out. After three weeks of training, a pilot test was carried out in four communities so that the BCAs would have an opportunity to put into practice the knowledge and skills acquired in the training courses with families similar to those to be served by the project.

Because the initial training included only the exact number of BCAs recruited, three months after the start of the intervention, a second training session on the project’s topics and methodology was organized with a group of candidates to cover possible absences or vacancies due to the departure or illness of a project worker. This second training session was imparted by the project`s technical team with the support of some field supervisors and included a week-long practice in the communities served by the project. This second cohort of trainee BCAs was gradually incorporated to replace the original recruits who left the project.

A second training session was also organized for supervisors, given that some of the original supervisors left the project, and the new group was able to cover the vacancies created. This training, like the two previous courses, covered technical and methodological aspects of the ttC in addition to supervision and monitoring of activities. The groups also participated in a practice session for the implementation and supervision of family visits.

In addition to the specific training sessions mentioned above, there was also a continuous training process for field workers (BCA and supervisors), aimed at reinforcing key technical aspects and certain communication techniques to promote behavior changes in the families. Accordingly, eight bi-monthly training sessions were held on pregnancy, postpartum and newborn care, danger signs, management of acute respiratory infections (ARIs) and diarrhea, family planning, counselling for behavior change, gender, physica safety, psychological first aid and the methodology used for group meetings. These sessions coincided with the monthly progress meetings and lasted one or two days. In the case of supervisors, additional training sessions were organized on topics such as leadership, supervision, monitoring, motivation and care of personnel.

As part of the continuous staff training program, a guide was prepared as reference material for the BCAs and supervisors, containing questions and answers on topics of maternal, newborn and child health.

6.7. Pilot test

Following the initial training of the project's field workers, a pilot test was implemented so that the BCAs could apply and practice all the knowledge and skills acquired during the training process and also test the materials, tools and the methodological system, including the use of the CommCare application during an actual home visit to families. The objective of this activity was to find out and record the families' reactions and opinions regarding the use of technology for health education purposes.

The pilot was carried out in the communities of Río Amarillo and Planón del Mirador, in the municipality of Santa Rita, and in El Salto and Agua Fría, in the municipality of Copán Ruinas. The BCAs were organized into nine groups, accompanied by a supervisor or a member of the technical team to conduct a zero (diagnostic) visit and a ttC session. After each visit, each group discussed the results of the exercise, including the positive aspects and those that needed improvement.

During this process, the project received technical assistance from an IDB consultant with experience in family counselling and behavior change in health. The consultant also participated in the meetings of the technical team, offering comments and specific suggestions in accordance with the observations made.

The pilot test served to strengthen the BCAs' management of the home visit methodology and their use of the various instruments and tools included in the strategy. The fact of dealing with real situations, with different families- and not mere simulations as had been the case during the training course- helped to give them greater self-assurance and confidence in conducting the family visits. In addition, this process also served to identify a number of adjustments needed in the materials, tools and forms of the CommCare application to be used in the strategy.

6.8. Project operational model

To carry out the field activities, the project staff were divided into five groups, each led by a supervisor. Two of the five groups had 11 BCAs, while three had 10 BCAs. Each group operated as a field unit in a particular geographical area that was assigned at the start of the intervention.

For the distribution of the communities, it was necessary to consider the number of families in the sample defined by the YINS in each community, which varied from 10% to 80%. For example, in the community of San Antonio del Norte, only one family participated in the intervention, whereas in the community of Santa Elena, the

sample consisted of 137 families. To the extent possible, the aim was to group the communities together, so that they would be placed on a single geographical route for the BCAs, and to assign the communities closest to the municipal capitals to female project workers.

The number of BCAs to be recruited was determined based on the estimated duration of each two-hour visit and the number of visits per month. This resulted in the hiring of 52 BCAs, with each one carrying out three to four visits per day, in order to cover all the families assigned by the YINS by the end of the month.

To monitor the BCAs' work, a daily reporting system was established using WhatsApp groups, whereby each BCA would report to his/her supervisor at the end of each day, describing the visits made to each family as well as any programed visits to families that had not been possible to carry out, stating the reasons why. The WhatsApp groups included a member of the technical team who, together with the supervisor, provided support and feedback on the work.

6.9. Progress meetings

In addition to the daily monitoring and reporting process, monthly meetings were organized with the entire project team to discuss and analyze the progress achieved to date, the difficulties encountered during the month, and to plan the following month's activities. According to an analysis of the information obtained from the system, activities were reorganized and emphasis placed on the areas requiring improvement in the BCA's performance.

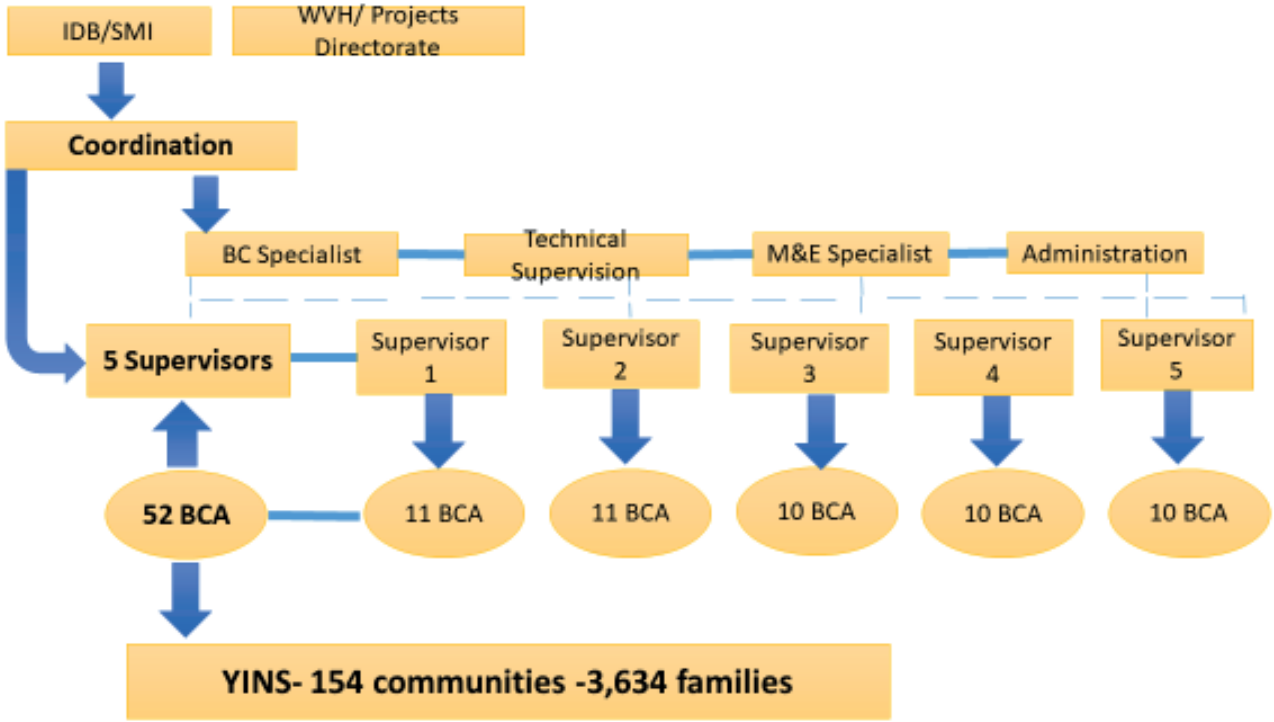


Figure 7. REDES operational model

7. OUTPUTS AND OUTCOMES OF COMMUNITY INTERVENTION

7.1. Outcomes of ttC home visits (21 months)

The families participating in the project correspond to 3,634 (YINS original list) with which the community intervention was initiated. One of the first activities in the communities was the completion of visit zero or baseline (BL). Of the families on the YINS list, 3614 households were visited (equivalent to 99% of the list), leaving only 20 families not visited due to various circumstances.

Of the total families visited (3614), 3125 session-zero visits (ttc-0) were successfully completed (informed consent=1), meaning that forms were filled out with the families, baseline (BL) information was recorded in the system, and the first ttC visit (ttc-1) was scheduled. In terms of percentage, 86% of ttc-0 visits (3125) successful (led to enrollment in the ttC plan) versus a total of 3614 ttc-0 visits made.

By project end, 20 households were not found (the house did not exist) and 489 families did not give their informed consent; of these, 165 rejected the visit zero (ttc-0) and the others gave various reasons: nobody knew the members, a single person who emigrated from the community, in one house two registered IDs were found, access was not possible due to violence, houses closed up, or families away in coffee picking season.

At project end, a total of 51,786 ttC visits were made to the families, taking as a reference the ttC visit 1 made (3022). When comparing them with the sample received from YINS (3634), we can say that we started the intervention with 83% of the families assigned and by project end, 2552 families remained active, which is equivalent to 70.2% of the original list. In terms of the number of visits. Table 1 shows that 2434 families (80.5%) received all 15 topics and 1034 families (34.2%) completed all 21 scheduled visits.

Table 2. Number of families according to number of visits received

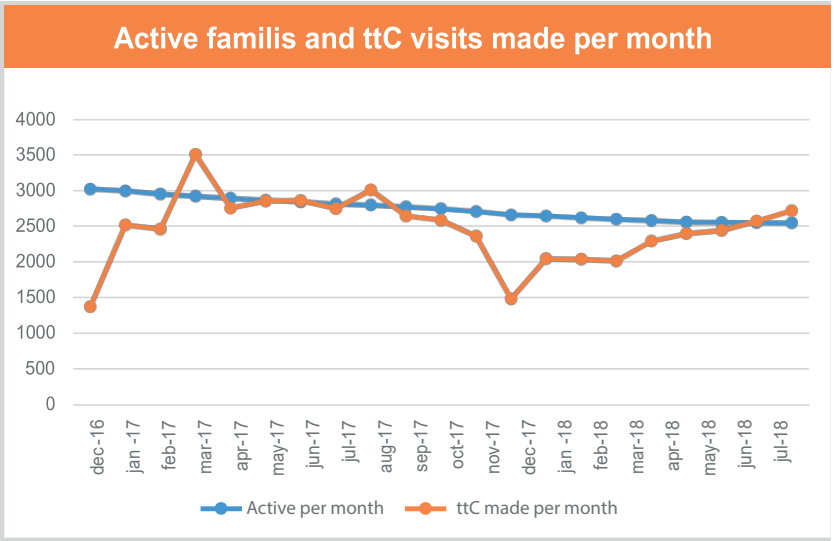
Table A Numerical data	Families receiving visits				
	Municipality	**1–14**	**15–20**	**Complete 21**	**Total**
	Copan Ruinas	217	585	413	1215
	Santa Rita	215	433	371	1019
	Cabañas	111	281	158	550
	San Jerónimo	45	101	92	238
	Total	**588**	**1400**	**1034**	**3022**

In analyzing the visits made, the assessment had to be dynamic rather than linear; each month the goal was set to make ttC visits to all active families, but it turned out that some families were not at home that month, for different reasons, and the ttC visits remained pending. In the subsequent month, attempts were made to contact those families so the visits pending from the previous month could be made. There was a backlog of pending monthly visits that had to be rescheduled along with the targeted visits for the current month

Table 3. Active families and ttC visits made per month

Month	Number of active families	ttC visits held
Dec-16	3,022	1,388
Jan-17	2,996	2523
Feb-17	2,951	2,466
Mar-17	2,921	3,503
Apr-17	2,892	2,756
May-17	2,866	2,855
Jun-17	2,844	2,862
Jul-17	2,813	2,750
Aug-17	2,798	3,009
Sep-17	2,772	2,648
Oct-17	2,748	2,590
Nov-17	2,709	2,367
Dec-17	2,663	1,498
Jan-18	2,648	2,055
Feb-18	2,622	2,048
Mar-18	2,602	2,024

Graphic 1. Active families and ttC
visits completed per month



The municipality with the highest number of visits was Copán Ruinas, followed by Santa Rita, then Cabañas and finally San Jerónimo. According to household distribution by municipality, Copán Ruinas had 40% of the household sample assigned by YINS, Santa Rita 34.3%, Cabañas 18.5%, and San Jerónimo 7.2%

Development of ttC visit in the community of Nueva Alianza.

Table 4. Distribution of ttC visits by municipality – ttC visits (1-21) held

Supervisor	Visits made																						Total
	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6	Visit 7	Visit 8	Visit 9	Visit 10	Visit 11	Visit 12	Visit 13	Visit 14	Visit 15	Visit 16	Visit 17	Visit 18	Visit 19	Visit 20	Visit 21	Visit 22	
Copán Ruinas	1215	1181	1166	1156	1140	1131	1116	1112	1102	1083	1071	1052	1033	1015	998	951	894	821	711	563	413	2	20926
Santa Rita	1019	997	978	968	965	955	943	937	929	913	907	885	852	822	804	761	715	637	552	453	371	9	17372
Cabañas	550	540	532	526	521	514	508	504	496	490	484	475	468	448	439	416	393	350	311	240	158	12	9375
San Jerónimo	238	234	231	227	224	222	219	214	213	210	208	207	202	199	193	186	178	166	138	108	92	4	4113
Total	3022	2952	2907	2877	2850	2822	2786	2767	2740	2696	2670	2619	2555	2484	2434	2314	2180	1974	1712	1364	1034	27	51786

Note: Due to an involuntary error, 27 visits were made, 22 to an equal number of families.

7.2. Flagged households

The concept of "flagged households" (CAS in Spanish, for "casas alertas") was a dynamic process that could be transitory in a given period. The procedure established was followed on the visit to the family, which the BCA (behavior change agent) would record in the CommCare application in his or her tablet. During the visit, if 1 of 6 possible variables occurred, the household was designated as a flagged household (1 = abandoned home; 2 = Home with some type of violence; 3 = Home visited 3 times and no one ever came the door; 4 = Home with family living in another community; 5 = Home that refused the Zero visit; 6 = Home that refused the ttC visit). In these cases, when one of these variables was recorded by the BCA, it was automatically generated as a "flagged household" and activated in the supervisor's module. The protocol for onsite visits by the supervisory team was then followed, for verification and recommendation for each reported case.

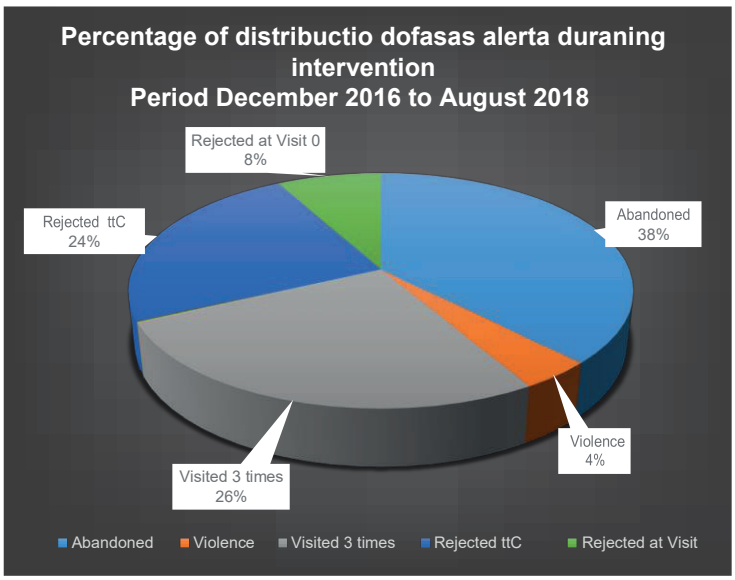
It is suggested that the flagged-household concept is dynamic because each house could have several flags reported. As the field supervisory team verified the cases, some were recovered and their status continually fluctuated from inactive house to active house receiving ttC. At the end of the field intervention in August 2018, of 2515 homes intervened, 3288 flag events were distributed, as can be seen in Table 3.

Some 38% (1238) of the events of "flagged household" were due to abandoned houses. First, it should be clarified that this condition was often temporary and occurred during coffee-picking season. Following verification by the supervisors, 641 households continued as active houses and 265 were inactive in that they could not be contacted. Second, 26% of the events corresponded to homes visited three times without finding the family; this situation was also temporary and only occurred when the family was visited three times in the same month and not found. Third, 24% (790) of the events corresponded to rejection of ttC; 286 of the 790 were recovered and continued participating in the project until the end.

Table 5. Flagged households

Reason	# of events	# of homes	%
Abandoned	1,238	906	38%
Violence	130	119	4%
Visited 3 times	865	586	26%
Not living in community	3	3	0.0%
Rejected visit zero	262	247	8%
Rejected ttC	790	654	24%
Total events	3288	2515	100%

Figure 2. Percentage of flagged households during intervention



7.3. Knowledge, attitudes and practices (KAP) results

REDES' monitoring system included a module on the families' knowledge, attitudes and practices (KAP) related to the main messages contained in the educational strategy. This module was applied on each of the monthly visits made to the families participating in the project starting with visit zero. A "group" form used, meaning that several family members were expected to answer the different questions, recording whether or not they "all agree," "some agree" or "all disagree" with the messages raised in the questions.

As can be seen in Table 3, of the 19 questions included in the form, there are 16 where the expected response would be "all agree" because the situations presented are favorable to the health of children and pregnant women. On the other hand, there are three questions (5, 7 and 14) where the expected answer would be "all disagree" since the situations posed are unfavorable to the health of pregnant women and children. The data presented in Table 3 and Figure 2 are differentiated according to what was explained above to obtain the percentages of responses favorable to health care.

The data indicate that for all topics, the percentage of families with favorable opinions of the behaviors promoted rose with respect to the baseline data. However, there were some topics where the difference between the baseline and the final month of implementation was much greater, such as the case of use of zinc for treatment of diarrhea. While 11.79% of families knew about use of zinc at the beginning of the project, by the end the number rose to 98.05% (86 percentage points higher). Use of umbilical bandages

presented a difference of 73 percentage points and the use of pacifiers had a difference of 61 percentage points. Almost all the topics raised in the questions in the final month of implementation had favorable responses to the messages close to 100%; only 2 questions (5 and 7) had percentages lower than 90%; however, no question had a percentage lower than 80%.

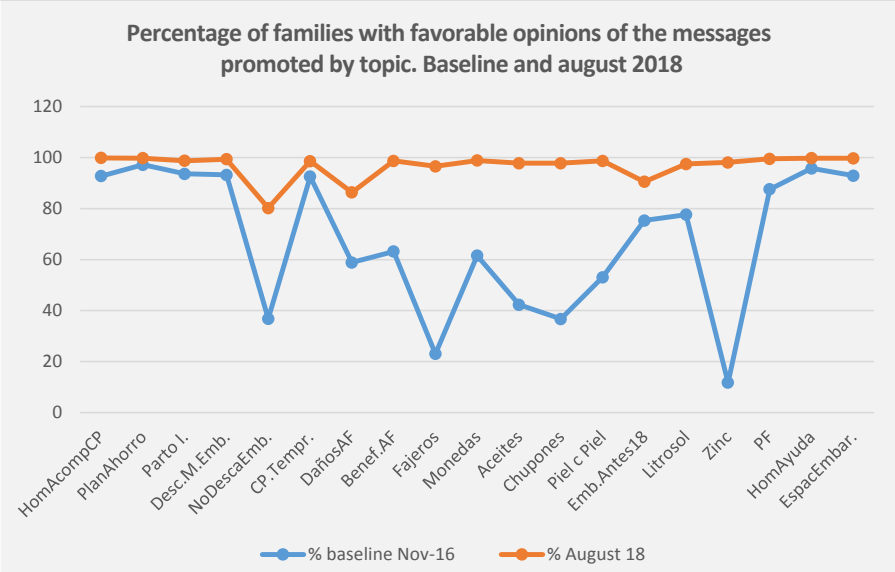
Some topics, such as saving for the moment of delivery, institutional delivery, and a resting period for pregnant and postnatal women were topics the families already agreed with at the beginning of the project, so changes in the percentages are minimal. These data can also be seen in Figure 2.

Continuous and personalized family interventions by the BCA were a key point for generating knowledge and preparing families to make behavioral changes gradually. In addition to acquiring knowledge, families sought out or called the BCA **at any sign of danger.** It is important to note that five months have already passed since the intervention ended and many families still call the BCA to request support and advice on health situations that they face.

Table 6. Percentage of families that agree with with the messages promoted
Comparison of KAP baseline and August 2018. REDES project

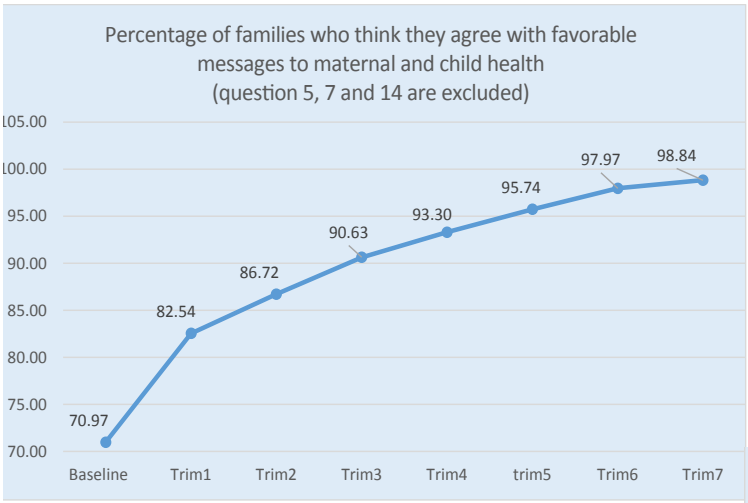
No.	Questions	Family response	% Baseline (Nov 16)	% August 18
1	Do you believe it is important for men accompany their wives to the health center and go in to talk with the doctor during prenatal visits?	All agree	92.72	99.85
2	Do you believe that a family where there are pregnant women and small children should have an emergency plan and savings in the event of danger signs?	All agree	97.18	99.74
3	Do you believe that a pregnant woman should give birth in a clinic or hospital?	All agree	93.59	98.72
4	Do you believe pregnant and postnatal women need to rest and eat more during pregnancy?	All agree	93.21	99.37
5	Do you believe that if a pregnant woman rests, it will hurt the fetus?	All disagree	36.83	80.19
6	Do you agree that a pregnant woman should go for a checkup as soon as possible, even though her pregnancy is not yet showing?	All agree	92.56	98.6
7	Do you believe that folic acid can be harmful to the organism?	All disagree	58.88	86.32
8	Do you believe that folic acid prevents defects in the baby's brain and spinal column?	All agree	63.17	98.7
9	Do you believe that umbilical bandages are harmful to the newborn and can cause infection?	All agree	23.04	96.54
10	Do you believe that placing coins on the umbilical cord is harmful to children and can cause infections?	All agree	61.57	98.82
11	Do you believe that using oils can be harmful to children and cause serious diseases?	All agree	42.31	97.76
12	Do you believe that pacifiers can be harmful to the newborn's health?	All agree	36.73	97.76
13	Do you believe that the family (mother, father and grandparents) can hold the newborn skin to skin?	All agree	53.08	98.68
14	Do you believe that a young woman under 18 is ready to be pregnant?	All disagree	75.32	90.51
15	Do you believe that the best treatment for diarrhea are ORS or litrosol?	All agree	77.6	97.46
16	Do you believe that the best treatment for diarrhea is ZINC?	All agree	11.79	98.05
17	Do you believe in family planning?	All agree	87.54	99.52
18	Do you agree that the man should help with household chores, especially when his wife is pregnant or has a newborn?	All agree	95.76	99.74
19	Do you agree that families should wait at least two years between one pregnancy and the next?	All agree	92.91	99.71

Graphic 3

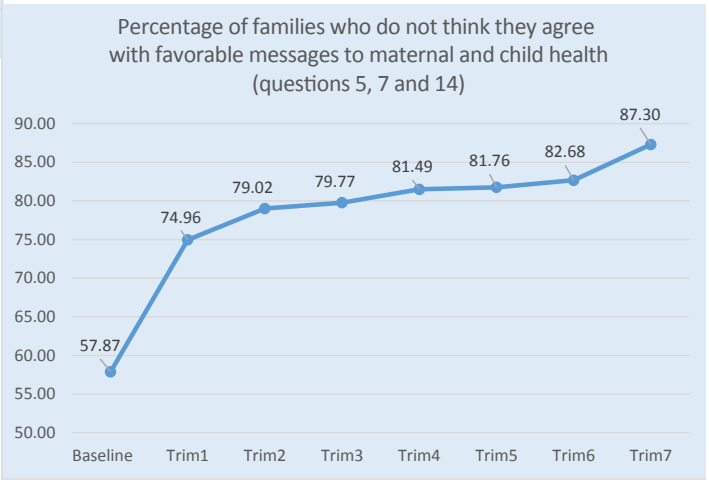


The following two figures show changes in the percentages of families who agree with the questions raised during the intervention. As implementation of the project progressed, the percentage of families with knowledge and opinions favorable to the health care of pregnant women and children was observed to steadily increase.

Graphic 4.



Graphic 5



7.4. Fulfillment of agreements

The ttC methodology is based on negotiation of agreements with the family on a health behavior one month and evaluation the following month to determine if the agreement was met. In the commitment book given to the family, the agreements to to be met were noted and when these were reviewed with the family the following month, the BCA recorded the information by choosing one of the following options: "Agreement fully met," "Agreement partially met," "Agreement not met," "Family not commited to the agreement," and finally "Agreement does not apply." The BCA used these multiple choices to record each family's response.

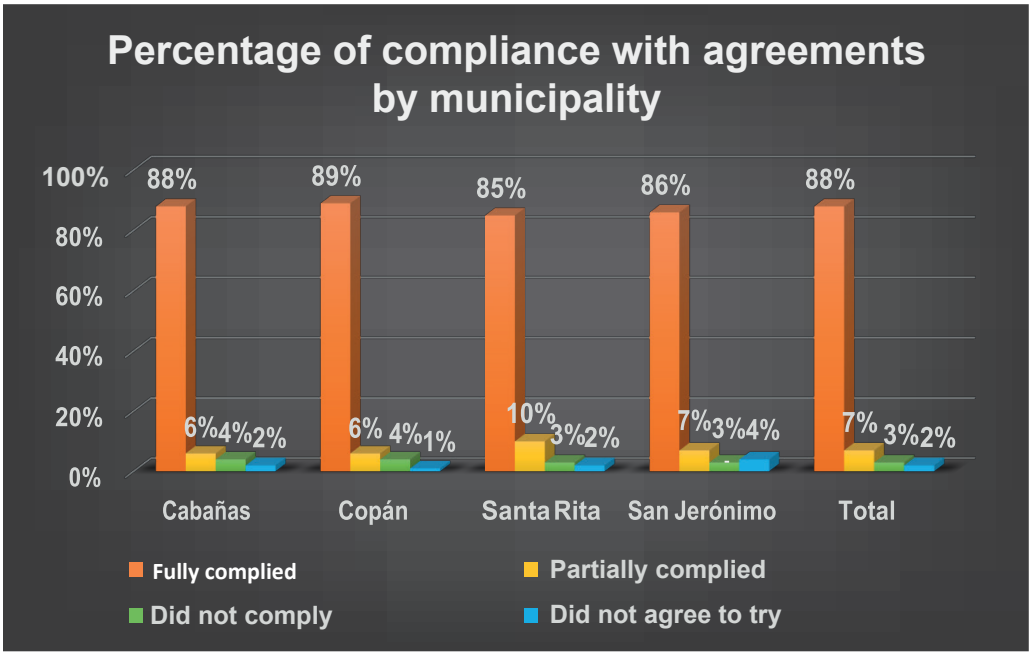
At the end of the intervention, overall results showed a high rate of compliance, with 87.5% of the families meeting the agreements that were negotiated during the ttC visits. A smaller percentage of families (7.44%) partially complied, and 3.43% did not meet the agreements. A small number of families (1.63%) did not agree to try an agreement.

Table 7. Compliance with agreements by municipality

Municipality	% of families that met ttC agreements			
	Complete fulfillment of agreement	Partial fulfillment of agreement	Agreement not fulfilled	Did not agree to try agreement
Cabañas	87.90	5.98	3.72	2.40
Copán	89.24	6.41	3.53	0.82
Santa Rita	84.98	9.86	3.23	1.92
San Jerónimo	85.74	7.05	2.94	4.27
Total	87.50	7.44	3.43	1.63

The following figure shows agreement fulfillment rate by intervention municipality in which it can be seen that Copán is the one with the highest percentage, followed by Cabañas and San Jerónimo, but it is notable that the percentages are above 80% in the 4 municipalities.

Graphic 6. Fulfillment of agreements by municipality



7.5. Fulfillment of agreements in each municipality by topic

The agreements that were most difficult for families to fufill included:

- ✓ Visit 2. Birth and emergency plan. A major factor in families' ability to fulfilll this agreement is their economic situation. Many families live in extreme poverty, so even though they want to fulfill this agreement, they do not have the means to do so.
- ✓ Visit 3. Importance of going to a health center to give birth. Again, ability to meet this agreement is influenced by their economic situation and also by cultural barriers that still exist.
- ✓ Visit 6. Care of mother and newborn in the first three days. Like the previous indicator, this is related to accessibility of health services and the family's economic situation.

In general, it can be observed that the practice of new behaviors reinforced by commitments to meet agreements indicates progress has been made in changing behaviors in REDES-beneficiary families.

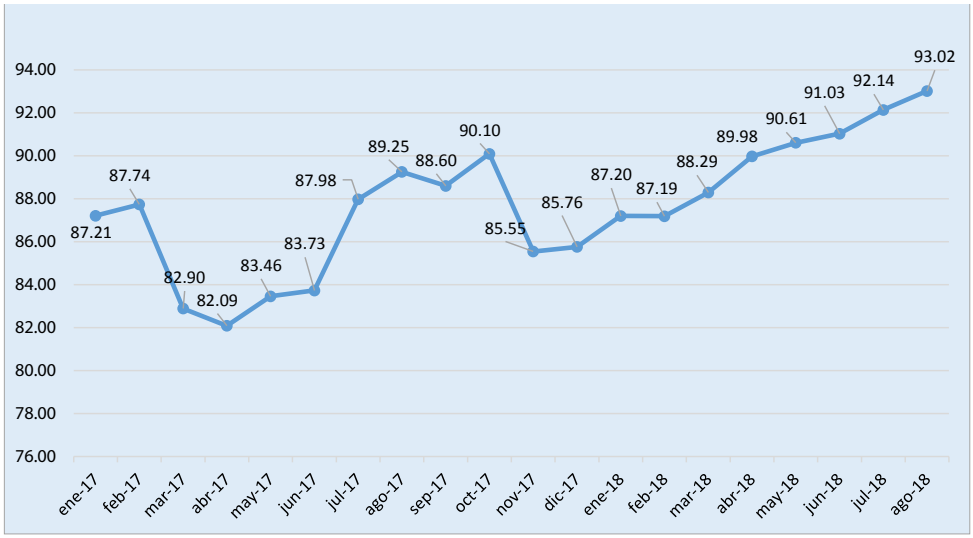
Table 8. Fulfillment of agreements by municipality by topic

Complete fulfillment of agreement					
No.	**ttC Visit/topic**	**Copán**	**Santa Rita**	**Cabañas**	**San Jerónimo**
1	Prenatal care, and intake during first 12 weeks	**90.54**	**78.24**	**83.33**	**78.70**
2	Birth plan	**86.72**	**74.26**	**81.46**	**69.19**
3	Importance of institutional birth	**84.94**	**64.86**	**63.25**	**64.13**
4	Importance of family planning	**93.80**	**90.72**	**90.34**	**86.83**
5	Delivery and postnatal care of woman and newborn care	**85.98**	**72.78**	**76.32**	**75.63**

Complete fulfillment of agreement					
No.	**ttC Visit/topic**	**Copán**	**Santa Rita**	**Cabañas**	**San Jerónimo**
6	Postnatal and newborn care in the first three days	**88.23**	**69.23**	**78.10**	**65.85**
7	Newborn care and warning signs	**88.28**	**77.97**	**80.06**	**81.77**
8	Infant care (1–6 months)	**92.40**	**87.21**	**87.57**	**91.18**
9	Warning signs and seeking care for ARIs and ADDs	**93.64**	**89.08**	**94.38**	**93.99**
10	Reproductive life plan	**88.02**	**85.79**	**86.59**	**84.01**
11	Importance and benefits of folic acid consumption for mother and infant	**86.86**	**84.14**	**90.68**	**91.36**
12	Pregnancy prevention plan <18-year olds	**85.82**	**84.16**	**86.74**	**82.99**
13	Self esteem, values, life goals	**81.95**	**75.74**	**82.07**	**78.86**
14	Prevention of gender-related violence; nonviolent communication	**93.44**	**91.20**	**94.31**	**95.09**
15	Prevention of Zika	**91.90**	**91.17**	**91.74**	**87.45**

Graphic 7 shows the percentages of families that met the agreements according to the month of intervention. In the first year, success was somewhat irregular; however, as of the second year, this percentage steadily rose and reached 93.02% in the last month of the intervention. Throughout the intervention, agreement fulfillment rate was greater than 80%.

Graphic 7 . Percentage of agreements fulfilled by month



7.6. The ttC sessions offered to the family

Of the 15 topics or modules included in the educational program, the most commonly addressed were ttc-14 (gender violence) (4579 visits made), and ttC-10 (reproductive life plan) (4347 visits).

The least common ttc sessions were: ttC-6 (2643 visits) for maternal and newborn care in first three days and birth, and ttC-7 (2696 visits) as of 31 August 2018.

When analyzing this same information in each work team, a similar trend was observed in terms of the modules most discussed with the families.

In general, it can be seen that the modules most often left out that are those of pregnancy, childbirth and postnatal care, because these topics were not relevant to many families' present situation.

Table 9. Visits per ttC module made to families (through 31 August 2018)

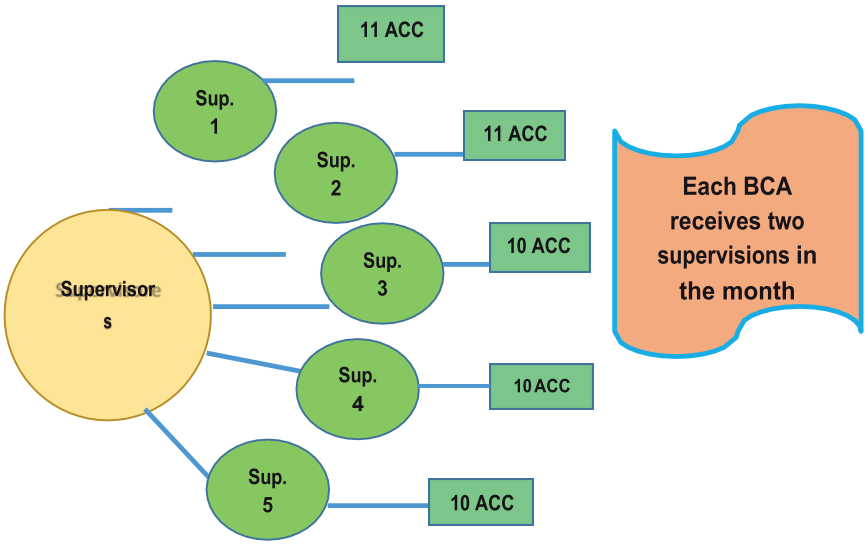
ttC session	Number of visits per ttC session provided					Total
	Supervisor 1	Supervisor 2	Supervisor 3	Supervisor 4	Supervisor 5	
ttC session 1	572	577	574	600	584	2907
ttC session 2	570	569	561	612	579	2891
ttC session 3	548	541	522	543	547	2701
ttC session 4	757	801	703	683	724	3668
ttC session 5	535	548	517	542	566	2708
ttC session 6	520	529	513	520	561	2643
ttC session 7	529	538	541	538	550	2696
ttC session 8	632	682	631	619	668	3232
ttC session 9	780	788	772	695	780	3815
ttC session 10	851	894	854	853	895	4347
ttC session 11	743	779	712	817	830	3881
ttC session 12	849	852	805	871	890	4267
ttC session 13	842	828	774	868	896	4208
ttC session 14	892	928	863	925	971	4579
ttC session 15	629	658	630	635	691	3243
Total	**10249**	**10512**	**9972**	**10321**	**10732**	**51786**

7.7 Results of monitoring REDES in the field

Supervision

The 52 BCA had to receive two supervisions in the month. A module was designed in CommCare for this purpose. On a form in the app, the supervisor recorded the completion of each step of the ttC visit and the BCA's skills. On another form, a checklist was used to record that the BCA had all materials necessary to conduct the ttC. At the end of the supervision, scores were assigned for skills and materials. The

Figure 8. Organization of work teams.



scores were discussed with the BCA and areas for improvement were identified and subsequently tracked.

In January 2018, in order to complement the supervision and quality assurance of the visits to the families, a form called "Monitoring of quality of ttC visits" was designed in the app. The supervisor used it to check the visits every month with the families and all activities conducted. With this system in place, the BCA received only one supervisory visit per month and the supervisor visited the families to perform quality monitoring of the visits.

At the end of the intervention with the families, the supervision target was 98% met, equivalent to 1462 supervisions made of the BCA, with 1.3 supervisions conducted per month to each BCA on average, and an average of 292 supervisions performed by each of the 5 supervisors. In terms of verifying the quality of the visits, a total of 2356 families were reached, which is 93% of the total number of families with whom the intervention was completed.

Table 7 shows that quarters 2 and 4 of the intervention are the ones that reported the highest number of supervisions. In general, compliance with the target was good, considering that in the last 7 months of intervention the supervisors visited 93% of the families in their homes in 150 communities to verify the quality of the intervention.

Table 10. Total BCA supervisions per quarter

Supervisor	Goal	1st quarter	2nd	3rd	4th	5	6	7	8	Total
		Nov-Jan (2016-17)	Feb-Apr (17)	May-Jul (2017)	Aug-Oct (2017)	Nov-Jan (2017-18)	Feb-Apr (2018)	May-Jul (2018)	Aug (18)	
Supervisor 1	288	36	59	54	61	40	37	30	10	327
Supervisor 2	316	5	20	27	60	50	46	30	9	247
Supervisor 3	288	47	61	27	56	38	32	30	10	301
Supervisor 4	288	24	46	48	59	37	36	30	10	290
Supervisor 5	316	22	53	30	63	47	41	30	11	297
Total	1,496	134	239	186	299	212	192	150	50	1462

Table 11. Number of ttC quality monitoring visits per supervisor

No.	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Total
Sup. 1	7	13	57	60	81	104	83	92	**497**
Sup. 2	17	15	58	59	86	83	122	68	**508**
Sup. 3	6	9	39	57	63	83	86	82	**425**
Sup. 4	6	11	53	57	85	81	106	71	**470**
Sup. 5	8	10	52	57	73	89	98	69	**456**

7.8. Family views of ttC visits

During the verifications of visit quality, the supervisor asked the families to assess the visits. The multiple choice selections were Excellent, Good, Poor, Don't know / no response. The families rated 80% of the visits as Excellent, 19.5% said they were Good, and only 0.30% did not respond; nobody rated the ttC visits as poor, as shown in the table below.

Table 12. Family evaluations of the ttC visits
(January to August 2018)

Opinion of visit	Number	Percentage
Excellent or very good	1889	80.18
Good	460	19.52
Poor	0	0.00
Don't know /no response	7	0.30
Total	**2356**	**100.00**

7.9. Flagged referral and family health situation

During the intervention stage of the project, it was possible to raise awareness in the population about promtply seeking care, especially for pregnant women and children aged 0–5 years. An information flow was designed and applied to the management of health emergencies, especially with pregnant women, newborns and children under 5.

In the functioning of the flow, the BCA identified danger signs with the family during the home visit, made the referral in writing, and gave it to the family. The referral was recorded in the tablet application, simultaneously informing the supervisor and/or the Mancorsaric contact person. The supervisor or field supervisor then informed the project's technical supervisor, who in turn informed and coordinated with the managers of the El Jaral clinic or health units and/or Mancorsaric management for timely care, according to the severity of the case. The BCA, as well as the field supervisors and technical supervisor, followed up on the family and the service provider in the care route, in order to provide support to the family.

Under this model, referrals were made to the health system and recorded on the CommCare platform. Families went to the health services to seek care, but sometimes they were not treated or listened to with warmth and they expressed dissatisfaction with the service and indicated they did not want to seek care in the health system.

The contribution of the project has been significant in terms of generating knowledge and increasing the demand for health services, especially for the consumption of folic acid in women of childbearing age (10–49 years old).

The main causes of referral are for reasons not specified in the system, with 37.14% including skin diseases, and diseases in adults such as hypertension and diabetes, as well as respiratory infections and diarrhea in children under five years with 21.27% (67) and 16.83% (53) respectively as continuing causes of morbidity in children.

In addition to the factors mentioned above, the families refer to difficulties in getting to the health units, the lack of economic resources, and difficulties in reaching health services due to the conditon of access roads, especially in the rainy season. In addition, once they reach the healthcare system, they are sometimes rejected because there are specific days for different kinds of care. For example, if Mondays are for the pregnant women's club or Tuesdays are for the care of the chronically ill, the staff does not attend other consultations unless they are emergencies. Some facilities have an internal rule that if two patients from the same family go there, they only attend to one, even if they are children. In addition, health personnel do not organize frequent care visits in the communities, which makes it difficult for the population to receive the service.

Table 13. Reason for referral

Reason	Number of referrals	%
Child with ARI	67	21.27
Newborn	10	3.17
Postnatal woman	5	1.59
Pregnant woman	38	12.06
Child with diarrhea	53	16.83
WCA with no menstruation in 6 weeks	25	7.94
Other	117	37.14
Total	315	100.00

7.10. Demand for health services

On the form for household members' health status, each month the family was asked about health aspects. One of the questions asked: Did they seek care at the health center for during the last 30 days? This question was included at the start of the Phase II of the project in May 2017. Of the families consulted each month, the percentages remained between 26% and 13%. The lowest figures for seeking care in the health services were reported for the months of September to January. This is probably because the rainy season is strong during these months and the access roads are damaged; the rivers also rise and impede passage. In addition, the distance to the health services can involve 2–4 hours of walking, and in November the coffee picking season begins and families move to coffee farms outside the area, sometimes leaving their children in the care of older adults.

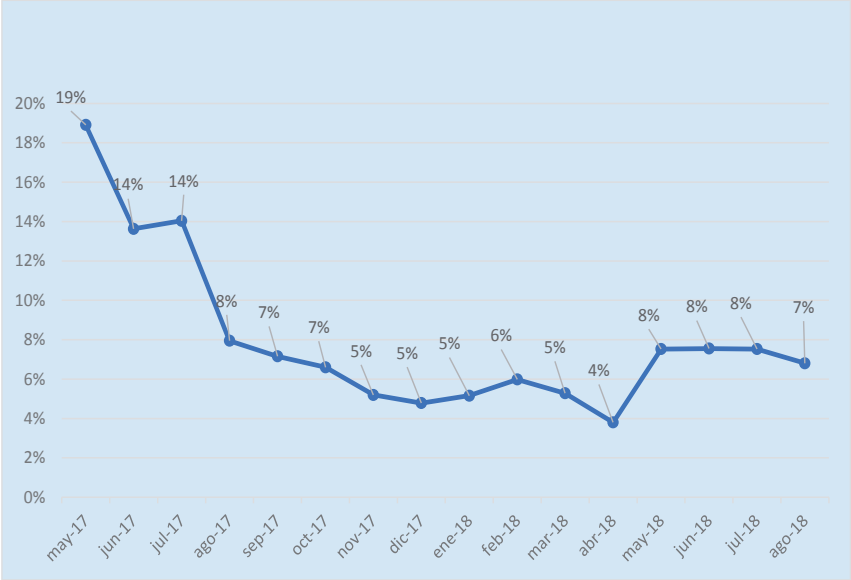
Table 14. Percentage of families that visited health center in the last 30 days

May 2017 to August 2018

Month	No.	Denom.	%
May-17	224	862	26%
Jun-17	703	2853	25%
Jul-17	653	2749	24%
Aug-17	588	3019	19%
Sep-17	450	2627	17%
Oct-17	442	2590	17%
Nov-17	332	2366	14%
Dec-17	199	1505	13%
Jan-18	347	2054	17%
Feb-18	379	2038	19%
Mar-18	442	2007	22%
Apr-18	528	2290	23%
May-18	694	2392	29%
Jun-18	602	2437	25%
Jul-18	586	2578	23%
Aug-18	583	2718	21%

Graphic No. 8 Percentage of families that sought care in health center

May 2017 to August 2018



7.11. VISITS TO FAMILIES BY HEALTH PERSONNEL

According to the national health model, the primary health care level is organized into comprehensive health centers (CIS) and primary health care units (PHCU).

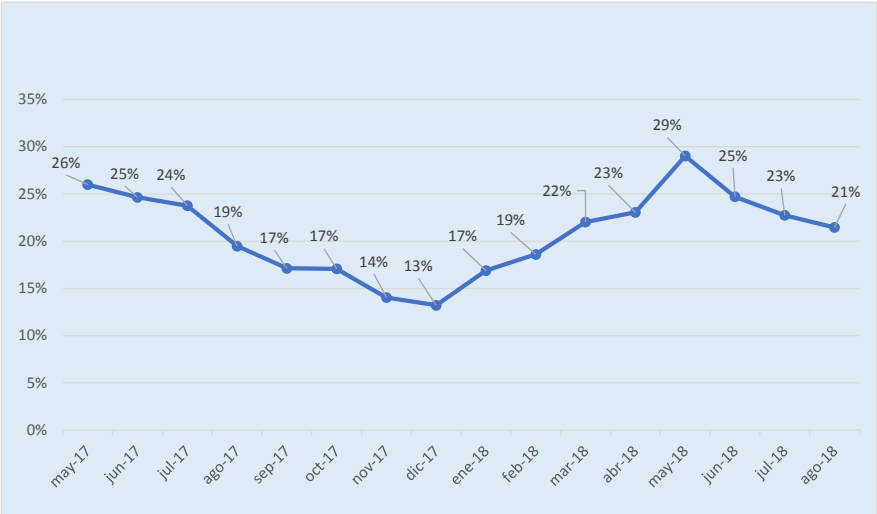
The family health team is made up of CIS and PHCU personnel, each team is responsible for health care of the families assigned to it. For two days a week, the team, in addition to providing comprehensive health care in health facilities, provides home care in the communities.

In analyzing the visits to families by health promoters, we can see that in the REDES beneficiary area, coverage for these kinds of visits is low, taking as a reference point 16 months in which the families were consulted every month and the maximum percentage was 19%, dropping in some months to 4–5%. If we take as a reference that the project attended an average of 2317 families per month (Table 15), we see that on average the number of home visits per month ranged from 116 to 324, revealing the challenge of intensifying the primary health care offered by health care providers as referred to in the national health plan.

Table 15. Percentage of families visited by a health promoter
May 2017 to August 2018

Month	No.	Denom.	%
May-17	163	862	19%
Jun-17	389	2853	14%
Jul-17	386	2749	14%
Aug-17	240	3019	8%
Sep-17	188	2627	7%
Oct-17	171	2590	7%
Nov-17	123	2366	5%
Dec-17	72	1505	5%
Jan-18	106	2054	5%
Feb-18	122	2038	6%
Mar-18	106	2007	5%
Apr-18	87	2290	4%
May-18	180	2392	8%
Jun-18	184	2437	8%
Jul-18	194	2578	8%
Aug-18	185	2718	7%

Graphic 9. Percentage of families that sought care in health center



7.12. Family evaluations of care provided in health services

The assessment of health services by the participating families was carried out using the question "How was the care received in the health service?" which was included on form 2.3 Household members-health status, which was filled out for all families visited.

The table shows that in 2017, 24.23% rated the care in the health services as excellent. Compared to 2018, this percentage was maintained. The percentage of families that classified the care received as bad increased by 2 percentage points from 2017 to 2018.

Table 16. Evaluation of care provided in health services

How was the care received	2017 Number	Percentage Yr 2017	2018 Number	Percentage Yr 2018
Excellent	**870**	24.23	1002	24.08
Normal	**2426**	67.58	2731	65.63
Poor	**250**	6.96	379	9.11
Horrible	**44**	1.23	49	1.18
Total	**3590**	100.00	**4161**	100.00

7.13. Results of monitoring indicators

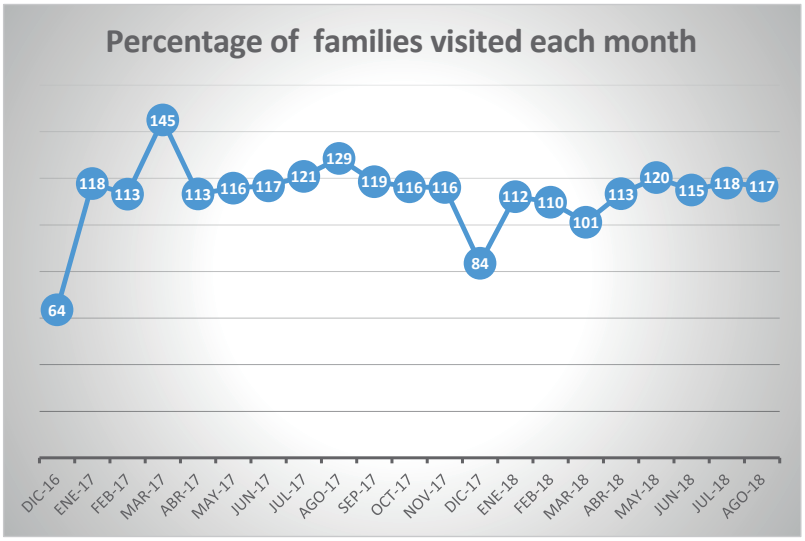
For intervention monitoring purposes, several indicators were prioritized and automated in the CommCare HQ platform. The daily data from visits could be monitored in real time. Progress of the main indicators can be seen in table below.

Table 17. Results of monitoring indicators

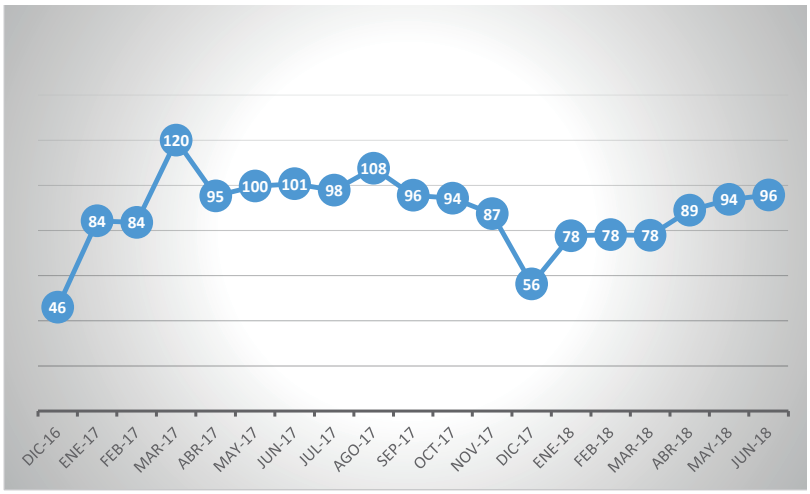
Intermediate objective 1 (IO1):							
Indicators		**Month**	**Target**	**# achieved**	**% Compliance**	**Means of verification**	**Observations**
Outcome: ttC home visits							
1	% of families visited in the month when the ttC was developed.	**August 2018**	**100%**		**74.40%**	**System**	Form for scheduling date of next visit. Form 8
2	# of families that completed visits 1-15	**August 2018**	**3,022**	**2,434**	**80.5%**	**System**	**Form for date of next visit, by month and visit number (previously identified)**
3	# of families that completed all visits 1-21	**August 2018**	**3,022**	**1,034**	**34.2%**	**System**	
Indicators for visit quality							
4	Percentage of families visited with all forms filled out on same visit by BCA in the month.	**August 2018**	**100%**		**94.80%**	**System**	Calculation began in June 2017, when we added 2 hidden values to support the calculation. Number of visits with 100% of ttC forms completed - the indicator measures quality of the intervention, specifically that BCA completes all forms correctly on same visit

Indicators on fulfillment of agreements							
5	Percentage of families that fully satisfied all terms of the agreement	**August 2018**	**100%**		**87.50%**	**System**	Form for review of previous agreements.
6	Percentage of families that partially met the agreement	**August 2018**	**0**		**7.44%**	**System**	
7	Percentage of families that did not fufill agreement	**August 2018**	**0**		**3.43%**	**System**	
8	Percentage of families that did not agree to try to meet agreement	**August 2018**	**0**		**1.63%**	**System**	
Outcome 3: Supervisions of BCA by supervisors							
9	Percentage of BCA sessions by supervisors per month	**August 2018**	**1,496**	**1,462**	**98%**	**System**	**Form 4.1 Supervisor,**
Outcome 4: Flagged households and onsite verification							
10	Percentage of flagged Households that were verified by the supervisor	**August 2018**	**3,288**	**2,899**	**88.2%**	**System**	**Form 4.2 Supervisor,** **During intervention a total of 3,288 flags were generated of which 2,899 were verified.**
11	Percentage of flagged households verified by the supervisor that were recommended to leave the study	**August 2018**	**2,899**	**994**	**34.28%**	**System**	**Form 4.2 Supervisor, var Suprv 4_2_05=1 and Form 2.1 Verification of Household Var Save/ flagged household**
12	Percentage of flagged households verified by the supervisor that were recommended to remain in the study.	**August 2018**	**2,899**	**1,905**	**65.71%**	System	

Graphic 10. Results of prioritized indicators



Graphic 11. Percentage of families visited in which ttC was implemented



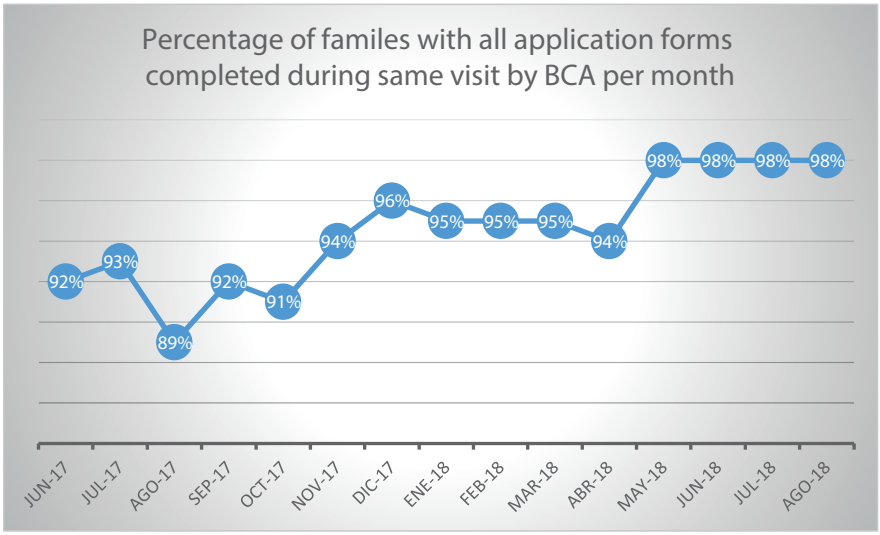
7.14 VISITS CONDUCTED WITH QUALITY

This indicator measures the quality of the visit based on the forms completed at the time of the visit; no forms were filled out after the visit. Measurement of this indicator began in June 2017. At the beginning of the intervention, the indicator showed percentages ranging from 89% to 95%. As of May 2018, an adjustment was made to the application that consisted of a screen which indicated to the BCA that an incomplete form remained and that it must be filled out showing its number and name. The application would not allow progress to be made to finish the visit if the process was not completed. This allowed us to maintain the indicator at 98% compliance in the last 4 months.

Table 18. Forms completed by end of intervention

Municipality	Completed	Incomplete
Cabañas	**95.56**	4.44
Copan Ruinas	**94.54**	5.46
San Jerónimo	**95.84**	4.16
Santa Rita	**94.47**	5.53
TOTAL	**94.80**	5.20

Graphic 12. Percentage of familes with all application forms completed during same visit by BCA per month



7.15. Community group meetings

A total of 341 community group meetings (CGMs) were held in 145 communities with participation of 3400 people from beneficiary families and 130 guests. In seven communities, only one meeting was held, mainly because the families did not respond to the invitations, although three or four attempts were made. In nine communities, no meetings were held, mainly because of problems with insecurity related to delinquency. In two cases, although invitations had been distributed, no one showed up. In two other cases, there were no active families.

Of the CGM held, 177 addressed topic 1, and 164 topic 2.

It was assessed that the CGM provided a space for interaction among participating families and invitees: the meetings were used to reaffirm the topics discussed, share their opinions and reflect on the importance of continuing to practice healthy behaviors in the families.

Although special emphasis was given to inviting men, the participants were mostly women.

7.16. Closing ceremony with the families

In August, the ttC process with the families was completed, and since 21 months of close collaboration

between the BCA and the families had passed, the project scheduled some farewell events and procedures, including:

- ✓ The project team received training in close-out techniques and psycho-affective management of ending the visits with families.
- ✓ The BCA took group photos of their assigned families. These were printed, framed, and given to each family. In many of these photos, the families asked the BCA to be included.
- ✓ Diplomas of participation were awarded to each family that successfully completed the entire process; each diploma was identified with family surnames.
- ✓ An artistic print was given to each participating family.
- ✓ In each of the 152 communities, the BCA held farewell events, where they shared a final reflection on the project. Participants expressed their opinions and how important the process had been for them; at the end they shared a meal.

8. USE OF TECHNOLOGY AS INNOVATIVE ELEMENT IN IMPLEMENTATION STRATEGY

Use of technology in project implementation played a decisive role since it fostered the collection of information from the families, helped keep the necessary information updated, and above all, was a learning tool for the families. The CommCare App organized in a tablet all materials needed to conduct the ttC visit. The information-gathering system functioned offline and when it was connected to a network and synchronized, it could send information while in use.

The use of technology in adult education proved to be effective in this project by providing advantages such as:

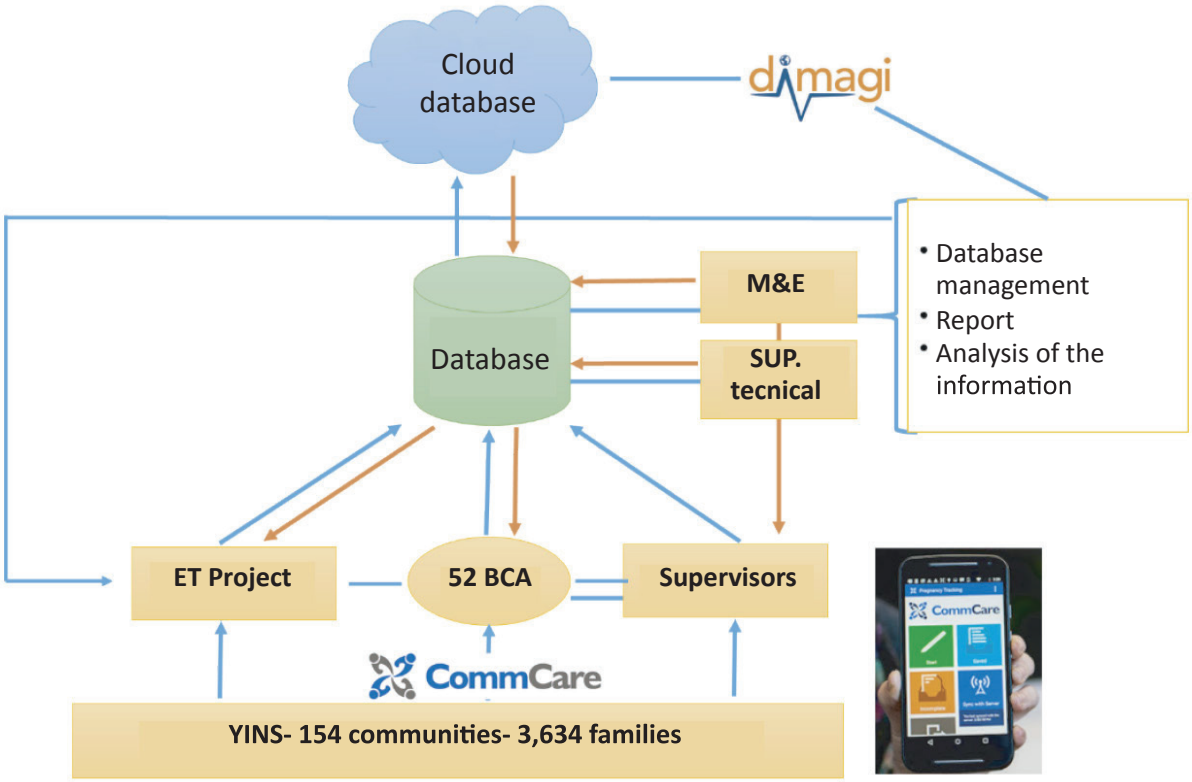
- ✓ Portability: the behavior change agent did not need to carry printed documents and forms since they were all uploaded in the Tablet.
- ✓ Interaction and simplicity: family members found the tablets attractive since they could hold it in their hands and handle it themselves, which raised people’s interest in the subject and made the teaching-learning process interactive.
- ✓ Flexibility and efficiency of resources: use of technology makes the knowledge adoption process more flexible, efficiency in the resources available, less printing of documents, duration of materials and equipment.

Technology as an innovative element in this teaching-learning process in health facilitated the retention of knowledge in combination with the ttC methodology, based on stories that when loaded into the Tablet allowed the reproduction of videos and songs. If we take into account the learning pyramid, we find that adults retain 50% of what they see and hear, so the use of technology perfectly complements this intentional and professional process that tries to generate changes in the behaviors, attitudes, and practices of people and their families.

On the other hand, the application or CommCare technological platform was designed considering the technical needs of the project in terms of monitoring, updating information on families, and generating reports.

In the case of the monitoring system platform, the system was designed and programmed to record information with CommCare HQ to automate the monitoring of the prioritized indicators, which allowed the system to generate immediate reports on the information entered by the BCA.

Figure 9. Use of technology in home visits and information flow.



9. SYSTEMATIZATION AND EVALUATION OF THE EXPERIENCE

Upon completion of execution of the educational strategy in the field, a qualitative evaluation and systematization process was conducted in order to assess behavioral changes in the participating population and reasons why they occurred or not. Lessons learned from implementing ttC methodology were identified so they could be applied in future educational interventions.

To start this process, terms of reference were prepared to hire a company with experience in this field; the proposals received were reviewed and analyzed, and Nicasalud was hired (its proposal showed the most knowledge and experience in the field).

Once the selected company was contracted, protocols were prepared for the evaluation and systematization. The protocols were reviewed and approved by the REDES technical team, a consultant and the IDB representative; and they were also submitted to the ethics committee of the National Autonomous University of Honduras (UNAH) for approval, as these results are expected to be published.

Once approval by UNAH was obtained, data collection was initiated in the field; three workshops with project staff were held, as well as six focus groups and 28 interviews with families participating in the project from 33 communities, as well as health personnel and leaders of Conimchh to obtain the opinions and impressions of their experience with REDES.

With all the information gathered in the field and thereview of documentation, the Nicasalud team prepared the respective evaluation and systematization reports, which were reviewed and approved by the project's technical team and IDB representatives. A video was also produced that includes the project's main achievements and some successful experiences with families, as well as a publication of 15 success stories shared by some of the beneficiary families that had put the learned behaviors into practice and could perceive their benefits.

10. LESSONS LEARNED

1) The project started with research on knowledge, attitudes and practices (KAP) to help to identify topics and behaviors that the intervention should and to adapt the ttC methodology to respond to local cultural and socioeconomic conditions. The research facilitates adapation of the ttC methodology so that ttC sessions respond to specific needs of the intervention area, identifying key messages that should be reinforced or introduced in the ttC home visits, and establishing a baseline of behaviors in which changes are desired.

2) Educational materials based on the information generated by the research helps to ensure an effective approach for key topics and to drive the desired behavioral changes. In preparation of the material, the families’ sociocultural features were considered and attractive educational–communication options were chosen to facilitate interaction with the families.

The educational material proved to be useful as a support tool to help families identify with the characters presented, clearly addressing key messages and using educational resources for thematic reinforcement (songs, riddles, rhymes)

3) Use of a technological platform such as CommCare helps keeps the information on the family updated, the monitoring of changes in KAP related to the topics of interest, and the use of electronic devices for the audiovisual support material in the development of ttC visits..

- Implementation of ttC sessions

4) Building the capacity of the technical team through a learn-by-doing methodology ensures that the teams acquire the appropriate thematic, methodological and technological management in a way that ensures quality in the development of the ttC visit. In addition, this allows the BCA to develop empathy, active listening skills and attitudes that facilitate the approach and the acceptance of their accompaniment by the families, generating greater confidence for the transfer of knowledge and reinforcement of essential health practices (topics of interest in ttC).

5) In order to address the Chortí communities appropriately, their cultural and community practices must be considered, which is why the approach to families must be coordinated with the community leaders who are the ones who can authorize entrance to the community and the participation of community families.

6) Members of the project’s technical team (including men and women) ensure that during implementation, adjustments could be made when necessary in their assignment to families, since some show greater openness toward female BCAs, either because of the macho attitudes of the partner or because the woman has more confidence in approaching certain issues with them. This aspect requires that the BCA’s initial process of approaching and gaining the trust of the family must be carried out carefully and consistently.

7) The several months of counseling seemed extensive to many families, so this point should be analyzed carefully when planning other educational programs of this type, considering a minimum session period of one (1) hour as appropriate for discussing the topic without affecting daily domestic routines.

8) In extremely poor populations, implementation of these strategies should be considered in a broader intervention program that includes other types of support to families to improve their socioeconomic status, such as: training and seed capital for family businesses, food vouchers for families with sustained behavioral changes, and implementation of family gardens.

11. SUSTAINABILITY OF EXECUTION

T**echnical sustainability:** Sustainable communication for behavior change in maternal / newborn / child health, utilizing face-to-face methodology (such as in the REDES project) requires involvement of MOH and health-service providers. The process should be based on health personnel's understanding of the population's health beliefs, practices and attitudes, as well as overcoming barriers to adopting better health-care behaviors. As part of its responsibilities for the country's health, MOH has already implemented strategies that can be drawn on to incorporate timed and targeted counseling (ttC), including the comprehensive community child health program (AIN-C) and the Parenting with Love program.

The technology of smart phones (which some of the volunteer community leaders already have) can be used to collect data and conduct the ttC counseling visits. Since the application can be downloaded on any intelligent device and function offline, equipment procurement costs will be reduced.

Aspects such as empathy, awareness, and respect for consumer rights must be taken into account to help define contents and key messages that help lay the groundwork for a more horizontal and respectful relationship between the service providers and the population.

Social sustainability: Support from community organizations, especially in Chorti communities, is critical to facilitate the educational process for families since their influence in communities is strong. In addition, involvement of local governments can encourage an intervention such as REDES and make it more sustainable.

Another key element for social sustainability is strengthening volunteer networks and other community bodies such as child protection committeess, the water board, parents' societies, faith-based organizations, youth networks, etc. To strengthen these structures, collaborative work with municipalities and other NGOs for negotiating funds and give monthly stipends, should be considered to incentivize and recognize their work.

Political sustainability: Agreements between countries and international organizations to finance health programs can help promote and support influence sound decision-making to enact policies supporting implementation of these strategies and their sustainability over time.

Creating a new model for health care, including decentralized health services, could open a venue for implementation of this strategy since the comprehensive health centers (CIS) and primary health care centers (UAPS) will reach out to provide prevention-based home care in the community two days per week.

Economic sustainability / costs: An analysis of ttC costs indicates that 65,212 households were visited; of these, 51,786 were ttCs. By the end of the intervention (August 2018), 2552 families had participated actively and completed the process. In addition, 342 group meetings were held, with participation of 3400 project beneficiaries and 304 guests of the participants.

Table 19. Investment in family learning

Investment in family learning and collective participation of the population		
Investment	**Phase I**	**Phase II**
BCA salary / benefits (52)	326,763	774,920
BCA Communication	6,248	18,786
BCA Initial training	33,034	
BCA Contining training	10,578	31,065
Progress review meetings		17,786
ttC Supplies / educational material	111,771	79,599
BCA transportation / per diem (food, fuel, vehicle use)	61,834	184,492
Total	**$ 550,228**	**$ 1106,648**
Total direct investment in ttC		**$ 1656,876**
Total ttC visits		**51,786**
Total group meetings		**341**
Total ttC + group meetings		**52,127**
Unit value of each ttC		**$ 32**

To accomplish this entire process with the families, an estimated USD 1,656,876 was invested in direct costs for ttC visits (including BCA salary, fuel for transportation, telephone costs, depreciation of motorcycles and communication material used to support counseling). The cost of each ttC is estimated at USD 32, meaning that the investment for families receiving 15 ttC visits at USD 32 per session was USD 480; for families receiving 21 visits, the investment was USD 672 (without taking into account indirect costs such as consultancies of technical advisors, administrative costs and other costs parallel to the process).

Ensuring quality in field interventions / supervision cost

To ensure the quality of interventions in the field, a total of 1462 supervisory visits were carried out based on the target set (1496; so 98% accomplished). Five supervisors monitored 2356 visits, maintaining dialogue with the families to verify the quality of the visits, BCA performance, and the family's increased knowledge.

The results of the supervision team's direct interventions reflect the quality of teaching offered by project personnel and the level of knowledge acquired by the families

A total of 3288 alerts were reported in the process; of these, the supervisors verified that 2899 were rescued for reinsertion in the process and BCAs made 325 referrals for followup by the supervisory team.

Table 20. Investment in monitoring / supervising intervention

Investment in supervision, monitoring, flagged houses and health referrals		
Investment	**Phase I**	**Phase II**
Salary and benefits (5) Supervisors	63,259	128,614
Communication supervisors	1,200	3,000
Supervisor mobilization costs (food, fuel, vehicle depreciation)	4,918	13,926
Total	**$ 69,377**	**$ 145,540**
Total direct investment in supervision, monitoring and verification of flagged houses		**$ 214,917**
Total monitoring, supervision, flagged houses, referrals and verification of flagged houses		**7,032**
Unit value of visit for supervision or monitoring quality		**$ 31**

Estimates indicate an indirect investment of USD 214,917 was made for supervision, quality monitoring, verification of homes and health referrals, including salaries for five supervisors, fuel for transportation, telephone costs, food, and depreciation of the motorcycles used. In total, 7032 products were generated, indicating an average investment of USD 31 for each product.

Table 21. Investment vs. outcomes at close of intervention

	Budget
PHASE I	$ 1046,666
PHASE I II	$ 1773,559
TOTAL USD	**$ 2820,225**
Total families	**2,552**
Investment per family	**$ 1,105**

Quantity	**Description**
51,786	ttC
1,462	Supervisions
2,356	Quality monitoring
341	Group meetings
315	Health referrals
2899	Alert houses
59,159	**Total products**
$. 2820,225	**Total investment**

In short, with an investment of USD 2,820,225, a total of 3634 families participated, and 2552 completed the process. Investment per family for direct benefits from the study was USD 1105, equivalent to USD 52.60 per family / month. Along with the families served, it is important to point out that 63 employees (52 BCAs, 5 supervisors, 2 specialists, 1 technical supervisor, 1 coordinator and 2 financial personnel) who participated in project execution (having employment with decent work conditions) also benefited from the intervention.

With USD 1105, the project provided monthly ttC to an average of 9318 persons of all ages for 21 months in aspects of care for prenatal and postpartum pregnant women, newborns, and children aged ≥5 years; youth in issues related to self-esteem and early pregnancy; and couples on topics of violence prevention and improvement of interpersonal relations.

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12. ADMINISTRATIVE ASPECTS

12.1. Contracting personnel

The first phase of project execution was carried out through a partnership between WVH and Childfund. Personnel were contracted as follows:

- ✓ World Vision contracted technical personnel: 1 team leader, 1 behavior change specialist, 1 M&E specialist, 1 accountant and and 1 financial analyst.
- ✓ Childfund contracted operations personnel: 52 behavior change agents, 5 field supervisors, and 1 technical supervisor.

At the beginning of the second phase (May 2107), Childfund withdrew from the study and World Vision took on the entire implementation process. In late April / early May 2017, personnel were contracted to implement Phase II. The induction process covered topics such as organizational policies, standards and procedures, administrative issues, institutional policy awareness, health and life insurance, and other contractual terms.

At the end of Phase I (30 April 2017) four BCAs and three supervisors decided not to continue, initiating a new process for human resources announcement of job opening, interviewing and selection, contracting and induction. The 52 BCAs, two supervisors and technical team were contracted by the first week of May 2017 and three new supervisors started on the 15th of June. The administrative-financial team was set up in July 2017 with the hiring of an administrative-accounting assistant.

During implementation, several special personnel circumstances arose, such as resignations, absences and security incidents. These situations were managed very strategically to meet the obligations to the families in spite of absences, and no family visits were missed.

The departure of personnel at the close of the field intervention has been gradual. First, 49 BCA left when their contracts ended on 15 September 2018. Later 25 BCA were rehired for one month starting on 15 October to work on the systematization process and project evaluation as well as distribution of diplomas and artistic prints to the families. The accounting assistant and five field supervisors finished their contracts on 31 October and 15 November 2018, respectively, leaving the technical team (four members), two specialists, financial accountant and project coordinator to finish in March 2019 on the submission of final products and project closing.

In summary, total investment in project personnel was USD 1,654,058, accounting for 59% of the overall investment. A distinctive feature of this study was that the largest part of the investment was assigned to personnel since the intervention dynamic was developed in personal contact with the families

12.2. Opening and equipping the office

During Phase I, the project office was set up in the city of Copan Ruinas, with a contractor paid USD 6422 for remodeling and refurbishment of the premises.

In the second phase of intervention, WVH directly took over project implementation with departure

Personnel costs		
Phase I	USD	539,053
Phase II	USD	1,115,005
Total	**USD**	**1,654,058**

of Childfund. Consequently, WVH assigned two 4X4 pickups to the technical teams and four motorcycles to the supervisors. Additionally, it provided 22 computers for use by the technical team, supervisors and BCA along with furnishings and equipment for conditioning the offices.

12.3. Adquisiciones

In the first phase and as part of the behavior change strategy products, the design and printing of materials for ttC visits was carried out. This included ttC visit logbooks No. 1 and 2, educational posters on danger signs and FP, books on family advice, 2017 calendars, cardboard boxes and project banners. Apparel for staff identification was also acquired (caps, shirts, vests, and identification badges). Solar backpacks for use by the project team and 75 Samsung Galaxy tablets were allocated on loan from the IDB; the project only had to purchase speakers and micro SD to be adapted to the tablets.

At the start of phase II, materials from phase I were used and subsequent purchases were made for supplies, educational materials, and basic field equipment (boots and rain gear). A second procurement brought communication and staff identification materials (ttC logbooks, educational posters on warning signs, advice books, shirts, caps, vests) in addition to diplomas, family photographs and artistic prints for the families, and contracts for consulting services for project evaluation and systematization, technical support and adjustments to the COMMCARE application..

The following table details procurement during Phase II:

Table 22. Procurement during Phase II.

No.	Quantity	Unit of measure-ment	Description	Unit price	Total
SUPPLIES AND EDUCATIONAL MATERIAL					
1	10,900	Unit	boxes of crayons (24 in each)	0.67	7,297
2	38,000	Unidad	sheets for coloring	0.02	930
Subtotal					**$ 8,227**
BASIC FIELD EQUIPMENT					
3	65	Pairs	rubber boots	42	2,752
4	65	Unit	rain gear sets (two piece)	89	5,795
Subtotal					**$ 8,547**
VISIBILITY AND IDENTIFICATION					
5	210	Unit	PACER brand, white, long-sleeve T-shirt, with five logos and "Proyecto REDES" tagline screen printed in colors	14	3,019
6	70	Unit	PACER brand, V-neck, white, short sleeve T-shirt, with five logos and "Proyecto REDES" tagline screen printed in colors	8	557
7	25	Unit	Women's Oxford style, short sleeve, formal white shirt with buttons, with five logos and "Proyecto REDES t" tagline embroidered in full color	19	485
8	45	Unit	Men's Oxford style, long sleeve, formal white shirt with buttons, with five logos and "Proyecto REDES" tagline embroidered in full color	22	989
9	65	Unit	Safari style vest, gray, with five logos and "Proyecto RE-DES" tagline embroidered in full color.	34	2,227
10	45	Unit	Men's Oxford style, short sleeve, formal white shirt with buttons, with five logos and "Proyecto REDES" ta-gline embroidered in full color	19	873
11	25	Unit	Women's Oxford style, long sleeve, formal white shirt with buttons, with five logos and "Proyecto REDES" ta-gline embroidered in full color	22	549
12	105		Prewashed canvas caps	6	670
Subtotal					**$ 9,368**

COMMUNICATION MATERIAL					
13	30	Unit	Paper notebooks with 278 pages, with black and white internal two-sided printing, high quality spiral binding and paperboard cover, full color, 8.5 x 11 inches.	8	236
14	30	Unit	Books with 208 pages, with black and white internal two-sided printing, high quality spiral binding and paperboard cover, full color, 8.5 x 11 inches.	6	191
15	30	Unit	Books with 178 pages, with black and white internal two-sided printing, high quality spiral binding and paperboard cover, full color, 8.5 x 11 inches.	6	172
16	55	Unit	Kit with 15 full-color sheets (vinyl) of banner canvas, 11 x 17 inches.	13	702
17	2000	Unit	Manuals with 48 pages, full color, with paperboard binding with UV	3	5,617
18	2297	Unit	Photographs (printed on photographic paper)	4	9,840
19	2571	Unit	Certificates of recognition for the families	2	5,164
20	2725	Unit	Artistic prints in PVC, 21 x 17 inches	7	19,021
Subtotal					**$ 40,943**
FOOD KIT FOR FAMILIES					
21	2650	Unit	Food kit for families participating in community closing ceremony	9	$ 23,921
Subtotal					**$ 23,921**
SERVICES					
22	1	Consultancy	Qualitative evaluation and project systematization	59,162.80	59,163
23	1	Consultancy	Technical support for COMMCARE application	41,026.20	41,026
24	1	Consultancy	Taking and printing professional photographs	2,450.75	2,451
Subtotal					**$102,640**
Total USD					**$193,645**

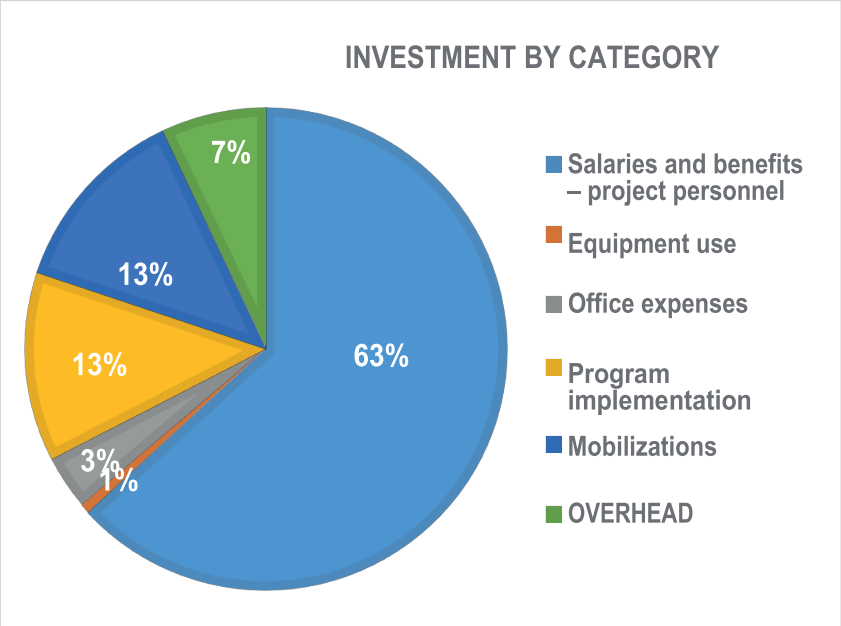
13. FINANCIAL EXECUTION

Total investment for Phase II of the study was USD 1,766,045, which represents 99.5% of the advance funding of total Phase II budget, USD 1,773,559.

Table 23. Financial execution

DESCRIPTION	REPORTE			
	Budget	**Executed**	**Balance**	**% Executed**
Wages – project personnel	**786,237**	**785,116**	**1,121**	100%
Benefits – project personnel	**345,818**	**330,416**	**15,402**	96%
Equipment	**11,410**	**11,511**	**-101**	101%
Office expenses	**52,198**	**63,524**	**-11,327**	122%
Program implementation	**225,473**	**224,712**	**761**	100%
Transportation	**228,274**	**226,617**	**1,657**	99%
Total direct costs	**1649,410**	**1641,896**	**7,514**	**100%**
OVERHEAD	**124,149**	124,149		**0%**
TOTAL	**1773,559**	**1766,045**	**7,514**	**99.55%**

Graphic 13



As shown in Figure 13, the largest portion of the investment (63%) went to personnel costs for the 63 employees. Another 1% covered equipment use (depreciation paid for equipment of World Vision), 3% to office expenses (supplies and office maintenance, BCA telephone costs), 13% for implementation (training and advance meetings, educational material, consultancies, and food kits for families), 13% for transportation (fuel, per diems, vehicle depreciation and maintenance), and 7% for indirect costs (overhead).

In addition, in Phase I of the project there was an outstanding balance of USD 41,508. This amount was requested from the donor to pay professional fees to the DIMAGI consulting firm, which provided technical support for modification to the COMMCARE application. With a total investment of USD 41,026, which represents 99%, the outstanding balance will be invested in other areas of need.

14. PROBLEMS, CHALLENGES AND SOLUTIONS DURING IMPLEMENTATION

Table 24. Difficulties faced during the intervention and solutions

No.	PROBLEM / CHALLENGE	DETAILS	ACTIONS TAKEN
1	Crime-related insecurity	During the period of family counseling visits, field personnel in their travels faced a degree of risk of getting assaulted or robbed or even being the target of death threats in certain cases. The presence of criminal gangs in some communities also limited access, even when no personnel had been assaulted. Murders committed in the families added to the insecurity, resulting in considerable tension in the communities and temporary suspension of visits.	When the presence of assailants in certain places was detected, visits to these communities were suspended for several days until the assailants moved on to other areas. In the highest-risk areas, work responsibilities were redistributed so that no BCA traveled alone to these communities. They would always travel in groups instead and conduct the visits in fewer days. In some cases, BCA groups travelled in a REDES vehicle for greater protection.

2	Coffee harvest season	In the Copan area, coffee growing is one of the main economic activities and involves a large part of the population. From October to February, many families receive work from farms to harvest coffee, so it was a challenge to conduct educational activities. Families return home very late or are away from home for the entire period. Many family visits therefore remained pending during this period.	The visits are often rescheduled for when the families return home three or four months later. When families return home, visits are rescheduled for a weekday after work or a Saturday afternoon.
3	Community accessibility	The roads in many communities are in poor condition, especially during the rainy season, which make it difficult for BCAs to get from one community to another. And when heavy rainfall swells the rivers, it is impossible to cross them on motorcycle.	On days with heavy rainfall, visits to certain communities are suspended due to the risk of accidents for BCAs crossing swollen rivers or traveling on roads in extremely poor condition. Groups are organized to travel to certain communities so BCAs can support each other crossing rivers. In some cases, vehicles are used to travel to the communities.
4	Migration	During project implementation, many families left their communities due to violence, death threats, and economic hardship. Educational activities could not be completed with these families.	Such interrupted cases reported in the system.
5	Motivation for family participation	Many families refused to participate (or considerable effort was required to convince them to continue) because the project did not offer any type of material assistance. They did not perceive the benefits of gaining knowledge about maternal / child health care as valuable.	For families resenting the lack of material assistance, the importance of health education was explained, and several were convinced to continue. Families that were not convinced were recorded in the system as out of the study.

6	Implementation of project in Chorti communities	A Chorti community has a unique organization that to a certain extent controls participation of families in any project entering the area. The community tend to prioritize projects offering material assistance. In the case of REDES, many communities initially opposed implementation and almost all families refused to participate, which caused delays in these communities.	Several meetings with CO-NIMCH and community assemblies were held to explain project objectives and benefits; this outreach helped gain families' approval to receive BCA.
7	Access to health services	Many families in the project area live far from health centers, making it difficult for them to attend a pregnancy consultation or a child control visit. Since many project messages deal with attendance at health centers, it was difficult to promote adoption of best practices with these families. Moreover, according to their comments, in some cases they did not want to attend due to lack of medications or the poor care they received.	The message on the importance of attending the health centers for danger signs or for planned control visits was always reinforced. Several special emergency cases were reported to the health authorities to facilitate care.
8	Families that accept only female BCA	The majority of BCAs in the REDES project were men. It became a problem is some cases since husbands were generally not home during the day and many did not want a man to come and sit talking with their wife for two hours without the husband's presence. There were also women who preferred to converse about health topics with other women since they did not feel comfortable speaking with men.	In cases where a family would withdraw from the project if the assigned BCA was a man, female BCAs were assigned to these families. In other cases, an agreement was reached that the male BCA would come to the home only when the husband was present. And in other cases, the BCA was always accompanied by a female supervisor.

15. CONCLUSION

a) The operative model of this intervention was appropriate and consistent with the requirements of the project and the study, with an emphasis on implementation, monitoring and follow-up to support compliance with targets and adoption of behavior changes and quality of the study.

b) Adaptation of a thematic, flexible and comprehensive proposal (that addressed misguided family health practices identified as critical by the initial formative research) has promoted the results obtained. The proposal was also adapted to the specific conditions of the area and its population.

c) The use of a methodology promoting horizontal and two-way communication between the family and the BCA is considered a success factor. This communication focuses on accomplishing behavior change; it was developed in a progressive and comprehensive way and contemplated specific family conditions or needs to guide the approach. In addition, the uniform structure of ttC has ensured the approach to topics and key messages and maintained quality.

d) Systematic and consistent programming of ttC sessions is what ensures follow-up on the topics addressed and builds a habit in the families to further their participate and incorporation in the process.

e) With this technological application, data can be collected off-line data collection as a support tool for monitoring and training (audiovisual material) for working with the families. So it is easier to keep the information on the ttC process updated and provides follow-up on the BCAs’ progress.

f) The delivery of ttC was consistent, adhering to the visit protocol and building quality relationships based on confidence, empathy and open communication with the families as well as the commitment and role of the project team (BCAs, supervisors, technical and administrative team.

16 . RECOMMENDATIONS

a) Use of technology as a tool to facilitate counseling for similar projects in the future makes the educational activity more attractive and interactive and enables more practical and environmentally friendly data collection, since topics can be guided and there is less use of paper for documentation.

b) Devote the time needed to train personnel in technical, methodological, technological and strategic issues (warmth, quality performance, commitment, parenting with love, corporate security, psychological first aid) and the communication skills necessary for dialogue and reflection with the family.

c) In remote communities with incidents of criminal insecurity, organize field personnel into groups (2–4 individuals) to get out into the communities and provide assistance with transportion, especially for river crossings, flooded roads, and to reduce the risk of assault.

d) In future interventions of this type that are not linked to a study, consider topics that are opportunely relevant to the families. For example, if the topics deal with care during pregnancy, work with families where there is a pregnant woman. Likewise, if there are older adults with chronic conditions in the home, take these conditions into account. In other words, have a list of topics appropriate to each population group.

17. ANNEXES

17.1. Agenda developed for community closing ceremonies

AGENDA FOR PROJECT CLOSING MEETINGS IN THE COMMUNITIES

1. **Welcome**

2. **Prayer (giving thanks to the families for completing the project), reflection on a Biblical verse ("My people perish for lack of knowledge," Hosea 4:6)** highlighting the importance of acquiring knowledge.

3. **Words about the occasion:**

Express thanks for the time spent together.

Mention the project's objective: I hope the knowledge we have shared will be of great use in your lives, to care for your families, your children and pregnant women. I encourage you to continue trying to learn more and put into practice all that you have learned and to teach or help others, especially young families with little experience. Always remember that knowledge is valuable and can save lives if used at crucial moments.

I also call on you to come together more as a community and always work together so you can ensure or demand services to secure better health conditions and improve your standard of living.

For us, this project has been a valuable experience, working with you and learning from you. We take many beautiful memories of our talks and your stories, your hospitality, and the trust and affection you have shown us over the course of nearly two years.

Thank you again and I hope God will always watch over you and your families.

4. Attendees' participation
TECHNIQUE: THE MAGIC CIRCLE

Material: None

Time: 20 minutes

Activity: The facilitator invites the group to form a circle in the center of the room and hold hands and quickly explains the symbolism of the circle.

Holding hands: The right hand symbolizes our capacity to help. It should rest over the left hand of the companion to the right; the left hand, receiving the right hand of the other, symbolizes our need for help. Just as we offer help, we need to receive help. None of us is so strong that we can only help or so weak that we can only receive help.

The circle forms part of the rituals and customs of primitive people, probably since ancient times. Manyl activities of long ago were performed in a circle; they believed that the energy flowing among the individuals in the circle kept the bad spirits out and the good spirits in.

In the circle we can see everyone, we are on the same plane and can see those close to us and those further away. There are no firsts or lasts. We feel equal when we are in a circle; we have no dispute over leadership. We trust our friends. The energy is balanced between giving and receiving; we are all equal in a circle. There is no first and no last. We are on the same plane. I see those on my left, on my right, and those across the way.

Then ask each participant to speak:

Encourage participants to express their opinion via motivating questions such as:

What did you like best about participating in this project?

What would you like to tell us?

What do you think would help you to improve the health of children and the rest of the community?

Processing: The facilitator closes with some personal words and tells participants:

We can sometimes separate into small circles but without losing sight of our strength and union.

5. **Presentation of diplomas and artistic prints according to the list of families (complete backup list)**

6. **Presentation of photographs**

7. **Distribution of food kit to each family according to the list (complete backup list)**

8. **Take group photograph with BCAs.**

17.2. Example of aide-memoire for presentation of artistic poster to families

Aide-Memoire of Artistic poster distribution

REDES Project – Group 1

BCA: JORGE NERY ARRIAZA RIVAS

SUPERVISOR: JERSON GAMEZ

A). Posters distributed by community		
1	**Community**	**Number of posters**
2	Nueva Alianza	48
3	Colon Jubuco	21
4	Monte Cristo	23
5	Tesorito	5
6	Santa Cruz Virginia	6
	Total	**103**

B). Implementation of activities

1. Activity:	103 artistic posters were distributed to the homes where families were visited to thank them; the prints represented the unity that should carry on in each family.
2. Activity:	Review and complete forms for presenting the posters to each family, their respective identification number, and signature or fingerprint.

C). Testimonials shared by the families during the visits to present artistic prints.

Family testimonials.	
1. Maria Dolores Hernandez, Community: Monte Cristo, ID1837.	*"I would like to thank them because for me and my family, everything in the community has changed now. Before we were seen as murderers because Eliú (my husband) and I used contraception. Neighbors viewed us with contempt. My husband has always worked hard for the community. We have always had family planning methods here and other things for people in the community. But that was before, and now with your visits, it is almost everyone. For us, it is better; now here in the community I know of only one woman who is not using family planning. Imagine that even the wife of the pastor is planning! They came to give us an injection at three months and this has helped us a lot; it has been a blessing for us."* The woman hadtears in her eyesas she spoke.
2. Ramon Marroquin, Community: Colon Jubuco, ID: 163.	*"At my age I have seen many things happen in my life. What I am telling you is I have never been visited in my own home. It has been a blessing for me that you have come. I am older than 70. Some people of my age would think what you have done is not important, but I do not agree. Through what we learned with you, my wife and I can give advice to those younger than us. Although it is not useful to us, I have daughters and sons, nieces and other family that I can advise."*
3. Rosallda Hernandez Community: Monte Cristo, ID: 3184.	Doña Rosa has a two-month old daughter. When I visited the home and asked her if she recalled the counseling, she replied: *"Of course I remember, I will never forget. Everything you told me is certain and also with the stories that we saw. My daughter is now 2 months old and I haven't done things as before. Imagine that I didn't put an umbilical bandage on her and nothing happened. Before I was told that if I didn't use it, her navel would grow. But now I don't believe these things. My daughter is healthy and this makes me happy. Many thanks to all of you."*
4. Don Antonio Suchite, Community: El Porvenir ll, ID1086.	*"I was very pleased to participate and study the topics that you brought to me month after month here in my home. It has been very useful. At my age, no one has ever come to teach this way in the home. Only politicians looking for votes have come to my home. I thank you for your efforts, your patience to be with us. I often think that in some homes you are not well received, only to be polite. I always put aside the time to wait for you, even when I had work to do, but I waited for you and not just to pass the time. I appreciated the way you taught us and I am grateful to you. I wish this wouldn't end. I think that from now on it is up to us to put what we learned into practice. Even if you are not here, we will remember all that you taught us in the counseling."*

Feliciano Martinez, Community: El Porvenir I, ID 1093.	*"Everything we learned was special. Now it is up to us to put it all into practice because really all of our conversations have been a great help to my wife and me, especially at this stage in our lives. Although we are growing old, we have the ability to guide our family and this was something we didn't know about. In the health center they have training when the nurses have time and space available. But this teaching was better because it was personal. As they say, a group of evangelists go to a house to evangelize, it is nice to talk face to face with people, to feel and think what the people feel. It's nice to talk in person because if you don't like something you can say to the promoter face to face."*
Elvira Leon, Community: Rio Blanco, ID 1229.	*"I didn't know how important the counseling was, but thanks to the topics, my son is studying since the promoter Abel Duarte told me I should encourage him to study, I am grateful for the advice they gave us."*

D) Difficulties during delivery of the artistic prints:

1. It was difficult to find at least 15 families from Nueva Alianza at home because they were out harvesting coffee and doing other work. We had to return on other days to deliver the prints; in some cases, we waited until they arrived.
2. Several adults were at home in poor health (mainly fever), so another family member had to be found to receive the print. They were advised to visit the health center.

3. On two occasions in the Nueva Alianza community, people in homes hid (one was head of household and the other a housekeeper) when the print was delivered, but I waited until they came out.
4. Roads in poor condition because of rain and deep rivers.

E). Photographs of activity:

Don Ramon and his wife receiving the print.

Don Leopoldo García hanging the print when it was delivered.

Doña Prudencia Saavedra signing the print delivery form.

17.3. System data terminology

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17.5. Calculations of indicators

17.5.1 Percentage of families visited per month

Month	%	All home visits (numerator)	Active in the month (denominator)
Dec-16	64	1922	3022
Jan-17	118	3527	2996
Feb-17	113	3342	2951
Mar-17	145	4237	2921
Apr-17	113	3276	2892
May-17	116	3319	2866
Jun-17	117	3322	2844
Jul-17	121	3399	2813
Aug-17	129	3598	2798
Sept-17	119	3287	2772
Oct-17	116	3198	2748
Nov-17	116	3144	2709
Dec-17	84	2225	2663
Jan-18	112	2970	2648
Feb-18	110	2878	2622
Mar-18	101	2632	2602
Apr-18	113	2930	2584
May-18	120	3084	2563
Jun-18	115	2943	2559
Jul-18	118	3016	2556
Aug-18	117	2978	2552

17.5.2 Percentage of families visited in the the month in which ttC was conducted

Month of visit	% families visited in which ttC was conducted	Numerator (visits made in the month)	Denominator (active families in the month)
Dec-16	46	1388	3022
Jan-17	84	2523	2996
Feb-17	84	2466	2951
Mar-17	120	3503	2921
Apr-17	95	2756	2892
May-17	100	2855	2866
Jun-17	101	2862	2844
Jul-17	98	2750	2813
Aug-17	108	3009	2798
Sept-17	96	2648	2772
Oct-17	94	2590	2748
Nov-17	87	2367	2709
Dec-17	56	1498	2663
Jan-18	78	2055	2648
Feb-18	78	2048	2622
Mar-18	78	2024	2602
Apr-18	89	2297	2584
May-18	94	2402	2563
Jun-18	96	2447	2559
Jul-18	101	2577	2556
Aug-18	107	2721	2552

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Con amor y cuidados, madres y bebés sanos

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