# Infant and Young Child Feeding in Communities:

A Rapid Assessment in Tigray and SNNPR, Ethiopia



**September 2010** 



Alive & Thrive is a five-year (2009-2013) initiative to improve infant and young child feeding practices by increasing rates of exclusive breastfeeding and improving complementary feeding practices. The first two years provide a window of opportunity to prevent child deaths and ensure healthy growth and brain development. Alive & Thrive (A&T) aims to reach more than 16 million children under two years old in Bangladesh, Ethiopia, and Viet Nam through various delivery models. Learnings will be shared widely to inform policies and programs throughout the world. Alive & Thrive is funded by the Bill & Melinda Gates Foundation and managed by AED. Other members of the A&T consortium involved in the program in Ethiopia include GMMB, IFPRI, and World Vision. The main implementing partner for the A&T community-based approach is the Integrated Family Health Project, funded by USAID. In Ethiopia, A&T collaborates closely with the Federal Ministry of Health and its Regional Health Bureaus, the National Technical Working Group, the Ethiopia Health and Nutrition Research Institute, and UNICEF.

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# **Abbreviations and Acronyms**

A&T Alive & Thrive

BCC Behavior change communication

CBN Community-based nutrition

CM Community mobilization

EBF Exclusive breastfeeding

FGD Focus group discussion

FHC Family Health Card

HEP Health Extension Program

HEW Health extension worker

IFHP Integrated Family Health Program

IYCF Infant and young child feeding

OTP Outpatient therapeutic program

RHB Regional Health Bureau

RPO Regional program office

SNNPR Southern Nations, Nationalities, and People's Region

TT Tetanus toxoid (vaccine)

VCHP Voluntary community health promoters

WHO World Health Organization

## **Executive Summary**

In late 2009 and early 2010, Alive & Thrive (A&T) conducted formative research studies on infant and young child feeding (IYCF) practices, beliefs, and influences in Southern Nations, Nationalities, and People's Region (SNNPR) and Tigray region. To complement the findings of those studies, a rapid assessment was conducted to assess suitable channels for community behavior change communication (BCC), assess the training needs of health extension workers (HEWs) and voluntary community health promoters (VCHPs), and identify available BCC materials and possible needs. The assessment was conducted in SNNPR and Tigray by the in-country A&T team.

The assessment was qualitative and included 24 separate focus group discussions (FGDs) with mothers, fathers, HEWs, and VCHPs in selected kebeles of six woredas of the two regional states (three from each). The FGDs helped to explore how and where HEWs and VCHPs identify pregnant and lactating mothers and what kinds of messages they deliver during different stages of pregnancy and post natal periods. In addition, the rapid assessment attempted to investigate HEWs' and VCHPs' perceptions of IYCF standard practices, preferred communication channels for getting information, access to mass media, the availability of and need for training and BCC materials, and potential partners to improve IYCF practices among the community. With fathers and HEWs, FGDs were also used to test concepts that could appeal to their emotion and inspire them to become committed to improving IYCF practices. Even though several of the concepts were more factual than emotional, fathers and HEWs understood the idea and showed great effort in selecting and prioritizing the concepts that attract their interest in a remarkable way.

Furthermore, semi-structured questionnaires that were prepared for HEWs to triangulate and complement the FGD findings assisted in investigating HEWs' understanding of the IYCF practices and related subjects; what kinds of trainings they have taken and their training needs; the challenges and the possibility of counseling and negotiating the actual practice; and the benefits and challenges of collecting data on IYCF practices.

#### **Key Findings**

IYCF knowledge of HEWs and VCHPs: Both HEWs and VCHPs that participated in the FGDs were found to have reasonable knowledge on some IYCF components, for example, the importance of exclusive breastfeeding. However, most of them exhibited major gaps in knowledge about the use of colostrum, complementary feeding, counseling skills on IYCF, and other areas.

HEWs' and VCHPs' BCC intervention activities: The service providers stated that their main BCC activities are advising and giving health education. Counseling or negotiation were not cited as the key intervention for behavior change communication; rather, much emphasis is on teaching the mothers at the household level and in the community at any conventions.

IYCF training needs: The majority of HEWs were trained on IYCF either at pre- or in-service trainings. However, HEWs suggested that most of the training lacks the focus on the preventive aspect of IYCF, particularly in respect to complementary feeding. HEWs noted that the lack of focus on prevention of malnutrition may be because the trainings: were designed for another purpose, encompassed other family health components, or lacked attention to practical skills like demonstrating, counseling, and negotiating.

IYCF training and BCC materials: HEWs and VCHPs stated that currently existing training and BCC materials are not adequate to support the service providers in promoting IYCF activities. HEWs and volunteers requested supplementary materials that are "user friendly" for themselves and easily understandable to mothers, fathers, and the community at large.

Communication channels: Community channels like church/religious gatherings, community conversation sessions, women's association, kebele/gote and other meetings were deemed to be easily accessible and acceptable by all the service providers, mothers, and fathers. Religious, kebele/gote and women association leaders were suggested as potential community-level partners to promote IYCF.

Mass media: Almost all FGD participants stated that radio is the only available and accessible mass media channel. Radio programs such as expert explanations, feature educational programs, and short messages were suggested as preferred formats to get health messages.

Supportive supervision: Participant HEWs noted that supportive supervision is currently being implemented in better ways than it had been in previous years. However, they still see a need to further strengthen the supervision to achieve the intended goal for IYCF.

## 1. Background

A community intervention to shape IYCF demand and practice, through the existing community-based Health Extension Program (HEP), is Alive & Thrive's main strategic intervention to improve IYCF practices in Ethiopia. The focus of this intervention is to support and strengthen the government's community-based HEP, which deploys HEWs and VCHPs to mobilize their communities, deliver key preventive messages, and provide counseling to promote optimal IYCF behaviors. In order to better design this intervention, A&T conducted a series of formative research studies in SNNPR and Tigray, in late 2009 and early 2010.

Limitations in these formative studies meant that some programmatically important information was not collected. The missing information included: training needs of the HEWs and VCHPs and possible channels to reach the community. To complement the formative research findings, a rapid assessment focused on the two regions was designed and conducted by the Alive & Thrive Ethiopia in-country team in collaboration with Integrated Family Health Program (IFHP), regional program offices (RPOs) and Regional Health Bureaus (RHBs) of the respective regions. The team members who conducted the assessment include:

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The findings of the rapid assessment, together with the formative research findings, will be used to support effective strategies for improving IYCF, particularly complementary feeding practices in the community, and to enhance the potential role of health and community workers to support IYCF behavior change towards the overall goal of reducing stunting in young children.

## 2. Objectives of the rapid assessment

This assessment was designed to fill the information gaps left following the previous formative research. Specific objectives of the rapid assessment were:

- To learn more about HEWs' and VCHPs' knowledge and perceptions of IYCF components
- To identify HEWs' and VCHPs' training needs in order for A&T to design appropriate training packages
- To explore the feasibility of using various communication channels to deliver IYCF messages and educational programs
- To test the practicability of "small doable actions" with mothers
- To explore possible "emotional appeals" among HEWs and fathers

## 3. Methodology

#### 3.1 Study areas

The areas for the rapid assessment were selected in collaboration with IFHP Tigray and SNNPR regional program offices and the respective RHB in each region. Three woredas were selected from each region; in each case, two of the woredas were from IFHP project areas and the third was from a non-IFHP project area. The study sites were selected purposively and could not be taken as a representative sample. The selected woredas and kebeles are:

#### Study woredas in SNNPR

- a. Welayta Zone:- Damote Gale Woreda , Shasha Gale Kebele
- b. Gedeo Zone:- Yergachefe Woreda, Chelaba Kebele
- c. Sidama Zone: Dale Woreda, Motto Kebele.

## Study woredas in Tigray

- a. Eastern zone:- Hawzien Woreda, Mayekeda Kebele
- b. Southern Zone:- Raya Azebo Woreda, Genete Kebele
- c. Southeast zone:- Hintalowajerat Woreda, Hiwane Kebele

#### 3.2 Sample selection

In each site, a discussion was held with IFHP participating staff, woreda health office team of the study woredas, and A&T, to discuss the participant selection process. Based on this, a random selection was used to identify all participants except for HEWs. The HEWs were selected to represent communities at different distances from the woreda center (closest kebele, farthest kebele, and a middle one) and performance, as determined by the woreda health office. Then participants were call to a central place, for example, a community administration site or a village health post, whichever was appropriate for a group meeting. In one instance, in Tigray, focus group participants were deemed to be unusually well-informed and not typical of the general population in that area. For that reason, the results of that FGD were dropped from this analysis; a second group of participants was recruited, in consultation with and with help of the HEW supervisor and HEW responsible for the area.

Focus group discussions were conducted in each site with the following target groups (one group per woreda).

- 1. Mothers whose youngest child is less than 2 years old
- 2. Fathers whose youngest child is less than 2 years old
- 3. Health extension workers
- 4. Voluntary community health promoters

The following table shows the description of the FGD locations and number of participants from both regions.

Table 1. FGD locations and number of participants by category

					Number of participants					
Region	Zone Wored	Woreda	Kebele	per category						
				HEWs	VCHPs	Mothers	Fathers			
SNNP	Welayta	Damotegale	Shasha	12	7	6	6			
			Gale							
	Gedeo	Yergachefe	Chelaba	10	10	9	13			
	Sidama	Dalle	Motto	12	9	6	6			
Tigray	Eastern	Hawzien	Mayekeda	11	11	11	10			
	Tigray									
	Southern	Raya Azebo	Genete	12	9	13	10			
	Tigray									
	Southeast	Hintalowajerat	Hiwane	11	11	7	9			
Total				68	57	52	54			

#### 3.3 Study methods

The assessment was qualitative. Twenty-four separate FGDs were held with mothers, fathers, HEWs, and VCHPs in selected kebeles of six woredas of the two regional states (three woredas from each region).

The FGDs explored how and where HEWs and VCHPs identify pregnant and lactating mothers, what kinds of messages they deliver during different stages of pregnancy and postnatal periods, HEWs' and VCHPs' perceptions of IYCF standard practices, preferred communication channels for getting information, access to mass media, the availability of and need for training and BCC materials, and potential partners to improve IYCF practices among the community.



The FGDs with mothers primarily focused on identifying "small doable actions" that could be feasible to be adopted by the mothers. From a list A&T prepared based on the World Health Organization (WHO) IYCF standard practices and the Ethiopian National IYCF Strategy, 19 actions were selected to be studied.

An initial attempt, on the first day, to test the behavior cards in individual in-depth interviews failed as the mothers responded that they are doing all the standard IYCF practices presented, which really reflects a social desirability bias, expected in such a qualitative study. Similarly, for a few actions that would be new to them, mothers simply said it would be easy to try them, without any indication that they were giving it much thought. Given this practical challenge faced in the field situation, the team suggested using focus group discussions instead, which is a very practical way to draw out the thinking of community level participants, using good facilitation.

Subsequently, FGDs with the mothers were employed by showing "behavior cards," each card with a written phrase and an illustration to depict a single small doable action. The plan was to identify which actions mothers are practicing, which actions they are not practicing and the reasons, and which actions mothers would likely try in the future. Hence, using group discussion, the real practices of the IYCF-related small doable actions were discussed; mothers were more relaxed and open to express what they believe; and an understanding of the actual practices in the specific community materialized.

With fathers and HEWs, FGDs were also used to test concepts that could appeal to their emotion and inspire them to be committed to the IYCF cause. Even though several of the concepts were more factual than emotional, fathers and HEWs understood the idea and showed great effort in selecting and prioritizing the concepts that attract their interest in a remarkable way.



The semi-structured questionnaires that were prepared for HEWs to triangulate and complement the FGD findings assisted in investigating HEWs' understanding of IYCF components and related subjects; what kinds of trainings they have taken and their training needs; the challenges and the possibility of counseling and negotiating the actual practices; and the benefits and challenges of collecting data on IYCF practices.

## 4. Findings

#### 4.1 Focus group discussions with HEWs and VCHPs

#### 4.1.1 IYCF activities and messages

#### House-to-house visits to identify mothers for IYCF services

Almost all of the HEWs and VCHPs participating in the discussions have a general agreement that the main method for identifying pregnant and lactating mothers for IYCF information and services is house-to-house visits. Currently, each volunteer covers from 30 to 50 households in all of the woredas visited for this rapid assessment.

The majority of the activity in identifying mothers from house-to-house visits falls to VCHPs because of their easy access as they live within the sub-village and due to the HEWs' high workload with the other HEP packages/activities. The HEWs and the VCHPs have regular bi-monthly meetings to discuss their activities and make home visits together with the volunteers to the identified pregnant and lactating mothers, whenever the need arises.

The other opportunities for identifying mothers cited both by the HEWs and the VCHPs are vaccination days, antenatal and postnatal visits to health posts, outpatient therapeutic program (OTP) activities, community-based nutrition (CBN) monthly growth monitoring sessions, and various community meetings. In Tigray, the HEWs and the VCHPs use the women's association meetings and CBN community conversation sessions as venues to identify mothers for IYCF services.

Most of the participants agreed that the current way of identifying mothers is satisfactory, as VCHPs can easily identify mothers at the household level. However, some participants mentioned that there is still a gap in reaching all mothers in one kebele because of the large population size and distance from health post, which discourages mothers from coming for follow-up visits. Thus, they suggested it would be good to explore and use other venues like other community conversation sessions, church/religious meetings, and kebele/gote meetings.

#### IYCF message delivery

Regarding the messages delivered to pregnant mothers at different stages of pregnancy, HEWs and VCHPs stated that they advise pregnant women to have at least one additional meal in the day besides the regular family meal, to go to the health posts for antenatal care, to maintain personal hygiene, to get TT vaccination, to take iron, to prepare clean materials such as cloth, plastic bed cover, and also to save some money for delivery. They also advised mothers to give birth at the health post or to call the HEWs when labor starts.

In addition, they said they advise mothers to breastfeed the child immediately after delivery, even before the placenta is expelled; to give colostrum; and not to give other fluids, even water, until the baby is 6 months old.

In Hawzien, the HEWs stated that they tell mothers not to fast while they are pregnant. During early pregnancy there might be a problem of hyperemesis (vomiting and nausea) in some women, so during this time HEWs advise mothers to eat foods that are mostly dry and also to get rest.

"I don't advise mothers to eat additional food that they don't have, but I tell them to eat additional amounts of whatever is available in the home." -HEW from Raya Azebo

Key infant and young child feeding messages are mostly delivered during three stages: pregnancy, postnatal period, and early childhood (first 2 years). Different messages are delivered during these different stages. Though HEWs use different ages for the cut-off points for the stages, the first is from pregnancy to 6 months old, the second from 6 months to 1 year, and the third from 1 to 2 years.

For the first stage, both the HEWs and the VCHPs advise mothers to exclusively breastfeed, to breastfeed from 8 to 12 times daily, not to give any prelacteals, including animal milk and water. They explained further that they stress to mothers that breastmilk has all the necessary nutrients for the growth of the child (both water and food); to empty one breast before switching to the other; and to breastfeed on demand.

In the second phase, they advise mothers to start complementary foods when the child is 6 months old. The complementary foods should be prepared by mixing different types of food that are available at the household level and by preparing loose porridge, with the exception of Welayta zone, Damotegale woreda, Shasha Gale, where VCHPs advise mothers to give gruel using a bottle. The loose porridge should be given 3 times daily with spoon and cup or with clean hands. In addition, they tell mothers to add milk, oil, or butter when they prepare complementary food, to give snacks like fruits 2 times a day, and to continue breastfeeding.

In the third phase, from 1 year to 2 years, mothers are advised to give 4 cups of porridge, to feed the baby from the family food, to give egg if the family has hens (some of them said eggs could be given by adding them to the porridge), to feed 'kosta' (Swiss chard) and 'abesha gomen' (Ethiopian kale); to increase the quantity of complementary foods as the child grows, and to continue breastfeeding until the age of 2 years.

However, from the discussions it was observed that most of the HEWs and volunteers didn't have a clear understanding of what a varied diet means. When they were asked how they tell the mother to mix food types for preparing complementary foods for their children, they stated generally whatever is available at the household, which in most cases means different cereals: for example, 1 portion barley, 1 portion wheat, 1 portion sorghum, 1 portion oats. These cereals basically provide the same carbohydrates, and combining them will have little effect on enriching the nutrient content unless they are mixed with animal foods, legumes, fruits, and vegetables.

Eggs are recommended as an early food to add, with most HEWs suggesting that eggs be introduced between 9 months and 1 year. Very few HEWs said that they advise mothers to start giving eggs from 6 months by mixing them with the porridge.

Green leafy vegetables like kale are also recommended after 1 year by most of the HEWs and VCHPs. In Gedeo zone, HEWs advise mothers to buy and feed fortified food to their children.

In the case of meat, the majority of HEWs and volunteers agreed it should be given after 1 year; others stated it should be given only after 2 years of age; and a very few HEWs said it could be given starting from 9 months by mincing it into very small pieces and cooking it with the porridge, but in this case, only soft organ meats like kidney should be used.

One HEW from Raya Azebo shared her own experiences, describing how she fed meat to her children when they were less than 1 year old. She dried the meat, pounded it, and used the powdered meat with the porridge.

Most of the HEWs said they believe the child's intestine cannot digest meat, egg, and green vegetables, and they fear that meat could choke children. Some of them stated that it is better to replace meat with legumes to get the necessary protein consumption.

To promote complementary feeding, the HEWs and VCHPs are involved mainly in advising, counseling, and closely following mothers until they convince them to adopt the practice. In Tigray, the HEWs use the CBN bi-monthly community conversation session to discuss IYCF, particularly addressing complementary feeding.

HEWs in Hintalowajerat Woreda mentioned the use of a metaphor that compares a malnourished child to dry grass and the well-nourished and healthy child to moist grass. The teaching sometimes goes beyond showing the grass, to presenting the children who are malnourished and well nourished, affecting mothers emotionally.

Some HEWs and a few VCHPs also reported that they demonstrate complementary food preparation at the household level to encourage mothers. Based on the reports of the HEWs, not all mothers adopt IYCF practices easily; there are some who listen but don't practice what they are counseled.

#### Key challenges for promoting IYCF as indicated by HEWs and VCHPs

The main challenge mentioned by HEWS and VCHPs for promoting IYCF is the economic situation. However, lack of knowledge and awareness have also created significant problems, even when the resources are available.

Mothers' heavy workload poses another challenge in adopting IYCF practices. Due to their household responsibilities and general workload, they don't have time to attend to a specific need of just one child, as a lot is expected from the mother for all of the family members; mothers usually don't prepare food for the children alone but prepare for all the family. Most of the time when their children sleep, they count the time as a blessing because it gives them a break; after the child is about 1½ years old, he/she will play and stay with his/her siblings, and mothers don't know whether the baby eats properly or not during that time.

Another challenge for promoting IYCF practices is traditional practice. In Sidama, HEWs noted that from birth to 9 months of age, mothers give "amesa" (traditional herbal extract) to children, by boiling different leaves and roots. Even though currently mothers are claiming that they have stopped giving this herbal extract to their children, when they bring their children to the health post, the HEWs smell it on their clothes. "Amesa" is given because it is believed it will clear the child's stomach and also help him or her to be healthy.

During focus group discussions it was observed that feeding of a sick child was not considered as one component of IYCF. When both HEWs and VCHPs were asked what they would advise mothers in case of a sick child, they all said to breastfeed more and give the child food. However, from the flow of the discussion, it seems they only entertain this issue when they see sick children.

#### Complementary food demonstrations

All HEWs and VCHPs expressed their belief that demonstrating complementary food preparation has tremendous advantages. They said that showing, practically, how complementary foods can be prepared can help mothers to understand more easily than telling them orally.

One of the HEWs from Yergachefe woreda in Gedeo zone mentioned a good experience in mobilizing the community with volunteers to organize complementary food demonstration sessions. The health post has a demonstration site, not only for latrines and insecticide treated nets (ITNs), as is common in most health posts, but also a house with different rooms, including a kitchen. She used the kitchen at the health post to demonstrate complementary food preparation. Together with the volunteers, the HEW managed to motivate the mothers to bring one or more food items from their houses, get support from faith based organizations working in the area and from local kebele administration leaders, and contribute their (HEWs' and VCHPs') own money to buy utensils. The complementary food preparation sessions were organized consecutively for 30 to 50 households that are under one VCHP. The HEWs and VCHPs demonstrated to the mothers how they can prepare complementary foods by adding egg, oil, butter, kale; prepared the food; and fed it to the children in front of the mothers. Some HEWs in Tigray together with the volunteers also tried to demonstrate complementary food preparation at "gote" (sub-village) level after they received CBN training.

#### Vegetable and fruit gardening

Vegetable and fruit gardening is common in SNNPR in most households. However, the HEWs and the VCHPs stated the majority of the production is used for income generation rather than for family food consumption. At present, they are teaching families to use some of the production for family food, particularly for children. In Tigray, commonly during the rainy season there is a "horeye" (meaning "pond") in the backyard of every household, which is used to water backyard gardens in which families usually grow one or two vegetables. When HEWs and volunteers go for home visits, they show mothers how they can prepare vegetables for children, by taking one or two leaves from the garden. The Ministry of Agriculture is giving seedlings for guava and mango fruits, and the community is at present adopting cultivating these fruits.

#### Views on nutritional care up to 2 years of age

Focus group participants were asked to share their views on why feeding young children properly is important especially up to the age of 2 years. Most of the HEWs and volunteers responded that the age up to 2 years is a period of tremendous physical and mental growth, and hence children need appropriate feeding. Furthermore, they also mentioned that many children die before they reach the age of 2 years due to suboptimal feeding. Others stated that because they are very small, children under 2 years will be easily exposed to diseases if they are not properly fed and taken care of.

Following this, the facilitators gave motivational messages on the need to really give the maximum care during this time, even during pregnancy for the mothers. Focus group participants both in SNNPR and Tigray selected areas were emotionally engaged, and reflected their concern and willingness to give much more attention to the health and care of children in their respective communities.

#### 4.1.2 IYCF training needs

The rapid assessment also attempted to identify training needs for HEWs and VCHPs. All of the HEWs have trained VCHPs in their respective kebeles.

In SNNPR Welayta zone, Damote Gale woreda and in Tigray in the three woredas where the rapid assessment was held, the training HEWs had received was based on the CBN manual. In Sidama and Gedeo zones, the HEWs trained the VCHPs by using the manual prepared to train VCHPs that has all the 16 packages of HEP and the Family Health Card (FHC).

In Tigray IFHP project areas, the HEWs were expected to train volunteers in community mobilization (CM) and BCC training. However, most of them didn't train the volunteers according to the principles of these trainings. They simply shared information with the volunteers about CM/BCC using the FHC. They mentioned two reasons for this: first, with the new health bureau strategy that all the volunteers should be integrated with CBN, they are not selecting additional volunteers for CM/BCC; and secondly, for CBN training there is a daily allowance as incentive for the training time, while the CM/BCC has no payment. Such inconsistency causes a problem among the volunteers.

According to the respondents, in Hintalowajerat woreda the Last 10 Kilometers (L10K) project gave training of trainers sessions to HEWs, teaching them counseling skills with a focus on maternal, newborn, and child health. HEWs in turn trained volunteers on counseling skills using the FHC. The Clinton Foundation gave follow-up cards for volunteers in some kebeles. The volunteers, after counseling and convincing a mother to go to a health facility, give her a green card when they refer her to the health *post* and a red card when they refer to the health *center*.

The HEWs and the VCHPs all insisted that further refresher training on child nutrition is crucial for the volunteers to perform their activities properly. Most of the volunteers stated it would be good if such trainings mainly focus on practical sessions, e.g. demonstration. When HEWs were asked what kinds of support they need to train volunteers, almost all of them stated they need refresher training on IYCF, a training guide, and stationery materials. Others mentioned the need for incentives for the volunteers. The HEWs emphasized that building the capacity of volunteers is crucial, as they are responsible for most of the BCC activities at the community level. Some of the HEWs even called volunteers their "motors" or "backbones of the HEP."

#### 4.1.3 Assessment of existing IYCF training and BCC materials

All HEWs in areas where CBN has been started have the training manual for VCHPs and the CBN manual. The FHC is universally available in all six woredas, both in Tigray and SNNPR. The complementary food counseling card is also available in most health posts.

In Tigray, there is a flipchart prepared by the Relief Society of Tigray that has both breastfeeding and complementary feeding components. They use the flipchart at the health post to teach mothers, and the complementary feeding counseling card and the FHC both at the health post and when they go house to house. Most of the HEWs agreed that the FHC has all the components of IYCF, but it could be better if detailed information on frequency and how to nutritionally balance the complementary food were included. Furthermore, the complementary feeding counseling card would be better if it were in a bigger size, like the family planning or malaria poster/chart.

The HEWs asserted that in large size, the complementary food types could be easily seen, and it would help them to teach the community at the health post and during community conversation sessions. The HEWs in SNNPR also suggested that the counseling card should depict the food types according to the availability in the specific regions. For example, they noted that injers should be replaced with kocho (a bread made from false banana roots) and maize bread; and kosta (Swiss chard) with yeabesha gomen (Ethiopian kale).

The VCHPs reported that they only have the FHC. They use the FHC when they go house to house. They stated that it has all the key messages and strongly supports their activity.

The VCHPs claimed that they know how to use the FHC for each key message. Nevertheless, in most of the FGDs, when volunteers were asked to demonstrate how they educate mothers on specific key messages, it was noted that they are not adept at using the FHC, even though they could recite the messages orally.

Most of them said it would be good if they could get other supplementary materials on child nutrition that have pictorial illustrations in color. With regard to the availability of the FHC at the household, both the VCHPs and HEWs in all the study sites, except these of Damote Gale woreda in Welayta zone, agreed that it is available in families that have children less than 2 years of age. They stated that families use FHC during coffee ceremony and while they are having dinner to discuss the different components of maternal and child health. The short written messages that could be read by anyone in the family who is literate and the pictorial presentations help families to easily capture the messages.

#### 4.1.4 Identifying suitable channels

Various channels were mentioned by HEWs and VCHPs as suitable to reach the community. Church and other religious meetings were the most cited openings to engage the community. Others include women's association meetings, kebele/gote meetings, Ider, community conversation sessions, credit and saving associations, and model house training sessions.

HEWs said that having job aids and flipcharts that have comprehensive messages and clear illustrations will significantly support the communication activity during such meetings. When messages are prepared for the community, HEWs and VCHPs recommend using metaphors that are near to the lives of the community to help them to grasp the message easily, such as the example given of using the image that "properly cultivated fruits" (SNNPR) and "properly cultivated maize" (Tigray) are like a well-nourished child. Most of the HEWs preferred getting new information through refresher training, while others wanted leaflets with detailed information.

#### Radio

The available and accessible mass media in all of the assessment sites is radio. A very few HEWs who live near towns and have access to electricity mentioned TV. Almost all HEWs said they listen to various radio programs whenever they have time.

In SNNPR, HEWs prefer Debube radio in Amharic and their local language, but they also listen Radio Fana and Ethiopia radio in Amharic. In Tigray, Mekele FM was the first choice where the coverage reaches; and Ethiopia radio in Amharic and Tigrinya and Demtsi Weyane were the next choices.

Drama was one of the favorite program formats for HEWs. However, most of them suggested drama is good in the entertaining aspect, but people might not take it seriously; rather formats like question and answer with presentations by professionals, feature series, short messages, and experience sharing/testimonial are considered to be more informative and educational.

When they were asked if they had remembered and used any health messages they got from radio, a significant number of them responded that they have used radio messages in their work. The cited health messages were on malaria, family planning, maternal health, early marriage, and tuberculosis. HEWs emphasized that radio messages reinforce their knowledge and motivate them to actively educate the community about the specific health issue.

Not all of the VCHPs have access to the radio, but those that have radio said they prefer transmissions in local language, in both regions. The next choice was Ethiopia radio in Amharic and local language. The suitable time for HEWs and VCHPs is in the evening after 8 o'clock and on weekends.

HEWs and VCHPs stated that even though a significant portion of the community might have radio, due to the inaccessibility of electric power and the high price of batteries, they face difficulty in listening regularly to the radio programs. With this reservation, in their view the appropriate formats for the

community are short messages and feature programs, and evenings and weekends are the best times to transmit programs.

HEWs recommended the use of recorded audiocassettes, which could play a significant role during community conversation sessions, various meetings, vaccination days, monthly CBN growth monitoring times, etc., wherever a tape recorder is available. In Raya Azebo, the assessment was conducted on marketing day, and it was observed that IFHP was using a mobile van to transmit various health messages using recorded audiocassettes. During the discussions with the VCHPs, this action was cited as a good example. One volunteer also suggested the use of videocassettes with short messages on IYCF together with drama or music to attract people, and referred to a previous experience in the area when video was used for another thematic health component.

#### Mobile phone

The HEWs who participated in the FGDs all have mobile phones. They also use text messages with their friends and colleagues in local languages, using the English alphabet. They also remembered receiving various health messages and other messages from the telecommunication agency during holidays. When they were asked to cite particular health messages, some of them remembered a breastfeeding week message sent in August 2009, and others remembered a safe motherhood message sent in January to February 2010. All of them stressed that text messages could inspire and remind them to commit themselves on IYCF issues.

The HEWs recognized that using radio and mobile phones for health messages, besides informing and educating the community, will also help to strengthen their activity. They further explained that when such programs are broadcast through the mass media, the community will perceive that the government is doing this because of a topic's critical importance for the community. As a result, people will give it due attention and value.

#### 4.1.5 Positive deviance

Regardless of the poverty in a community, some poor families have well-nourished children, while their next door neighbors could have a malnourished child. The rapid assessment tool included a few questions aimed at identifying study participants' awareness of families who, even though resource poor, are able to meet their children's nutrition requirements. Positive deviance is an approach to behavioral and social change based on the observation that in a community, there are people who deviate towards healthy and preferred practices ("positive deviants"). These types of individuals/groups have uncommon but successful behaviors or strategies to enable them to find better solutions to a problem than their peers, despite having no special resources or knowledge.

After explaining the concept of positive deviance to the study participants, HEWs and VCHPs were asked if they know such families who have healthy children in the community. Most HEWs and VCHPs agreed that there are positive deviant families who have well-nourished children who are physically distinguishable when compared to their peers, regardless of the prevailing food scarcity in all the areas.

#### 4.1.6 Supportive supervision

The HEWs noted that, at present, supportive supervision is being implemented in a better way than it was in previous years. Formerly, supervision was used only for scrutinizing what had been done properly or incorrectly. Currently in most areas, one HEW supervisor is responsible for 4 to 6 health posts, giving them the opportunity to visit the health posts from 3 to 5 times in a month.

In most of the study sites, HEWs said they have regular monthly cluster meetings (of 4 to 6 health posts) with their supervisors. When the supervisors visit health posts they assess what the HEWs have performed by going to randomly selected households and looking through their various charts. They give appreciation for good achievement and comment on what to improve, usually in writing, when they find gaps. The supervisors also provide assistance to HEWs whenever they have difficulties and when they call them. Yet, most of the HEWs agreed that the supportive supervision focuses largely on latrine construction and environmental sanitation.

Regarding the supervision from the woreda health office experts, it differs from woreda to woreda. In some woredas, the experts usually go to the kebeles whenever an emergency health issue emerges. In other woredas, they go quarterly to evaluate the performance. All of the HEWs noted that a lot of effort is still needed to make the supervision really supportive. They also suggested that most supervisors need capacity building trainings, and need to develop the culture of "cascading" new information and training to their supervisees in a formal and professional way.

When asked what kinds of face-to-face encounters HEWs have with the health system, most of them responded they have a bi-annual evaluation meeting at the woreda health office to evaluate their performance. HEWs were asked if this could offer an opportunity for sharing new information, and all of them agreed this could be a good opportunity to share new information, as all the HEWs in the woreda attend. However, the approach should be short and precise, because reports of the entire Health Extension Program under the woreda are usually presented and discussed, and time is tight.

#### 4.1.7 Community involvement for IYCF

When asked who else could be engaged in supporting IYCF, in all the assessment sites religious leaders were named as potential partners who could positively influence the community to adopt IYCF practices. Other potential community groups and leaders mentioned include community elders, local kebele/gote administration leaders, and women's associations and their leaders. HEWs and VCHPs stated that by using the organizations' and associations' existing congregations or by organizing meetings that involve these potential partners, they could mobilize them to support IYCF issues.

Other potential allies, in addition to IFHP, that were mentioned by the HEWs and VCHPs were organizations currently working on maternal and child health issues, for example, Action Aid, Medane Act, and Saving Newborn Lives, in SNNPR; and Orthodox Church Development Agency and Clinton Foundation, in Tigray. In both regions, Last 10 Kilometers (L10K) was cited.

#### 4.2 Focus group discussions with mothers

The majority of the FGD mothers focused on using "behavior cards" to test the mothers' perceptions of the feasibility of various "small doable actions" related to IYCF practices. Each card included a statement of an action and an illustration. For each card, mothers were asked whether they currently do the behavior and why; whether they could try the behavior; and benefits and barriers. Findings are reported here.

In most of the assessment areas mothers do not breastfeed before the placenta is expelled. Their reasons vary from a belief that it is unhygienic to fear of prolonging the removal of the placenta. Others also stressed that as the placenta is usually expelled immediately following birth of the child there is no time or need to breastfeed before that. Some mothers were not comfortable when they were asked if they were willing to try it in the future.

Giving of colostrum was found to vary among mothers even in the same kebele. Many mothers extract and discard the colostrum, while others give it to the child immediately after birth.

Exclusive breastfeeding (EBF) is practiced in most assessment areas; however, there are still large numbers of mothers who give water believing the child would be thirsty during hot weather and because breastmilk is salty. In Shashe Gale Kebele of Damote Gale Woreda, in Welayta zone, some mothers also give gruel made of flour and milk, using a bottle. Mothers confirmed that even though they couldn't accurately tell the frequency, breastfeeding on demand is practiced.

Complementary food is started mostly at 6 months of age, according to the FGD participant mothers. The majority of the mothers give soft porridge by using cup and spoon, while some mothers give gruel and fenugreek using a bottle or their hands. The porridge is prepared by mixing different food types that are available at their households. Mostly the composition consists only of cereals like teff, barley, wheat, maize, and oats. In a few instances mothers mentioned adding legumes like peas or chickpeas. When mothers were asked whether it would be difficult to add the legumes they use to prepare shiro (a sauce made from peas and chickpeas), mothers from Tigray responded they could easily try it, because they regularly prepare and use shiro for family consumption. However, mothers in SNNPR didn't have as much access to shiro because they commonly eat kocho and maize bread with kale or other root vegetables.

Regarding the consistency of complementary food, mothers emphasized that they increase the consistency and quantity of complementary food as the child grows.

Adding meat, egg, oil/butter, and green leafy vegetables was considered appropriate mostly from 9 months to 2 years of age. The majority of the mothers said they believe that fats and eggs couldn't be digested by children's intestines before 9 months or 1 year. Giving meat before the age of 2 years for many mothers was unthinkable for several reasons. The predominant reasons are fear of choking and indigestibility. Mothers in Shashe Gale affirmed that traditionally, meat was not allowed to be given to children until they were 7 years old. Even at present, if children are seen eating meat at 3 or 4 years it is

considered taboo. For this reason, most of the FGD participant mothers at Shashe Gale still prefer to wait until their children are 7 years old before offering them meat. Others said they don't give meat because of economic problems; if the children started to eat meat early, mothers fear the children would become accustomed to it and would begin demanding it.

Green leafy vegetables are also considered indigestible and, for some mothers, as having little nutritional value. When asked if it is difficult to add meat, green leafy vegetables, and egg to their children's porridge, some mothers said they could try it, while others stated the economic problem would not allow them to try it.

Responsive feeding and washing of hands and utensils before preparing children's food were uniformly practiced by FGD participant mothers. Soaking, sprouting, and roasting of legumes and cereals while preparing complementary food, was a new practice for the mothers. The Tigray mothers easily grasped the idea and were willing to try it, as it is common to sprout cereals and legumes for preparation of different adult foods. In SNNPR, the mothers were also willing to try it, but the idea of sprouting needed detailed explanation.

Mothers in all the assessment areas reported that they give their children soft drinks, coffee, and tea with sugar, but were agreeable to avoid giving these things in future.

In the case of a sick child, the majority of the mothers stated they breastfeed frequently. Some mothers said they give oral rehydration salts (ORS) and solid foods during sickness, but mainly kocho or bread, in order not to aggravate diarrhea or vomiting. Others stated that they continue to give their usual solid and semisolid foods.

Mothers were also asked other questions without using behavior cards. With regard to the question of buying fortified complementary foods, with the exception of Chelaba kebele of Yergachefe woreda in Gedeo zone, and Motto Kebele of Dale woreda in Sidama zone, mothers generally do not buy fortified foods; however, if they do, it is only biscuits. Mothers in Chelaba and Motto Kebele stated they buy fortified foods like Fafa and Cerfeam, due to the advice they get from the HEWs.

The majority of mothers asserted they had received IYCF education from HEWs and VCHPs. They cited EBF and starting of complementary feeding as the key messages they got from the service providers. Even though previously, elderly mothers were influential and were used as a source for information, currently mothers prefer listening to HEWs because they perceive that as HEWs are educated, they have better and more profound health knowledge. Mothers all agreed that the current method of IYCF message transfer by HEWs and VCHPs at household level is adequate.

Mothers said they prefer religious and kebele leaders for promoting IYCF practices that could help HEWs and VCHPs from other groups. They suggested if the religious and kebele leaders could be trained on these messages, they could easily reach the community. Conversely, mothers responded by saying, "We hear various messages from different sources but we couldn't implement them because of economic problems," when they were asked about the challenges of promoting IYCF practices.

Regarding channels to reach mothers, most of them mentioned community conversation sessions, religious and kebele meetings, and women's association meetings. Radio is available in many households; however, due to workload and language barriers, most mothers usually don't have the access. Still those mothers who are able to listen to the radio programs said they prefer the evening time starting from 8 o'clock. All mothers in the FGDs reported that they have the Family Heath Card at their homes. They stated that mostly they use it whenever HEWs and VCHPs come to their houses. Sometimes their husbands or children who are literate would read the messages and discuss them while they are having coffee. The majority of the mothers described the pictures on the FHC as descriptive and self-explanatory.

#### 4.3 Focus group discussions with fathers

The FGDs with fathers mainly dealt with identifying channels and actions fathers could take to improve IYCF practices. Fathers were also asked what their role is in improving IYCF in their communities.

Fathers said they perceive their major responsibility in improving IYCF practices is providing the necessary foodstuffs for the children. In addition, they stated that they also have a role in helping mothers in adopting and practicing the advice and teachings given by HEWs and volunteers and putting it into practice.

With regard to positive deviant families among the community, some fathers agreed there are families, including from the FGD participants, that could serve as a good example for nourishing their children properly regardless of their economic situation. Such families give priority to their children and follow the advice of the HEWs properly. However, most fathers argued that all parents want to nourish and give a better chance to their children than their own upbringing; but the existing economic problem prevents them from acting accordingly.

Using religious gatherings and Idirs were the first choice of most fathers to reach the community with IYCF messages, along with kebele and other meetings. Religious leaders were considered influential in promoting IYCF messages.

Radio was cited as the available mass media in the community. The preferred listening time mentioned by the majority of fathers who have access to radio is on evenings after work hours and on Sunday. Fathers in SNNPR chose Debub radio and the Ethiopia radio in Amharic and local language; fathers in Tigray chose Ethiopia radio and Demtsi Weyane in Tigrinya and Amharic. The language problem was cited as a big barrier in preventing fathers from listening to various programs broadcast by other radio stations. In addition to the radio in influencing IYCF, the Family Health Card was recognized easily by fathers, as most of them have it at their house.

#### Actions fathers could take to improve IYCF

Fathers responded to seven actions that were selected from IYCF-related standard practices and were asked whether they have done them previously or would be willing to try them in future. Using a few of

Table 2. Fathers' potential actions in support of IYCF practices

ACTIONS FATHERS COULD TAKE	THEIR RESPONSES AND EXPLANATIONS
Action 1: Encourage wife to put the baby on breast immediately after birth to stimulate her milk production  Action 2: Ensure that wife gives the yellowish milk to the baby, as it is God's gift of butter to the	Most fathers admitted that they have never participated directly during delivery time and had no experience in putting the baby immediately on breast. However for the future they were willing, while the mother is still pregnant, to advise mothers and birth attendants to follow this practice.  With this action most of the fathers responded similarly as they did to the first action.
to the baby, as it is God's gift of butter to the newborn  Action 3: Ensure that a breastfeeding wife has one or two additional meals every day to maintain her health and the health of the baby	When most fathers saw the illustration that demonstrates the husband feeding his wife while she is breastfeeding, the child created amusement (feeling of a lost opportunity?) among the fathers. Previously, they reported, such actions were considered as inappropriate in most traditions, but now many people had changed this attitude and started to practice it. One of the participating fathers from Hawzen was cited as a progressive husband who openly feeds his wife and helps her in her daily chores. All fathers agreed if economic situations allow them they will be willing to provide additional foods for their wives.
Actions 4 and 5: Encourage wife to breastfeed on demand, day and night, so she can produce enough milk; Give wife enough time to breastfeed, without rushing her, so that the baby can get all the milk s/he needs  Actions 6 and 7: Ensure that at 6 months, baby receives additional food along with breastmilk so	As most fathers in the FGDs are farmers, they claimed that because they usually got exhausted after working on the farm the whole day they never considered that their wives need encouragement and ample time to breastfeed the baby. They took for granted that their wives could breastfeed while they prepare and serve dinner or coffee. As a result of the discussion, fathers agreed to support mothers to feed on demand.  All fathers agreed they try their best to provide for their children and would continue trying if
s/he continues to grow healthy and strong; Ensure that wife can add a variety of nutritious foods such as peanuts, lentils, oil, meat, etc., so that she can prepare adequate meals for the baby to grow strong.	economic problems don't prevent them.

the illustrations from the behavior cards and from "Fathers' Counseling Cards" prepared by ESHE/LINKAGES project, FGD participant fathers participated in the activity. Their responses are recorded in Table 2.

In general, fathers said they were willing to try actions that were new to them and to improve the others they have been practicing previously. With the exception of economic problems cited by most fathers that might create difficulty in practicing some of the actions, other attitudinal barriers were not observed during the discussions.

## 4.4 FGDs to test concepts for emotional appeals with HEWs and fathers

#### Emotional appeals for health extension workers

The 8 concepts were presented as ideas that had previously been expressed by other HEWs in different areas with regard to their IYCF activity. The concepts were first read all together, one by one, by the facilitators. HEWs were asked what they thought about the concepts, and whether they sounded good or held meaning for them. Then HEWs were given time to read a document with all the concepts.

After they read it, they were told to prioritize the four most appealing concepts that touched their emotions or attracted their interest. After recording their counts, the 4 concepts that were chosen by most HEWs were discussed. When HEWs were asked why they chose particular concepts they gave logical or personal reasons that sometimes convinced other friends to change their choices.

HEWs stated that all the concepts were meaningful and they could be used as a base to build messages that could motivate and inspire HEWs to devote themselves to improving IYCF practices.

Table 3. HEWs' rankings of concepts for emotional appeals, in SNNPR and Tigray

1	[MY SUCCESS, 1 CHILD AT A TIME]	Fourth	Coornel
			Second
	When I see a healthy child running around the health center, I feel		
	happy. I know that by helping the mother to breastfeed and give the		
	right complementary foods, I helped this child to be healthy and grow		
	well. Seeing a healthy child is my reward.		
2	[MY SUCCESS, FUTURE ORIENTATION]	First	Third
	By helping a mother to breastfeed and give the right complementary		
	foods, I am helping our community nourish a future Ethiopian hero!		
	Eating right in the first 2 years helps a child grow to his full potential –		
	physically and mentally. Who knows what he or she will accomplish!	0 11	E. 1.1
3	[MY SUCCESS, COMMUNITY WIDE]	Seventh	Eighth
	Decays of the knowledge and skills I bring I can see a shange in the		
	Because of the knowledge and skills I bring, I can see a change in the whole community. People are feeding their children as they should for		
	maximum growth and development. I have helped the Health		
	Extension Program make a difference in communities.		
	Extension Program make a universite in communities.		
4	[RESPONSIBILITY, CONTROL]	Second	Seventh
	I've been given responsibility for the communities' health. It's my job to		
	help the community nourish its infants and young children. I can help		
	bring about positive change.		
5	[SAVE A LIFE]	Fifth	Fourth
	I saved that child's life. I remember when the mother brought in her		
	severely malnourished child. I helped get that child emergency services.		
	But most importantly, my work with the mother has helped her		
	prevent any more emergencies. She now feeds her child properly and		
	the baby shows it.	61.11	61.11
6	[DETERMINATION]	Sixth	Sixth
	Families face a hard life. Often there is barely food to go around. But I		
	don't give up. I know that if I work harder, the families will work hard,		
	too, to feed their young children in the best way possible.		
	[I CAN INFLUENCE A MOTHER / SELF-EFFICACY]	Eighth	Fifth
_	•		
	When I show a mother how to breastfeed her child, even when he's		

sick, she will pay attention. Mothers often tell me that I made a		
difference when I help them choose the best ways to feed their		
children. I can influence how a mother nourishes her child.		
[FIRST 2 YEARS MATTER]	Third	First
Medical science tells us that the first 2 years of life are critically important. If we miss this "window of opportunity," and the child does not eat properly during those first 2 years, he or she may never catch up. But a child who is nourished well, early in life, will grow and develop – both physically and mentally – to his or her full potential.		
	difference when I help them choose the best ways to feed their children. I can influence how a mother nourishes her child.  [FIRST 2 YEARS MATTER]  Medical science tells us that the first 2 years of life are critically important. If we miss this "window of opportunity," and the child does not eat properly during those first 2 years, he or she may never catch up. But a child who is nourished well, early in life, will grow and	difference when I help them choose the best ways to feed their children. I can influence how a mother nourishes her child.  [FIRST 2 YEARS MATTER]  Third  Medical science tells us that the first 2 years of life are critically important. If we miss this "window of opportunity," and the child does not eat properly during those first 2 years, he or she may never catch up. But a child who is nourished well, early in life, will grow and

Even though the first 4 priorities were chosen according to most of the HEWs' preference, a few HEWs choose 2 other concepts, with strong passion attached with it.

#### [SAVE A LIFE]

I saved that child's life. I remember when the mother brought in her severely malnourished child. I helped get that child emergency services. But most importantly, my work with the mother has helped her prevent any more emergencies. She now feeds her child properly and the baby shows it.

Some HEWs chose this concept because it relates with their personal experiences.

One HEW shared her experience about a child that came for OTP service. "At the time of his arrival, the child had edema in all his body and was critically sick. But we admitted him to the OTP and followed him consistently; within a week he became well and healthy. Later, whenever our work took us to the gote where he is living we usually went to his house and visited him."

The other HEW said, "Nearly 5 years ago, a 6-month-old baby who was very sick and malnourished was brought from a nearby kebele. His mother had died when he was only 3 months old. At that time, other than treating the child for her illness, it was difficult for us to give her anything more. So I took the baby to the Catholic Church that usually provides milk and other supplemental food for needy children. Because there were many children on the waiting list, the child was not given priority; but I pleaded with the project leader and convinced her that the child's life was at risk. Fortunately, she started to give the child powdered milk and supplemental food that helped her to grow in good health. At present, the child is a 6-year-old girl who is healthy and strong. Her father always felt that she survived due to my action and tells me that he considers her as my child." -HEW from Yergachefe Woreda in Gedeo Zone

#### [I CAN INFLUENCE A MOTHER / SELF-EFFICACY]

When I show a mother how to breastfeed her child, even when he's sick, she will pay attention. Mothers often tell me that I made a difference when I help them choose the best ways to feed their children. I can influence how a mother nourishes her child.

Some HEWs found this concept moving. They stated that for IYCF practices to be improved, changing mothers' attitudes and practices is crucial. For this to happen, HEWs said they feel they play a significant role.

To stress her reason for choosing this concept, an HEW from Hawzien woreda said a remarkable expression: "Mother is the light of the house. Teaching a mother is teaching the entire household."

Overall, the messages that portray success and the importance of the first 2 years of a child's life grab the attention of the HEWs in both regions, though in different priority order. HEWs also selected among their priorities the messages on responsibility (in SNNPR) and saving a life in (Tigray).

#### **Emotional appeals for fathers**

Fathers also enthusiastically participated in choosing concepts that touch their emotions. Each concept was read to fathers and they were asked if it gave them meaning or was understandable in their situations. Then they were asked to select and prioritize 4 concepts. Almost all fathers in the FGDs responded that all the concepts have meaning and are understandable. Most fathers chose the 4 concepts from first to fourth priority (see summary in Table 4)

Some fathers argued enthusiastically for their choice to be the group's choice. When he was outnumbered by the group, one father from Hawzien requested that his choice:

#### [I AM ALSO A CHANGE AGENT]

After I got the awareness of IYCF and saw the benefits for my own child, I started to tell my neighbors to follow the same feeding strategies. Now I am acting as a change agent.

The father explained that after the HEP had been initiated in their locality he gained a lot of new information that helped to change his attitude and practice. He said that as he is a religious leader, he has an obligation to teach and advise others. In the process, he felt he had become a change agent.

Table 4. Fathers' rankings of concepts for emotional appeals, in SNNPR and Tigray

Tested concepts		Priority rankings, from 1 as top priority to 4 as the least priority, in SNNPR				Priority rankings, from 1 as top priority to 4 as the least priority, in <b>Tigray</b>			
	1	2	3	4	1	2	3	4	
1. [DETERMINATION]									
We face a hard life. Often there is barely food to go around. But I don't give up. I know that if I work hard, we can feed our young children in the best way possible.									
2. [MY SUCCESS, MY CHILD]		<b>✓</b>				1			
When I see my child running and playing, I feel happy. I know that his mother and I have done the best we can to feed him properly, especially while he was little. We have nourished a child who is healthy and smart. Seeing a strong, healthy child is my reward.  3. [PRECEIVED VIEW OF HEP]									
We have been trained by HEWs that exclusive breastfeeding is important for the child and that we should introduce complementary foods at 6 months of age. Following their advice we have seen the benefits. Our younger son looks like he is a 5-year-old compared to children of his age, who are 2-year-olds.									
4. [IF ONLY WE HAD KNOWN THIS BEFORE]  Increased awareness of infant and child feeding practices has helped our children to grow healthy and strong. If only I had this education before, all our older children could have reached their growth potential.  5. [I AM ALSO A CHANGE AGENT]	**								
After I got the awareness of IYCF and saw the benefits for my own child, I started to tell my neighbors to follow the same feeding strategies. Now I am acting as a change agent.									

Tested concepts		Priority rankings, from 1 as top priority to 4 as the least priority, in SNNPR				Priority rankings, from 1 as top priority to 4 as the least priority, in <b>Tigray</b>			
C. ILLIANS CHANGED WITH DOODED INTODMATION!	1	2	3	4	1	2	3	4	
6. [I HAVE CHANGED WITH PROPER INFORMATION]			~	<b>'</b>				~	
I am a farmer and grow corn, enset, and chat on my farm land. After I got information from the HEWs and extension agents, I started growing different vegetables and fruits to make the diet of my children much better. I also use the land I used earlier for growing chat to grow other foods (carrots, tomatoes, orange flesh sweet potatoes, papaya, and avocado) which my wife									
can prepare and feed to our children.									
7. [FEW HEALTHY CHILDREN]									
Before, I used to think to have at least 8 children so that they can help me in farm work and also help me in my retirement. Little did I understand how impossible it would be, to bring them up in good health with few resources. Now I have knowledge and information on the need to have few healthy children, and nourish them properly to be strong and grow in good health so that they will be able to support me when I get old.									
8. [WE CHANGED OUR ATTIUDES AND PRACTICE]  In earlier times, we used to think children would grow by chance, and we believed if a child's belly was full with available food there was no need to worry about their diet. Now we understand that children need special attention in feeding them only mother's milk up to 6 months; complementary food starting at 6 months and keeping their health for optimal growth and development.									
9. [CHILDREN COME FIRST]  I want my children to be among the educated and healthy children of our village. I have learned that for this to happen I have to work hard and nourish them properly by giving the priority to them, even at the time of scarcity.									

#### 4.5 Findings from the survey of HEW participants

A total of 68 HEWs, 34 from each region, were asked to fill in a semi-structured questionnaire. The questions presented asked about: HEWs' work experience; IYCF knowledge and the practicality of trainings related to IYCF; training needs; counseling, communication, demonstration, and negotiation skills; and the possibilities of data collection and the challenges that HEWs might face in gathering IYCF-related data. The results from the survey are presented below.

In Tigray, out of the total 34 HEWs surveyed, 11 were from Hawzien woreda in Eastern Tigray Zone, 11 from Hintalowajerat woredas in Southeast zone, and 12 from Raya Azebo in Southern Tigray Zone. The HEWs were selected from 17 health posts from the three zones.

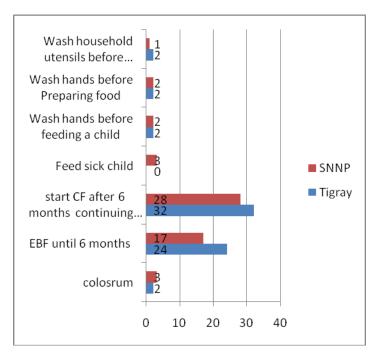
In SNNPR, from the total 34 HEWs, 12 were from Damote Gale woreda in Welayta Zone, 10 from Yergachefe woreda in Gedeo Zone, and 12 from Dale woreda in Sidama Zone. The HEWs were selected from 17 health posts from the three zones. The specific woredas, kebeles, and towns from which the HEWs came is presented in Table 5, below.

Table 5. HEWs surveyed, by region, zone, woreda, and town

Region	Zone	Woreda	Town	No. of HEW	Total
SNNPR	Welayta	Damotegale	Bodete	12	34
	Gedeo	Yergachefe	Yergachefe	10	
	Sidama	Dalle	Yeraglem	12	34
Tigray	Eastern Tigray	Hawizen	Hawizen	11	
	Southeast	Hintalowajerat	Hiwane	11	
	Southern	Raya Azebo	Mekhoni	12	
	Tigray				
Total	·				68

#### HEWs' knowledge about basic IYCF components

The majority, 28, of the HEWs assessed have 5 years of work experience, followed by 18 with 4 years. The rest of the HEWs' job experience reported is indicated in Figure 2. The HEWs were asked to list the components of IYCF and the hygienic practices that go along with IYCF. Very few, 5 (7%), mentioned colostrum, in that a child should get colostrum immediately after birth; 3 (4%) mentioned feeding the sick child; 60 (88%) mentioned that a child must start complementary feeding after 6 months of age; and 41 (60%) mentioned that EBF until 6 months is important. Very few HEWs, as indicated in Figure 1, mentioned either the need to wash hands before preparing food and feeding a child or the importance of washing household utensils.



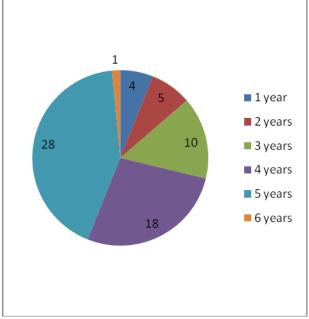


Figure 1: IYCF components mentioned by HEWs, in SNNPR and Tigray

Figure 2: HEWs' work experience

#### HEWs' IYCF-related roles and responsibilities

HEWs were asked to identify their roles and responsibilities in regard to IYCF. Fifty-two of the HEWs (76%) mentioned that coaching mothers about IYCF is their major responsibility, followed by counseling, mentioned by 25 (36%); and demonstrating preparation of complementary foods for mothers, mentioned by 11 (16%). Only a few HEWs, as indicated in Figure 4, mentioned that negotiating with a mother about IYCF is the role and responsibility of HEWs.

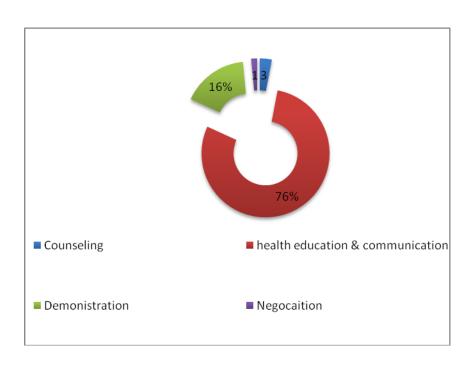


Figure 3: Percent of HEWs who mentioned each IYCF-related role/reponsibility

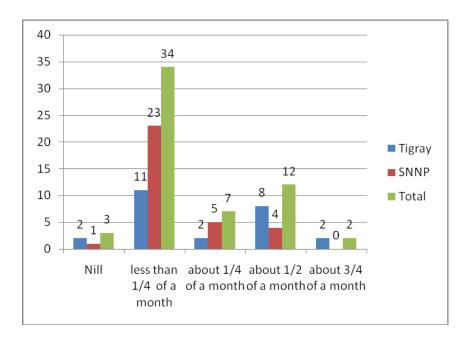


Figure 4: Portion of time HEWs devote to IYCF-related activites, by self report

Half of the HEWs, 34 (50%), reported that out of the total time they allocate for all activities over the month's working time, less than one-fourth of the month's time is spent carrying out IYCF-related activities. The time other HEWs reported per month for IYCF related activities is disclosed in Figure 4.

#### Training of HEWs on IYCF

HEWs were asked if they were ever trained on IYCF, and whether the training was during HEW generic training or while they were on job. Nearly all, 63 (94%), reported that they had a chance to get IYCF-related training. Among those who received this training, about 10 (16%) were trained during the generic HEW training, while 35 (56%) got IYCF-related training on the job. From those trained on the job from both regions, 15 were trained 3 years ago, while 6 were trained 2 years ago, and 14 a year ago. The rest, 18 HEWs (28%), were twice trained, that is, during generic HEW training and on the job. Details are provided in Table 6.

Table 6. Number of HEWs ever trained in IYCF and timing of training

	Ever received	Time of training					
Region	IYCF-related training	During HEW training	On the job	Both times			
Tigray	33	0	25	7			
SNNP	30	10	10	11			
Total	63	10	35	18			

The training days HEWs reported ranges from 2 to 12 days. The training days reported did not imply the training time that took specifically for IYCF related training purpose but for some other issues related to family health. About 75% of the HEWs who had received IYCF-related training mentioned that the training covered issues related to family health. From those who took IYCF related training, 34 (54%) reported that the training they had did not cover all the basic components of IYCF, and thus claimed to have basic or refresher training. Most of the HEWs surveyed reported that the training they had was not satisfactory, because the training was not focused on IYCF issues and too little time was given. Others mentioned that since the training was conducted some time ago, most of them reported that they hardly remember what they had learned about IYCF, and thus needed to have refresher training focused on IYCF.

Some of the HEWs from both regions also mentioned that if IYCF trainings were to be improved, such trainings should be IYCF-focused and the sessions should include communication, counseling, negotiation, and practical demonstration skills.

Even though some of the HEWs reported that they were trained in IYCF-related issues one way or the other, almost all, 64 (94%), pointed out that they need a refresher training focused on IYCF. Some of the HEWs justified this by noting that the training they took covers all the 16 packages so that they hardly remember which IYCF components were included in the package. Hence they find it hard to teach specific IYCF skills to mothers. Some also mentioned that refresher training adds value and will help them to acquire new IYCF knowledge and skills, making them better able to advise mothers on what to

do in order to nurture their children. Others also mentioned that refresher training will enhance their capacity and enthusiasm for teaching mothers about IYCF.

Additional suggestions for improving IYCF training were also made by the HEWs. The majority of HEWs from both regions, 50 (74%), for example, mentioned that if IYCF training were to be redesigned, the sessions should focus on complementary feeding; 28 (41%) mentioned initiation of breastfeeding, EBF, and breastfeeding; and only a few, 10 (15%), suggested that it focus on sick child feeding and health education and communication.

HEWs were asked whether they had acquired skills such as counseling and negotiation with mothers about IYCF or not. Most of them, 44 (65%), reported that they had been trained on these skills. However, only about 32 (72%) said that they practically applied the skill.

#### IYCF data sources/gathering

Most of the HEWs, 57 (30 from Tigray and 27 from SNNP), or 84% all together, agreed that it is important to register model mothers found in the community who have exclusively breastfed their children until 6 months, started complementary feeding at 6 months of age, and continue breastfeeding. Rates of several IYCF practices could be posted in their health post or documented, as for other health activities and events that are listed in the health extension package data registry.

Most of the HEWs reported different reasons why such activity would be very helpful. The reasons they reported were as summarized below:

- It is helpful for IYCF activity monitoring, reporting and further follow-up purposes.
- It is helpful for other mothers in the community to be motivated to practice sound child feeding like their peers.
- It is helpful to influence other mothers who do not apply IYCF practices properly.
- It is helpful to demonstrate the outcome of practicing sound IYCF for other mothers who did not practice in real circumstances.
- It is helpful to promote evidence-based IYCF lessons.

A few of the HEWs, 11 (5 from Tigray and 6 from SNNP), or 16% all together, reported that gathering such data might be difficult. The barriers they listed included: breadth of catchment area, workload, lack of time, and being busy with other activities already in the health extension package. Others also mentioned that lack of data recording and reporting forms, lack of stationery materials, and lack of training (skill) hinder gathering such data.

## 5. Summary and Implications for Programming

The rapid assessment further solidifies and enhances the findings of A&T's previously conducted formative research. The gaps in relation to standard IYCF practice that were identified by the two formative studies were clearly observed in the rapid assessment.

#### Current IYCF practices and acceptance of the recommended practices

The rapid assessment confirms that infant and young child feeding practices in the study areas are inadequate. Even though breastfeeding is a common practice until the child is 6 months old and beyond, discarding colostrum and giving prelacteals, particularly water, are still practiced. Complementary feeding is initiated mostly at 6 months of age, but the reported composition of those foods lacks the mixture of various food types for a balanced diet, and is seriously lacking in the nutrients children need during this period of rapid growth.

The discussions with mothers, fathers, HEWs, and VCHPs all point to the same few causes of poor complementary feeding. The reason mentioned most frequently is a given family's lack of financial resources. But even when resources are adequate, mothers are reported to be hindered by their own workloads, by traditional practices and taboos, and by lack of knowledge about the recommended IYCF practices.

The many traditional beliefs and practices mentioned by study participants would seem to allow only porridges and gruels made of cereals, especially for children who are 6 months to a year old. Animal source foods like meat and egg are still not considered appropriate to be given before the age of 9 months or 1 year, and sometimes are withheld even beyond 2 years. Similarly, green leafy vegetables are generally not given until children are at least 1 year old. Reasons for withholding these foods, as mentioned by mothers and fathers, as well as VCHPs and HEWs, include beliefs that: young children are unable to digest these foods; the foods are unavailable in the area; and the child may become accustomed to, and begin demanding, a food that a family cannot always afford.

Awareness of the recommended complementary feeding practices is low, even among HEWs and VCHPs, whether or not they have been trained in IYCF topics. Many HEWs expressed that they, too, have real reservations about offering meat, eggs, greens, and other foods to children as young as 6 months.

Most of the HEWs in this assessment failed to mention feeding of the sick child as a component of IYCF. They mentioned this topic only when asked directly what advice they give during illness.

When interviewers asked mothers in individual interviews about specific IYCF-related actions or behaviors that were illustrated on behavior cards, the mothers gave responses that did not reflect their actual practices. Gathering mothers in groups to discuss the actions, again using the behavior cards, seemed to elicit more accurate responses. Nevertheless, it is difficult to verify that mothers are really practicing what they say they are doing when they discuss the behavior cards.

Implications. Training programs to improve HEWs' and VCHPs' knowledge about IYCF practices will need to go beyond providing the correct information, to address their own beliefs and experiences that run counter to official recommendations. Follow-up and supervision activities should be used to confirm that trained HEWs and VCHPs are able to support and promote the recommended IYCF practices. If feeding extra portions to a sick or recovering child is one of the practices HEWs are to promote, they must be explicitly trained to do this. Mothers' reluctance to admit that they are unlikely to carry out recommended practices should be considered, as interventions and materials are designed to help HEWs and VCHPs carry out one-on-one counseling activities.

## Influence of family and community members

The rapid assessment confirmed the tremendous influence of family members and community leaders, especially elders, kebele leaders, church and religious leaders, and more-experienced women in shaping mothers' IYCF practices. Mothers expressed their growing willingness to turn to HEWs for information on modern feeding practices, valuing the education and training the HEWs have received. Fathers said that while they generally take a limited role in decisions about what to feed children, they would be willing to offer advice, guidance, and support if they were better informed.

Implications. For IYCF programs to succeed, they must involve the broad community. Credible leaders, such as religious and kebele leaders and women's association members, will play an important role in shifting from harmful traditional practices to the recommended IYCF practices. Given the frequency with which they were mentioned, religious leaders should be engaged early on. Since faith leaders already play a role in governing the communities' eating practices (such as honoring fasting days), it will be crucial to have religious leaders speak up whenever possible about the importance of feeding children meat and animal products, even during fasting periods, and beginning as young as 6 months of age. Outreach for fathers can build on their expressed willingness to support recommended practices. Activities and materials for fathers should address their lack of awareness and build on and add to the roles they currently see themselves playing.

#### Health Extension Program staff, volunteers, and systems

HEWs reported that they spend quite a bit of their work time on IYCF-related activities. During all the discussions, it was noted that both HEWs and VCHPs explained their role in IYCF as *advising* and *teaching* mothers. When they were asked how they deliver messages they responded similarly. Quite a few of the participating HEWs did not recognize the importance of *counseling* mothers about IYCF or *negotiating* with mothers as they select an improved IYCF practice to try.

Almost all HEWs were trained in IYCF either during HEW generic training or while they were on job. Some HEWs reported that they were twice trained in IYCF. Yet most of the HEWs expressed their view that the IYCF trainings they took were not state-of-the-art. Some mentioned that IYCF-focused trainings were not given at all. Others also mentioned that the training they took covered all issues related to family health and did not cover all the basic components of IYCF; that too short a time was given; and that the trainings did not cover skills of practical demonstration, communication, counseling,

and negotiating with mothers. Some HEWs mentioned that in one way or the other they had acquired some counseling and negotiation skills for IYCF, yet they do not apply these practically.

The HEP strategy makes volunteers an integral part of the program. From the discussions with both HEWs and VCHPs, it was recognized that volunteers share a considerable part of HEWs' workloads. Yet VCHPs frequently hold many of the same misperceptions about IYCF as the community at large, and reported passing along some specific advice that is counter to IYCF recommendations.

HEWs noted that existing IYCF BCC and training materials are not adequate to address all the components of IYCF properly and to support HEWs' and VCHPs' work as intended. Various types of materials were demanded by the service providers to support their activities.

While HEWs reported improvements over recent years in the kinds of supervision they receive, they identified areas that could still use improvement, and noted that much of their supervision is focused on latrine construction and environmental sanitation.

HEWs said they are keen to identify model families as a way to inspire others to adopt the recommended IYCF practices. Most of the HEWs expressed an interest in collecting and using data on IYCF practices in the communities. Quite few of them, however, mentioned that gathering such data might be difficult for reasons they reported, including: breadth of catchment area, workload, and lack of time amid their many responsibilities.

Implications. Given the misconceptions evident among HEWs and VCHPs, refresher training on IYCF, with special focus on complementary feeding, will be important. HEWs' and VCHPs' major activity for IYCF lies in BCC activities to bring positive changes in attitudes and practices among the community. For this to happen beyond teaching and advising families, both HEWs and VCHPs will require training, practice, and supervision to enhance communication skills like counseling and negotiation. Training programs will be welcomed, as all study participants expressed a keen interest in learning more about recommended infant and young child feeding.

Care should be taken in developing and using a few additional BCC materials that support the interpersonal communication HEWs and VCHPs are expected to carry out. Job aids that lead HEWs and VCHPs to counsel or negotiate will be especially useful. The Family Health Card is widely available, and VCHPs expect to use it in counseling families. Yet VCHPs clearly need more practice in how to put the FHC to good use.

It has been observed that the CBN program is being implemented with the full endorsement of the regional health bureaus and that most of the nutrition-related trainings, particularly in Tigray, are provided through CBN. Thus using the opportunity of the CBN training and implementation by integrating the preventive aspects of A&T's IYCF strategy would help to get easy access to the service providers, with intended messages and skills.

Supportive supervision has shown progressive improvement, according to the rapid assessment participants. Yet there is still a significant need to strengthen supervision so that it provides proper

support to the HEWS. The supportive supervision tools, e.g., checklists at woreda level, need to be given due emphasis in tracking changes in IYCF practices. This needs to be worked out with the respective partners.

Making IYCF practices "visible" in communities, by collecting and using data on IYCF practices, is appealing to HEWs. Such data could be a source of information for decision making, like other activities of the health extension package data registry, or posted in their health posts. The many obstacles to this data collection, mentioned in this assessment, will need to be considered as a plan is developed.

#### Moving people to action

HEWs reported that some mothers listen but don't adopt practices. HEWs and VCHPs, themselves, aren't fully convinced of some of the recommended IYCF practices. Information alone will not help communities to adopt new practices. Initial explorations of the kinds of emotional messages that will capture HEWs' and fathers' attention and shape their actions indicate that messages that are positive and portray success are likely to have an impact. The messages, however, should take into consideration local experiences and cultural perspectives. They should use locally acceptable and understandable idioms, images, and related issues.

**Implications**. HEWs said they favor giving demonstrations on how to prepare complementary foods. This reflects their intuitive understanding that "seeing is believing" and that mothers will respond to practical, concrete guidance and skills building. All proposed community-level activities should incorporate the qualities of being practical, realistic, feasible, convincing, and tangible.

Program planners should continue to pursue a couple of message platforms that were explored in this assessment. The fact that the first 2 years of a child's life are critical—and offer a window of opportunity—resonates, especially among HEWs. Likewise, in every group that was asked, participants said they could identify some families that are able, despite their poverty, to nourish their children well. Activities that focus on how those successful families, or "positive deviants," accomplish this may be useful.

#### Channels

Regarding channels, community leaders and organizations are the preferred venues to reach the community, with religious, kebele/gote and women's association leaders recognized by all FGD participants as potential partners, as mentioned above.

Radio appears to be accessible to most HEWs and VCHPs. Mothers and fathers also mentioned radio as the only accessible mass media. However, when it comes to utilization, it was found that HEWs have the most access to radio, followed by volunteers and fathers. The preferred radio outlets for all groups are stations that offer transmission in local languages. HEWs enjoy many program formats, including radio drama; but when asked about appropriate formats for IYCF messages, they mentioned question and answer programs with expert explanation, feature series, and short messages. HEWs and VCHPs also suggested audio and video recordings to play in communities.

All participant HEWs have mobile phones and use them for text messages. They all agreed text messages could be used to inspire and motivate HEWs for improving IYCF practices.

Implications. Radio could be used as one way of reaching HEWs and, in a few instances, the volunteers and the community at large with IYCF messages. However, the radio formats should be further explored. Other excellent ideas that were revealed during the discussion were the use of audio and video recorded cassettes. As IFHP has mobile vans, the use of recorded audio and videocassettes with tailored messages according to the need of the identified target groups could be realized in a short term plan.

Mobile phones, to deliver text or voice messages, may be an excellent channel for refreshing and motivating HEWs. However the language barrier (as all of the HEWs use local language with English alphabet) and the challenges of using the technology to send specific messages to a specific target group, require further exploration.

In addition to IFHP, various other nongovernmental organizations that address maternal and child health are active in the rapid assessment areas. Finding a possible venue that could facilitate working in collaboration with these organizations would benefit the intervention in maximizing the endeavor to bring change in children health and avoiding duplication of efforts.